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**Establishing and Managing the British
Empire's Forestry Effort during the First
World War.**



This thesis is submitted in accordance with the regulations for the degree of Doctor of Philosophy in History.

Robert W. D. Newman

2018

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Page 1 of 386

Contents

Abstract.....	6
Acknowledgements.....	8
Abbreviations	11
Introduction.....	12
Important Historiography.....	19
Methodological Notes	30
Parameters	31
Introduction Summary	35
Chapter 1: The Poor State of Pre-War Forestry, Wartime Uses and Periods of Shortage Concerns.	37
The Pre-War State of Forests and Forestry	37
Historical reasons for poor forests	38
Recognition, and some small positive steps.....	44
Positive Steps that had been taken	51
Pre-War Forestry Conclusion.....	61
Uses.....	63
Chronology of use levels, recognised shortages and contextual events.....	67
Conclusions	76
Chapter 2: The High Level Organisations (HLOs); Establishing and Structuring.	78

Context - Establishing, Structuring, Liaison and Specialists in HLOs during the war.	81
The HLOs; establishing the management structures.....	84
Purchasing.....	85
Producing more home grown timber in Britain.....	96
Centralising: purchasing, producing, stock keeping, establishing needs, allocation.....	99
Developments in France: Centralisation.....	119
Conclusion to establishing and reorganising the HLOs; lessons learnt and acted upon.....	127
Continuity in Internal HLO Structures.....	128
Continuity in HLO Staff and their Advisory Committees.....	133
Environmental Concerns Raised or Considered By The HLOs.....	149
Contemporary Praise and Criticism for the HLOs.....	152
Example Achievements of the HLOs.....	154
Conclusion: Common Sense and Continuity in Trying Circumstances.....	155
Chapter 3: HLO Methods: the measures taken to secure the necessary supplies.....	158
Controlling Use.....	162
Greater Government intervention.....	162
The Powers to Control.....	165
Involving the Timber Trade in establishing controls.....	170

Establishing and monitoring stocks and requirements.....	173
Allocation Of Supplies Based on Priorities.	178
Maximising Stocks.....	181
Buying More - purchasing throughout the war.	187
Buying UK home grown timber, or timber already imported into the UK.....	187
Importing Goods	195
Buying Foreign Timber and Importing it.....	207
Price controls.....	219
Purchasing Controls - Conclusion.....	227
Cutting more	227
In the UK.....	228
In France.....	231
Ending State Intervention and Controls	248
Conclusions on the Methods Used by the HLOs.	251
Chapter 4: Establishing and Structuring the Skilled Forestry Units.....	254
General manpower concerns	256
Initiating, raising and expanding the units	264
Funding the units.....	303
Staffing the Units	308
Structuring the units.	316
Some example results.....	334

Conclusions	336
Conclusion.....	338
Bibliography	345
Unpublished Sources.....	345
The National Archives of the United Kingdom, London (TNA).....	345
Imperial War Museum (IWM) London,.....	347
Forest History Society, North Carolina.....	347
State Library of Massachusetts Special Collections (SLMSC).....	347
Library and Archives Canada (LAC).....	348
Unpublished Theses	348
Published Sources	348
British Parliamentary Debates.....	348
British Parliamentary Reports	349
Newspaper Articles (Chronological Order)	351
Monographs, edited chapters and journal articles.	352
Websites	366
Film Footage (and associated text)	369
Appendices	370
Common Measurements.....	370
Controls and Notices	372

Abstract

Wood was one of the most, if not the most, important materials required to enable the First World War to continue being fought. Without it the mines and factories of the Home Front would have stopped producing and the Western Front could not have existed. The unprecedented amounts of forest produce suddenly required for wartime uses had to be met in the UK by a government, forestry profession and timber trade massively underprepared and hugely over-reliant on imports. However, even though these supplies were largely successfully maintained throughout the war, no single history has illustrated all of the many facets required to achieve this, or the effects these had on woodlands and forestry practices.

The initial tasks in correcting this lack of knowledge has been to establish who instigated and managed the British Empire's forestry efforts and the measures they took to ensure adequate supplies for the British Home and Western Fronts. It is these initial 'top-down' areas of the broader questions relating to the wartime forestry work that this thesis covers. Although, in regards to some aspects of the British war effort, arguments have been made that appropriate civilian expertise was not well utilised, it is argued here that what forestry expertise was available to the British Empire was suitably used in both civilian and military controlled roles.

Based largely on primary high level governmental and military sources, with secondary sources providing contextual and comparative information, this thesis has developed into a largely administrative study illustrating that management structures were gradually rationalised and centralised, therefore avoiding large amounts of confusion and duplication. Furthermore that the measures used, such as introducing permit schemes to buy or sell timber and utilising ever-increasing amounts of French woodlands, were sensible and workable given the wider context of the war. Although

concerns were raised over the post-war state of UK and French forests, maintenance of supplies largely took priority.

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Many individuals and organisations deserve a great deal of thanks for helping me to finish this thesis. As seen in the abstract and introduction to the work, this PhD is a step towards a series of works on different facets relating to this resource before, during and after the war. Thanks to the support acknowledged here many of these facets have already been researched, even if they do not appear in this PhD. I have tried to name as many individuals and groups as possible, but apologies to all those I have not managed to mention personally, and any mistakes and omissions still in the text are wholly my fault.

Firstly my academic supervisors Professor Mark Connelly and Dr. Karen Jones here at the University of Kent have provided excellent support through what has been, for several personal reasons, a long process. Professor Connelly provided the initial idea for this project, one might say he planted the acorn in my mind, and his advice and encouragement have been essential in my being able to continue with it. To both Mark and Karen, I would like to apologise for not following your very sensible advice much earlier on in the process, and much more closely throughout.

Staff at archives including the British National Archives at Kew in London, the US National Archives at College Park, Maryland, and Library and Archives Canada, in Ottawa, deserve thanks as I have spent a lot of productive time in each of these. Shorter research visits to the Yale University Library Department of Manuscripts and Archives in New Haven, and the State Library of Massachusetts Special Collections in Boston were also helpful due to staff there. Special thanks, however, must go to Eben Lehman, Director of Library and Archives, and his team at the Forest History Society in Durham, North Carolina. They bent over backwards to make sure I saw as much relevant material as possible during my week long research visit in 2015. James

Lewis, Historian at the FHS, also provided useful advice and offered to read any sections before my submission, I am sorry I did not get around to taking him up on the offer.

Other academics have also given help for this work and offered further assistance for future related projects. Dr. Chris Phillips kindly allowed me access to his very helpful unpublished doctoral thesis on the Science of Transportation in the British Expeditionary Force (BEF).¹ Professor Serge Durflinger and Dr. Bill Stewart both took time to talk to me and offer advice during my visit to Ottawa in 2015 and have given advice online. Professor Jonathan Vance offered help and advice, as well as a chance to work on a project digitising attestation records of those in the Canadian Forestry Corps which I aim to utilise in follow up projects. Professor Mark Kuhlberg kindly contacted me to let me know of his work on A. McDougall, and has offered to work on future projects together, which I would still like to take him up on. Furthermore, countless academics at numerous conferences have been kind enough to tell me how interesting they find this area of research, and share any useful knowledge and ideas. A special mention must go to Dr. Will Butler, a friend and Military Historian who, even with a full workload, gave some extremely useful comments and advice on the very rough first drafts of all of the sections in this work.

I have received different types of funding from various bodies, for which I am very grateful. The University of Kent School of History gave me a Scholarship and Graduate Teaching Assistantship which made this work possible. The Western Front Association and Royal Historical Society deserve thanks for funding research trips and

¹ Christopher Phillips, 'Managing Armageddon: The science of transportation and the British Expeditionary Force, 1900-1918', (unpublished doctoral thesis, University of Leeds, 2015).

writing periods. Special thanks goes to the Christine and Ian Bolt Scholarship, through the University of Kent, which enabled a four-week trip to archives in the USA.

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Abbreviations

BEF – British Expeditionary Force.

CEF – Canadian Expeditionary Force.

CFC - Canadian Forestry Corps.

CO – Commanding Officer.

DORA – Defence of the Realm Act.

GHQ – General Headquarters.

HLO(s) – High Level Organisation(s).

HQ – Headquarters.

IWM – Imperial War Museum, London.

LAC – Library and Archives Canada.

NCO – Non-commissioned officer.

POW(s) – Prisoner(s) of War.

QMG - Quartermaster General.

RE - Royal Engineer.

SLMSC – State Library of Massachusetts Special Collections.

TNA – The British National Archives (Kew).

WFS - Women’s Forestry Service.

Introduction

Forestry, whether defined as a profession or the methods used to provide wood products, has always had an enormous impact upon mankind's living conditions. It should therefore be no surprise that forestry played a vital role in enabling the First World War to continue being fought. The war is commonly seen as one of new technologies and sciences marking a dramatic landmark in the march towards modernity. For many the war confirmed that this was an age of steel, iron, high explosives, and mass industrial production. Within the war humans became cogs in the machinery that left millions dead, landscapes destroyed, numerous social and cultural features irreversibly altered, and an age in which wood could be of real use was seemingly left far behind.² Within the minds of historians and the popular perception of this destructive war, the mention of forests or woodlands will generally conjure up either the names of those infamous woods in Belgium and northern France that witnessed such vicious fighting to control, or the sketches, photographs, paintings or poetry portraying the devastation of nature wrought by artillery.³

However, by August 1914, wood had not been consigned to the past as a vitally useful material, and indeed it still has not. Wood continued to play essential roles in manufacture, housing and transport, as forests did in the cultural psyche of the nation.⁴ Therefore during the war the enormous demand for timber, fuel and numerous other forms of forest products, like many other natural resources, became unprecedented. It was timber that supported the thousands of miles of trenches, dug-outs and mine

² Vejas G Liulevicius, *War Land on the Eastern Front: Culture, National Identity, and German Occupation in World War I*, (Cambridge: Cambridge University Press, 2000), pp. 1-2; P.E. Dewey, *British Agriculture in the First World War* (London: Routledge, 1989), pp. 4, 5.

³ I. G. Simmons, *Changing the Face of the Earth: Culture, Environment, History*, (Oxford: Basil Blackwell, 1989), p. 315.

⁴ Gifford Pinchot, 'Foreword' in Raphael Zon and William Sparhawk, *Forest Resources of the World, Volume 1* (New York & London: McGraw-Hill Book Company, 1923), p. vii.

shafts. Troops and animals struggled along wooden duckboards or roads of planks or saplings lain across broken ground. Wooden bridges were constructed over captured trenches, streams and rivers. Timber buildings and wood-burning stoves offered shelter and warmth behind the lines, and telegraph poles and pulp for paper spread news of the war. Without millions of tons of timber for mines each year the factories, locomotives and ship engine rooms would have ground to a halt through lack of coal. Wood was considered by some contemporaries as not merely a resource, but one of the munitions of war.

Even though this importance was recognised at the time, the many political, diplomatic, military, environmental, social and cultural facets of ensuring supplies receive scant mention in the existing historiography. As shall be seen in the historiographical review below, no single work exists combining all of the facets and approaches necessary to analyse the efforts of the British Empire to secure sufficient quantities, and the impact of these efforts on various environments, the forestry profession, or the social and cultural perceptions attached to forests. The initial intention of this work was, therefore, to provide an academic study illustrating the details of the establishment and management of the effort alongside information and arguments regarding the physical work undertaken, the social and professional backgrounds of those who undertook it, and the effects of the effort on forestry throughout the empire. However, although much research has been undertaken along each of these lines, the limited word count available here has meant a decision that this thesis will concentrate solely on the high level organisations (HLOs) who established and managed the effort. This is in order to create a modern academic base upon which either myself or other scholars can carry out studies on further aspects of

the forestry effort whilst in itself making a distinctive and important contribution to our knowledge of this important but under-studied topic.

The central conclusion reached is that even with the limited woodlands available in Britain and dire pressures on transportation, the measures put in place to source and manage this resource were sensible and efficient. This is especially true given the unprecedented nature of this effort. It is illustrated by the fact that although at times there were serious concerns, and occasional local shortages, supplies were satisfactorily maintained. Another important conclusion reached is that, with regards to forestry, the war was not the bringer of drastic change in administration and management, as some have seen for other aspects of society or the military, and neither was it a conservative or even reactionary agent. Even with the establishment of the Forestry Commission in 1919, often seen as a direct result of the war, forestry had little in common with Trotsky's Marxist view of war as the 'locomotive of history'. It had more in common with Arthur Marwick's gentle and inevitable views of social improvements, or John Turner's findings that many such political initiatives were continuations of pre-war calls, in this case from forestry experts, for greater state intervention in various fields.⁵ As such, the high level organisations (HLOs) and measures taken during the war that are outlined here can most accurately be labelled as accelerators, not instigators, in terms of post-war forestry.

To illustrate such conclusions four chapters will be used. Firstly a very brief chapter outlines important contextual elements to assist the reader in later stages of the work. This focuses on the very poor pre-war state of forestry in Britain, whilst

⁵ John Turner, *British Politics and the Great War: Coalition and Conflict, 1915-1918*, (New Haven: Yale University Press, 1992), pp. 2, 10, 387; Liulevicius, *War Land on the Eastern Front*, pp. 1-4; Arthur Marwick, *The Deluge: British Society and the First World War* (London: Macmillan, 1965), p. 314, as quoted in Turner, *British Politics*, pp. 10-11; also see 'Introduction: The War, Change and Continuity' in Stephen Constantine, Maurice W. Kirby and Mary B. Rose (eds.), *The First World War in British History* (London: Edward Arnold, 1995), pp. 1-8, and *passim*.

highlighting that, due largely to knowledge learned from the empire, calls had been made from the 1850s onwards for improvements in forestry management. It also gives more detail on the myriad of wartime uses found for wood produce, in order to further illustrate the important contribution of this thesis to the historiography of the conflict. The timings and causes of noticeable shortages during the war, for instance the massive reductions in shipping space, will then provide a chronological base for the work.

Chapter 2 will concentrate on the timings and reasons behind the establishment of the HLOs that came to manage forestry, including their intended roles, beliefs, structures, inter-communications operations, and how successful they were judged to be. The chapter is based upon a largely chronological analysis of each organisation in turn, giving an overview of bodies prominent within the thesis and highlighting reasons in the wider context of the war why replacement, or parallel running, organisations were established at specific times. A superficial study would suggest an overly bureaucratic approach in relation to the layers of organisations and sheer number of committees and subcommittees involved in different areas of the timber effort. However, the chapter will also illustrate that despite many changes in managing bodies, there was in fact a high degree of continuity in the high-level staff effectively running these. A good deal of common sense can also be seen in the organisational structures put in place so rapidly, especially given the unprecedented levels of urgent demands arising from different and often competing areas of the war effort. Furthermore it will be seen that environmental concerns, which had been quite widely raised in relevant scholarship and government before the war, were unsurprisingly a distinctly low-level priority. This was especially true in the early stages of the effort. With the establishment of the relevant forestry subcommittee of the 1916

Reconstruction Committee, post-war self-sufficiency and environmental issues were recognised, but this ‘Acland Committee’ played no role in the wartime management of the resource.

The third chapter will examine the methods used by the above organisations to acquire and best distribute the required quantities. Themes include outlining the statutory powers which organisations were given to control the effort, from licensing sales to requisitioning stocks, the continued efforts to purchase greater amounts of imports and how this was affected by wider shipping-space issues and controls at various times. It will look at how the recognition that more self-sufficiency in terms of home grown timber for the war effort began to be put into practice, from increasing felling, economising non-war usage, rationing uses, controlling prices and looking to alternative materials, each measure meeting some success. Arguably the most important measure, begun by the HLOs in mid to late 1916, was to begin utilising the better-managed French forests to increase amounts obtained for the armies on the Western Front, reduce cross-Atlantic and Channel transport, and enable more home grown timber to remain for industries in the UK. The diplomatic efforts and agreements put in place to increase utilisation will be addressed, such as those to clarify relationships between French forestry officials and British or Canadian forestry units. The chapter will show how measures of all conceivable types were eventually taken to meet the timber needs of the military and industry.

The final chapter then illustrates how the HLOs either took control of, or themselves established, the forestry units that carried out the majority of the felling and converting throughout the war. By far the most important of these in terms of numbers employed and timber cut were the Canadian units who would become the Canadian Forestry Corps (CFC). However, important contributions were also made in

France by British Royal Engineer Forestry Companies and on the Home Front by the smaller Newfoundland Forestry Corps, the measurers, fellers and sawmill staff of the Women's Forestry Service (WFS) and the New England Sawmill Units, who although civilian lumbermen were amongst the first Americans to enter the European theatre.

The chapter will begin with a brief contextual section regarding human resource levels at different important stages of the war in Britain and Canada, where the majority of the empire's forestry troops came from. This will focus on the position of forestry 'manpower' in relation to similar vital war resources, especially in agriculture. This will show that whilst some forestry roles were considered amongst protected trades, once these were introduced, the numbers required along with the introduction of specialist units from the empire and increasing use of women meant there was not the level of concerns among planners as there was for agricultural and industrial workers.

Each of the units named above will then be compared under three overarching themes, namely establishment and expansion of numbers, management and reorganisation, and required skillsets. Establishment will outline who requested each unit, why and when as well as who agreed to this and who organised and recruited them. It will also detail important periods in terms of how, when and why their establishment levels were increased. As well as providing a first single location to discover why, when and how all of the forestry units were established, the chapter also continues several main themes running throughout the thesis relating to HLO efforts. As shown in chapters 2 and 3, there was no one organisation initiating and managing all aspects of forestry, and the recruitment of skilled forestry manpower was no exception. These units grew from various different sources, military, civilian, British, Canadian or American, depending on the context of the war.

Management and reorganisation looks at aspects such as funding of units at different stages, reasons for and effectiveness of structuring and restructuring of units, and how they fitted into the overall Allied chain of command, including for allocation of work. Taking into account the numerous contextual issues, such as resource requirements and transport or manpower issues, it is shown that sensible and appropriate methods were used to command and expand the units with several bodies, civilian and military, being happy to fund, raise, equip and occasionally pay to maintain units. Thanks to the increasing centralisation of the HLOs that had taken place (see chapter 2), the units also fitted easily in a reasonably clear command structure. Furthermore, individual units were often also able to adapt their size and structure to suit the work tasked to them and the environment they found themselves working in. There is at times a feeling that the units, whether officially employed by the military or civilian authorities, occupy a liminal space between these two centres of control. Yet it is also clear throughout that it is their designation as specialist forestry personnel within these units that simplifies their management by the HLOs.

It is the degree to which forestry skills were desired by the HLOs in establishing these units that is studied in the last section of chapter 4. It also argues that non-forestry skilled labour, such as Army Service Corps drivers or Labour Corps personnel, was in constant demand in order to assist forestry units. Although not always achievable, it was preferred that the makeup of the forestry units themselves were appropriately skilled and/or experienced lumbermen or engineers. This was especially true in terms of officers. Given the overall thesis conclusion that the forestry effort was well-administered, unlike some aspects of the Empire's war effort, it is important to note that the research in this chapter shows that, similarly to the establishment and structuring of the HLOs above them, forestry units were led in their recruitment stages,

and then officered at all levels, by such appropriate personnel. Overall, this chapter shows that the HLOs generally raised and controlled the units through logical measures in a difficult human resource and other priorities context.

As with other areas of importance and great interest to the author highlighted in this introduction, it should be noted here that conclusions that would have complemented these chapters, such as the geographical, social and professional backgrounds of the forestry unit personnel, the forestry methods they utilised, the importance and makeup of attached labour units and many logistical issues will all have to be covered in further works based on the foundations established here.

Important Historiography

Given the vital importance of wood products to the continuance of the war, relatively little has been written about the overall effort to secure supplies. The information that can be found in secondary sources exists mainly in works on isolated aspects of the topic. These include early histories of military forestry units or small sections within chronologically longer histories of specific forest areas or forestry. However, the many and varied elements of the high level management of the forestry effort have, thus far, not been brought together into a single overarching academic study. Reasons for this might be the abundance of more advanced technological, scientific, explosive and deadly facets of the war, or perhaps the relatively small numbers of personnel involved in comparison with those who passed through other military branches. Regardless, given the vital nature of this material on the battle and industrial fronts, it is an area no less important to our understanding of the fighting of this ‘total war’ than any other.

Certain categories of secondary works have proved useful to different aspects of the overall study, from early military unit histories, through environmental and forest

histories and on to more recent precedents combining the two. The divisions between these categories are not firmly set, some themes and content overlap. Nonetheless, this approach serves to illustrate the main types of secondary sources utilised in establishing a basis for this thesis. The categories also reflect a roughly chronological order which, whilst not containing any surprises in terms of types of historical approaches utilised during particular timeframes, does trace a path to highlight the precedents for a combined environmental-military approach that have been set in recent decades.

Wartime and early post-war forestry related articles, memoirs and unit histories, numerous for the Americans, less so for the Canadians and distinctly lacking for the Royal Engineer Forestry Companies, are often based on minute detail regarding senior figures, unit movements and occasionally structural positions, as are many of the national official histories. These are, therefore, classed among the pre-1960s 'drum and trumpet' style histories, and provide a lot of useful information whilst being understandably positive on conditions, management and achievements given the timings of their releases.⁶ Charles Wesley Bird and J.B. Davies's *The Canadian*

⁶ Herman L. Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps while Stationed at Ampthill, Bedfordshire, England*, (circa. late 1918 to 1919, reprinted Ampthill: Ampthill & District Archaeological & Local History Society, 2001), n.p; Joe Leggett, *Growing Up in Griggs Green: Recollections of Life at the Time of the First World War and the Canadian Army* (Liphook: Bramshott & Liphook Preservation Society, 1999); Roland Hill, 'Canadian Forestry Corps Work in France', *American Forestry* Vol.25 No.301 (January 1919); Roland H. Hill, 'The Canadian Forestry Corps', in W. A. Williamson and Hill, Roland H. et al. (eds.), *Canada in the Great World War: An Authentic Account of the Military History of Canada from the Earliest Days to the Close of the War of the Nation*, (Toronto: United Publishers of Canada Limited, 1920); Perez Simmons and Alfred H. Davies (eds.), *Twentieth Engineers, France, 1917-1918-1919* (Portland: Twentieth Engineers Publishing Association, 1920); Cuthbert P. Stearns, *History of the Spruce Production Division, United States Army and United States Spruce Production Corporation* (Portland: Press of Kilham Stationery & Printing Co, n.d c.1919); No Author, 'War Material from French Forests', *American Forestry* Vol.24 No.290 (February 1918), pp. 69-76; colonel G. H. Addison, *Work of the Royal Engineers in the European War 1914-1918: The Organisation and Expansion of the Corps 1914-1918* (Chatham: Institution of Royal Engineers, 1926), pp. 23-24, 51-60, 62, 65, 68-9; Major-General H. L. Pritchard (ed.), *History of the Corps of Royal Engineers, Volume V: The Home Front, France, Flanders and Italy in the First World War* (Chatham: The Institution of Royal Engineers, 1952), pp. 38-42, 76-8, 166, 539,559, 565-6.

Forestry Corps: Its Inception, Development and Achievements (1919) provides the most relevant example for this work because it includes some discussion of working relationships with their managing bodies.⁷ Bird worked for the Board of Trade Timber Supply Department, and Lieutenant J.B. Davies was a member of the Canadian Forestry Corps (CFC), so they were perfectly placed to write on such matters. The work of various RE units is well covered in the volumes of the *History of the Great War Based on Official Documents* published between 1922 and 1949. These provide numerous examples of the many military uses for forest produce, see chapter 1 for examples, although forestry specific units receive scant mention and these volumes have correctly been described as a mass of detailed information with very little critical analysis.⁸ Praise for the co-ordination and mutual assistance of the allies is paramount, and as such these works cannot be considered especially objective. However, some minor criticisms of the forestry effort can be detected within official or contemporary accounts. This includes some regarding the French Forestry Authorities, although this is alongside a great deal of respect for their scientific approach to forestry.⁹

As with the British forestry units themselves, those HLOs managing the effort and as such of primary importance to this work have received very little appraisal. Two attempts at histories were made both by personnel who had been closely involved, but

⁷ Charles Wesley Bird and J. B. Davies, *The Canadian Forestry Corps; its Inception, Development and Achievements. Prepared by Request of Sir Albert H. Stanley*, (London: HMSO, 1919), passim.

⁸ *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 277 fn 2, 284; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 542; Keith Simpson, 'An Annotated Bibliography of the British Army, 1914-1918', in Ian F. W. Beckett and Keith Simpson (ed.), *A Nation in Arms; the British Army in the First World War*. (Barnsley: Pen & Sword, 2004), p. 254.

⁹ No Author, 'War Material', pp. 69-71, 74; colonel J. A Woodruff, 'An Appreciation: To the Officers and Soldiers of the Twentieth Engineers and Attached Service Troops', *American Forestry* Vol.25 No.306 (June 1919), np., [Taken from 'General Order No. 3 HQ 20th Engineers (For.) U.S.M.P.O. 717 Dec, 1918']; Henry S. Graves, 'The Forest Engineers', *American Forestry* Vol.25 No.306 (June 1919), p. 1109; Lieut-col W. B. Greeley, 'The American Lumberjack in France', *American Forestry* Vol.25 No.306 (June 1919), pp. 1093-1108; Major Barrington Moore 'French Forests in the War' *American Forestry* Vol.25 No.306 (June 1919), pp.1113-1136; Capt. Ralph H. Faulkner, 'A Lesson from France', *American Forestry* Vol.25 No.306 (June 1919), pp. 1155-1157.

neither appears to have been completely finished and certainly not published. The first, Professor L. T. Hobhouse's attempt to write a history of the Timber Supply Department (Board of Trade) did not get past the stage of note collection.¹⁰ The other, by Bird, who it should be remembered was also jointly responsible for the Official History of the CFC, was nearly completed and although not published was kept in the Board of Trade's library before being archived. Although not dated, evidence within the work suggests it was finished some time during 1922.¹¹ It has not been established whether or not Hobhouse or Bird ever intended or attempted to have their works published. The fact that they were not suggests that such aspects of the war effort were seen as being as less important, or perhaps less interesting, compared with the many combat unit histories released in the post-war years. It may also have been considered that lessons from the work of the organisations covered were being taken forward during the immediate post-war period through the establishment of the Forestry Commission and Imperial Forestry Conferences.

Despite primarily being a collection of primary sources, with some initial notes made, Hobhouse's intended chapter headings indicate what he felt important topics for contemporaries would be. Furthermore, each of his five sections have been covered within Bird's more complete history, which contains twenty chapters covering many aspects of timber control, from reliance on importation in the early stages of the war through to early post-war reforestation work. Bird certainly provides significant detail regarding the organisations and events covered, much of which has been utilised in this study in a very condensed and paraphrased fashion and then checked against primary sources and shown to be accurate. Furthermore, in a similar vein to published

¹⁰ TNA/BT/71/2/32105, Professor Hobhouse, *History of T.S.D.*

¹¹ TNA/BT/71/21, C.W. Bird, *The Supply and Control of Timber During the War; With Special Reference to the Work of the Board of Trade's Timber Supply Department*, (circa. 1922), see p.208 for clues to when written.

unit histories above, he paints a rosy picture of the interaction, smooth running, and achievements of the HLOs, especially with regards to the increased levels of self-sufficiency, which research in this thesis can only echo.¹²

It can be seen, therefore, that within these early unit or organisational histories the efforts to provide timber, or unconverted forms of wood, were recognised as important and highly praised. The American and Canadian origins and emphasis on the forestry-related unit histories, and mentions of forestry units in early post-war official publications, are understandable, not only given the much greater numbers of skilled lumber forces and equipment provided by these nations, but also as forestry was, and still is, an extremely important industry in these countries. It may also be due to their closer national connections with forests, wildernesses and National Parks. The historiography certainly indicates that interest in American Forestry units and the effects of their work on French forests and post-war American industrial bodies has lasted far longer than for their Canadian and British equivalents.¹³ Furthermore, and not surprisingly, a lot of what has been put onto modern websites regarding aspects of

¹² Ibid., passim.

¹³ See for instance; George T. Morgan, 'A Forester at War: Excerpts from the Diaries of colonel William B. Greeley, 1917-1919', *Forest History* Vol.4 (Winter 1961); David A. Clary, 'The Biggest Regiment in the Army', *Journal of Forest History* Vol.22 No.4 (October 1978); James E. Fickle, 'Defense Mobilization in the Southern Pine Industry: The Experience of World War I', *Journal of Forest History* Vol.22 No.4 (October 1978); George S. Kephart, 'A Forester in the Great War: Reminiscences of Company E, 10th Engineers, in France', *ibid.*; Daniel R. Mortensen, 'The Deterioration of Forest Grazing Land: A Wider Context for the Effects of World War I', *Journal of Forest History* Vol.22 No.4 (October 1978); Marcella M. Sherfy, 'The National Park Service and the First World War', *Journal of Forest History* Vol.22 No.4 (October 1978); N. Frank Schubert, 'All Wooden on the Western Front', *Journal of Forest History* Vol.22 No.4 (October 1978), pp. 180-1; John R. Jeanneney, 'The Impact of World War I on French Timber Resources', *Journal of Forest History* Vol.22 No.4 (October 1978); David A. Clary, 'The Woodsmen of the AEF; A Bibliographical Note', *Journal of Forest History* Vol.22 No.4 (October 1978), p. 185; Gerald W. Williams, 'The Spruce Production Division', *Forest History Today* (Spring 1999), p. 6; Harold M. Hyman, *Soldiers and Spruce: Origins of the Loyal Legion of Loggers and Lumbermen*, (Institute of Industrial Relations, UCLA, 1963); Edward B. Mittelman, 'The Loyal Legion of Loggers and Lumbermen - an Experiment in Industrial Relations', *Journal of Political Economy* Vol.31 (June 1923).

the effort has been based largely, sometimes almost exclusively, on one or other of these earlier works.¹⁴

A further important category within the historiography, which began appearing from the 1970s onwards, are those largely military histories that occasionally contain brief sections on specific elements of the forestry effort, but more usefully cover contextual issues in depth. These include administrative structures and initiatives, political and diplomatic efforts to ensure that effective working relationships were maintained between government and industry or between the Allies, and labour and manpower concerns. There are also discussions of increasing roles for women, administering Canada's overall military effort to compare with the CFC, the use of other natural resources, especially in heavy industries, and agriculture during the war.¹⁵ Amongst these histories on specific elements of the war, Ian Brown's *British Logistics on the Western Front 1914-1919* stands out for containing a small but useful amount of work specifically on the forestry supply agreements negotiated between the

¹⁴ For instance see, *World War I: New England Sawmill Units in Scotland*, <http://www.20thengineers.com/ww1-book-neunits.html>, most of which comes from Simmons and Davies, *Twentieth Engineers, France, 1917-1918-1919*; Peter Broznitsky, *Russians in the C.E.F.: Canadian Forestry Corps, C.E.F, CFC, Introduction*, <http://www.russiansinthecef.ca/forestry/index.shtml>, (Mitson Consulting Services, [accessed 1 January 2012]; Jenny Higgins (revised), *Newfoundland and Labrador in the First World War*, 'Newfoundland Forestry Corps', November 1914, <http://www.heritage.nf.ca/first-world-war/articles/forestry-corps-en.php>, [accessed 16 February 2012].

¹⁵ For just a few examples see; Turner, *British Politics*, for political moves during 1916; Elizabeth Greenhalgh, *Victory Through Coalition; Britain and France During the First World War* (Cambridge: Cambridge University Press, 2005); Jehuda L. Wallach, *Uneasy Coalition: The Entente Experience in World War I* (Westport Connecticut & London: Greenwood Press, 1993) for details of committees established and details of the trials and tribulations of fighting such a resource based war with allies; Keith Grieves, *The Politics of Manpower, 1914-18*, (Manchester: Manchester University Press, 1988), p. 156 for specific mention of timber supplies; Dewey, *British Agriculture*; Avner Offer, *The First World War, an Agrarian Interpretation* (Oxford: Clarendon Press, 1989); colonel Gerald W. L. Nicholson, *Canadian Expeditionary Force, 1914-1919: Official History of the Canadian Army in the First World War* (Ottawa: R. Duhamel, Queen's Printer and Controller of Stationery, 1962); Desmond Morton, *When Your Number's Up: The Canadian Soldier in the First World War*, (Toronto, Random House of Canada, 1993); Lucy Noakes, *Women in the British Army: War and the Gentle Sex, 1907-1948* (Abingdon, New York: Routledge, 2006); also see arguments on these contextual areas and arguments in many works on the war as a whole by eminent military historians such as such as Ian Beckett, Hew Strachan, Arthur Marwick and John Keegan.

British and French. However, the main importance of Brown's work is that he revitalised investigation into the administrative work of those at high levels during the war. He shows, mainly in regards to the BEF's transport systems, that the increased use of civilian experts, working in their speciality fields within the BEF, greatly improved efficiency, through administrative changes that introduced professional planning and structures. These men, most noticeably Sir Eric Geddes but there were other and earlier examples, were used to running national-sized systems, such as train networks. Existing Army structures and institutions had proven unable to efficiently establish and maintain supply operations on such scales during the second half of 1916. The huge expansion of supplies required to break through the defensive trench systems had been recognised and at times had delayed operations.¹⁶ Such measures, the use of civilian experts and reorganisation and centralisation of management structures, echo in many respects what occurred in forestry. Two years of ad hoc problem solving, was then recognised as no longer sufficient, and from late 1916 there was an increase in the rate of reorganisation and central controls. In forestry, however, the use of civilian expertise can be seen from an earlier stage.

A popular style of history, by Murray Maclean, an ex-crop farmer with an interest in growing trees and the experiences of men and animals in the Great War, does provide a brief review of the British uses, military organisations, logistics and political agreements involved in the forestry effort.¹⁷ However, it is largely based on photographs and the three pages of text on forestry are unfortunately unreferenced.

¹⁶ Ian Malcolm Brown, *British Logistics on the Western Front, 1914-1919*, (Westport, Connecticut: Praeger, 1998), passim, for timber agreements with France, pp.131-3, and important sections or conclusions on the demands of 1916 and subsequent streamlining of administration, communications and use of civilian experts under Geddes pp. 1-2, 12-13, 109-110, 120-8, 134, 139-43, 146-149, 155-174, 179-204, 231-39.

¹⁷ Murray Maclean, *Farming and Forestry on the Western Front 1915 -1919*, (Ipswich: Old Pond Publishing, 2004), passim.

Further short or web-based histories by a few local British Historical Associations and Societies have produced work relating to operations of the CFC in their areas and these have proved useful in providing micro examples of the effects of the higher-level efforts.¹⁸

As well as providing context, studies such as those mentioned above contain wider historical themes of the war that are added to by this research into the forestry effort. Prominent examples include improvements in the macro-management of the war as it progressed, suitable people being placed in appropriate roles and the concept of ‘total war’, which within its many definitions and facets includes the expansion of state powers to control all of a nation’s resources. However, arguments regarding the extent to which a specific conflict can be labelled as ‘total’, based on the unreserved use of resources, have up to now focussed on manpower, industrial products and economies rather than natural materials.¹⁹ Yet in a link between the concept of total war and environmental history, the eminent environmental historian John McNeill states that the ‘efforts in the two world wars were all-consuming,’ and environmental histories

¹⁸ Paul Cox, ‘The Canadian Forestry Corp in Woburn Sands 1917-1918’, Milton Keynes Heritage Association: The Woburn Sands collection, <http://www.mkheritage.co.uk/wsc/docs/1917%20Canadians.html> [accessed 6 June 2016], p. 1; Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.; Rodney Gunner, *Canadian Lumber Camp Eartham and Slindon: 1917 till 1919*, pp.1-12 [pdf. File ‘canadian_lumber_camp_eartham_and_slindon.pdf’] through links on www.westsussexpast.org.uk.

¹⁹ Stig Förster and Jorg Nagler, 'Introduction', in Stig Förster and Jorg Nagler (ed.), *On the Road to Total War: The American Civil War and the German Wars of Unification, 1861-1871* (Washington D.C: German Historical Institute, 1997), passim; Edward Hagerman, 'Union Generalship, Political Leadership, and Total War Strategy', in Stig Förster and Jorg Nagler (ed.), *On the Road to Total War: The American Civil War and the German Wars of Unification, 1861-1871* (Washington D.C: German Historical Institute, 1997), passim; see debates in Arthur Marwick, Clive Emsley and Wendy Simpson (eds.), *Total War and Historical Change: Europe, 1914-1955* (Buckingham, 2001), passim; Roger Chickering and Stig Förster, *Great War, Total War: Combat and Mobilization on the Western Front, 1914-1918*, (Washington D.C: German Historical Institute, 2000), passim; Noel Whiteside, 'The British Population at War', in John Turner (ed.), *Britain and the First World War* (London: Unwin Hyman, 1988), pp. 85-98.

have provided much contextual information for this work and aided in comparing pre-war and wartime attitudes to forestry among the HLO personnel.²⁰

Environmental and ecological factors such as topography, natural resources, weather and disease have always had a major role in altering the course and outcomes of battles, military campaigns and wars. As such they have naturally been regularly considered within the field of military history. However, detailed research into the dramatic effects of warfare on the environment have until the last few decades been much less common, but are now increasing within environmental history.²¹ Such works will, therefore, be utilised even more in the future works mentioned above on aspects of the forestry effort at lower levels and its effects on interwar forests and forestry practices.²²

Another useful category of the historiography for this research has been that containing histories of forestry or forested areas within a particular geographical region which include the First World War within their chronological span. Most importantly, these reach the conclusions that British forestry was in a very poor state prior to the war and as such the country was far too reliant on imports. There are also debates on how the empire could educate the centre on forestry matters, showing that there had been pre-war calls for centrally establishing more scientific forestry practices but that this was not recognised as sufficiently important, and that fortunately France's state-managed forests were in a much better condition for timber production in 1914.

²⁰ John Robert McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (London: Penguin Press, 2001), p. 341.

²¹ *Ibid.*, pp. 341-347; I. G. Simmons, *Changing the Face of the Earth*, pp. 115-6, 314-9; J. R. McNeill, 'Forests and Warfare in World History' notes from a lecture (circa 2002), accessed at <http://www.foresthistory.org/Events/McNeill%20Lecture.pdf> [accessed 18 December 2013]; Jeremy Black, *Rethinking Military History*, (Abingdon: Routledge, 2004), pp. 50, 53.

²² McNeill, *Something New Under the Sun*, p. xxii; Lloyd C. Irland, 'State Failure, Corruption, and Warfare: Challenges for Forest Policy', *Journal of Sustainable Forestry*, Vol.27:3 (2008); Philippe Le Billon, 'Diamond Wars? Conflict Diamonds and Geographies of Resource Wars', *Annals of the Association of American Geographers*, Vol.98:2 (2008).

Such works also reveal important issues and concerns within pre-war forestry that managing organisations had to consider, even if often only as secondary to the needs of the war.²³ An especially important work is Edward Stebbing's appraisal of the state of British forestry in 1916, and requirements for greater future efficiency, *British Forestry: Its Recent Position and Outlook After the War* (1916), portraying a particularly poor state of affairs. He sent a copy of the book to the Prime Minister, Lloyd George, in the hope that it would explain 'the present and future position of timber supplies of this country'.²⁴ Certainly, contemporary situations did not look good, and this was largely due to forestry's neglect in the past, as will be shown in chapter 1. A growing section of works that add to the argument that improvements in forestry practices had been undertaken in imperial settings, and calls for implications of lessons learned had reached the UK by the 1850s, can be seen in research relating to imperial environmental history.²⁵ As will be seen in this work, the First World War further brought these two spheres of forestry thinking together urgently.

²³ Examples include; William Schlich, *Forestry in the United Kingdom* (London: Bradbury Agnew & Co., 1904); Edward Stebbing, *British Forestry* (London: Murray, 1916); NDG James *A History of English Forestry* (Oxford: Basil Blackwell, 1981), pp. 201, 207-17; E.G Richards *British Forestry in the 20th Century: Policy and Achievements* (Leiden & Boston: Brill, 2003), p. xxxiii; Sylvie Nail, *Forest Policies and Social Change in England* (Dordrecht: Springer, 2008), pp. 53-55; T.W. Birch, 'The Afforestation of Britain' in *Economic Geography* Vol.12 No.1 (Jan, 1936), p.3; Roger Miles *Forestry in the English Landscape: A Study of the cultivation of trees and their relationship to natural amenity and plantation design* (London: Faber, 1967), p. 29; Woolsey, Theodore S. J., *Studies in French Forestry; with Two Chapters contributed by William B. Greeley*, (New York: J. Wiley & Sons, 1920); Raphael Zon and William Sparhawk, *Forest Resources of the World, Volumes 1&2* (New York & London, McGraw-Hill Book Company, 1923); Joshua A. West, 'Forests and National Security: British and American Forestry Policy in the Wake of World War 1', *Environmental History* No.8 (April, 2003), pp. 272-8, 287-9; J.M Powell, "'Dominion over palm and Pine': the British Empire Forestry Conferences, 1920-1947", *Journal of Historical Geography* No.33 (2007), pp. 852-3. For French forests see Stephen Pyne, 'Frontiers of Fire', in Tom Griffiths and Libby Robin (ed.), *Ecology and Empire: Environmental History of Settler Societies* (Edinburgh: Keele University Press, 1997), p. 28; an excellent work is Theodore S Woolsey, Jr. *Studies in French Forestry* (New York and London, 1920) which was started before the war, but completed and published after it.

²⁴ Stebbing, this was a private letter, Stebbing to Lloyd George, which I found inside the book in the Lloyd George collection in Special collections at the University of Kent.

²⁵ Examples include; Peter R. Gillis and Thomas R. Roach, *Lost Initiatives: Canada's Forest Industries, Forest Policy and Forest Conservation* (Westport, Connecticut: Greenwood Press, 1986); Griffiths and Robin (eds.), *Ecology and Empire*; Gregory A. Barton *Empire Forestry and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 2002); Ravi S Rajan, *Modernizing Nature: Forestry and Imperial Development 1800-1950* (Oxford: Clarendon Press, 2006); William

The final category is the environmental-military approach, a relatively new school that focuses on the way in which warfare has effected different environments. It includes contributions from academics with a wide range of disciplinary backgrounds and often discusses the actions of relevant HLOs to illustrate the environmental effects of militarisation.²⁶ For example Professor Richard Tucker's chapter 'The World Wars and the Globalization of Timber Cutting' is primarily interested in the organisations and infrastructures put in place around the world, often as a result of the First World War, that meant the Second World War proved far more devastating to global forests than its predecessor.²⁷

It can be seen, therefore, that whilst many works can be utilised to gain insight into elements and the context of the British Empire's forestry effort, none have concentrated solely on the high-level management of obtaining wood and timber in sufficient quantities. A few brief details can be located on the organisations and agreements established to secure and manage this vital resource. Some early works give in-depth details of particular aspects of the work of some of the main forestry units, and some illustrate the devastating effects of war on the environment which, as will be shown, the directors of the effort would have had to consider.

Beinart and Lotte Hughes, 'Environment and Empire', in *The Oxford History of the British Empire* (Oxford: Oxford University Press, 2007); Jan Oosthoek, 'The colonial Origins of Scientific Forestry in Britain', online paper accessed at <http://www.eh-resources.org/colonial_forestry.html> [accessed 30 April 2013].

²⁶ West, 'Forests and National Security', p. 270; Chris Pearson, *Mobilizing Nature: The Environmental History of War and Militarization in Modern France* (Manchester: Manchester University Press, 2012); Chris Pearson, Peter Coates and Tim Cole (eds.), *Militarized Landscapes From Gettysburg to Salisbury Plain* (London and New York: Continuum, 2010); Peter Coates, Tim Cole, Marianna Dudley and Chris Pearson, 'Defending Nation, Defending Nature? Militarized Landscapes and Military Environmentalism in Britain, France, and the United States', *Environmental History* Vol.16 Iss.3, pp. 456-491.

²⁷ Richard P. Tucker, 'The World Wars and the Globalization of Timber Cutting,' in Richard P. Tucker and Edmund Russell (eds.), *Natural Enemy, Natural Ally: Towards an Environmental History of War* (Corvallis: Oregon State University Press, 2004), pp. 110-141. West's 'Forests and National Security' can also be seen as fitting into this category of an environmental-military approach.

Methodological Notes

The initial intention of this project was to combine elements of military, environmental, political, diplomatic, social and cultural history interwoven throughout. A good example of this would be the 1916 negotiations between British and French politicians, senior military representatives and forestry professionals in order to allow increased utilisation of French forests prized for social and cultural reasons by the French State and its citizens, as discussed in chapter 3. However, as the work progressed and the word limit necessitated greater focus on the specific area of high level management it became apparent that the approach most needed is that of a ‘top-down’ administrative history, which although currently unfashionable suits this work. It can therefore be most accurately labelled as a Military-Administrative approach, perhaps reviving an approach and subject matter more commonly used in works up to the 1980s.²⁸ However, a major part of the work has remained to illustrate wherever HLO personnel did take environmental issues into consideration and the subject matter, trees, alone helps maintain an occasional environmental history feel.

Another approach used in this study is to consider the use of other natural resources, especially in regards to agriculture, as contextual settings for, or comparisons with, the forestry effort. As shall become clear, there were many parallels in the problems faced and measures taken to control both agriculture and forestry during periods of the war, as well as obvious differences such as length of growth period. Both had suffered from political neglect and remained massively reliant on imports before the war, so both were affected by the lack of sufficient merchant

²⁸ See for instance John Sweetman, *War and Administration: The Significance of the Crimean War for the British Army* (Edinburgh: Scottish Academic press, 1984), which in a 1984 review in ‘Albion: A Quarterly Journal Concerned with British Studies’, (Vol.17, No.4, Winter 1985), pp .514-515, Wilbur Devereux Jones calls the ‘latest probing into the confused and confusing area of British administration’.

shipping space and U-Boat campaigns, eventually having to look to significantly increase home production. Furthermore, self-sufficiency of both suffered due to the loss of similar factors of production, such as labour, machinery and finances. They were also both considered at times as coming under the remit of the different boards of agriculture, and interested parties raised fears or hopes about suggested and enacted controls of areas such as prices, imports and exports, labour and continued independent trading. In both fields recognition also grew of the need for alterations to post-war practices as a result of wartime shortages.²⁹

Parameters

Some basic statistical and measurement parameters for timespan, geographical and forest material as applied in this work will now be set out to clarify some of the important decisions made regarding these areas in setting boundaries to the thesis. The work will cover the period 1914-1918, although largely focusing on 1916-1918 by when the realisation of the extended and all-consuming nature of the war had become apparent, necessitating large scale new methods to secure timber. However, as mentioned above, chapter 1 will contain some contextual information regarding pre-war forestry, and future works based on research carried out but not used in this thesis will include the war's effects on British and British Empire forests and forestry professions. Geographically concentration is on the efforts to supply wood for the main British theatres of the war, the Western and Home Fronts. Information relating to other theatres such as the Indian Forestry Department's struggle for qualified manpower and labour to provide the necessary timber for the Salonika expedition or

²⁹ Dewey, *British Agriculture*, pp. 4, 5, 28-9 and numerous documents and readings seen throughout this research.

the timber sent to Gallipoli, have been excluded from an already extensively resourced thesis.³⁰ Although concentrating on the efforts of Great Britain and its Empire, the forestry actions or opinions of other combatants are only used where considered useful comparisons. This is especially true of the USA as Britain's ally from 1917, and a major contributor to the forestry effort after this time. With regards to materials included, those classed as directly helping the war effort are focused upon, these primarily being pit-timber, fuel wood and construction timber of all shapes and sizes, mainly softwoods but some hardwoods required for special purposes. One area that has been identified during this research as being especially deserving of future study is that of paper pulp. The efforts to supply this vitally important forest product necessitated much debate and work during the war, with shortages leading to a separate Paper Commission, controlling committees and import restrictions similar to those for timber.³¹

Concerning available statistics, P.E Dewey regularly illustrates the difficulties of establishing accurate figures in many areas of the agricultural effort, and the pitfalls in unquestioningly using contemporary information.³² In terms of forestry, and most definitely in terms of amounts cut, converted or used, similar difficulties have been found in establishing definitive, accurate total figures. Earl Selborne, recognising in June 1917 that whilst efforts to organise the best possible production of timber was 'a subject of great public interest', knew that both the public and parliament had received only a few scraps of information.³³ Accurate figures for production and usage were

³⁰ See for example Hansard, House of Commons Sitting 20 October 1915, 'Wooden Shelters' [for the Dardanelles], col. 1774.

³¹ TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p. 2.

³² Dewey, *British Agriculture*, passim, for instance see p. 2, also chapter 4 on recruiting and farm labour gives a great idea of difficulties of statistical use from this period, pp. 36-59 and p. 73 ref fertilisers.

³³ Hansard, House of Lords Sitting 26 June 1917, cols. 635-6

clearly difficult to obtain at the time, and have remained so. Experts often made the case, before, during and after the war, that no accurate survey or assessment of the amount of useful woodlands existing in Britain, or lands suitable for afforestation, had taken place. Estimates of such quantities, however, were and have continued to be fairly commonplace.³⁴ In July 1917, the President of the Board of Trade, controlling all supplies of timber by then, was asked to inform the House of Commons of the number of acres of softwoods that had been felled through the UK so far in the war, and what percentage of the pre-war acreage of the nation that was. He informed his colleagues that this would be impossible as obtaining such data from estate owners and merchants would overwhelm ‘an already over-worked Department’ negating any useful effects gained through such an exercise.³⁵ Furthermore, as of January 1918 expert foresters were stating that no overall record of wartime felling, in Britain at least, had been kept.³⁶ As well as the numerous bodies involved and the often urgent need for timber, the sheer scale of timber operations must have been a factor in the lack of accurate record keeping. For instance German production of timber from their occupied lands in Eastern Europe got so large that they stopped recording how much was cut, and simply recorded the monetary value of timber shipments.³⁷ Maclean states that definitive records of British or Allied production or usage were unlikely to exist, especially from the early stages of the war, and this remains the situation.³⁸

However, in both primary and secondary sources figures cut, converted, shipped, requested or used for particular periods, or by particular bodies, are given to illustrate

³⁴ For instance see Hansard, House of Commons Sitting 17 February 1914, cols. 766-7; TNA/CAB/24/39/19, ‘Forestry Administration’, (January 1918), p. 1; Birch, ‘The Afforestation’, p. 3; Miles, *Forestry in the English Landscape*, p. 29.

³⁵ Hansard, House of Commons Sitting 23 July 1917, col. 856.

³⁶ TNA/CAB/24/39/19, ‘Forestry Administration’, p. 1.

³⁷ Liulevicius, *War Land on the Eastern Front*, p. 72.

³⁸ Maclean, *Farming and Forestry on the Western Front*, p. 96.

the impressive scale of the efforts involved, and this is the approach primarily adopted by this work. Furthermore, as reliable figures have been found they have been added to various spreadsheets relating to requirements, production, imports or use and these have been used in reaching conclusions in this study. As well as giving an idea of quantities involved, utilised where appropriate in the text, these spreadsheets also illustrate the difficulty in reaching any kind of definitive overall statistics. Some authors have made sweeping statements, such as that the CFC produced seventy per cent of allied lumber used during the war.³⁹ However, such exact statements, without a great deal of qualifying and quantifying of figures as well as acknowledgements of the often haphazard ways of obtaining supplies in the early periods, are difficult to prove. Therefore, this work agrees with several contemporary and secondary sources, referenced above, in that exact figures for many periods of the war, especially the early stages, are impossible to ascertain. Therefore establishing accurate overall figures for many aspects of the effort is impossible.

Differing units of measurements used including historical differences between the war and now and national differences, such as those between how the Canadian, American, European and British timber trades defined the 'same' units, can also complicate the use of statistical material. Where used within the text, as much statistical information as possible has been converted into as few variables as possible in terms of unit measurements of weight, volume, length and financial value, to allow meaningful comparisons. However, for more details on the units of measurement commonly used in this work see appendix 'Measurements'.

Regarding financial comparisons, websites used to convert old money to current costs are cited with the particular example. To give a contextual comparison between

³⁹ Gunner, *Canadian Lumber Camp Eartham and Slindon*, p. 2.

finances involved in the timber effort and a particularly symbolic element of the pre-war arms race, amounts spent on timber are occasionally compared to the cost of a new Dreadnought.⁴⁰ It was felt, incorrectly, that to keep up with Germany Britain must budget for and build six Dreadnought battleships annually, between 1909–12, not good news for Liberal Ministers hoping to spend more on social reforms. Nonetheless the cry thanks to a ‘Conservative-inspired naval scare in parliament and the press’ became ‘We want eight and we won't wait’, and government managed to fund the building of eighteen of the giant warships by the end of 1912, at a cost of approximately £2.5 a piece; a 1915-16 Queen Elizabeth Class, ‘Super Dreadnought,’ costing 2.5m.⁴¹ Although it can also be said, in comparison, that at the end of 1915 the war was costing Britain £5m a day, and ‘the country’s deficit would mount to £600m by March 1916 and £2,000m a year later’, the Government Timber Buyer alone made approximately £50m worth of timber purchases in this capacity throughout the war.⁴² This was equivalent to approximately twenty dreadnoughts. So although costs on timber were clearly small in comparison to the nation’s overall spending, they were not insignificant.

Introduction Summary

The British Empire forestry effort to keep the mines and factories of the Home Front producing, the trenches standing and the Allied armies on the Western Front in the war has been overlooked as a separate issue by the vast majority of the historians writing about the First World War. Therefore this thesis creates a basis for future

⁴⁰ D. M. Cregier, ‘McKenna, Reginald (1863–1943)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011
<<http://www.oxforddnb.com/view/article/34744>>, [accessed 26 Nov 2016].

⁴¹ Ibid, p.14; TNA/BT/71/21, Bird, pp.14,7-10; and based on estimated cost of £2.5m for the Queen Elizabeth (1916), from Jane’s Fighting Ships (1914 Edition) as quoted by Barry Slemmings in ‘How Much Did a Warship Cost?’, <www.gwpda.org/naval/wcosts.htm> [last accessed 3 May 2014].

⁴² Turner, *British Politics*, p. 81.

academic work on numerous environmental, military, social and cultural aspects of this important element of the war, the effects of which are still visible in the work of organisations such as the Forestry Commission and in landscapes of the UK and France today. To achieve this it outlines and draws conclusions on the largely administrative thinking processes and work, as well as any environmental concerns, of those responsible for the overarching establishment and then management of this unprecedented task. It will review the many methods used to secure sufficient quantities, from permit systems to raising a whole corps of Canadian lumbermen to work as hard as humanly possible in British and French forests, showing how, notwithstanding understandable yet only occasional disagreements and misunderstandings, these measures were well conceived and executed. However, before reaching these conclusions the next two chapters will establish a firm base of knowledge in terms of the state of pre-war forestry, important uses and significant contextual periods during the war, as well as the *raison d'être* and work of the many advisory or controlling bodies involved. This not only begins the argument that within the chaos of the times a good degree of sensible thought and expert knowledge was used wisely, but also introduces these important figures and organisations which will help in better understanding the remainder of the work.

Chapter 1: The Poor State of Pre-War Forestry, Wartime Uses and Periods of Shortage Concerns.

This chapter provides contextual information on pre-war forestry, wartime uses and some prominent periods of concern over timber shortages, further illustrating why this resource was of such importance to the continued prosecution of the war, and therefore to its historiography. It also provides important background knowledge particularly useful in contextualising the aims and measures undertaken by the HLOs throughout the remainder of this thesis.

The Pre-War State of Forests and Forestry

Anyone who goes through the New Forest and compares the miserable and scanty trees seen there with the magnificent forests of Germany, France, Belgium and Denmark, must be struck by the fact that in this country the Government have not used the Crown lands to the best advantage.¹

This statement, made in the UK parliament in April 1914 just four months before war began, aptly describes the condition of much of what little was left of British woodland, publicly or privately owned. Under successive monarchs and governments, stretching back for centuries, there had been little economic or nationalistic incentive for woodland owners to properly manage them for timber production. The country remained disastrously over reliant on imports.

The first part of this section will focus on the negative aspects of pre-war forestry, such as financial and landownership reasons for lack of management, and overconfidence in external supplies. However, as well as providing proof of this poor state of affairs, the section will go on to argue that many positive aspects and measures,

¹ Hansard, House of Commons Sitting 8 April 1914, cols. 2039-2040. In the online version of Parliamentary Debates the sixth from last word in this debate is 'Grown'. However, in the paper version of the same debate it is 'Crown'. See; 'The Parliamentary Debates (Official Report), Fifth Series, Vol LX, House of Commons Third Volume of Session 1914 (London, 1914). Also, for a more modern view, see William E. Schmidt, 'Who's Merry Now? Sherwood Forest may be Sold', *New York Times*, Friday 8 April 1994, p. 4.

in terms of financial incentives or because of environmental concerns, had begun to be instigated. These were largely due to lessons from imperial settings, where forestry education and practice was well ahead of the UK. Calls were being made from at least the mid-nineteenth century to improve the UK's timber situation through measures including centrally-led scientific management and afforestation. It will be shown that some educational and physical initiatives had begun by 1914, although not to the extent many experts wanted. However, such considerations would have been in the consciousness of those experts utilised by the high level forestry bodies during the war even if, as shall be seen, they remained secondary to acquiring sufficient supplies. Furthermore, there was by the outbreak of war a small body of forestry experts, professional or 'gentleman', who would become central within the HLOs.

Historical reasons for poor forests

Examples of and reasons for the particularly poor state of UK forests in 1914 are easy to find in secondary and primary sources. Over millennia the use of forests by a growing population through various agricultural and industrial revolutions, and devastating wars, had resulted in dramatic reductions in ancient virgin jungles.² The central reason to maintain Crown Forests, game preservation, had declined and their size had dramatically reduced. Through Tudor and Stuart times they also became prized as sources of timber, especially for naval purposes.³ Unfortunately a slight resurgence in interest in private planting as a hobby from the mid-seventeenth century began to fade towards the end of the nineteenth. It also remained of little importance

² Board of Agriculture and Fisheries, Office of Woods, Forests and Land Revenues, *Cd.7488 Joint Annual Report of the Forestry Branches for the Year 1912-1913*, (London: HMSO, 1914), p. 7, see Chapter 3, pp. 16-24 for an 'Historical Note on the management of the Crown Forests and Woods' which gives brief details; David Ross, *Scotland: History of a Nation*, (New Lanark: Lomond Books, 2002), p. 40 for brief details on Scotland's ancient forests; Stebbing, *British Forestry*, pp. xii-xiii, xxi; Richard Grove, 'Scotland in South Africa', in Griffiths and Robin (eds.), *Ecology and Empire*, pp. 144-5; Miles, *Forestry in the English Landscape*, p. 28.

³ *Ibid.*, pp. 25-27; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 7-8, 17.

to governments and industries due to growth in imports of better quality wood at cheaper prices and centralisation of land ownership.⁴ As early as the 1660s John Evelyn, a scholar, court official and Royal Society member, wrote the extremely important treatise *Sylva, or a Discourse of Forest Trees and the Propagation of Timber in His Majesty's Dominions (1664)*, leading to many subsequent editions. He recognised that most woods were planted for amenity and sporting purposes, and by the later stages of the nineteenth century private woods in Britain were still seen by many simply as game coverts and aesthetic 'ornaments' to big estates. Even forests run by public organisations were maintained solely for recreational rather than economic purposes.⁵

Land ownership had a particularly negative effect on forests, as agriculture was often preferred to timber production. Thanks to alterations in traditional systems of agricultural land tenure, larger landowners expanded their holdings from the 1750s onwards. This was at the expense of small landowning farmers and vastly increased numbers of tenant farmers. Yet both landowners and tenants recognised woodland as less profitable than cultivated fields.⁶ By 1914 land ownership was for the few, and although most of the nation's calories were still imported, crop or grazing land was greatly preferred over woodlands.⁷ Britain's gradual deforestation, lack of incentives for landowners to replant, increasing population and reliance on industry meant that by the late nineteenth century Britain was importing approximately ninety per cent of its timber.⁸ Several other financial and industrial factors also helped reduce the

⁴ Ibid., p. 8; Stebbing, *British Forestry*, p. xiii.

⁵ Ibid., pp. xxvi-xxiii, 14; Schlich, *Forestry in the United Kingdom*, pp. 6-8, 24, 29, 51.

⁶ Miles, *Forestry in the English Landscape*, p. 29.

⁷ Dewey, *British Agriculture*, pp. 1-7, 240-42.

⁸ Beinart and Hughes, 'Environment and Empire', pp. 10-11; Ministry of Reconstruction, *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report : Reconstruction Committee, Forestry Sub-Committee, Final Report* (London: HMSO, 1918), p.14; *Cd.7488 Joint Annual Report*

importance of forestry in Britain, thereby increasing imports. These included a change to steel in the bulk of materials required for shipbuilding, and the removal of import duties from colonial timber in 1864 and all foreign timber in 1866. This also ended complex customs procedures and the need for large sums up front to pay duties, allowing smaller firms to compete with larger importers and agents and the Baltic and Scandinavian countries to massively increase their exports to Britain. Closer bonds with countries such as America, Canada and Australia, following the mid-Victorian abolition of duties on agricultural imports, as well as technological improvements in railway and shipping networks all made imports cheaper and home grown timber even less profitable.⁹

Britain was also able to afford to import a great deal more than she produced thanks to huge earnings on overseas investments, excellent terms of trade and 'invisible' earners such as shipping and insurance.¹⁰ Even though by the 1880s a 'considerable and prosperous' home-grown trade in hardwoods had been established, this still needed supplementing with imports for furniture, railway construction and shipbuilding.¹¹ The UK became a workshop rather than a producer of raw materials.¹² Arguments against the need for afforestation were made by those that saw the country as a trading nation whose economy and powerful position in the world markets would simply enable her to buy wood.¹³ This reliance on imports was central to many of the

of the Forestry Branches 1912-1913 (1914), p.10 for similar figures but in 'loads' of unmanufactured timber.

⁹ *Ibid.*, pp. 22-24; Stebbing, *British Forestry*, pp. 14, 164-65; Offer, *Agrarian Interpretation*, pp. 1-6; P.J Cain and A.G Hopkins, *British Imperialism 1688-2000*, (Harlow: Pearson Education, Second ed., 2002), p. 206; Turner, *British Politics*, p.172; Bryan Latham, *History of the Timber Trade Federation of the United Kingdom: The First Seventy Years*, (London: Ernest Benn Limited, 1965), pp. 16-17.

¹⁰ Niall Ferguson, *Empire: How Britain made the Modern World* (London: Penguin Books, 2004), pp. 241, 244-47.

¹¹ Latham, *History of the Timber Trade Federation*, p. 23; Schlich, *Forestry in the United Kingdom*, p. 8.

¹² Offer, *Agrarian Interpretation*, pp. 1-6.

¹³ E.G Richards, *British Forestry in the 20th Century*, p. xvii.

obstacles faced by wartime forestry HLOs. Figures show a large and steady increase of loads of, and expenditure on, wood products from 1801 to 1841. From 1843 onwards this becomes a sharp and fairly constant rise for each decade up to 1912.¹⁴ In 1851 imports of timber amounted to 3.5 cubic feet per head of population, by 1911 they had risen to 10.5 cubic feet per person.¹⁵ The yearly average for imports for the five years 1909 to 1913 was 10,204,000 ‘loads’, at an average cost of £27,561,421, or approximately ten Dreadnoughts per year. Some figures even suggesting this reached £40m, or nearly fifteen Dreadnoughts-worth, in 1913.¹⁶ As a comparison production of home grown timber in the UK was not reaching 2m tons per year by 1904, whereas imports were exceeding 10m, and an average pre-war consumption of 45m cubic feet per annum of home grown timber can be compared against approximately 560m cubic feet of imports.¹⁷ Total imports in 1913 equalled approximately 11.6m tons, with just 0.9m tons produced domestically.¹⁸ Britain was still dangerously reliant on imports of timber for its industrial and civil needs as the war began.¹⁹

¹⁴ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 14-16, see tables on 1.16 for detailed breakdown of types of wood and the state they were imported in. These tables also illustrate how the loads of different types of wood imports reduced at different rates during 1915 and 1916, for instance hardwood imports decreasing much more sharply than those of pit-props. Furthermore how although quantities of imports decreased in 1915 and 1916 the values of those smaller amounts still increased, reflecting price increases in timber.

¹⁵ *Ibid.*, p. 14; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 10.

¹⁶ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 14-16; Nicholson, *Canadian Expeditionary Force*, pp. 499, 500.

¹⁷ Schlich, *Forestry in the United Kingdom*, p. 8; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 14; Calculated approximately from figures in text, and fn.13, as 10.2m loads per year average multiplied by 55 cubic feet per load (half way between hewn softwood and sawn or split timber which made up the bulk of imports).

¹⁸ TNA/CAB/24/34/46, ‘Minute by the Timber Controller for the War Cabinet on the Critical Position of the Timber Supply’, 1 December 1917; Hill, ‘The Canadian Forestry Corps’, p.302 puts at 11.5m tons. For a more detailed review of the quantities and value of wood and timber in many different forms imported into, and exported from, the UK on an annual basis see the annual *Statistical Abstract for the United Kingdom in each of the last Fifteen years* published by HMSO. For instance *Cd.9137 Statistical Abstract for the United Kingdom in each of the last Fifteen Years from 1902 to 1916* (London: HMSO, 1918), pp. 134-7, 140-2, 150-3, 158-9, 161-3, 184-5, 200-1, 206-7, 220-3, 228-9, 234-5, 264-5, 268-71, 275, 278, 280; Nicholson, *Canadian Expeditionary Force*, pp. 499, 500; TNA/BT/71/21, Bird, p. 1.

¹⁹ The best illustrations of this are in Schlich, *Forestry in the United Kingdom*, Stebbing, *British Forestry*; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 4-20; Beinart and Hughes, ‘Environment and Empire’, p. 113.

Britain was by far the largest recipient of timber imports in the world, receiving more than double the next largest importer at the time, which was Germany.²⁰ Up to July 1914 the UK took in half of the world's total imports of forest produce, mainly in various forms of softwoods.²¹ 1904 figures for the major European combatants in the forthcoming war show that only two were net exporters, Austria-Hungary at 3.67m tons and Russia with Finland, at 5.9m tons.²² Combining figures for the Allied powers of Great Britain, France, Belgium, Italy, Portugal and Russia gives a net import total of 6.12m tons per year, slightly more than Russia's annual net export amount. Germany was also importing a net amount more than her main ally Austria-Hungary's net exports per year.²³

To source imports Britain, since at least the late eighteenth century, looked mainly to the northern coniferous belt, especially Russia, but also the Baltic States, Norway and Sweden, and to a lesser extent Canada.²⁴ The majority of 1913-14 imports were received from Russia, Sweden and Norway, which between them supplied sixty-seven per cent. Smaller amounts also came from France, in pit-props, America, Canada, and a comparatively very small amount from Germany and Austria-Hungary.²⁵ Russia's importance can be seen in that, ironically given events in 1917, Stebbing's main concern in 1916 was that post-war Russia would no longer have the capital to provide the massive amounts of timber Europe would need. He therefore urged diplomatic agreements be reached as soon as possible, even the possibility of Britain renting and

²⁰ Schlich, *Forestry in the United Kingdom*, pp. 9-10.

²¹ Stebbing, *British Forestry*, pp. 2, 5, 6, 67.

²² Schlich, *Forestry in the United Kingdom*, p. 11.

²³ *Ibid.*

²⁴ *Ibid.*, p. 15; E.G Richards, *British Forestry in the 20th Century*, p. xvii; Gillis and Roach, *Lost Initiatives*, passim, for instance see pp. 1-7, 24; Beinart and Hughes, 'Environment and Empire', p. 113; Miles, *Forestry in the English Landscape*, p. 28; Latham, *History of the Timber Trade Federation*, p. 14; Stebbing, *British Forestry*, pp. 2, 5, 6, 67.

²⁵ *Ibid.*

managing areas of Russian forests.²⁶ Canadian timber was more financially viable due to political changes in import duties at specific times, for instance during the Napoleonic Wars, but duty levels coupled with freight charges meant similar or slightly better prices could be achieved on Baltic or Scandinavian imports.²⁷ Therefore although the lumber industry was a major element of Canada's export revenues, and at times employed nearly half of adult males, it often faced bias from British merchants until the 1930s. Indeed, most exports headed to America not Europe, although the Dominion had certainly been recognised as a valuable potential source by the late nineteenth century.²⁸ Hardwoods and other forest products could also be obtained from the vast rain forests of tropical countries, many being within the British Empire.²⁹

Yet even with the empire and the world's most powerful navy, threats to these vital timber supplies from northern Europe or across the Atlantic, as well as of other resources, had been well noted before 1914. Again as far back as the 1790s Baltic supplies were occasionally cut off by naval blockades, even though 'naval stratagems' had been put in place to keep these ports open. The import trade had been badly disrupted by the Crimean and American Civil War and by economic slumps in Britain, or around the world. It was also recognised with hindsight in 1918 that the country had been vulnerable at the start of the war not just because of the small size of its army, but also due to its reliance on imports of timber, food and chemical supplies.³⁰ It is clear that by 1914 the state of the UK's woodlands, timber production capabilities and forestry expertise had been largely ignored due to plentiful and financially viable

²⁶ Ibid., pp. 5-6, 9, 155-159

²⁷ Latham, *History of the Timber Trade Federation*, pp. 14, 16-17.

²⁸ Gillis and Roach, *Lost Initiatives*, pp. 1-3, 24; Schlich, *Forestry in the United Kingdom*, p. 15.

²⁹ E.G Richards, *British Forestry in the 20th Century*, p. xvii.

³⁰ Hansard, House of Lords Sitting, 6 March 1918.

imports. Although the risk of blockade to supplies had been recognised, imports remained the principal source by a large margin.

The poor quality, or appropriateness, of timber grown in the UK thanks to what Stebbing labelled the ‘English’ method of growing timber, which recent improvements in forestry education had not had time to correct in practical results, also contributed to reliance on imports. These included leaving a great deal of space between trees to encourage shorter thicker trees with large branches, preferred in shipbuilding, the species of softwood now wanted by many industries not being grown in Britain, and trees not being kept clear of knots as now preferred by the markets. The type of practices needed to make forestry a main industry in Britain before the war were only just achieving wider recognition, and due to this imports were still the cheaper option and were grown to better, more suitable, qualities.³¹

The issues outlined above would cause major difficulties for the wartime HLOs. However, it will now be shown that, alongside fears of blockade, other financial and environmental arguments for improved forestry in the UK had been made before the war. Furthermore, some measures, from pushes for increased planting to better education, had been made at times over the centuries, and more importantly in the decades leading to 1914.

Recognition, and some small positive steps

Many woodland management techniques had been common practice in Britain throughout history, and in recent centuries the popularity of efforts to improve sustainability had waxed and waned to give mixed, but as shown above, largely poor results. Some conservation laws were passed, for instance following the restoration of

³¹ Stebbing, *British Forestry*, pp. 14, 161, 163-6; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 9.

King Charles II in 1660 and formation of the Royal Society in 1662, when institutions vital to the nation's place on the world stage, especially the navy, were seen to be threatened by lack of appropriate home grown timber. From this time onwards there were numerous calls from experts or parliamentary committees for centralisation under the State, better education and training and increased 'scientific' afforestation by public bodies and individuals, for both financial and environmental reasons. The number of studies, recommendations and occasional regulations enacted do show recognition of the numerous problems. Furthermore, there had been the beginnings of some small incentives to plant trees and advances in education. However, by 1914 there was still no consistent management policy or widespread and effective incentives to plant and scientifically maintain woodlands for timber production. The UK's state ownership of woodlands was the smallest of any European nation, it was still one of the very few European countries with no central government forest policy or single controlling body, and little planting was taking place.³²

Evelyn had encouraged planting for the navy and received royal and private support, with millions of trees being planted for timber and some acts to protect woodland being introduced with limited successes in areas around the Forest of Dean and New Forest.³³ Some 'enthusiastic' landowners, particularly in Scotland, took on

³² E.G Richards, *British Forestry in the 20th Century*, pp. xvii, 254-277, Appendix B.2 for chronological list of legislations up to 1977; Miles, *Forestry in the English Landscape*, pp. 25-27, 34-6; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, passim, especially pp. 1, 3, 4, 7-9, 17; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 8-13; Grove, 'Scotland in South Africa', p. 148-9; Schlich, *Forestry in the United Kingdom*, pp. 15, 17-18, 28-9; Stebbing, *British Forestry*, pp. 16-18, 163; Cameron Hazlehurst, 'Scott, Alexander MacCallum (1874-1928)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004, <<http://www.oxforddnb.com/view/article/72181>>, [accessed 23 May 2014]; Mr MacCallum Scott, Hansard, House of Commons Sitting 17 February 1914, cols. 766-8, the Committee's actual report was *Cd.6085 (1912)* according to *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 12; Hansard, House of Commons Sitting 3 March 1914, cols.232-3; Hansard, House of Commons Sitting 8 April 1914, cols. 2039-2041, especially line by Mr McKenna (Liberal – Monmouthshire Northern) in col. 2041, giving the government's view; Hansard, House of Commons Sitting, 18 May 1914, cols. 212-3; TNA/CAB,24/39/19, January 1918, pp. 1-4; Latham, *History of the Timber Trade Federation*, pp. 53-4.

³³ Stebbing, *British Forestry*, pp. xi-xii; Miles, *Forestry in the English Landscape*, pp. 25-28;

the majority of home grown timber supply needs as private enterprises, and by the end of the seventeenth century planting for timber was a sound investment, although half-hearted attempts to follow ‘the fashion’ generally ended with poor results.³⁴ However, these uncoordinated private efforts did increase levels of knowledge and expertise, combining market needs with sound forestry principles.³⁵

By the start of the twentieth century there were also concerns over the effects of deforestation around the globe and the potential for a worldwide timber shortage. Even the larger world forests were no longer considered inexhaustible if lacking scientific management and deficits between plantings and use, especially as populations and industries grew. This was especially recognised in European forests that supplied the UK, the world’s major importer, a minimum result of which would be serious price increases.³⁶ Timber imports and exports to and from Europe resulted in an annual deficit of over 2.5m tons by 1904. The continent as a whole was using more than it could produce and this deficit, like Britain’s total imports, was increasing annually.³⁷ The deficit therefore had to be made up by imports from the rest of the world. Yet unsustainable levels of deforestation and their effects had also been recognised further afield. In America massive forest clearances since 1850, twenty million hectares being felled between 1870 and 1879 alone, had enabled it to become an industrial world-power³⁸ In imperial settings at least fourteen million hectares had been cleared in

Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913, pp. 17-18.

³⁴ W. L. Taylor, *Forests and Forestry in Great Britain*, (Crosby, 1945), p. 10 as quoted in Miles, *Forestry in the English Landscape*, pp. 26, 28.

³⁵ Miles, *Forestry in the English Landscape*, pp. 26, 28, 31-32, 35-6; Grove, 'Scotland in South Africa', p. 145; Ross, *Scotland: History of a Nation*, p. 326; Stebbing, *British Forestry*, p. xiii; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 8.

³⁶ Schlich, *Forestry in the United Kingdom*, passim, see especially pp. 12-13, 15, 22; Stebbing, *British Forestry*, pp. 5, 9, 55-159.

³⁷ Schlich, *Forestry in the United Kingdom*, pp. 9-10.

³⁸ Michael Williams, 'Ecology, Imperialism and Deforestation', in Griffiths and Robin (eds.), *Ecology and Empire*, pp. 70, 172, 173; Stebbing, *British Forestry*, p. 162; Beinart and Hughes, 'Environment and Empire', p. 115; Schlich, *Forestry in the United Kingdom*, pp. 7, 14; Gillis and Roach, *Lost Initiatives*, p. 31; Grove, 'Scotland in South Africa', pp. 147-49, 151.

Burma, New Zealand and Australia, either for use of the timber or to allow the growing of rice and other crops, or grazing of livestock.³⁹ Forestry surveys were gradually being made of the world's forests and the results just before the war illustrated that reserves were not as large as hoped for.⁴⁰

These shortage fears aided financial arguments for better managed timber production both in the empire and the UK itself. The benefits of well-maintained reserves on the economic status of a nation, for infrastructure and export reasons, had been recognised in imperial settings, especially India.⁴¹ Given the level of imports required by the UK, it was also recognised that there were strong internal markets for many types of forest products.⁴² This, coupled with the suitability of the UK's environment, meant that the 1914 report into forestry could state that;

It is known, in the first place, that there are very large areas of uncultivated land which would produce better results, financially, from the growth of timber than from the present methods of utilisation...Secondly, there are a group of social economic considerations of considerable weight, such as the provision of adequate supplies of those timbers which are essential in every way to the prosperity of this country...⁴³

Timber prices had been steadily rising since the 1880s, in conjunction with a drop in the quantity of material of suitable quality, and this was considered likely to continue.⁴⁴ It was therefore argued that money spent on purchases from abroad would be better kept in the UK through a widespread programme of afforestation. This would reduce the need for imports, lessen the costs of home grown timber, create healthy

³⁹ Williams, 'Ecology, Imperialism and Deforestation', pp. 174, 176-7.

⁴⁰ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 10.

⁴¹ Stebbing, *British Forestry*, p. 162; B.H. Baden-Powell *Hand-Book of the Economic Products of the Punjab* (2 vols, Roorkee, 1868-72), as quoted in Beinart and Hughes, 'Environment and Empire', p. 111; Beinart and Hughes, 'Environment and Empire', pp. 112-15; Williams, 'Ecology, Imperialism and Deforestation', pp. 176-7.

⁴² *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 9-10.

⁴³ *Ibid.*

⁴⁴ *Ibid.*

employment in plantations, therefore also appealing to society's fears over the declining health of the nation due to urbanisation, as well as create jobs in numerous resultant new industries near new woodlands. This could help to revitalise rural areas and even lead to profits from the nation becoming a net exporter.⁴⁵ One pre-war experimental Office of Woods site on an estate at Inverliever, previously used largely for grazing, suggested local employment could initially be increased by sixty per cent and that as the new plantations came to thinning age employment would rise still further.⁴⁶ Forestry schemes could also help rural employment especially in the winter, when the bulk of land preparation work for planting could be carried out and when many seasonal agricultural labourers were forced to seek work in towns and cities. They might also provide work for unemployed people from urban areas at certain times of the year.⁴⁷ In Ireland and Scotland arguments related to land use suggested that State investment in forestry would not only provide a capital asset in the form of timber for sale, but would maintain many existing industries and encourage new ones in agricultural and poorer areas much more effectively than agricultural developments alone.⁴⁸

Such employment might even reduce the emigration of some of the 'best blood' from the nation, although the potential success of this was questioned given the levels of skills needed for fulltime employment in forestry and some of the conversion industries. Therefore only relatively small numbers of positions, from managing

⁴⁵ Schlich, *Forestry in the United Kingdom*, pp. 4-16, 24-27; Stebbing, *British Forestry*, passim, especially pp. 2, 25, 50-54.

⁴⁶ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 10, 51.

⁴⁷ Schlich, *Forestry in the United Kingdom*, pp. 24-28.

⁴⁸ Department of Agriculture and Technical Instruction for Ireland, *Cd.4027, Report of the Departmental Committee on Irish Forestry* (Dublin: HMSO, 1908), passim, especially pp. 10, 13, 16, 21, 39-41, 57, 58, 59; Schlich, *Forestry in the United Kingdom*, pp. 23-4; Hansard, House of Commons Sitting 18 May 1914, cols. 211-213.

forestry officers down to woodsmen, seemed likely to be created.⁴⁹ Yet pro-afforestation supporters could also point to the importance of forestry in parts of Europe, such as France and Germany, as well as trials in Scotland. The benefits these nations reaped from centuries of measures to protect State and private forests included making woodlands important sources of wealth and employment.⁵⁰

Furthermore, experts also argued that those UK woodlands maintained solely for game or aesthetic reasons could provide a profit from timber sales as well as serve leisure pursuits, as long as ‘excessive sentimentality were somewhat curbed’.⁵¹ Once the initial growing stage was complete, landowners who did plant would be able to make more money per acre from timber than from shooting or hunting rents on heath or mountain land. It was also argued that the UK contained plenty of suitable land, between 15m and 16.5m acres, which were then then making their owners either very little in grazing or shooting rents, or even being completely unused.⁵² If carried out correctly it was felt by some that well-managed timber producing forests could also remain areas of beauty and still contain areas for the hunting of game birds or deer, which it was felt would be far better specimens and more sport to hunt than those raised on heath land.⁵³ There were certainly good economic arguments being made by experts and MPs for afforestation schemes and better State management in the run up to the war, but there were also environmental fears and reasoning leading to such calls.⁵⁴

⁴⁹ Stebbing, *British Forestry*, p. 2; *Cd.4027 Report of the Departmental Committee on Irish Forestry*, pp. 44, 45.

⁵⁰ Stebbing, *British Forestry*, pp. 17-18, 161.

⁵¹ Schlich, *Forestry in the United Kingdom*, p. 24.

⁵² *Ibid.*, pp. 7, 18; Stebbing, *British Forestry*, p. 15.

⁵³ Schlich, *Forestry in the United Kingdom*, pp. 4-8, 18, 29.

⁵⁴ Hansard, House of Commons Sitting 8 April 1914, cols. 2040-1.

Environmental fears focused on effects such as declining soil properties and desiccation, droughts, changes in regional temperatures, landslides, soil erosion, de-fertilisation of arable land due to soil deposits, peat-bog creation, impact on human health and wellbeing, crop damage by wind, negative effects on water flow and purity, and the reduction of breeding habitats of birds useful for controlling crop damaging insects. All of these were, at times, argued to be linked to deforestation in various parts of the world, including the UK, some from at least the mid-eighteenth century onwards.⁵⁵ Many of these concerns began in the empire, especially India and British North America, as reduction in British woodlands and growth of industrialisation meant the empire was increasingly looked to for imports.⁵⁶ Imperial powers have always sought to extract and utilise raw materials of many kinds from their colonies, and this was especially true in the nineteenth century due to Europe's second industrial revolution and the growth of a global economy.⁵⁷ European imperialism has become inseparable from the history of global environmental change, and particularly nineteenth-century forestry.⁵⁸

The UK's climate, moreover, was considered ideal for many types of tree even if its soil types were mixed between good, bad and indifferent for different species. Overall the country was well-suited, particularly Scotland, and especially for coniferous timber, which made up over ninety per cent of imports.⁵⁹ It had been

⁵⁵ Beinart and Hughes, 'Environment and Empire', pp. 15, 39, 116-19, 126; Williams, 'Ecology, Imperialism and Deforestation', pp. 70, 175-7; Pyne, 'Frontiers of Fire', pp. 19,24-5; Gillis and Roach, *Lost Initiatives*, pp. 31, 53-4; Grove, 'Scotland in South Africa', p. 147; Schlich, *Forestry in the United Kingdom*, pp. 5-6, 15, 26.

⁵⁶ Beinart and Hughes, 'Environment and Empire', p. 113.

⁵⁷ *Ibid.*, p. 1; John M. MacKenzie, 'Empire and the Ecological Apocalypse: The Historiography of the Imperial Environment' in Griffiths and Robin (eds.), *Ecology and Empire*, pp. 215-228; John F Richards and Richard P. Tucker, 'Introduction' in John F Richards and Richard P. Tucker (eds.), *World Deforestation in the Twentieth Century*, (Durham: Duke University Press, 1988), p. 4.

⁵⁸ Beinart and Hughes, 'Environment and Empire', p. 1; Pyne, 'Frontiers of Fire', p. 28.

⁵⁹ Stebbing, *British Forestry*, p. 15; Schlich, *Forestry in the United Kingdom*, p. 18; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 10; Hansard, House of Commons Sitting 18 May 1914, col. 213.

recognised, therefore, that these islands could produce timber of similar quality to imports if proper forest management were introduced in the correct areas, such as schemes allowing enough space between trees and appropriate programs for thinning and pruning.⁶⁰ Therefore, although pre-war no centralised forestry body had been established in the UK, that would have greatly helped and simplified the establishment processes and practical measures undertaken during the war, there was recognition of the benefits of forestry improvements.

Positive Steps that had been taken

Furthermore there had been some positive steps taken in the years before the war in terms of existing authorities or associations in the UK and Empire, a growing knowledge base of experts from these organisations, and improved forestry education and knowledge exchange. These will now be outlined as they would clearly help the wartime HLOs. However, it will then also be shown that these were not as far reaching or well-funded as many would have liked.

In the fifty years before the war it was again imperial and American examples that led the way in establishing forestry regulations and governing bodies. Such forestry departments or associations would introduce or improve surveys, forest management, monoculture plantations and education, encourage private plantings through financial incentives, and establish State reserves or parks. These would often clash with locals and their traditional methods, often greatly altering traditional lifestyles, but on occasion also educating European imperial conservators in new and more appropriate methods.⁶¹ For example, an Imperial Forest Department was established in 1864 in

⁶⁰ Schlich, *Forestry in the United Kingdom*, pp. 18-20.

⁶¹ *Ibid.*, p. 15; Stebbing, *British Forestry*, p. 162; Beinart and Hughes, 'Environment and Empire', pp. 1, 16, 115, 117-19, 120, 121, 125, 127; Pyne, 'Frontiers of Fire', pp. 20, 24-26, 28; Gillis and Roach, *Lost Initiatives*, pp. 51-4; Williams, 'Ecology, Imperialism and Deforestation', pp. 175, 178; MacKenzie, 'Empire and the Ecological Apocalypse', p. 218.

India, becoming a large administrative and management structure, employing fifty-four foresters by 1869 and over a hundred by 1885.⁶²

In the UK the main establishments in the pre-war years in some way related to forestry included the Office of Woods (Office of Woods), the various Boards or Departments of Agriculture around the UK, and the Development Commission. Various trade associations, which grouped private companies into bodies the government could more easily link with to attempt to control and improve education, were also established or grew.⁶³ The Office of Woods was responsible for the administration of woodlands belonging to the Crown until 1919, as such playing a part in the wartime effort, as shall be seen in chapter 2.⁶⁴ Under the control of the Commissioner of Woods it recruited its first academically trained forest officer in 1899 and began to employ professionally trained staff in the early 1900s, including experts, some trained in the Empire, who would play central roles in the wartime HLOs.⁶⁵

The 1885-7 Parliamentary Select Committee on nationwide forestry suggested that a 'Forest Board', under a government department, should be established from interested bodies to further aid education, and these powers were given to the Board of Agriculture in 1889.⁶⁶ At one time or another the Boards of Agriculture for England and Wales, Scotland, or Ireland each had responsibility for the development of aspects

⁶² Beinart and Hughes, 'Environment and Empire', p. 117; Williams, 'Ecology, Imperialism and Deforestation', p. 178.

⁶³ Gillis and Roach, *Lost Initiatives*, pp. 51-4; Latham, *History of the Timber Trade Federation*, p. 54

⁶⁴ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 1; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p.13; Robert F. Wood, 'Fifty Years of Forestry Research: A Review of Work Conducted and Supported by the Forestry Commission, 1920-1970', *Forestry Commission Bulletin* (London, 1974), p. 1.

⁶⁵ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 3, 11, 13; Wood, 'Fifty Years of Forestry Research', p. 1; Hansard, House of Commons Sitting 20 July 1914; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 4.

⁶⁶ *Ibid.*, p. 8; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 8; Stebbing, *British Forestry*, p. 16; James, *A History of English Forestry*, pp. 193, 195.

of forestry. This illustrates that forestry was regarded as a potentially important element within the rural economy, but that the usefulness of a single central body had not been grasped.⁶⁷ The Board of Agriculture and Fisheries was constituted as the Statutory Forestry Authority for Great Britain by the 1889 Act which created them. In 1911, however, the Board of Agriculture for Scotland was also created, limiting the parameters of the Board of Agriculture and Fisheries to England and Wales.⁶⁸ They became responsible for encouraging forestry education, through publishing technical works and demonstrations, as well as some research and development, and this involved the employment of a small number of professionally trained officers.⁶⁹

The Department of Agriculture and Technical Instruction for Ireland had come into being in 1899, with powers to aid, improve and develop State forestry in Ireland.⁷⁰ By the start of the war the Development Commission, established in 1909 partly to fund improvement schemes including in forestry and illustrating ‘a new attitude on the part of the State’ towards this issue, had formed English and Welsh counties into natural groups and appointed a Forestry Adviser to each area.⁷¹ In Scotland the Board of Agriculture for Scotland was waiting for the decision of the Development Commission on their application for a grant to employ advisory and research officers.⁷² As shall be seen in chapter 2, these Boards of Agriculture would continue employing forestry staff, sometimes with Development Commission funding, who would assist in the work of the wartime HLOs.⁷³ The Development Commission was

⁶⁷ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 5.

⁶⁸ *Ibid.*, p. 1.

⁶⁹ Wood, ‘Fifty Years of Forestry Research’, p. 1.

⁷⁰ *Cd.4027 Report of the Departmental Committee on Irish Forestry*, p. 26; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 10.

⁷¹ Stebbing, *British Forestry*, p. 19.

⁷² Hansard, House of Commons Sitting 3 March 14, col. 233.

⁷³ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 12; Stebbing, *British Forestry*, p. 19.

partly intended to provide the main 'administrative machinery' for forestry. However, the Boards of Agriculture remained the executive departments, therefore retaining the powers to put plans into effect. The financial and executive controls were therefore separated.⁷⁴

As well as these slight improvements in terms of responsible bodies and regulations, both academic and practical based forestry education developed. This was considered necessary for both environmental and commercial reasons and it was in this facet of forestry that advanced the most in the pre-war years. Education and training were advocated by experts as being the foundation of long-term plans for improving the forests and woodlands of the nation. This was also led by imperial and American needs and examples, but again this lead was beginning to be followed in the UK.⁷⁵ This meant that, although at a relatively early stage, the British Empire was better prepared for a major forestry effort than it would have been ten or twenty years before in terms of expertise. Some fears were even being expressed before the war that the numbers now educated and trained in the UK coupled with a lack of job opportunities in areas such as Ireland, might lead to those educated in the home countries being lost to imperial positions.⁷⁶

The Imperial Forest School, established at Dehradun in India in 1878, had led the way and trained foresters, who were in turn sent out to advise and establish forestry organisations in other British Colonies, noticeably the Cape and Canada.⁷⁷ John

⁷⁴ TNA/CAB/24/39/19, 'Forestry Administration', p. 1.

⁷⁵ Gillis and Roach, *Lost Initiatives*, pp. 23, 30-35, 40-44, 49, 51-5, and up to at least 214; The Forest History Society, North Carolina, Online collection Summary, 'Centennial History of Forestry collection; University of Georgia, Hargrett Rare Book and Manuscript Library, Athens, Georgia'; Stebbing, *British Forestry*, pp. 162, 163; Schlich, *Forestry in the United Kingdom*, p. 15.

⁷⁶ Cd.8881 *Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 10-11; Cd.4027 *Report of the Departmental Committee on Irish Forestry*, p. 44.

⁷⁷ Beinart and Hughes, 'Environment and Empire', pp. 128-9; Stebbing, *British Forestry*, pp.162-3; Cd.7488 *Joint Annual Report of the Forestry Branches 1912-1913*, p. 8; Cd.8881 *Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 8; James, *A History of English Forestry*, pp. 193, 195.

Croumie Brown called in the mid-nineteenth century for the establishment of schools of forestry to serve Britain and its empire for both practical and in his view religious reasons.⁷⁸ In the UK the report of the 1885-7 Select Committee on forestry focused primarily on education, and recommended that a school for foresters should be established in Britain, along the lines of Dehradun.⁷⁹ Experts entering forestry professions would often come from subjects such as Natural Sciences, having gone on to take Forestry Diplomas at Oxford, Cambridge or Edinburgh Universities, the Royal College for Science in Dublin, or the Royal Indian Engineering College at Coopers Hill, which became informally known as Coopers Hill Forestry School. Recommendations for educational improvements at university and agricultural college level, alongside trial research areas, remained the preferred options of advisory bodies for forestry improvements, over more practical measures such as large-scale plantings.⁸⁰

As well as this improvement in academic education for the sons of private landowners or those destined for research work or as plantation managers, there was recognition of the need for education and practical experience for student woodmen. Central to this was the establishment of demonstration areas, several of which were established in areas such as the Forest of Dean and Avondale, in County Wicklow, often having their own 'schools' offering a combination of education and practical experience in a range of scientific subjects. Having spent reasonable sums of money

⁷⁸ Grove, 'Scotland in South Africa', p. 151.

⁷⁹ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 8; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 8; Stebbing, *British Forestry*, p. 16; James, *A History of English Forestry*, pp. 193, 195.

⁸⁰ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 4, 8-9; Stebbing, *British Forestry*, pp. 16, 19; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 8-10, 12; Schlich, *Forestry in the United Kingdom*, pp. 20, 21, 28; *Cd.4027 Report of the Departmental Committee on Irish Forestry*, pp. 42, 43, 44, 59; James, *A History of English Forestry*, p. 193; Victor Bonham-Carter, 'Introduction' in Miles, *Forestry in the English Landscape*, p. 20.

on these, it was felt by 1914 that they had become good training grounds.⁸¹ Instructors at such institutions also provided advice to private woodland owners and gave local lectures as and when requested. Local authorities in heavily wooded areas were encouraged to provide scholarships for existing foresters to attend these.⁸² In Ireland it was even felt, by 1908, that boys in rural primary National Schools needed to be taught the basics of both agriculture and forestry, such as recognising the difference between species of trees. It was argued that these classes would have to provide the ‘skilled forest workmen’ of the future and therefore an interest needed awakening in them.⁸³ This would help with pupils’ future employment on the staffs of local landowners or within a proposed national scheme. Forestry, it was felt, should become their trade in Ireland or abroad.⁸⁴

These universities and demonstration schools also led and aided forestry research. Although hampered by the lack of central control, demonstration areas were used as examples of what could be achieved in wider afforestation schemes across the UK. However, much research remained in the hands of private ‘gentleman’ experts such as Sir John Stirling Maxwell.⁸⁵ The lack of centralisation must also have adversely affected the dissemination of results and lessons from research. However, before the war some examples can be found of closer liaison between forestry organisations in terms of high-level staff. From 1906 onwards whoever was President of the Board of Agriculture and Fisheries automatically became a commissioner of the Office of

⁸¹ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 9, 10, 12, 13; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 1; Schlich, *Forestry in the United Kingdom*, p. 20; *Cd.4027 Report of the Departmental Committee on Irish Forestry*, pp. 27, 42-3.

⁸² *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 9.

⁸³ *Cd.4027 Report of the Departmental Committee on Irish Forestry*, p. 42.

⁸⁴ *Ibid.*, pp. 42-4, 59; Schlich, *Forestry in the United Kingdom*, p. 21.

⁸⁵ Wood, ‘Fifty Years of Forestry Research’, pp. 1, 10; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 13; Schlich, *Forestry in the United Kingdom*, p. 31; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 9.

Woods, and the 1914 joint report of the two bodies stated that they had been working in close co-operation for ‘some years’. Other high-ranking officers could also hold roles across different organisations, for instance R.L. Robinson, Superintending Inspector for the Board of Agriculture and Fisheries, was also appointed Consulting Forest Officer in the Office of Woods in 1912.⁸⁶ Crown Woods were still managed by the Office of Woods, but the onsite work of local agents was given technical assistance by Forestry Inspectors from the Boards of Agriculture. Greater levels of administrative and technical work were to be shared between the bodies as their aims and work, those of managing Crown Woods and developing forestry in the UK, were increasingly seen as beneficial to each other.⁸⁷

Well-known experts also moved from role to role, country to country, spreading, sharing and reshaping ideas, and creating historiographical arguments such as whether ‘Scientific Forestry’ or ‘Empire Forestry’ had their origins in Europe or America.⁸⁸ Examples of the administration and education introduced above to improve systematic forest management were often labelled as ‘Scientific Forestry’, defined as ‘the systematic planting, cultivation, and sustainable exploitation of wood land’.⁸⁹ This area formed an essential part of wider contemporary thoughts on ‘Scientific Conservation’, elements of which will be seen in chapter 3 in the negotiations regarding the British use of well-maintained French forests from 1916.⁹⁰ Amongst the keywords in their ‘lexicon of imperial forestry’, William Beinart and Lotte Hughes include ‘valuable’, ‘conserve’, ‘regulation’, ‘authority’, and ‘control’, and it is these

⁸⁶ Cd.7488 *Joint Annual Report of the Forestry Branches 1912-1913*, pp. 4, 5.

⁸⁷ *Ibid.*, p. 5.

⁸⁸ *Ibid.*, p. 4; Rajan, *Modernizing Nature*, p. 3 as summarised in Beinart and Hughes, ‘Environment and Empire’, pp. 15, 126; Beinart and Hughes, ‘Environment and Empire’, pp. 15, 114, 115, 117, 126; MacKenzie, ‘Empire and the Ecological Apocalypse’, p. 221; Grove, ‘Scotland in South Africa’, p. 144-5, 153 fn 20 & 21; Pyne, ‘Frontiers of Fire’, pp. 27-30; Stebbing, *British Forestry*, p. 163.

⁸⁹ Beinart and Hughes, ‘Environment and Empire’, pp. 116, 125, 126.

⁹⁰ *Ibid.*

that stand out in the imperial forestry measures becoming popular in the fifty years before the war.⁹¹

Although, as stated above, the major advances in pre-war forestry that assisted wartime HLOs were in terms of creating greater numbers of experts and some fledgling overarching bodies, some small afforestation had also taken place, or been encouraged on suitable land through loans, practical advice, tax breaks to private landowners and local authority corporations or water Boards across the UK, or reducing transport rates.⁹² By the outbreak of war Development Commission loans had been given, or promised to four city corporations in England as well as to the Edinburgh & District Water Trust and Lanarkshire County Council in Scotland. The Development Commission had also, in at least a small inkling of State-led afforestation, agreed to fund planting in local authority water catchment areas, although by March 1914 only one such scheme had been approved.⁹³ More was also being requested in terms of expert advice and help to private landowners to encourage planting.⁹⁴

The creation of State reserves to promote scientific forest management, as well as control water, preserve areas of natural beauty, encourage recreation and protect game in the forests was again mainly something that had taken place in North America or India. However, the concept had been raised and some parcels of land purchased for afforestation projects in the UK by the Office of Woods, 16,780 acres in total.

⁹¹ Ibid., p. 116

⁹² Schlich, *Forestry in the United Kingdom*, pp. 21-23; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 9, 12; Stebbing, *British Forestry*, pp. 10, 16, 19-20; Hansard, House of Commons Sitting 8 April 1914, col. 2040; *Cd.4027 Report of the Departmental Committee on Irish Forestry*, pp. 21, 25, 29-30, 33-5, 38, 47, 48, 50, 54, 56, 57, 58, 59; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 9.

⁹³ Hansard, House of Commons Sitting 3 March 1914, cols. 232-3; Stebbing, *British Forestry*, pp. 21-22.

⁹⁴ Hansard, House of Commons Sitting, 8 April 1914, col. 2040.

Development Commission staff had also surveyed approximately 500,000 acres of rough land and started thirty-five experimental plots or forestry centres in existing woods across the UK. The Department of Agriculture and Technical Instruction for Ireland had also purchased 8,000 acres of woodland in a poor state by 1914 which were being ‘steadily replanted and managed in accordance with the principles of scientific forestry’. Stebbing suggested that what could have been called a ‘State Forestry Department’ had come to exist in Ireland before the war. In Scotland 250,000 acres had been surveyed, but none of the demonstration or trial areas suggested had been acquired, for various practical and legal reasons. However it is clear that whilst such aims and recommendations were often made across the UK, little had been achieved in term of increasing home grown timber production by August 1914.⁹⁵ Although governments and economists over the previous twenty years had paid it some regard, and though various bodies had resulted from these ‘voluminous recommendations’ and ‘animated discussion amongst experts,’ only the very beginnings of practical measures were in place.⁹⁶ Stebbing, in a scathing manner, noted in 1916 that although some in Britain had seen forestry as a resource requiring scientific management, it had been the last country in the world to enter ‘the area of forest production and conservancy’.⁹⁷

⁹⁵ *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 1, 4, 8-9; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 1, 4-13; Wood, ‘Fifty Years of Forestry Research’, p.1; Stebbing, *British Forestry*, pp. 10, 15-19, 22; Hansard, House of Commons Sitting 17 February 1914, cols. 766-8; Hansard, House of Commons Sitting 3 March 1914, cols. 232-3; Lord Lovat, Hansard, House of Commons Sitting 18 May 1914, cols. 212-3; Hazlehurst, ‘Scott, Alexander MacCallum (1874-1928)’, n.p; Schlich, *Forestry in the United Kingdom*, p. 23; *Cd.4027 Report of the Departmental Committee on Irish Forestry*, passim, especially pp. 10, 13, 16, 21, 27, 29-30, 33-35, 38-42, 44, 47, 48, 50, 53, 54, 56, 57, 58, 59; TNA/CAB/24/39/19, ‘Forestry Administration’, Memo by Lord Lovat et al, January 1918, pp. 1-4; TNA/CAB/24/42/89, memo that adds the Marquess of Headfort, the President of the Irish Forestry Society, as a signatory to the earlier memo, 22 February 1918.

⁹⁶ Stebbing, *British Forestry*, pp. 2, 10, 163-4.

⁹⁷ *Ibid.*, pp. 2, 163-4.

There are several noteworthy reasons for this lack in practical advances. Not everyone had been convinced that afforestation was necessarily a duty of the State, that scientific forestry would produce better results and pay greater dividends, or that a State-run organisation would be best placed to carry out research or improvements through centralised control. Others were understandably waiting to see the results, environmental and economical, of relatively recent trials.⁹⁸ Even with the many parliamentary committees, commissions, public enquiries and Acts recommending improved forestry, there had generally been a ‘failure to grasp the problem as a whole, and its bearing on national safety and rural development’.⁹⁹ Political and practical reasons also played a part. For instance in Ireland the transfer of responsibility for existing forested land from private landowners to the State had not been written into the Land Purchase Acts, as some on the 1907 Department of Agriculture and Technical Instruction for Ireland Committee had wanted. This led to the belief that the Act was resulting in poor management of existing woodlands, as forestry is harder to undertake successfully in small parcels of land.¹⁰⁰

Yet the most commonly cited reason was, as always, lack of adequate funding for those organisations overseeing forestry improvements. Agriculture often won the race for money and, as stated above, the financial and executive controls were separate, with the body responsible for funding possessing little knowledge of forestry. The single Development Commission official with any experience at all was a retired

⁹⁸ *Ibid*, pp. 17-18; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 9; Hansard, House of Commons Sitting 8 April 1914, col. 2039.

⁹⁹ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 8-13; E.G Richards, *British Forestry in the 20th Century*, pp. 254-277, Appendix B.2; Stebbing, *British Forestry*, p. 16; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 8; Schlich, *Forestry in the United Kingdom*, p. 1; Wood, ‘Fifty Years of Forestry Research’, p. 1.

¹⁰⁰ *Cd.4027 Report of the Departmental Committee on Irish Forestry*, pp. 3, 4, 13, 14, 27, 37, 45, 57, 58.

Indian official, who lacked any experience of British forestry and was ‘quite out of touch with British foresters’.¹⁰¹ This lack of funds was summed up in June 1914;

...in the first half decade of the 20th century forestry was the centre of a great deal of public attention; but the actual steps taken by the State were mainly academic in character. No possibility of giving effect to a practical policy by means of funds voted by Parliament arose until the Development Fund was established in 1909.¹⁰²

It was hoped by some that issues of afforestation would be treated as cross party questions for the long-term future of country, yet some sections of the press were hotly debating the suggestion that afforestation held many positive opportunities for the country and whether or not the money already allocated to it was being spent in the most efficient way.¹⁰³ Regardless of such debates, it was also argued that the public were still not truly aware of the vital nature and social, environmental and commercial benefits of afforestation.¹⁰⁴ Recognition of its many benefits had not ended widespread apathy towards forestry. However, it is sufficient to note here that such benefits had most certainly been drawn to the attention of the government of 1914, as well as to many of their predecessors.

Pre-War Forestry Conclusion

The *History of the Great War Based on Official Documents* of the war calls the ‘story of 1915...a commentary on the straits to which the British Empire was reduced by lack of preparedness for war’. Although this related more to army size and munitions, the statement can equally be applied to forestry.¹⁰⁵ What is clear from this overview, however, is that the war came at a pivotal time in the history of imperial and domestic

¹⁰¹ TNA/CAB/24/39/19, ‘Forestry Administration’, p.1; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 1, 4; *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 10; Stebbing, *British Forestry*, p. 19.

¹⁰² *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 9.

¹⁰³ Hansard, House of Commons Sitting 8 April 1914, cols. 2039-2041.

¹⁰⁴ Stebbing, *British Forestry*, p. 11.

¹⁰⁵ *History of the Great War Based on Official Documents*, 1915 vol.2, p. v.

forestry, just as some green shoots of a much needed recovery were beginning to be seen. Once the high-level measures deemed necessary during the war have been further explored in the remainder of this thesis, it becomes apparent that post-war initiatives, such as the establishment of the Forestry Commission and regular British Empire Forestry Conferences, were a natural continuation of progress made prior to 1914. They were not an unprecedented diversion from the path forestry was already on or simply a direct result of the experiences and lessons of the war.

Several further conclusions particularly relevant to the central purposes of this work can also be taken as important contextual information for the following chapters. Due to historical lack of management the woodlands of the UK were small and in poor condition in terms of providing good quantities of quality produce. This neglect was largely due to overconfidence in the inexhaustible nature of the world's forests, especially those within the British Empire, and in the ability to ship sufficient quantities regardless of contexts such as war. Many recommendations and entreaties from government reports and private individuals had been made in the decades leading up to 1914. These were largely made because of, or based upon, economic, social and environmental lessons previously learned in imperial settings. The central facets of these pleas were for greater centralisation and control, improved and expanded education, training and research, increased afforestation on existing and new publicly owned lands, and financial incentives and practical advice to private landowners.

Little had been enacted in terms of centralisation, although several bodies can be seen as taking a lead in separate forestry matters, especially the Office of Woods, Boards of Agriculture, Development Commission and trade associations. Although a few small sites had been agreed or planted, mainly for research or water catchment reasons, very little had been achieved in regards to actual afforestation or production

capabilities that would have positively helped the work of the wartime HLOs. There had been improvements in the knowledge, education and training of forestry staff at all levels, giving a better human resources pool than would have existed several decades before. At the higher levels this included both professional and gentleman experts. However, experts such as William Schlich, Edward Stebbing, Lord Lovat, Sir Stirling Maxwell and C.W Bird all felt that in practical terms far too little had been done to improve the situation of home grown timber, and thus reduce reliance on exports, in the generations before the war.¹⁰⁶ A 1918 memorandum by such experts to the War Cabinet succinctly summarises achievements related to their pre-war and wartime appeals:

The result has been utterly disappointing. No advance has been made in the science or practice of forestry outside the Crown Woods...no coherent policy has been adopted, the work of afforestation has not even been begun.¹⁰⁷

Uses

Having confirmed the state of pre-war forestry, a brief section based on research undertaken at the very beginning of this project will try to achieve the very difficult task of illustrating the unprecedented number of vital uses this resource was needed for, and the massive quantities of it therefore suddenly and unexpectedly required. This information, in conjunction with examples of the poor state of UK woodlands and practices outlined above, demonstrates clearly why the urgent attention at high levels of the war effort investigated later in this study were so necessary, and why this topic is therefore so important to our understanding of the war and its effects. Even at a time when timber use was still an essential element of industrial and everyday life,

¹⁰⁶ Schlich, *Forestry in the United Kingdom*, passim; Stebbing, *British Forestry*, passim; Cd.8881 *Reconstruction Committee, Forestry Sub-Committee, Final Report*, pp. 4-13; TNA/CAB/24/39/19, 'Forestry Administration', pp. 1-4; TNA/CAB/24/42/89, copies with additional signatories, February 1918; TNA/BT/71/21, Bird, passim.

¹⁰⁷ TNA/CAB/24/39/19, 'Forestry Administration', p. 1.

the myriad of uses it would be put to during the war could not be predicted beforehand.¹⁰⁸

Nevertheless, from reasonably near the onset of war one of timber's major uses became apparent. Troop and war-workers' accommodation and washing, feeding, working and entertainment facilities, which millions would pass through, would have to grow from very small pre-war capacities, requiring huge supplies of timber.¹⁰⁹ Even after Nissen huts had become widely used by the end of 1916, temporary 'huts' of various types and designs were still in massive demand.¹¹⁰ Wood fuel sources, to heat homes, barracks and trenches were needed, especially as wartime coal prices rose. Branches, off-cuts, poor quality timber and charcoal all became increasingly important.¹¹¹

Mining, especially for coal, but also for other natural resources and under the enemy's defences was essential to the war effort and required vast quantities of wood in different forms. The vital nature of sourcing sufficient supplies of pit-timber necessitated a great deal of effort from HLOs, as will be seen throughout this study, and could have formed a PhD thesis as a topic in itself.¹¹² Trench systems would become an intricate network of thousands of miles of front, reserve and

¹⁰⁸ Hill, 'The Canadian Forestry Corps', pp. 300-1; Bird and Davies, *The Canadian Forestry Corps*, pp. 6, 34; Liulevicius, *War Land on the Eastern Front*, pp. 72, 95.

¹⁰⁹ *History of the Great War Based on Official Documents*, 1914 vol.2, pp. 17-18; *History of the Great War Based on Official Documents*, 1916, vol.1, p. 6; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 540; Nick Bosanquet, *Our Land at War: Britain's Key First World War Sites*, (Stroud: Spellmount, 2014), pp. 32, 33, 43; TNA/BT/71/21, Bird, pp. 2, 7.

¹¹⁰ *History of the Great War Based on Official Documents*, 1916, vol.1, p. 278; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 540 inc. fn 3; Bosanquet, *Our Land at War*, p. 37; Pritchard, *History of the Corps of Royal Engineers*, p. 566.

¹¹¹ *History of the Great War Based on Official Documents*, 1916, vol.1, p. 6; Maclean, *Farming and Forestry on the Western Front*, p. 96; Hansard, House of Lords Sitting 21 February 1917; Hansard, House of Commons Sitting 6 November 1918.

¹¹² *History of the Great War Based on Official Documents*, 1915, vol.2 pp. 31, 103 inc. fn 1, 252 fn 1, 253, 255, 257, 263; *History of the Great War Based on Official Documents*, 1916, vol.1, p. 286; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 575 fn 3; *History of the Great War Based on Official Documents*, 1917, vol.2, pp. 35-8; Hill, 'The Canadian Forestry Corps', pp. 300-1; TNA/LAB/2/1488/LE37858/110/1914 for 1914 fact finding mission to Canada and Newfoundland.

communications trenches, which although precedents had been seen in earlier wars none of the combatants had equipped themselves for constructing. They would require revetments, duckboards, supports for all types of dug-outs, ladders and millions of defensive picket posts and supports for barbed wire.¹¹³ The quality and quantity of timber required for a trench system depended on geographical conditions such as soil type and water tables, but demands for such wood ‘became prodigious’.¹¹⁴ Supply systems to these trenches, from sleepers and even wooden rails for heavy and light railways, to slab, plank or ‘half-round log’ roads of different types, and for bridges down to duckboard footpaths all required huge quantities of wood.¹¹⁵ Stebbing’s view as a professional forester in 1916 was that the amounts of timber being used to construct trenches and fortifications, as well as light railways, could contribute towards a serious post-war timber shortage in Europe.¹¹⁶

¹¹³ Cpt C.E.P. Sankey, ‘The Campaign of the Future’ in *The Royal Engineers Journal* (January, 1907), as quoted in *History of the Great War Based on Official Documents*, 1914, vol.1, pp. 376-79; *History of the Great War Based on Official Documents*, 1914, vol.2, p. 210; *History of the Great War Based on Official Documents*, 1915, vol.1, pp. vi, 5, 161; *History of the Great War Based on Official Documents*, 1915, vol.2, pp. 161-2, 226 fn 1; *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 284-5 for full descriptions; Schubert, ‘All Wooden on the Western Front’, p. 180; John Swettenham, *To Seize the Victory; the Canadian Corps in World War I* (Toronto: Ryerson Press, 1965), p. 76; Maclean, *Farming and Forestry on the Western Front*, pp. 97-98; G.S.O., *G.H.Q. Montreuil-Sur-Mer* (London: Philip Allan & Co., 1920), p. 140; Yann Hodicq, *Exploitation of Timber by the British Army in Northern France*, <<http://www.remembrancetrails-northernfrance.com/learn-more/the-rearguard/exploitation-of-timber-by-the-british-army-in-northern-france.html>> [accessed 18 February 2012], n.p; Tim Cook, *At the Sharp End: Canadians Fighting the Great War, 1914–1916*, (Toronto, Penguin Canada, 2007), p. 220-21, 233.

¹¹⁴ Maclean, *Farming and Forestry on the Western Front*, p. 96; *History of the Great War Based on Official Documents*, 1914, vol.1, p. 379; Schubert, ‘All Wooden on the Western Front’, pp. 180-1;

¹¹⁵ Hill, ‘The Canadian Forestry Corps’, pp. 300-1; Bird and Davies, *The Canadian Forestry Corps*, p.43; Liulevicius, *War Land on the Eastern Front*, p. 98; Andrew Rawson, *British Army Handbook 1914-1918*, (Stroud: Sutton Publishing Ltd, 2006), pp.108-09; *History of the Great War Based on Official Documents*, 1914, vol.1 pp. 210-211, 383; *History of the Great War Based on Official Documents*, 1914, vol.2 p. 398; *History of the Great War Based on Official Documents*, 1915, vol.1, pp. 82-83, 83 fn 1, 177; *History of the Great War Based on Official Documents*, 1915, vol.2, p. 317; *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 276-8; *History of the Great War Based on Official Documents*, 1917, vol.1, pp. 102, 131-3, 189; *History of the Great War Based on Official Documents*, 1917, vol.2, pp, 52, 185, 198, 213-218, (‘The Road and Track Communications’, extracted from a report of colonel E.F.W. Lees, D.S.O., R.E., C.R.E. Guards Division), 245-47, 324 fn 4, 328, 329, 340, 352.

¹¹⁶ Stebbing, *British Forestry*, passim, especially pp. 3-4.

A massive amount of timber and labour were especially required during preparations for, and advances following, an offensive.¹¹⁷ Engineer plans for the Arras offensive in early 1917 included for no fewer than twelve routes to the front to be kept in good repair. At the head of each would be stored enough planks and slabs to provide two five-mile extension roads, one up and one down, a total of at least one hundred and twenty miles of wooden roadway. For this at least 50,000 tons of timber were required.¹¹⁸ In August 1917 alone some 375,000 trench boards were sent to the front, enough to make 400 miles of duckboard paths.¹¹⁹ Brigadier-General Edmonds, author of many of the volumes of the *History of the Great War Based on Official Documents*, called the maintenance of new plank roads ‘the most important of the preparations for the forward move of most of the supporting artillery’.¹²⁰ From a forester’s perspective, however, even worse than the large amounts of timber especially harvested for such uses, was the use of young pole growth, or sapling woods, which were, especially in the earlier days of the war, ‘sacrificed wholesale’ to make corduroy roads.¹²¹

Fascines to aid tanks to advance were often essential. In preparation for the Battle of Cambrai, Chinese labourers used 400 tons of brushwood in constructing fascines.¹²² Maclean puts the total amount of brushwood required for fascines between May 1917

¹¹⁷ For just a few instances see Schubert, ‘All Wooden on the Western Front’, p. 181; Pritchard, *History of the Corps of Royal Engineers*, pp. 302-3; Cook, *At the Sharp End*, p. 475; Tim Cook, *Shock Troops: Canadians Fighting the Great War, 1917–1918* (Toronto, Penguin Canada, 2008), pp. 315, 327; Swettenham, *To Seize the Victory*, pp. 155-6, 186, 209; Rawson, *British Army Handbook 1914-1918*, p. 108; *History of the Great War Based on Official Documents*, 1914, vol.1, pp. 329, 333, 353; *History of the Great War Based on Official Documents*, 1914, vol.2, p. 398; *History of the Great War Based on Official Documents*, 1915, vol.2, pp. 11, 56, 97, 101, 110, 134, 226 fn 1, 231, 281; *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 277-8, 281; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 542 inc. fn 5; *History of the Great War Based on Official Documents*, 1916, Appendices, pp. 91, 102, 103, 120-1; *History of the Great War Based on Official Documents*, 1917, vol.1, pp. 52, 188-91, 294; *History of the Great War Based on Official Documents*, 1917, vol.2, pp. 176, 213-18, 245-6 fn 3.

¹¹⁸ *History of the Great War Based on Official Documents*, 1917, vol.1, pp. 188-9.

¹¹⁹ Pritchard, *History of the Corps of Royal Engineers*, p. 566.

¹²⁰ *History of the Great War Based on Official Documents*, 1917, vol.2, p. 282.

¹²¹ Stebbing, *British Forestry*, pp. 3-4.

¹²² *History of the Great War Based on Official Documents*, 1917, vol.3, pp. 14-15 fn 2.

and November 1918, for smaller versions required in trench repairs as well as for those carried by tanks, at 85,098 tons.¹²³ Packing cases were also a common and well-discussed use, most noticeably in terms of ammunition, with the Ministry of Munitions often fearful of running out, but for many other products too.¹²⁴ Wood for packing cases, like pit-wood, could form its own study, as could aircraft timber supplies, Admiralty uses and paper-pulp.¹²⁵ There were countless other uses, including rifle stocks, tool handles and many other RE supplies. Even the resultant shortages of particular types of timber for beehives was recognised as important during war.¹²⁶ It can undoubtedly be argued that without constant and extremely high levels of use of wood the war would not have developed as it did, and the war effort could not have been maintained. How this supply was maintained, therefore, deserves a thorough examination.

Chronology of use levels, recognised shortages and contextual events.

Astounding as many figures cited in the sources are, it should be noted that, as explained earlier, exact amounts felled, purchased, shipped or used in numerous forms are extremely difficult to determine accurately for many periods of the war. A factor explaining this uncertainty was the urgent need and resultant lack of record-keeping in the early weeks and months on the Western Front, where wood was collected locally

¹²³ Maclean, *Farming and Forestry on the Western Front*, p. 98.

¹²⁴ Hansard, House of Commons Sitting, 20 February 1918, col. 741; Hansard, House of Commons Written Answers 2 April 1917, col. 955; Hansard, House of Commons Written Answers 25 May 1917; Hansard, House of Commons Written Answers 7 June 1917.

¹²⁵ TNA/CAB/24/13/73, 'Letter from the Ministry of Munitions to the Secretary of the War Cabinet' 19 May 1917; TNA/CAB/40/24, Notes on Meeting of the Timber Allocation Committee, 28 February 1918; TNA/DSIR/23/977, for the Aeronautical Research Council, aircraft timber, Jan-Dec 1917; TNA/AIR/1/2427/305/29/1053, Air Ministry Publications, 'A.P.1053: Tests on home grown timber' October 1918; TNA/MUN/10/30, Ministry of Munitions Department of Aircraft Production 'Technical Department Bulletins, Tests on Home-Grown Timber', September 1918; Hansard, House of Commons Sitting, 20 December 1915; Hansard, House of Commons Sitting, 23 May 1917; Hill, 'The Canadian Forestry Corps', pp. 301-2; Stebbing, *British Forestry*, p. xix; TNA/BT/71/21, Bird, p.1

¹²⁶ Hansard, House of Commons Written Answers, 1 August 1917, col.2109.

by troops for many roles. General shortages, perhaps due to urgent needs in different parts of the front or geographical differences, meant very differing supply levels at various times. Furthermore, as shall be seen in the subsequent chapters, many different bodies were responsible for obtaining this material, for many different end uses and users, and utilising different sources and methods to do so. Unfortunately Royal Engineer and Quartermaster-General's records do not keep separate records of timber stocks. Instead, for much of the war these were included under general terms such as 'engineering stores'. However, Major-General Pritchard, in his *Official History of the Royal Engineers*, states that of the massive amounts of engineering stores that were required for the Western Front approximately seventy-five per cent were either timber, or articles including a timber element.¹²⁷

Yet, even without exact figures and totals a chronological run through of some of the usage levels and periods of shortage concerns related to the forestry efforts will help to give a contextual overview of the levels of timber supply throughout the war. It will also introduce some of the important events affecting the organisations and their methods which are analysed in subsequent chapters.

Few figures can be located for 1914 timber usage. The Western Front was only starting to develop its great thirst for wood, and the true material scale and potential length of this war were yet to be realised by most. As will be seen, fears were raised with regards to stocks of mining and hutting timber on the Home Front. However, little seems to have been raised in regards to concerns from the BEF, who clearly had other pressing issues to deal with, or by other government departments at this stage. Concerns regarding hutting timber in the UK certainly continued into early 1915

¹²⁷ Pritchard, *History of the Corps of Royal Engineers*, p. 78.

amongst claims that poor quality timber was being used for troop accommodation.¹²⁸ Complaints were also made regarding trees being felled unofficially by troops during their training, as official supplies were not adequate. This was for various uses but especially fuel.¹²⁹ The *History of the Great War Based on Official Documents* creates a confused picture for the wood situation in France and Belgium in early 1915. It states that materials for construction of revetments, dug-outs and obstacles were often lacking, but later on that timber was amongst the supplies that were available in plentiful amounts.¹³⁰

Throughout 1915 few records of actual usage were kept, but by August at least estimates of monthly requirements were being produced. The August estimate amounted to a total of 8,000 tons; 4,000 for firewood, 2,000 for poles and pit-props and 2,000 tons of sawn timber for planking. As Maclean states, these are surprisingly low figures.¹³¹ However, it seems very likely that at the same time as such estimates were being sent by GHQ to the War Office in London, the RE Director of Works and the Army Service Corps in France were also obtaining timber from the French Forestry Authorities and private landowners. Throughout 1915 orders from both the RE and Army Service Corps to French authorities rose from 3,800 to 12,000 tons per month.¹³² Earlier concerns over threats to merchant shipping had reduced by summer 1915, the Germans fearful of forcing the USA onto the Allied side, and overall the situation for most forms of wood seemed under control.¹³³ This suggests that in regards to timber,

¹²⁸ Hansard, House of Commons Sitting 8 and 9 February 1915.

¹²⁹ Hansard, House of Commons Written Answers, 10 March 1915.

¹³⁰ *History of the Great War Based on Official Documents*, 1915, vol.1, pp. 4-6.

¹³¹ Maclean, *Farming and Forestry on the Western Front*, p. 96.

¹³² Pritchard, *History of the Corps of Royal Engineers*, p. 559.

¹³³ Dewey, *British Agriculture*, p. 26; Cook, *At the Sharp End*, p. 524.

business could remain largely ‘as usual’ up to the beginning of 1916, as has been argued for other resources, industries and businesses up to mid/late 1915.¹³⁴

Whilst during 1916 thoughts also turned more officially to the post-war situation, as illustrated by the establishment of the Reconstruction Committee in this year, and its Forestry Subcommittee in July, the priorities of the HLOs remained the obtaining of supplies from any possible sources as usage grew dramatically and shipping space was increasingly restricted from the middle of this year onwards.¹³⁵ However, some evidence of growing concerns, and perhaps forethought, can be seen at the start of 1916 as requests started being sent by the British to Canadian Government for units of lumbermen to be raised. As will be seen in chapter 4 these were to continue and increase in terms of numbers requested as 1916 dragged on. By mid-1916 the submarine threat had receded, yet shortages in building and other forms of timber in the UK led to high-level concerns and price rises. These created parliamentary debate and even persuaded the Treasury to allow the War Office and Ministry of Munitions to build homes for their employees that used concrete instead of timber.¹³⁶ Furthermore there were, for the first time, discussions in May 1916 regarding supplies reaching the Western Front beginning to lag behind demand. However, as will be discussed in more detail in chapters 3 and 4, this was largely due to the strain being placed on transport networks to the front and on labour for cutting and converting

¹³⁴ For instance see David French, ‘The Rise and Fall of Business as Usual’, in Kathleen Burk (ed.), *War and the State: The Transformation of British Government, 1914-1919* (London, George Allen & Unwin, 1982), passim, especially see pp. 7, 8, 11, 19-20, 22-28 with regards to the engineering and agricultural industries, and businessmen in general, as well as how much was allowed to continue without intervention up to mid-1915; Arthur Marwick, *Britain in the Century of Total War: War, Peace, and Social Change, 1900-1967* (Harmondsworth, Penguin Books, 1970), pp. 66-67; Dewey, *British Agriculture*, passim.

¹³⁵ Cd.8881 *Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 3.

¹³⁶ Mark Swenarton, *Homes Fit for Heroes: The Politics and Architecture of Early State Housing in Britain*, (London: Heinemann Educational Books, 1981), pp. 58-9; Hansard, House of Commons Sitting 14 August 1916; Dewey, *British Agriculture*, p. 32.

wood, as well as more supplies needing to be diverted to the French Army.¹³⁷ In correspondence through May requests were made to increase the auxiliary Army Service Corps Horse and Motor Transport Companies at the Rouen Base, for the purpose of transporting timber. From the area around this base 12,000 tons of timber was being sent each month by rail to the front, with a further 16,000 tons being cut and stored at Rouen. However, it was estimated that by July this amount would have increased to 25,000, and by November 1916 to 54,000 tons per month to be taken from forests near Rouen. This could be broken down into 21,000 tons of fuel, 18,000 tons of defence timber, 15,000 tons of sawn timber.¹³⁸ This represents a considerable increase from the estimated total of 8,000 tons of requirements of August 1915, and illustrates GHQ's concerns regarding the labour and transport that would be required to utilise French forests to obtain their growing forestry produce requirements.¹³⁹ Further evidence of the concerns over timber supplies in mid-1916 comes from the French Minister of War, writing in June, that thanks to the realisation of the importance of the work and the CFC's 'professional efficiency' already witnessed in Britain and France, he was sure the CFC would succeed in either making up the deficiency of lumber, or at least alleviating it.¹⁴⁰

Regardless of GHQ's efforts, Edmonds states that in preparations for the Battle of the Somme, beginning 1 July 1916, the supply of timber was at no stage sufficient.¹⁴¹ Timber for many purposes had to be obtained either by purchase from French firms or by units cutting what they required in local woods and forests.¹⁴² The

¹³⁷ TNA/WO/95/30, App.5.A.V, letters Commander-in-chief to Secretary War Office, 9 and 20 May 1916; TNA/BT/71/21, Bird, p. 2.

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ As paraphrased in Bird and Davies, *The Canadian Forestry Corps*, p. 35.

¹⁴¹ *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 284-5.

¹⁴² Ibid., p. 279.

HLOs noted shortage concerns over the summer, shipping losses increasing sharply again from September, yet it can once again also be seen that different experiences were had by different units within a short time span.¹⁴³ This can be explained by different supply issues and prioritisations to different geographical areas of the front. Some noted that there ‘was sufficient timber available for building log, slab and plank roads’ from October 1916 onwards, yet elsewhere it is claimed that by the end of the year timber for plank and slab roads was becoming scarce again, although this was partly due to their growing popularity.¹⁴⁴

In total, by the end of 1916 the War Department was being asked to provide the British Army in France, and ordnance services in the UK, with an estimated 21,600 tons of wood fuel, 141,000 railway sleepers, 30,000 pickets, and some 14,160 standards, or 46,728 tons, of various types of prepared timber; all on top of the 35,000 tons a month of forestry products that the Army was already producing for itself in France.¹⁴⁵ Usage levels clearly rose throughout 1916, at the same time as the army’s logistics and labour services were under increasing strain, and the German strategy of unrestricted submarine warfare was about to be unleashed. These increases and shortage concerns also came at the time that many were accepting that the war would now be a drawn out conflict consuming unprecedented resources of all kinds, especially following the failure to achieve a decisive breakthrough on the Somme. The first BEF monthly conference specifically on timber supplies took place on 1 September 1916 to estimate monthly requirements, also discussing the possibility of using coal instead of wood for fuel that winter to save nearly 30,000 tons of imports.

¹⁴³ Bird and Davies, *The Canadian Forestry Corps*, p. 35; Dewey, *British Agriculture*, p. 32; Swettenham, *To Seize the Victory*, p. 136.

¹⁴⁴ *History of the Great War Based on Official Documents*, 1916, vol.1, p. 277 fn 2; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 542.

¹⁴⁵ TNA/WO/95/31, App IX 50, letter and Schedules of Timber Requirements, Commander-in-chief to Secretary War Office, 5 September 1916.

It was felt unlikely that enough coal could be obtained from French mines but the QMG was to approach the French anyway, as quantities of wood for fuel were lacking whilst savings in import tonnage were still required.¹⁴⁶ The army's estimated November 1916 requirements were now 65,000 tons, and Brown says timber supplies were still a grave concern in December 1916.¹⁴⁷

Furthermore into 1917 the concerns growing from mid-1916 worsened due to even further shipping losses. On the 1 February the Germans began unrestricted submarine warfare, paralysing timber imports from Scandinavia. Steadily increasing losses between February and April led Sir John Jellicoe, the First Sea Lord, and others to predict a British collapse if sinkings continued at these rates. Yet the crisis continued, peaking in the late summer before the convoy system was introduced on a general scale in October 1917, after which losses began steadily to reduce.¹⁴⁸ Further good news for the Allies had come earlier, on 6 April 1917, just two months after Germany began unrestricted submarine warfare, when America declared war on Germany partly because of the U-Boat campaign.

Although the Board of Trade started a survey of timber stocks in the hands of private merchants at the end of 1916, see chapter 3, which had shown reasonable quantities available, they were still very concerned about a timber 'famine,' and by May 1917 the position was 'critical', leading to delays, cancellations and unemployment in war-related construction works around the UK.¹⁴⁹

¹⁴⁶ Brown, *British Logistics*, p. 133.

¹⁴⁷ Ibid; TNA/WO/95/30, App.5.A.V, letter Commander-in-chief to Secretary War Office, 20 May 1916.

¹⁴⁸ TNA/BT/71/21, Bird, p. 3; Swettenham, *To Seize the Victory*, pp. 151, 152, 180, 181, 193; Burton Hendrick, *The Life and Letters of Walter H. Page, Volume 2* (London: William Heinemann Ltd, 1923), pp. 273-294; Cook, *At the Sharp End*, p. 524; Cook, *Shock Troops*, p. 310; Turner, *British Politics*, p. 211.

¹⁴⁹ TNA/BT/71/21, Bird, pp. 3, 33-4, 48; Hansard, House of Commons Written Answers 17 May 1917; Hansard, House of Lords Sitting 17 May 1917, col. 181; Hansard, House of Commons Sitting 12 June 1917 cols. 1771-2; Hansard, House of Commons Written Answers 16 July 1917, col. 46;

The Directorate of Timber Supplies (War Office) concluded on the 15 May 1917 that the monthly consumption of wood for war needs by the major government departments, added to the monthly amount needed to be shipped from the UK to the army on the Western Front, amounted to 214,300 tons (195,000 tons of softwoods, 19,300 tons of other woods).¹⁵⁰ However, at this time home grown timber production from various sources totalled just 75,000 tons, leaving a deficit of 139,300 tons per month. Furthermore, quantities of imports, mainly from Norway and Sweden in neutral ships, would be very low. Therefore the existing stocks of imported softwood would ‘hardly outlast the end of June’.¹⁵¹ Shortages were also causing delays on the Western Front. It has been argued that a pause of nine days in the advance of the Third Army at the earlier Battle of Arras in April was due to insufficient stockpiling of timber slabs and road metal, on account of the prioritisation of transport of artillery ammunition over engineering stores.¹⁵² This again led to Army REs cutting down as much timber as possible in their own areas. However, Third Army supplies were still short, whilst in First Army’s area a good supply of sleepers and slabs were being provided.¹⁵³ Even with such local discrepancies during major offensives noted, the Commander-in-chief Field Marshal Haig felt that by September 1917 ‘the Army had become practically self-supporting as far as regards timber’, with over three-quarters

Hansard, House of Commons Sitting 26 July 1917, cols. 1433-4; Hansard, House of Commons Sitting 8 August 1917; Hansard, House of Commons Written Answers 7 November 1917; Hansard, House of Commons Written Answers 14 February 1918; Hansard, House of Commons Sitting 7 March 1918; Congested Districts Board for Ireland, *Cd.9139 (1918), Twenty-sixth report of the Congested Districts Supplies Board, of proceedings under the Congested Districts Board (Ireland) Acts, 1891-1909*, pp. 6, 11; Swenarton, *Homes Fit for Heroes*, pp. 48-49, 51, 58-9 and correspondence between Treasury and War Office in July-August 1915, PRO T161/68 s5222/2 (from Swenarton, *Homes Fit for Heroes*, p.201 endnote 9).

¹⁵⁰ Admiralty and Controller of Shipping, Air Board, Ministry of Munitions, War Office, Office of Woods, and for maintenance of railways in Britain; no civilian uses included.

¹⁵¹ TNA/CAB/21/80, note and estimates from Bampfylde Fuller, Director of Timber Supplies (War Office), to Captain Clement Jones, secretary to Lord Curzon’s Committee, 15 May 1917.

¹⁵² *History of the Great War Based on Official Documents*, 1917, vol.1, pp. 190-1, 546-7.

¹⁵³ *Ibid.*, pp. 190, 295, 547.

of a million tons of timber being supplied for use of the British Army by forestry units between May and October.¹⁵⁴

Furthermore, Chief Engineers at different levels were still blaming transport difficulties, and occasionally poor relations with units either side of them, for local shortages rather than stocks.¹⁵⁵ The monthly average amount of timber delivered to RE timber yards during 1917 was 51,000 tons; however by the end of the year monthly deliveries to these timber yards were 75,000 tons with an additional 25,000 tons delivered to transportation store yards, illustrating a large increase in supply during the year.¹⁵⁶ As shall be seen, this can be put down to the efforts of the HLOs and the forestry units they put to work in France.

The rapid increase in use of French timber during 1917 and subsequent gradual easing of the overall supply situation continued in 1918. Some figures for the final year of the war equated to a staggering average of 5,479 tons of construction timber from French forests being used per day by the British Army.¹⁵⁷ This period, it should be remembered, also including disruptions to some forestry operations by the German offensives of spring 1918 and then relatively mobile warfare over unbroken ground during the final Allied advance. Urgent demands for large quantities of timber were still being passed to forestry units in France and Britain during 1918, but a lack of evidence of timber shortages during 1918 strongly suggests that the measures put in place by the HLOs worked.¹⁵⁸ Furthermore, the official statistics of the military effort of the empire, released by the War Office and including some figures on timber supply

¹⁵⁴ Sir Douglas Haig 'Passchendaele Despatch' as quoted on <www.1914-1918.net> [last accessed 17 February 2012]; 'Haig's Despatches', p. 144, as paraphrased in Nicholson, *Canadian Expeditionary Force*, p. 500.

¹⁵⁵ *History of the Great War Based on Official Documents*, 1917, vol.2, pp. 215-16.

¹⁵⁶ Pritchard, *History of the Corps of Royal Engineers*, p. 566.

¹⁵⁷ Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p.

¹⁵⁸ Library and Archives Canada (LAC), LAC.RG9-III-D-3.Vol/box:5018.File:765. War diaries, No.54 District, CFC, 1917/04/10-1919/05/23, 125 Company, March 1918.

by various government bodies, indicate that whilst import amounts decreased rapidly between 1916 and 1917, home grown timber production increased impressively in the same timeframe, see table below.¹⁵⁹

<u>YEAR</u>	<u>IMPORTS to UK (Tons)</u>	<u>Estimated home grown timber production (Tons)</u>	<u>Totals (Tons)</u>
1913	11,589,811	900,000	12,489,811
1914	8,432,646	900,000	9,332,646
1915	7,665,524	900,000	8,565,524
1916	6,318,872	1,000,000	7,318,872
1917	2,875,143	3,000,000	5,875,143
1918 (Estimated)	2,400,000	4,250,000	6,650,000

Although total amounts did not reach 1913 levels during the war it must be remembered that unnecessary building and industrial processes would not have obtained permits to purchase timber, see chapter 3. Also, military forces in France were producing large quantities, especially from 1916 onwards, which reduced amounts needing to be shipped from the UK, or imported directly to France from Scandinavia, the US or Canada.

Conclusions

This chapter has illustrated that wood supplies were unquestionably one of the munitions of the First World War but that unfortunately Britain's woodlands were so depleted, at somewhere between just four to six per cent of the total land surface of

¹⁵⁹ The War Office, *Statistics of the Military Effort of the British Empire During the Great War 1914-1920* (London, 1922; Reprinted by The Naval & Military Press Ltd, Uckfield), pp. 717-18.

the country, one of the worst averages in the world, the average in Europe being around twenty-five per cent. Maintaining supplies would be difficult if imports levels were affected.¹⁶⁰ The nation had no real home grown timber industry and was still far too reliant on imports, even as world supplies were not being adequately replenished and prices were steadily increasing. Forestry organisations had started to make some progress in regards to training more personnel, but it can be seen that at such an early stage of development it was mainly to the empire, especially India or Canada, that the nation would have to turn for experienced foresters and woodsmen. However, by the end of the war the CFC alone would be producing in France and Britain an annual amount equivalent to the 11.5 - 11.6m tons that the UK was importing annually before the war, solely for military and war industry-related purposes.¹⁶¹

It can be seen that records for 1914 and 1915 are relatively sparse but that timber use grew as the Western Front solidified, large offensive operations attempting to break it began, and the industrial efforts to supply such a war increased. This increase continued into 1916 when the worst of the shortages were felt on the Home and Western Fronts, especially after shipping space issues were compounded by the German submarine campaign. The end of 1916 into 1917 therefore saw the beginning of firm official measures to address concerns over both immediate and post-war supplies of timber, and 1917 and 1918 saw usage continue to grow, while supplies began to catch up thanks to the initiatives of the HLOs to improve self-sufficiency. The details of how this was achieved will be investigated throughout the remainder of this thesis.

¹⁶⁰ Schlich, *Forestry in the United Kingdom*, p. 17 (4% of UK dry land under Woodlands); Stebbing, *British Forestry*, p. 15 (4%); TNA/BT/71/21, Bird, p.1 (4%); E.G Richards, *British Forestry in the 20th Century*, p. xvii (6%).

¹⁶¹ Hill, 'The Canadian Forestry Corps', Appendix 2, p. 302.

Chapter 2: The High Level Organisations (HLOs); Establishing and Structuring.

Due to the state of pre-war British forestry, the many vital wartime uses of wood that would emerge, the unprecedented volumes these would require, and the difficulties that would be encountered in shipping during the war, major administrative and management changes would be needed. This chapter will illustrate the important alterations made in regards to the HLOs central to the effort, to improve efficiency as the major political and military contexts of the war changed. It will outline the reasons for involvement, establishment or reorganisation of all the main forestry and timber trade organisations, alongside important high-level personnel and main roles expected of them. The central arguments that appear from these themes are that, in such unprecedented circumstances, common sense prevailed in managing this effort. Reorganisations were carried out when recognised as necessary to improve efficiency, administration was not overly bureaucratic, high level positions were staffed by appropriate civilian experts from the outset, and although environmental concerns were considered, they were much less of a priority than obtaining necessary quantities. Furthermore, as with other resources, late 1916 to mid-1917 marked a clear shift in policy under Lloyd George's coalition government that markedly increased centralisation and control over management of vital industries such as forestry.

The roles and measures that these HLOs would have to undertake were wide and varied, and will be covered in detail in chapter 3, but the major categories included determining overall requirements, establishing existing stocks, securing additional quantities through purchasing or producing wood and timber from varied domestic and foreign sources, placing controls on uses, sales, shipping, and prioritising and allocating those supplies obtained. However, this plethora of solutions required input

from numerous government and military departments, as well as sections of civilian trades and the forestry profession. Bird, in both his co-authored book on the CFC and his unpublished work on the overall timber effort, paints a very rosy picture of the achievements of, and relations between, those managing timber supplies, and on the whole this will be seen to have been accurate.¹ However, this would not be a simple task, without any errors, confusion or duplication. Throughout the war many bodies had to press their cases for securing available supplies, or funds for timber, with various controlling bodies and the Treasury. Those requiring major levels of supplies included the Boards of Agriculture, Board of Trade, Office of Works, War Office, Admiralty, Air Boards then Ministry, and Ministry of Munitions. Priorities between them naturally altered as the war progressed, but demands generally grew.

Therefore, a great deal of thought, consultation, coordination and restructuring were essential to retain or improve efficiency in the HLOs responsible for supplying these end-users. Subsequently the bodies controlling access to wood supplies expanded, changed in terms of number, names, responsibilities and powers, or occasionally ended and were replaced in their work by another HLO. Trying to follow the details of these administrative changes can be extremely confusing and at times incomplete in terms of the overall management, in a historiography generally concentrating on other facets of the war. This chapter, whilst illustrating the conclusions stated above regarding good administration and use of expertise, also therefore provides an overview to clarify exactly what HLOs became responsible for different roles and the thinking and actions that took place to structure the management of forestry supplies.

¹ TNA/BT/71/21, Bird, *passim*.

A short contextual section on the perceived British love of bureaucracy and Lloyd George's approach to centralisation and use of civilian experts from late 1916 in other areas of the war effort provides a base for the chapter. Then, although seemingly simplistic, it has been found that the most effective method to achieve the aims is to review the reasons behind the use or establishment of the forestry HLOs, and their central intended roles, in a chronological order. However, a strictly chronological review is in no way possible due to the complex lifespans, interactions and occasional duplication of roles amongst the HLOs. Therefore this section has been sub-divided into those HLOs mainly concentrating on either purchasing, producing, overseeing all aspects of the effort as centralisation increased, those allocating timber obtained, and finally the bringing together of various relevant bodies in France and Belgium under the new Forestry Directorate. Each of these categories will be outlined in chronological order.

Following this overview of the establishment and central roles of the main HLOs, sections will further illustrate further central arguments. These will include examples of the continuity of high level staff between these organisations, the sensible structural alterations made within them as required, environmental concerns raised at the time, contemporary praise they received, and statistically based examples of their achievements. Throughout this structure, as well as detailing those HLOs involved in the effort, it will be seen that as far as possible the structuring, then restructuring, of the HLOs were carried out for specific and valid reasons given the changing wider contexts of the war, and as such lesson were learnt and acted upon. The administration of the effort was not overly bureaucratic as the British war effort has at times been accused of, see paragraph directly below, although it can easily appear so at times. That both of these positive features were in part due to a continuity in use of high level

staff, most of whom had been pre-war forestry experts, and that aided liaison and knowledge exchange. Finally, although environmental concerns were raised, they had to play ‘second-fiddle’ to the war’s needs.

Context - Establishing, Structuring, Liaison and Specialists in HLOs during the war.

It can be argued that a love of bureaucracy and committees to advise committees exists in today’s British Government and Civil Service. Similar arguments were made by contemporaries during the war, and by historians since. Whether in munitions, housing, agriculture, administering Dominion troops in Britain or numerous other areas, ideas, opinions and decisions went back and forth between Cabinets, Ministries, Departments, the War Office, Controllers, committees, different committees, subcommittees, and advisory or consultative committees. Often, but not always, these contained correctly skilled officers or members. However, a sense of confusion and duplication was understandably occasionally created.² This view of over-bureaucracy is also often associated with increased government intervention following Lloyd George coming to power in December 1916. Intervention and levels of control through numerous ‘Controllers’ and a small War Cabinet, at times seemingly having executive powers over the war effort, was seen as dangerous by some, preventing the House of Commons from exercising control and creating confusion and loss of confidence within it.³

Beginning any new organisation or project is going to be administratively arduous, but especially if established urgently under such trying circumstances. As Tim Cook

² Turner, *British Politics*, pp. 87, 110, 223, 375; Dewey, *British Agriculture*, passim, for instance pp. 23-28, 70-71, 29-91; Swenarton, *Homes Fit for Heroes*, pp. 77-78; Cook, *Shock Troops*, p.46.

³ As one example of a feeling of too much in the way of appointing ‘Controllers’, including the Timber Controller, see Hansard, House of Commons Sitting, 20 February 1917, cols. 1177-8. Mr Ponsonby made the case that even before the war there had been a growing tendency to divorce the Executive from the Legislature, especially in regards to the House of Commons.

argues, regarding the chaotic situation administering Canadian troops in England early in the war, inefficiency can be expected in ‘any department established in the panic of war’.⁴

Such complex situations were often not helped by mistrust between political, military and trade leaders.⁵ The most shocking civilian administrative errors, Turner illustrates, were due to poor communications. These were made worse when ministries or strong ministers refused to co-ordinate with, or poached experts from, others.⁶ One answer to such communication issues, favoured by Lloyd George and others, such as the controversial Canadian Minister of Militia Sir Sam Hughes, was to put stronger personalities, men of ‘push and go’, in overall charge to improve efficiency.⁷ Yet these men would still require some expert advice before decisions could be sensibly made and it became increasingly clear that as supplying the war became more of an all-encompassing business, the way to win was to ‘employ business specialists’.⁸ As shall be seen, this policy was widely applied in terms of both the civilian and military forestry efforts and aided communication and therefore the success of measures such as redistribution of responsibilities and centralisation of overall management, whilst decentralising important local roles as much as possible. Such measures were also recognisable in agriculture and wider political reforms as the war continued.⁹

⁴ Cook, *Shock Troops*, p. 46.

⁵ Turner, *British Politics*, p. 110.

⁶ *Ibid.*, pp. 110-111.

⁷ Dewey, *British Agriculture*, pp. 96-99; Kenneth O Morgan, ‘George, David Lloyd, first Earl Lloyd-George of Dwyfor (1863–1945)’, *Oxford Dictionary of National Biography*, Oxford: OUP, 2004. Online ed. Ed. David Cannadine. May 2011, <<http://www.oxforddnb.com/view/article/34570>> [accessed 13 Aug. 2017]; LG to WHP, as recounted in WHP’s notes and as quoted in Burton Hendrick, *The Life and Letters of Walter H. Page, Volume 2* (London, 1923), p. 259; SLMSC, *Records of the Massachusetts Committee on Public Safety & its Executive Committee February 10 1917 to November 20 1918, Box 1, ‘Meeting of 19 February 1917’*, pp.30-1.

⁸ SLMSC, *Records of the Massachusetts Committee on Public Safety & its Executive Committee February 10 1917 to November 20 1918, Box 1 ‘Meeting of 19 February 1917’*, pp.30-1.

⁹ Dewey, *British Agriculture*, pp. 96, 97, 99; Turner, *British Politics*, pp. 110-111.

A turning point in the overall British administration of the war was clearly reached at the end of 1916. Political changes began in May 1915 when Asquith's coalition cabinet and War Committee proved 'largely paralysed' in terms of decision-making through personal and political differences.¹⁰ Some had realised that this would be a long war. Kitchener as Secretary of State for War saw this from the outset, and from at least September 1915 he and the new CIGS, Sir William Robertson, agreed that victory could only be achieved through attrition, the exhaustion of the enemy's resources of men and munitions before their own.¹¹ However, many in political and military power did not see this until well into 1916, so financially 'vigorous cooking of the books' continued in the hope that a victory could be quickly achieved during 1916.¹² Furthermore, 1916 then became a year largely of negative events, in military terms on the Somme, in the Middle East and in Eastern Europe, and there was also alarm at the Easter Uprising in Ireland. Military conscription had been introduced in stages in January and June, and a poor harvest led to fears of food shortages, also aggravated by the threat of increased submarine actions. Britain's financial strength was drained by purchases of munitions from the USA and by the end of the year authorities feared that a run on sterling would bring the war to an end on unfavourable terms, or even defeat.¹³

Since October 1915 Lloyd George had led 'a critical minority' demanding reconstruction of the government's machinery for taking decisions and the reassertion of civilian control over strategy. They wanted to enforce controls on military and civilians alike. However, it was the parliamentary crisis at the end of November 1916, due to the factors above, which enlarged his following. Surprisingly, the political

¹⁰ Turner, *British Politics*, pp. 94-103, 112-151.

¹¹ *Ibid.*, p. 95.

¹² *Ibid.*, pp. 82, 83, 109, 127-8.

¹³ *Ibid.*, pp. 5, 126.

‘revolution’ was confined to the highest levels. Asquith was levered out of office on 6 December by Lloyd George and a new coalition government presented to the House of Commons. Except for expressing ‘disgruntlement’ at the previous government’s handling of the war the House of Commons had played little part in the ‘conception’ of this new government and was therefore bewildered, although the public seemed to accept it calmly.¹⁴

The coalition abandoned the full Cabinet and established a smaller War Cabinet of five Ministers, who agreed with Lloyd George on major issues, and took supreme powers of decision in matters of the war. They would be supported by a number of new ministries to control vital economic functions. The new War Cabinet met almost daily under Lloyd George’s chairmanship, and in theory they only had to deal with major decisions due to the power delegated to those in charge of the new ministries. In practice, however, the War Cabinet held larger and larger meetings and after the spring of 1917 began to delegate its work to subcommittees and individual members, never achieving the desired ‘compact supreme executive body’ ideal, and improvements through the ministries often took many months to show.¹⁵ However, as will be seen forestry, was included within the new coalition’s aims to take tighter control over and improve efficiency over vital facets of the war effort through centralisation of roles and control measures.

The HLOs; establishing the management structures.

This section will provide the context and thought processes behind the numerous changes in forestry related HLOs during the war. It will show that although there was some confusion or duplication such instances were relatively quickly recognised and

¹⁴ Ibid., pp. 5, 6, 121, 126.

¹⁵ Ibid., pp. 6, 153.

corrected. The main measures to correct them generally existed of the relevant parties discussing the issue, and reorganising the bodies that managed them to clarify both responsibilities and administrative lines of communication. It will also include very brief descriptions of their key roles, but details of these will be seen in chapter 3 when illustrating the main methods used by these HLOs.

Purchasing

Efforts to secure purchases of timber or wood clearly competed with those to secure many other natural and manufactured resources, with supplies often being required urgently and in unexpected amounts. As with any original undertaking, trial and learning from error was required, yet it was the existing timber trades that contained much of the expertise that could help. The Timber Trade Federation included agents, brokers, merchants and timber firms, either with or without their own yards, representing thousands of members in distinct geographical or business-type branches.¹⁶ They clearly had a large role to play, not only supplying timber but also having expert representatives to work in or advise the relevant HLOs.

Questions facing the Timber Trade Federation in the months before war broke out included some general issues that the war would greatly affect, such as workers' rights and issues following the National Insurance Act (1911). With regards to statistical revisions, the federation worked with the Board of Trade on returns regarding imports of wood. In transport, they engaged with the Royal Commission on railways to address issues such as delays, charges and the carriage of short lengths of timber. The London Section continued to protest to the Port of London Authority about the inadequate accommodation at the docks for timber cargoes. Issues regarding where sources were being imported from were also considered, including standard forms of contract for

¹⁶ TNA/BT/71/21, Bird, pp.4-5.

Swedish, Norwegian and Finnish purchases, but also looking to the ‘New World’ in terms of freight charges to and from Canada. There were also concerns about the proposed Ministry of Lands.¹⁷ All of these areas, labour, transport, and import sources would be of paramount importance to the wartime forestry effort, and there was clearly a resource of specialists in administering these to whom government could turn.

Although war was bound to be difficult for most sections of the trade, due to loss of labour and increasing levels of controls, it expressed early on a desire ‘to place its resources and its experience in so important a matter as the supply and control of the distribution of Timber at the service of His Majesty’s Government’. This was a pledge they repeated in October 1917, adding that the trade ‘assures His Majesty’s Government of its wholehearted desire to cooperate in measures for bringing the present War to a definite and victorious conclusion’.¹⁸ As discussed in chapter 3 they did manage to apply considerable pressure in deciding and altering some control measures, and from 1915 the Executive Committee also exercised a general administrative control over the Timber Trade Federation work, based on sectional reports and therefore resembling the structure adopted by Lloyd George’s coalition in December 1916.¹⁹

In August 1914, however, the main governmental bodies concerned with forestry in the UK were, as shown in chapter 1, the Office of Woods managing the Crown’s Forests, the various Boards of Agriculture, and the Development Commission which was technically responsible for increasing lands under forest on behalf of the State. However, in terms of product use the Board of Trade can be said to have had an overall

¹⁷ Latham, *History of the Timber Trade Federation*, pp. 60-1.

¹⁸ Resolution no.1 of Timber Trade Federation meeting, 17 October 1917, as quoted in Latham, *History of the Timber Trade Federation*, p. 68.

¹⁹ TNA/BT/71/21, Bird, p. 5.

responsibility for the timber requirements of the nation through its dealings with the commercial trade.²⁰ The Office of Works purchased timber for the government and army, and several other government departments, including the Admiralty, purchased their own wood directly for specific requirements. Furthermore, the mining industry in particular relied heavily on obtaining its own imports of pit-wood.²¹ It is clear that there was no central body that could immediately manage the overall supply effort. However, the Office of Works, Board of Trade and mining industry all recognised early on the urgent need for special measures to secure supplies.

From October 1914, the Office of Works purchased large amounts of imported timber, and established their own timber purchasing section.²² At first, the Treasury found it hard to persuade departments such as the War Office to use the Office of Works.²³ However, as late as 1916 they were still the largest governmental buyers of construction timber, and were still suggesting schemes for more satisfactory purchasing and distribution arrangements.²⁴ They were so busy purchasing timber in May 1916 that their main expert, Mr (later Sir) Frank Baines was felt at 'a grave risk of breakdown, not only in his health but in the work for which he is responsible'.²⁵

Until at least the spring of 1915 the War Office restricted all of its purchasing to 'approved' suppliers. Many tried to corner the market in materials and skilled manpower to fill orders, many of which proved greater than their capacity and were not fulfilled. This disrupted sectors of industry that already had a labour force which

²⁰ Latham, *History of the Timber Trade Federation*, pp. 24-35.

²¹ TNA/BT/71/21, Bird, pp. 12-14; War Office, *Statistics of the Military Effort*, p. 717.

²² TNA/BT/71/3/55295, Memo regarding the control of timber during the war (24 March 1919); TNA/BT/71/21, Bird, p. 200.

²³ Swenarton, *Homes Fit for Heroes*, pp. 50-51, 53-54.

²⁴ TNA/AY/107, Letter Imperial Institute to Office of Woods c.18 May 1916; TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber'.

²⁵ *Ibid.*, Letter Harcourt to Wyndham R Dunstan at the Imperial Institute, 17 May 1916.

was unbalanced by the War Office rush to recruit men.²⁶ In the timber trades, even though the Timber Trade Federation wanted to supply government requirements well into 1915, by October 1914 demands for hutting timber alone from contractors working for the government led the Office of Works to appoint the firm of Messrs Montague L. Meyer as official Government Timber Buyers. They were to carry out direct purchasing of timber from foreign and domestic sources for government purposes, an early example of centralisation under civilian experts.²⁷ This understandably led to complaints from parts of the trade and formed a part of later profiteering scandals. In discussions at the 1915 Timber Trade Federation AGM, Meyer's appointment was challenged, accusations of trade conspiracies already having been made in parliament. Federation members felt they were not primarily concerned with the government methods to secure supplies, and seemed happy with how Meyer were carrying out their duties. However, they took 'strong exception to the suggestions...that the timber trade had entered into a conspiracy or ring to raise prices against the Government'. The allegations were withdrawn following their representations.²⁸

Meyers not only purchased timber for the government but also took on storage and transport roles. In total they shipped 250,000 standards, approximately 825,000 tons, which they had purchased abroad, directly to France. At times in 1916, they were supplying 25,000 standards, approximately 82,500 tons in softwoods, a month to the Western Front, and required a staff of 650 in over twenty different sections. It is interesting to note that the Government Timber Buyers paid staff at lower rates than similar posts in official government departments, yet directly reclaimed costs from the

²⁶ Turner, *British Politics*, p. 58.

²⁷ TNA/BT/62/1/21, memo October 1918, p.2; TNA/BT/71/21, Bird, pp. 2, 12.

²⁸ Latham, *History of the Timber Trade Federation*, pp. 64-5.

Government. This did at least mean that their operations and structures came under Treasury scrutiny. This could be strict as the Treasury maintained close control of expenditure during the war, even once funds had been allocated, and Meyers were subject to inspections and audits.²⁹ As stated in the introduction, Meyers purchased £50m worth of timber in their capacity as the Government Timber Buyers during the war, equivalent to approximately eighteen Dreadnoughts, a good degree of centralisation of efforts by a civilian company that would have minimised bureaucracy.³⁰

The Board of Trade was also heavily involved early on in the war, most importantly with regards to maintaining imports of pit-props, traditionally obtained largely from Baltic ports. It was recognised immediately that these would be closed to trade by war with Germany and the Coal Mining Organisation Committee, established by the Home Office to maintain production, raised urgent concerns. The Board of Trade took it upon themselves to start enquiries into alternative sources.³¹ By mid-August they confirmed that they had already collected a large amount of information regarding requirements, stocks and potential shortages from the collieries, and were collecting more all of the time.³² Although some duplication of roles had occurred early on, it was now agreed that the Board of Trade would be responsible for obtaining such information and managing the requirements and importing of pit-wood. They were also instructed to take any steps considered necessary to stimulate pit-prop imports, therefore needing

²⁹ TNA/BT/71/21, Bird, pp. 12, 14, 215-18; Swenarton, *Homes Fit for Heroes*, pp. 50-51, 53-54.

³⁰ TNA/BT/71/21, Bird, p. 14.

³¹ TNA/LAB/2/1488/LE37858/110/1914, passim; C.F. Rey, W. Windham et al, *Cd.7728 Reports to the Board of Trade Upon the Supply of Imported Pit-Timber with Special Reference to the Resources of Newfoundland and the Maritime Provinces of Eastern Canada* (London, 1914), passim; TNA/BT/71/21, Bird, p. 2.

³² TNA/LAB/2/1488/LE37858/46/1914, note by C.F Rey (Secretary of the Board of Trade) to Sir

H.L. Smith (Permanent Secretary of the Board of Trade 1907-1919) on current pit-wood situation, 19 August 1914.

to continue establishing stock and use levels but also employers' labour requirements, prices and additional overseas supplies.³³

As with so many wartime resources, UK and international transport space and costs for timber, especially rail and shipping, resulted in a lot of discussion throughout the war, but the Board of Trade liaised early in this instance with appropriate bodies. It met with representatives of organisations including the Timber Trade Federation, Mining Association, Marine Department and shipping and rail companies to establish requirements, availability, sources and costs of supply. It also identified Canada and Newfoundland as the prime new markets.³⁴ The Board was a firmly rooted existing structure within government, and in these early stages of the war a minimal number of existing teams, normally just that under Mr Rey and one or two others, became involved. However, as seen below, the Board of Trade was consistently involved in the timber effort, and for large periods it would be at the heart of it.

Whilst the Board of Trade at this stage would deal with stocks, consumption, employers' requirements and especially overseas supplies it was established that the Boards of Agriculture would, whilst still dealing with general forestry matters, investigate the potential for increasing home-grown supplies, again focusing on pit-wood in this period. An informal committee under Mr Samuel was established including representatives of the Boards of Agriculture and the Office of Works, including R.L Robinson, who, as noted in chapter 1, was one of the main examples of continuity among high level experts across different organisations.³⁵ Another example

³³ Ibid, see notes regarding 'Supply of Pit-Props', n.d (c.late August 1914) and note Rey to Smith 19 August 1914.

³⁴ TNA/LAB/2/1488/LE37858/18/1914, including for example notes by Rey 24 August 1914 and 14 September 1914; TNA/LAB/2/1488/LE37858/46/1914, including notes regarding 'Supply of Pit-Props', n.d (c. late August 1914).

³⁵ Ibid., note by Rey to Smith 19 August 1914; Hansard, House of Commons Sitting 2 May 1917, col 339; TNA/BT/71/21, Bird, p. 16

of good communication can be seen in that Samuel's committee collected information and statistics on home grown timber, exchanged ideas on administration, disseminated advice to growers, and tried to reduce transportation charges and set priorities. However, the committee was flawed in that it had no separate funds and each representative would return to, and act individually, within their department. Furthermore, although the committee dealt with the Office of Woods to obtain timber for merchants and was consulted by the Board of Trade, these two HLOs did not have representatives on the committee, and would not, perhaps could not, commit financially to its efforts.³⁶ Therefore, although some duplication and flaws are noticeable, it is clear that there were early attempts made to streamline the efforts.

However, in May 1915, Prime Minister Asquith restructured his cabinet into a coalition, to head off demands for a general election. The public and MPs on both sides of parliament were unhappy due to scandals over artillery shell shortages, the Dardanelles campaign, the content or even existence of an overall strategic plan for the war, and the machinery for making high level policies. A central element of the coalition cabinet was Lloyd George's move to the newly created Ministry of Munitions,³⁷ yet any improvements in supplies were not going to be immediate and as Lord Joicey stated in the House of Lords a month later;

I judge a system by the results, and I submit that there has been failure. When the German Government want timber, or shells, or iron, or steel, they get six of the very best experts in that country to advise them and deal with the question of purchase. Had the War Office done that at the early part of this war we should not be in the position we are in today.³⁸

Whilst this debate primarily regarded artillery shells, Lord Joicey's use of terms suggests that a poor situation was perceived by some regarding the timber purchasing

³⁶ Ibid.

³⁷ Morgan, 'George, David Lloyd', n.p.; Swenarton, *Homes Fit for Heroes*, pp. 49-50; Turner, *British Politics*, pp. 4, 58.

³⁸ Hansard, House of Lords Sitting 23 June 1915, col. 112.

processes, and the lack of a central panel of experts. The joint Boards of Agriculture and Office of Woods Samuel Committee was clearly toothless in regards to practical improvements in regards to purchasing supplies, but it would not be until the beginning of 1916 that further centralisation would occur, but at least this would be an inter-allied initiative.

In early 1916 a diplomatic agreement was reached between France, Belgium and Britain to establish the *Commission Internationale d'Achats de Bois*, or International Commission for the Purchase of Wood. The British and French Governments signed the agreement establishing it on 19 February 1916, the Belgians two days later.³⁹ As Wallach, Brown and Greenhalgh point out, large coalitions always face difficulties in working together over matters such as administrative, supply and transport problems, as well as on the battle-front itself. Logistical coordination and pooling of supplies in a 'central authority' is extremely desirable. In the First World War overcoming such issues necessitated the establishment of many and varied inter-allied committees and boards, as the need arose in a particular field. Although sometimes advisory rather than having directive powers, these would alter in make-up and defined roles to try to achieve greater efficiency of coordination as and when required.⁴⁰

As well as buying agents representing each nation, the *Commission Internationale d'Achats de Bois* itself included representatives of the British C-in-C in France and the CFC.⁴¹ Under the agreement of February 1916 a Commission for Joint Purchases was established immediately in London to undertake the main work of the *Commission Internationale d'Achats de Bois*. This constituted a purchasing office formed of one

³⁹ TNA/WORK/6/745 for original of agreement in French; TNA/BT/71/21, Bird, pp. 2, 26.

⁴⁰ Wallach, *Uneasy Coalition*, passim, for instance see pp. 12-16, 97, 172, 181 (appendix C); Brown, *British Logistics*, p. 133; Greenhalgh, *Victory through Coalition*, passim.

⁴¹ TNA/WO/95/32, QMG War Diary October-December 1916, 24 October 1916 note 6, replacement representative of C-in-C on CIAB (Major General A.M. Stuart, Director of Works, replaced Lieut.-col G.K Wait); Hill, 'The Canadian Forestry Corps', Appendix 2, p. 302.

French and one British representative, who came from the Office of Works, who would collate demands, allot quantities obtained to each country based on the requirements of the respective national ministries, provide through any means it could the necessary tonnage for its purchases, and arrange delivery direct to the intended army. The Commission for Joint Purchases liaised directly with, and followed the rules already established by, the *Commission Internationale de Ravitaillement*, or International Committee of Supply.⁴² In some respects the *Commission Internationale d'Achats de Bois* appears to have performed well in co-ordinating purchases and transport of timber, obtaining much cheaper rates than market prices and many of its roles remained largely unaltered during the war, and it received much praise from Bird, but it was not perfect.

Bird argued that the *Commission Internationale d'Achats de Bois* 'embodied the inter-allied co-operation', but there were times, such as near the end of 1916, when British demand was so high that additional purchases were sought abroad by the Government Timber Buyers. Even though special terms were agreed with the *Commission Internationale d'Achats de Bois* with regards to where and how much could be bought during such single nation transactions, this does go against the founding concept of the *Commission Internationale d'Achats de Bois*.⁴³ Furthermore, in August 1916 the War Office informed GHQ that the French representative on the *Commission Internationale d'Achats de Bois* had raised concerns regarding the amount of timber still being purchased directly by various parts of the British Army in France. The *Commission Internationale d'Achats de Bois* stressed their belief that requirements could be obtained more efficiently and cheaply through themselves.

⁴² TNA/BT/71/21, Bird, pp. 26-27.

⁴³ *Ibid.*, pp. 27, 28.

However, that this was not always being taken advantage of suggests supplies were not always reaching the units requiring them at local levels.⁴⁴ On 8 August 1916 a conference was held at British GHQ to discuss the possibility of setting up a ‘Central Purchasing Committee for Supply of Timber for Allies’.⁴⁵ That it was felt necessary to discuss such a body in order to try and simplify ‘the workings of supply in London’ and seek additional French and Belgium assistance, again illustrates that the *Commission Internationale d’Achats de Bois* and Commission for Joint Purchases had not managed to fully meet the demands at the front. One reason put forward for this at the conference, and as stated above a regular theme, was that freight had become increasingly hard to obtain.

As well as pushing for greater use of French forests, the Conference’s final recommendations included that British timber requirements should be submitted to the War Office to collate and process, which in itself would be bypassing or duplicating the work of the *Commission Internationale d’Achats de Bois*. It also provides a first indication that the War Office would become more involved in timber management, which as seen below they would take over in February 1917.⁴⁶ Furthermore, it was stated that the British Armies would from now on not buy directly from British timber merchants, but would utilise the Office of Works or other organisations formed to act as their agents, illustrating that the *Commission Internationale d’Achats de Bois*, six months after establishment, was either not well known or its efficiency not respected.⁴⁷

⁴⁴ TNA/WO/95/31, QMG War Diary August-September 1916, note of 19 August about War Office letter received 7 August.

⁴⁵ Ibid., entry for 19 August and Appendix VIII.166, ‘Conference Held on 8 August, 1916, to consider Formation of a Central Purchasing Committee for Supply of Timber for Allies, and Reduction of Shipping’.

⁴⁶ TNA/WO/95/31, QMG War Diary August-September 1916.

⁴⁷ Ibid.

The *Comité Interallie des Bois des Guerre*, the Allied Committee on War Timber was also established in 1917, in Paris, and effectively acted as a subcommittee of the *Commission Internationale d'Achats de Bois* and the War Timber Commission, an executive body formed as part of an agreement between the British and French Governments on 15 November 1916, see below for further details.⁴⁸ The *Comité Interallie des Bois des Guerre* was primarily formed to bring the buying agents of the Allied governments even closer together in coordinating the timber needs of the Allied Armies. Through the committee it was hoped supplies would be acquired as cheaply as possible directly from the producing country, and transported to France. It was also hoped that the resultant reduction in competition in the world's timber markets, between these three nations, would help to keep prices down.⁴⁹

The majority of the responsibility of the Commission for Joint Purchases for the purchasing of timber for the British war effort was transferred to the War Office and then Board of Trade, as they established successive overarching timber management departments. Also, responsibility for purchasing in areas of the world that had not been large exporters of timber to Britain were taken on by bodies such as the Allied Mission in Washington and Imperial Munitions Board in Canada, both of which will be reviewed in more detail in chapter 3.⁵⁰

However, although collating requirements and purchasing roles were therefore largely taken away from it, the *Commission Internationale d'Achats de Bois* continued to purchase wood for the Timber Program Committee, a subcommittee of the Allied Maritime Transport Council. Furthermore, rather than the *Commission Internationale*

⁴⁸ TNA/BT/71/6456, for working copies and drafts in British and French; TNA/FO/93/33/266, for signed agreement in French; the details which will be reviewed in chapter 3; Bird and Davies, *The Canadian Forestry Corps*, pp. 10-11; TNA/BT/71/21, Bird, pp. 34-5.

⁴⁹ *Ibid.*, pp. 2, 26-8; Brown, *British Logistics*, pp. 132-3.

⁵⁰ TNA/BT/71/21, Bird, pp. 27-28, 65-66.

d'Achats de Bois coming to an end, as purchasing roles were taken from the Commission for Joint Purchases, the representatives of the responsible departments, the War Office and the Board of Trade, simply became officers on the Commission. In fact the British Controller of Timber Supplies was eventually made its chairman. In April 1917 an Admiralty representative was added to the *Commission Internationale d'Achats de Bois* structure, in February 1918 American and Italian representatives joined, and by November 1918 all of the Allied nations requiring timber were on the committee.⁵¹ This illustrates that, although failing in some of its original aims, the body was considered useful in its international liaison and coordination roles, again showing continuity in high level personnel and knowledge sharing. Yet it was dissolved quickly after the armistice, in March 1919, suggesting that governments were keen to step back from economic involvement with each other and centralisation.⁵²

Producing more home grown timber in Britain

Even with these attempts to increase purchases of timber through various centralised HLOs, during 1915 it became clear that improvements of production of home grown timber were also required. Again, these were initially measures taken by the individual Allies, yet as will be seen this became an inter-allied undertaking.

During November and December 1915 the first new HLO relating to forestry was established, the Home Grown Timber Committee.⁵³ At this time, the first German submarine campaign, coupled with large demands for uses such as in hutted camps and at munitions factories, brought attention to the desperate need to improve home

⁵¹ Ibid, pp. 27-28.

⁵² Ibid.

⁵³ Ibid., p. 16; Stebbing, *British Forestry*, p. 203; Hansard, House of Commons Sitting, 6 December 1915, col. 987 when a call for a committee of timber supplies was answered by Acland that he was hoping to make a statement to the house soon on the terms of reference and members of such a body.

grown timber supplies.⁵⁴ It had also been recognised that there were increasing problems with the supply of labour for cutting wood and as such greater control was needed.⁵⁵ Therefore Lord Selborne, then President of the Board of Agriculture and Fisheries, established the Home Grown Timber Committee under the overall direction of his department, although also closely linked with the Boards of Agriculture in Scotland and Ireland.⁵⁶

Its central aim was to supplement what the import trade could provide from the UK's woodlands. As Stebbing argued, just after its establishment, this was a well-timed move as the nation desperately needed to utilise a great deal more of its own resources.⁵⁷ However, the Timber Trade Federation were unhappy with its establishment, believing Selborne had taken the decision without consulting fellow ministers or the trade and that the Home Grown Timber Committee would enter into competition with them for standing timber and manpower. Yet once again good practice and communication prevailed and after several meetings between a Timber Trade Federation deputation and the Home Grown Timber Committee, satisfactory arrangements were agreed. Ultimately, the Home Grown Timber Committee had to utilise the Timber Trade Federation for several areas of expertise that the Government bodies lacked at times. These included setting fair maximum prices and the exact wording of control orders, on which see chapter 3.⁵⁸

Foremost amongst the Home Grown Timber Committee's roles was to acquire areas of standing trees and arrange their conversion, but they were also charged with

⁵⁴ TNA/BT/71/3/55295, Memo regarding the control of timber during the war (24 March 1919); Bird and Davies, *The Canadian Forestry Corps*, p. 6.

⁵⁵ *Ibid.*

⁵⁶ Hansard, House of Commons Sitting 2 May 1917, col. 339; War Office, *Statistics of the Military Effort*, p. 717; Stebbing, *British Forestry*, p. 7; Bird and Davies, *The Canadian Forestry Corps*, pp. 6, 8, 18; TNA/BT/71/21, Bird, p. 2; TNA/BT/62/1/21, Memo October 1918, p. 2.

⁵⁷ Stebbing, *British Forestry*, pp. xxv, 7.

⁵⁸ Latham, *History of the Timber Trade Federation*, pp. 65-7.

purchasing stocks of timber already in the UK, at a time when both the Government Timber Buyers and *Commission Internationale d'Achats de Bois* would have felt this within their remits as well, although these two organisations did concentrate on imports, and the Home Grown Timber Committee on converting standing trees.⁵⁹ At first the committee was solely to meet the needs of government departments, mainly the Office of Works, but eventually they would provide various forms of wood for a host of other organisations contributing to the war effort. A subcommittee of the Home Grown Timber Committee was also formed to resolve issues in obtaining mining wood, the Pit-wood Joint Subcommittee, which combined representatives of the Home Grown Timber Committee, Coal Mining Organisation Committee and Board of Trade.⁶⁰

Even with production improving, see achievements section below, not all were convinced the Home Grown Timber Committee was the most effective organisation to improve home-grown supplies. In October 1916 the Conservative MP for Canterbury asked Lloyd George, then Secretary of State for War, if the management of all forestry related work, in Britain and France, could be put under the control of the 'expert' Canadian engineers and lumbermen. His reason for suggesting this was that 'scientific' forestry and timber work had been so uncommon in the UK prior to the war that there were few experts available.⁶¹ This suggestion was put to the Home Grown Timber Committee, but little came of it, as at higher levels of control it was good business management and administration skills that were required, as much as the knowledge of forestry practices.⁶² Furthermore the UK, as shown previously and

⁵⁹ Bird and Davies, *The Canadian Forestry Corps*, p. 6; TNA/BT/71/21, Bird, p. 16.

⁶⁰ *Ibid.*, pp. 21, 23-24; TNA/BT/71/1/6564 Joint Sub-Committee on Pitwood, *passim*.

⁶¹ Hansard, House of Commons Sitting, 10 October 1916, col.7.

⁶² *Ibid.*

below, did have some forestry and timber trade experts by 1914, enough to man high level positions in important organisations.

In appraising the work of the Home Grown Timber Committee, Bird concluded that they had stimulated production, diverted those in the trade towards more necessary classes of work and secured ‘very favourable’ prices for the government and their official buyers, even if these were hampered at times by the high prices contractors and other buyers for government work were willing to pay. Furthermore, Home Grown Timber Committee operations were expanding rapidly as its life came to an end.⁶³ Its last meeting was held on the 25 January 1917, and shortly after this the government decided that management of all aspects of work connected with timber should be further centralised. The committee was therefore dissolved on 31 March 1917, and its work passed to the new Directorate of Timber Supplies at the War Office.⁶⁴ It is clear that the Home Grown Timber Committee was a successful organisation in its time, looking to improve self-sufficiency, and it was an important building block in the forestry effort.

Centralising: purchasing, producing, stock keeping, establishing needs, allocation.

However, towards the recognised turning point in the administration of the war, the end of 1916, it was realised that still more timber was required and greater centralisation became the preferred method. An earlier report, dated 23 June 1916, by the Commanding Officer (CO) of the CFC, Colonel McDougall, on the possibilities of his men working in France had already suggested the establishment of a committee of all the British and French organisations interested in obtaining wood supplies, to consider how best to meet demands.⁶⁵ This was achieved when the War Timber

⁶³ TNA/BT/71/21, Bird, pp. 18, 24.

⁶⁴ Ibid., p. 24; TNA/FO/93/33/271, ‘Administration Modifications in Commission’, letter Foreign Secretary to French Ambassador, 30 March 1917.

⁶⁵ Bird and Davies, *The Canadian Forestry Corps*, p. 10.

Commission was formed through the agreement between the British and French Governments on 15 November 1916.⁶⁶ In some roles this body appears very similar to the *Commission Internationale d'Achats de Bois* established nine months earlier, of which the War Timber Commission was simply a larger and more executive version, especially in that in its remit of directing high level operations and policies, it was also tasked with stopping competition between the Allied governments or British Government departments, such as that competition recently experienced for British Columbia timber. However, the War Timber Commission was importantly also established to ensure that supplies were increasingly obtained from British and, even more importantly, French forests. The main task of the War Timber Commission was therefore to establish the quantities of particular types and forms of wood needed by the armies, the urgency in which this was needed, and then correlate and pass this information to the relevant obtaining organisation, including the CFC, even though they remained under the direct control of the Timber Supply Department (GHQ) when in France, see chapter 3, and ensure economies in transportation requirements. It therefore took a position, in the overall wood-management structure, above the *Commission Internationale d'Achats de Bois* who began to take its general directions from the War Timber Commission.⁶⁷

In the UK it was also felt that the War Timber Commission, although limited to dealing with timber supplies solely for the war effort until the beginning of 1917, would need to be responsible for controls over the private trade and exports, which somewhat surprisingly had been allowed to continue uncontrolled to meet civilian

⁶⁶ TNA/BT/71/6456 for working copies and drafts in British and French; TNA/FO/93/33/266 for signed agreement in French; Bird and Davies, *The Canadian Forestry Corps*, pp.10-11; TNA/BT/71/21, Bird, pp. 34-5.

⁶⁷ *Ibid.*, pp. 27, 32-34.

needs.⁶⁸ Again, the exact details of the controls put in place will be reviewed in more detail in chapter 3. The War Timber Commission was also able to act as a high level ‘Consultative Committee’ that the Director of Timber Supplies at the War Office could consult with regards to agreeing wider issues, such as reducing timber estimates submitted by various departments in order to bring the total into an amount that was manageable given current shipping restrictions and home production.⁶⁹

The War Timber Commission was to receive detailed statements of the requirements of the armies from the British C-in-C and French and Belgian Ministries of War, the urgency of these demands, and the amounts being felled by various British and French bodies. If possible requirement statements were to show six months ahead, but were to be no less than three months ahead. This seems sensible insofar as enabling them to establish exact overall requirements, compare amounts being produced, and inform those such as the *Commission Internationale d’Achats de Bois* and Admiralty of the outstanding balance to be purchased and shipped.⁷⁰ Whilst import figures fluctuated between November 1916 and March 1917, amounts of timber produced in Britain and France from all sources, and supplied mainly to the British Army, did increase.⁷¹ However, the system by which the War Timber Commission was informed of the requirements of the various militaries did not work well. There were also objections to the fact that the War Timber Commission, a non-military body, had control of the Canadian lumber units, who had signed attestation papers.⁷²

Furthermore, as the submarine campaign intensified at the beginning of 1917 it was decided that private and military use of wood would have to be considered and

⁶⁸ Ibid., pp. 34-5.

⁶⁹ TNA/CAB/23/3/34, Minutes of War Cabinet 116, 9 April 1917.

⁷⁰ TNA/BT/71/21, Bird, p. 32.

⁷¹ Ibid., pp. 35-6 for table of figures.

⁷² Ibid., Bird, p. 35.

controlled together to enable adequate self-sufficiency to maintain supplies. The Army Council wrote to the C-in-C BEF France that ‘the activity of enemy submarines has seriously interrupted the shipment of timber from the Swedish and other markets and drastic measures are therefore necessary in order to conserve existing stocks of timber and economise its use’.⁷³ Although it had been suggested that the War Timber Commission could take control of all of the management of supplies, it was instead decided by a War Cabinet Committee, established in December 1916 and deciding in January 1917, that the War Office should take greater responsibility.⁷⁴ This seems to go against the coalition’s aims of more civilians taking back control and the desire to manage both civilian and military use from the same organisation. However, the War Timber Commission lost mainly of its practical roles when the War Office established a new department at the beginning of February 1917, known as the Directorate of Timber Supplies (War Office), for the overall control and management of softwood supplies for the army. Furthermore, this would, as seen in chapter 3, lead to the beginnings of tighter controls for all sorts and uses of wood.⁷⁵ Although its overarching powers were short lived, the War Timber Commission can be seen as the first HLO that evolved to attempt to monitor and manage the purchasing of imports as well as to increase local timber production in an effort to ensure overall supplies, in this case specifically for the Allied armies.

Therefore, in line with the high-level political moves towards centralisation of controls occurring at this time, the War Cabinet committee on the subject of improving

⁷³ TNA/BT/71/4/78217, letter to C-in-C BEF from the Army Council, 10 February 1917.

⁷⁴ Ibid., Interdepartmental Consultative Committee re: Establishing Timber Directorate; see Army Council Order of 4 February 1917, letter Secretary to Army Council to Commander-in-chief BEF.

⁷⁵ Ibid., Letter to C-in-C BEF from the Army Council, 10 February 1917; *The Times*, ‘Controller of Timber; Sir Bampfylde-Fuller’s War Post’, 20 February 1917, p. 9; TNA/BT/71/3/55295, ‘Memo showing necessity for the control of timber at the beginning of submarine campaign...’, 22 March 1919; TNA/BT/71/21, Bird, pp. 35, 38; Bird and Davies, *The Canadian Forestry Corps*, pp. 3, 11.

timber supplies, the First Commissioner of Works, and the interdepartmental Committee on Timber Supplies under Lord Curzon, see below, all recommended or approved that the War Office should establish a Directorate of Timber Supplies. The War Cabinet agreed that the resultant Directorate of Timber Supplies (War Office) should absorb all the roles of the Home Grown Timber Committee and other timber-related bodies, such as the War Timber Commission. It was also decided that it should be aided by a new timber specific interdepartmental advisory committee and that Sir Joseph Bampfylde-Fuller be approved its first Director from the 15 February.⁷⁶ Another reason for establishing both the Directorate of Timber Supplies (War Office) and Lord Curzon's committee on timber supplies, at this time must also have been that on 16 February the War Cabinet were going to instigate a 500,000 tons reduction in overall imports, which was to include an estimated 200,000 tons reduction in timber, following Germany's resumption of unrestricted submarine warfare on 1 February. By the spring/summer that would bring serious concerns over all kinds of imports, including food, at a time when lack of sufficient labour in numerous areas was also seen to be problematic.⁷⁷

Although at times known as the 'Timber Supply Department' of the War Office, including by themselves on official headed paper, they will be known in this work by their most common title, the Directorate of Timber Supplies (War Office).⁷⁸ The Directorate was placed within the Contracts Branch of the War Office and was responsible for conserving existing stocks, regulating purchases of imports, ensuring

⁷⁶ TNA/BT/71/4/78217, letter to C-in-C BEF from Army Council, 10 February 1917; *The Times*, 'Controller of Timber', 20 February 1917, p. 9; TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p. 3; Bird and Davies, *The Canadian Forestry Corps*, p.11; TNA/BT/71/21, Bird, pp. 40, 43 fn.(x), 48-51.

⁷⁷ TNA/BT/71/4/78217 see also War Office internal notification of the new body, such as War Office Memorandum No.913, 7 March 1917 which states that the new Directorate was 'to be known as the Directorate of Timber Supplies'; Turner, *British Politics*, pp. 6-7.

⁷⁸ *Ibid.*, War Office Memorandum No.913, 7 March 1917.

that the small amount of shipping available was carrying types required for war purposes, encouraging economy in civilian and military use, and developing home-grown supplies.⁷⁹ Bampfylde-Fuller certainly agreed with the current belief in centralisation, writing to the War Office Secretary that ‘in order to carry out a vigorous policy of developing home supplies and economising consumption, it is essential that the greater part of the functions [...] be concentrated in a single authority’.⁸⁰ It was eventually agreed with the Boards of Agriculture and Office of Works that the Directorate would not only take on the roles of the Home Grown Timber Committee, but also the War Timber Commission, giving it responsibility for purchasing and extracting, home and abroad.⁸¹ It carried on working under the principles established by the diplomatic agreements between the Allied Governments with regards to the use of French forests and the ‘joint purchase of timber and its allocation in accordance with military necessity’.⁸²

The War Cabinet also illustrated its desire for centralised administration in asking the Directorate of Timber Supplies (War Office) to compile a national program for the organisation of ‘supply and transport of all kinds of timber’. This was to be based on the many reports on import restrictions that had gone before, reports on possible sources of labour then being prepared by government departments such as the Directorate of National Service, Ministry for Education and Foreign Office, and in

⁷⁹ TNA/BT/71/4/78217, letter to C-in-C from Army Council, 10 February 1917; *The Times*, ‘Controller of Timber’, 20 February 1917, p. 9; TNA/BT/71/3/55295 ‘Memo showing necessity for the control of timber at the beginning of submarine campaign...’ 22 March 1919; Bird and Davies, *The Canadian Forestry Corps*, p.11; TNA/BT/71/21, Bird, pp. 40, 200.

⁸⁰ TNA/BT/71/4/78217, Memo Directorate of Timber Supplies (War Office) to Secretary to War Office, 26 February 1917, p. 11.

⁸¹ *Ibid.*, Memo Directorate of Timber Supplies (War Office) to Secretary to the War Office 6 February 1917 and Letter to C-in-C BEF from Army Council, 10 February 1917 and War Office Memorandum No.913, 7 March 1917; *The Times*, ‘Controller of Timber’, 20 February 1917, p. 9; TNA/BT/71/21, Bird, p. 38.

⁸² TNA/BT/71/4/78217, letter to C-in-C BEF from Army Council, 10 February 1917; TNA/BT/71/21, Bird, p. 35.

consultation with any other departments that might be concerned with the forestry effort.⁸³

The War Office was chosen as the managing body at this stage, as opposed to the Office of Works, Board of Trade or Boards of Agriculture, as better liaison was felt to be needed between French and Belgium military hierarchies and Canadian lumber units that came under the British military system. Also, although the Office of Works had been obtaining and supplying timber for all sorts of military works in the UK, supplies of wood to the BEF, whether imported or taken from French forests, were by the end of 1916, being arranged through a branch of the War Office called F.W.5.⁸⁴ This team had been formed under the RE's Fortifications and Works Directorate and were acting as the representatives in Britain for the Director of Works and Chief Engineer BEF in France, as well as becoming involved in the administration work for the Canadian lumber units, and being represented on the now more 'executive' body the War Timber Commission.⁸⁵ In a sign of the desperate state of the wood situation it was also now seen as responsible for suggesting alternative materials and equipment, organising personnel and equipment for engineering roles, including contractors who might be prepared to work in French forests.⁸⁶ The Board of Trade as a managing body was likely also discounted as a possibility at this time as focus had definitely turned to reducing imports of all types whereas the War Office was seen to be in a good position to deal with Military Service Act exemption claims from the timber industry. Furthermore, it was estimated that nearly sixty-six per cent of timber requirements in 1916 had been directly for military purposes.⁸⁷ Lastly, by the time the Directorate of

⁸³ TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, p.2.

⁸⁴ *History of the Great War Based on Official Documents*, 1914 vol.2, p. 19; Maclean, *Farming and Forestry on the Western Front*, p. 96; Pritchard, *History of the Corps of Royal Engineers*, p.562

⁸⁵ *Ibid.*, pp. 77-78.

⁸⁶ *Ibid.*

⁸⁷ TNA/BT/71/21, Bird, p. 40.

Timber Supplies (War Office) took control of softwoods the War Office had already taken control of several commodities, such as wool and leather, setting a precedent. Bird stated that all those concerned with making the decision agreed that the War Office should be responsible for the management organisation.⁸⁸

When asked why the control of timber had been passed from the Boards of Agriculture to the War Office, Lord Curzon, then Lord President of the Council and thus Leader of the House of Lords, one of the five members of the War Cabinet, ‘chairman of innumerable subcommittees’ including ones on timber and import restrictions, and Chairman of the committee that had taken the decision, gave several reasons.⁸⁹ These included that supply concerns at the time were almost entirely related to military purposes, the CFC were under the War Office, the main additional labour required to bolster the normal forestry trade were soldiers and finally all of those on the committee, including the representative of the Boards of Agriculture, felt it was the best option at the time.⁹⁰

Bampfylde-Fuller saw the work of his Directorate as falling into three main ‘branches’; purchasing, controlling use of home grown timber and encouraging greater home-grown production. Initially he saw purchasing for military purposes as including that for the Ministry of Munitions who, as shall be shown later, continued to maintain their own Timber Supply Department throughout the war.⁹¹ Tellingly a slightly later list of Directorate of Timber Supplies (War Office) roles also gives the function as the ‘supply of timber for the use of the Army and of all Directorates in the War Office’

⁸⁸ Ibid.

⁸⁹ David Gilmour, ‘Curzon, George Nathaniel, Marquess Curzon of Kedleston (1859–1925)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 <<http://www.oxforddnb.com/view/article/32680>>, [accessed 3 Nov 2014].

⁹⁰ Hansard, House of Lords Sitting 26 June 1917, cols. 638-9; Hansard, Written Answers House of Commons Sitting 17 May 1917, col. 1806.

⁹¹ TNA/BT/71/4/78217, Memo Directorate of Timber Supplies (War Office) to Secretary to the War Office, 26 February 1917, p. 11.

making no mention of pit-wood or the Ministry of Munitions.⁹² However, the Directorate of Timber Supplies (War Office) were clearly meant to replace the Office of Works as the central purchasing body for foreign supplies and home grown timber, and therefore took on the services of the Government Timber Buyers,⁹³ another example of experience in roles passing from organisation to organisation. In order to fulfil this role, the body took on some responsibilities associated with the *Commission Internationale d'Achats de Bois* and War Timber Commission, in terms of reducing competition in foreign markets, through direct liaison and close working with the French delegation in London.⁹⁴

Controlling home grown timber use was to be achieved through efficient utilisation of existing stocks, licensing imports, and restricting use of timber in the UK.⁹⁵ As discussed in detail in chapter 3, the control of the use of softwoods through controls such as licensing imports and sales, was a key role that this new body would pass to its successor at the Board of Trade, and that the War Office and Army Council would continue to help the Timber Supply Department (Board of Trade) with in regards to legal precedence.⁹⁶ The initial responsibility of developing home grown timber supplies did include pit-timbers, railway sleepers and other civilian uses as well as direct military ones, reflecting their importance in the war effort, but by March this was reworded to a more general 'stimulation of the production of timber in the United Kingdom'.⁹⁷ With regards to home-grown pit-wood the War Office simply continued

⁹² Ibid., War Office Memo No.913, 7 March 1917.

⁹³ TNA/FO/93/33/271, letter Foreign Secretary to French Ambassador, 30 March 1917; TNA/BT/71/21, Bird, p. 38

⁹⁴ TNA/BT/71/4/78217, letter to C-in-C BEF from Army Council, 10 February 1917.

⁹⁵ Ibid., Memo Directorate of Timber Supplies (War Office) to Secretary War Office 26 February 1917, p. 11; TNA/BT/71/21, Bird, p. 202.

⁹⁶ *The Times*, 'Controller of Timber', 20 February 1917, p. 9; TNA/BT/71/4/78217, War Office Memo No.913, 7 March 1917, p. 1, points 2 and 3.

⁹⁷ Ibid., p.1, point 4.

making use of the Local Pit-wood Committees already established between the Home Grown Timber Committee, Coal Mining Organisation Committee, Board of Trade and local landowners.⁹⁸ The Directorate of Timber Supplies (War Office) was therefore tasked with continuing the essential work of the Home Grown Timber Committee, including the provision of woodland and arrangements for its working by the CFC, as well as centralising purchasing.⁹⁹

However, even given these convincing arguments to establish an all-encompassing management structure at the War Office, the Directorate of Timber Supplies (War Office) proved another short lived organisation. An earlier interdepartmental committee, under Sir H. Babington-Smith, had produced a detailed report on shipping that had recommended a more central management structure for controlling timber and an initial committee on 'Restriction of Imports' under Lord Curzon had investigated this and largely approved. However, in mid-February 1917 the War Cabinet also instructed Curzon to reassemble this committee in order to address the more specific question of how to further reduce timber imports, now by 300,000, rather than 200,000, tons per month.¹⁰⁰ Curzon's committee met several times in quick succession in early May to discuss timber restrictions as shipping prioritisation had to be for food, ammunition and transportation of coal to France and Italy.¹⁰¹ It was to investigate the purposes wood was being used for, the difference between requirements and supplies, how to improve home grown timber production, whether

⁹⁸ TNA/BT/71/21, Bird, p. 205.

⁹⁹ Bird and Davies, *The Canadian Forestry Corps*, p. 11.

¹⁰⁰ TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, pp. 2, 3 [note; Babington-Smith Committee report is 'War Cabinet Paper G.-124']; TNA/BT/71/21, Bird, pp. 48-51; TNA/CAB/23/1/74, Minutes of War Cabinet Meeting 74, 19 February 1917, pp. 1-2; TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, pp.1-2 and Appendix 1 pp. 6-7; see also minutes to numerous subsequent meetings and correspondence of the War Cabinet or Lord Curzon's Committee on Timber Supplies, such as TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies, especially Report of First Meeting, 8 May 1917.

¹⁰¹ TNA/CAB/23/1/74, Minutes of War Cabinet Meeting 74, 19 February 1917, pp. 1-2; TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies.

the War Cabinet decision to restrict timber imports so drastically should be rescinded, or whether a combination of both increased imports and home grown timber would be required to meet the current deficit.¹⁰² The committee primarily focussed on methods to increase quantities of home grown timber production as a means of reducing the amounts required to be obtained through imports. In regards to improving self-sufficiency they focussed on labour shortages, transport problems and price concerns. However, they also considered broader issues including the introduction of suitable central ‘timber’ policies, particularly in regards to establishing who was best suited to manage the effort, what level of shipping restrictions were practicable as well as licensing and other methods to encourage economising.¹⁰³ This short-lived subcommittee of the War Cabinet can therefore be seen as a high level policy advisory body, that considered many issues and potential solutions that had been considered at earlier stages of the war, but were given impetus due to drastic reductions in shipping space availability. Amongst their recommendations were no real surprises, chiefly being the movement of the central management of supplies from the War Office to the Board of Trade and increased use of POWs as labour in forests.¹⁰⁴

The War Cabinet therefore noted a decision made by Lord Curzon’s Committee, which had previously agreed with the War Office becoming the managing body, that control over timber supplies be transferred from the War Office to the Board of Trade at the end of May, and a ‘Controller’ appointed. This decision had also been reached in conjunction with the Secretary of State for War and President of the Board of Trade.¹⁰⁵ This further illustrates, within the forestry effort, the well-known principles

¹⁰² Ibid.; TNA/BT/71/21, Bird, p. 51.

¹⁰³ Hansard, House of Lords Sitting 26 June 1917, col. 640; TNA/CAB/21/80, Lord Curzon’s Committee on Timber Supplies, see minutes of all three meetings.

¹⁰⁴ Ibid.

¹⁰⁵ TNA/CAB/23/2/60, Minutes of War Cabinet 142, 22 May 1917; TNA/BT/71/21, Bird, pp. 48-51.

of Lloyd George's coalition discussed above, that power for decisions be put in the hands of a few, and that civilian-led bodies should wrest control of the strategies away from military departments. The transfer of responsibility for managing wood supplies in the UK from the Directorate of Timber Supplies (War Office) to the new Board of Trade Timber Supply Department officially took place on 1 June 1917.¹⁰⁶

This department was headed by the new Controller of Timber Supplies, Mr (later Sir) James B. Ball, appointed on the 26 May.¹⁰⁷ Ball had been engineer-in-chief of the London, Brighton and South Coast Railway, his services being lent by that company to the government.¹⁰⁸ The Timber Supply Department (Board of Trade) would oversee purchases and use in the UK until mid-1919, but its final roles, mainly catching up with accounting work and dealing with claims for private timber felled, were still ongoing in 1922, although it was hoped to finish these by the end of that year.¹⁰⁹ There were several particularly practical reasons why this responsibility was passed from the War Office to the Board of Trade, rather than maintained by them or given back to the Boards of Agriculture, as some in Parliament had wanted.

The Earl of Selborne, a recent President of the Board of Agriculture and Fisheries, regretted that the role had been taken from the Boards of Agriculture and given to the War Office in the first place. He now wanted to know why, when reallocating responsibility for the 'exceptionally important' role of securing timber for military and civil uses, the Board of Trade was selected over the Boards of Agriculture, which had been established with the ensurance of supplies of timber through expert forestry

¹⁰⁶ TNA/BT/71/3/55295, Memo regarding the control of timber during the war, 24 March 1919; TNA/BT/62/1/21, Department of the Controller of Trading Accounts of the Board of Trade; memos, correspondence and financial development and trading reports.

¹⁰⁷ Hansard, House of Lords Sitting 26 June 1917, col. 637; TNA/BT/13/75, note by A.H. Stanley (President of the Board of Trade) 26 May 1917; *Board of Trade Journal*, 31 May 1917 as quoted in TNA/BT/71/21, Bird, p. 51; Latham, *History of the Timber Trade Federation*, p. 68.

¹⁰⁸ *Board of Trade Journal*, 31 May 1917 as quoted in TNA/BT/71/21, Bird, p. 51.

¹⁰⁹ TNA/BT/71/21, Bird, p. 208.

practices as one of their roles.¹¹⁰ Amongst the answers received by Selborne and others, both in and outside of Parliament, were that by May 1917 the supply situation in the UK had become critical and was affecting more than just military concerns.¹¹¹ Furthermore, that in the three to four months since the War Office had taken responsibility two important aspects had altered that affected the choice of best management organisation. Firstly, the Army could no longer spare men for cutting timber due to other demands on their manpower, and those civilian labourers being brought from ‘all parts of the world’ to work in the forests could not necessarily be taken under control of the War Office.¹¹² Secondly, when responsibility had initially been passed to the War Office the supplies it had to arrange from Britain were for purposes in both the UK and on the Western Front.¹¹³ However, as will be shown below and in chapter 3, the BEF’s timber management and supply structures had also been reorganised, with more arrangements made with the French Government in which timber-growing areas were given over to British control. The Directorate of Forestry (GHQ) was now supplying greater quantities directly to the front, and aiming to increase this. Therefore the War Office in London had less need to be concerned with this aspect of supplies, and the Secretary of State for War came to believe that the roles of the Timber Supply Department (War Office) could be better managed under the Board of Trade than himself.¹¹⁴ Furthermore the Minister for Agriculture, Prothero, felt that, in regards to forestry, the Board of Agriculture and Fisheries had been gradually stripped of roles and therefore ability or expertise by this point. Lastly, it was also raised in Parliament that the War Office had become ‘heartily sick’ of

¹¹⁰ Hansard, House of Lords Sitting 26 June 1917, cols. 635-6, Earl Selbourne; Hansard, House of Lords Sitting 20 June 1917, cols. 545-7, Lord Heneage.

¹¹¹ TNA/BT/71/21, Bird, p. 3.

¹¹² Hansard, House of Lords Sitting 26 June 1917, col. 639.

¹¹³ Ibid.

¹¹⁴ Ibid., cols. 639-40, Lord Curzon.

timber management, given the amount they already had to do.¹¹⁵ The War Cabinet themselves had therefore asked Lord Curzon's Committee to investigate the benefits of moving these responsibilities to the Board of Trade.¹¹⁶ The President of the Board of Trade agreed with the reasons given by the Secretary of State for War and therefore Lord Curzon's Committee had no hesitation in suggesting its approval.¹¹⁷

The Board of Trade clearly appeared a sensible choice for several other valid reasons. It was, at this time, closely monitoring the effects of the shipping controls put in place by their Department of Import Restrictions. They also had a Coal Mines Department particularly interested in pit-wood, and at the end of 1916 they had started a survey of timber stocks held by private merchants. Although this survey had shown that there were still reasonable supplies available from merchants, the Board of Trade was greatly concerned in the first few months of 1917, that a timber 'famine' might occur.¹¹⁸ Furthermore timber prices had increased to three or four times their pre-war levels, this having a particularly negative effect on the price of coal, and it was felt that the Board of Trade was best placed to put appropriate controls on these prices.¹¹⁹ It was therefore announced on the 31 May 1917, in the *Board of Trade Journal*, that the role was being undertaken on the basis that: 'The problems connected with the supply of timber now have only an indirect connection with the War Office,' and a separate department at the Board of Trade had therefore been established for the control of 'all' timber, although in practice this equated to most military and all civilian use in the UK.¹²⁰ As seen below, different organisations at GHQ were increasingly

¹¹⁵ Hansard, House of Lords Sitting 20 June 1917, cols. 545-47, Lord Heneage.

¹¹⁶ TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies; TNA/BT/71/21, Bird, p. 48.

¹¹⁷ Hansard, House of Lords Sitting 26 June 1917, col. 640, Lord Curzon.

¹¹⁸ TNA/BT/71/21, Bird, pp. 33-4, 48.

¹¹⁹ Hansard, House of Lords Sitting 26 June 1917, col. 637, Viscount Haldane.

¹²⁰ *Ibid.*, col. 636; TNA/BT/71/3/55295, Memo regarding the control of timber during the war, 24 March 1919; TNA/BT/71/21, Bird, pp. 4, 51, copied from *Board of Trade Journal* notice of 31 May 1917.

supplying the front directly from French forests, and the Timber Supply Department (Board of Trade) role did not initially include responsibility for more specialist woods, such as those for aircraft production or Admiralty purposes. However, during 1917 and 1918 it gradually expanded into UK-based roles since it occasionally needed to acquire specialist hardwoods, as well as rattans and canes which were of great importance in the munitions industries.¹²¹

Purchasing timber abroad remained an important method used by the Board of Trade, and a Purchasing Advisory Committee was established to help with this. Again this represented a high level committee that included not only the Controller of Timber Supplies and other representatives of the Timber Supply Department (Board of Trade) but also representatives from the Government Timber Buyers, Messrs Montague L. Meyer, and the timber trade.¹²² The Purchasing Advisory Committee worked in close connection with the *Commission Internationale d'Achats de Bois*, the War Mission in the USA, the Imperial Munitions Board in Canada, and the Ministry of Shipping.¹²³ As well as those members of the trade sitting on the Purchasing Advisory Committee, the move from the War Office to the Board of Trade also brought about the formation of two further advisory committees, the Merchants' Advisory Committee and the Home Grown Timber Merchants' Advisory committee. These further illustrate the desire to rely heavily on existing civilian expertise, yet the Timber Trade Federation would still not always be content with Government measures, as indicated in chapter 3.¹²⁴

Given the continuance of severe concerns over shipping space, the most important role of the Timber Supply Department (Board of Trade) was to increase home grown

¹²¹ Hansard, House of Commons Sitting 12 November 1917; TNA/BT/71/21, Bird, pp. 3, 4.

¹²² TNA/BT/71/21, Bird, p. 67.

¹²³ Ibid., p. 207.

¹²⁴ Latham, *History of the Timber Trade Federation*, p. 68.

timber availability. In attempting to do so the department, like the Directorate of Timber Supplies (War Office) before it, followed similar procedures to the Home Grown Timber Committee.¹²⁵ They also prioritised the work the War Office had undertaken to buy new areas of woodland and obtain the necessary labour, often in the form of German POWs, to convert it.¹²⁶ The department also looked to control the use of home-grown and imported wood. This included granting permits, setting maximum prices and administration work resulting from various ‘Orders’ restricting purchases, imports and/or sales of specific categories of wood, as will be seen in chapter 3.¹²⁷

The Timber Supply Department (Board of Trade) were also centrally involved in the continuing efforts to obtain sufficient mining timber. In February 1917 the Home Office Coal Mining Organisation Committee was superseded by the Coal Mines Department of the Board of Trade.¹²⁸ A few months later, as the Board of Trade was also taking on responsibility for forestry, eight new Pit Timber Committees were established, each with an H.M Inspector of Mines as a chairman and technical assistance. These committees began to meet with a view to recruiting volunteer coal miners to work at timber felling in woodland areas secured for them by the Timber Supply Department (Board of Trade).¹²⁹ Pit-wood, however, would continue to be a concern throughout the war as 1918 correspondence between the Coal Controller and Board of Trade illustrates.¹³⁰

Yet the efforts in regards to establishing a more centralised HLO to run a large number of the important facets of the forestry effort can be seen in the reorganisations

¹²⁵ Hansard, House of Lords Sitting 1 May 1917, col.998, Lord Derby; TNA/BT/71/3/55295, Memo regarding the control of timber during the war, 24 March 1919.

¹²⁶ TNA/BT/71/21, Bird, p. 206; Hansard, House of Lords Sitting 26 June 1917, cols. 637-8;

¹²⁷ Ibid.

¹²⁸ TNA/BT/71/21, Bird, p. 3.

¹²⁹ TNA/CAB21/80, letter Coal Controller (Guy Calthrop) to Lord Curzon’s Committee in response to a request for details of numbers of coal miners involved on timber felling, 10 May 1917.

¹³⁰ TNA/BT/71/2/24668, correspondence February to September 1918.

needed and taken to get to the Timber Supply Department (Board of Trade). This body was the pinnacle of timber control in the UK from May 1917 until well after the end of the war, and its evolutionary stages as detailed above were sensible given the various context of the war effort and its timber needs. However, allocation of supplies to the numerous different end-users at times needed specific organisations to be established and in the UK this resulted in late 1917 in the Timber Allocation Subcommittee of the wider War Priorities Committee. The Timber Allocation Subcommittee provided an essential prioritising link between the Timber Supply Department (Board of Trade), as the major source of supplies in the UK, and the main utilizers, the War Office, Ministry of Munitions and Admiralty.

Allocation of raw materials, energy and transport were gradually brought under the control of ministries and controllers, as shown above, and the final such body was the War Priorities Committee. Established in October 1917 it adjudicated between users such as the Admiralty and Ministry of Munitions over scarce resources like steel and rubber.¹³¹ It grew from a committee established by the War Cabinet in September to investigate the conflicting manpower needs of the army and aircraft production. The committee quickly realised, however, that in order to establish priorities it needed to incorporate labour demands for all forces and all material production programmes, thus becoming the War Priorities Committee. Amongst its roles was the allocation of materials, as well as manpower, all based on deciding between the departments still competing with each other for resources.¹³² The first stage in this task was the collection of information not only on requirements but also on the quantities and qualities of existing stocks either in use or in reserve. This necessitated a separate

¹³¹ Turner, *British Politics*, pp. 262-3; Grievs, *The Politics of Manpower, 1914-18*, p. 155.

¹³² *Ibid.*, pp. 155-7; TNA/CAB/40/4, Minutes of the Information Sub-Committee; TNA/CAB/40/23 Appointment of the Timber Allocation Subcommittee and general correspondence; TNA/CAB/40/24 Minutes and meetings of the Timber Allocation Sub-Committee, *passim*.

Permanent Information Subcommittee to feed into the War Priorities Committee which was instructed to obtain details from the various departments and commissions managing and allocating supplies, including timber.¹³³ Forms sent out asked for information on material either in stores or in use in the UK, France or Italy, but not other theatres of war. Categories of information requested included the current level of stocks, normal reserve levels, and anticipated position on 31 March 1919 given proposed deliveries. Also to be provided were the current, average and estimated future consumption and expenditure, as well as levels of labour. It was noted that exact figures on labour and expenses were difficult to obtain from some departments, and estimating future needs as wartime situations changed was never going to be straightforward or completely accurate.¹³⁴

However this collation of information was essential in establishing future requirements and prioritisation of materials.¹³⁵ Therefore, following the establishment of the Permanent Information Subcommittee of the War Priorities Committee numerous further subcommittees were organised to collate information on specific materials.¹³⁶ It was agreed at the first meeting of the Permanent Information Subcommittee that the Timber Allocation Subcommittee be established, and this was approved by the War Priorities Committee on 22 November 1917, meeting for the first time on 6 December, and on six subsequent occasions.¹³⁷

¹³³ TNA/CAB/40/4 Information Sub-Committee, Minutes of Meeting 6 December 1917, p. 2, and *passim*.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*; Grieves, *The Politics of Manpower, 1914-18*, pp. 155-7.

¹³⁶ TNA/CAB/40/4, for instance letter 15 December 1917 from the Secretary of the War Priorities Committee to the Secretary of the Information Sub-Committee; TNA/CAB/40/23 Appointment of the Timber Allocation Subcommittee and General Correspondence, letter Secretary War Priorities Committee to Controller Timber Supplies (Board of Trade) and Chairman Timber Allocation Subcommittee 23 November 1917.

¹³⁷ TNA/CAB/40/23 Appointment of the Timber Allocation Sub-Committee and General Correspondence, *passim*. For specific instances see letters sent by War Priorities Committee to Departments asking for representatives on 22 and 23 November 1917, and the report on work of the Timber Allocation Subcommittee by their Chairman, sent to Secretary War Priorities Committee 21

The allocation of available timber based on the ‘general priority’ set by the War Priorities Committee, was the *raison d’être* of the Timber Allocation Subcommittee.¹³⁸ It acted as a conduit through which the Timber Supply Department (Board of Trade), government departments, or their contractors, could liaise. This meant that the Board of Trade could explain to the end-users their various control and distribution measures and schemes.¹³⁹ Therefore, not only were the controls more acceptable to these departments, but also schemes of work for securing and delivering supplies. For instance how much timber shipping tonnage was to be allocated to each department by the Timber Supply Department (Board of Trade) could be agreed so that they were as ‘satisfactory’ as possible to those requiring the wood at a certain place by a specific time.¹⁴⁰ However, despite its name, the committee’s remit was not restricted to allocation from suppliers to users, based on an overall picture of the timber and war situations. It also interacted with the Timber Supply Department (Board of Trade) over matters such as the collation of purchasing requirements from Canada and the USA for all government departments, the economising and control of home grown timber, and it could if necessary, also allocate shipping tonnage for timber for a particular department, if their needs were considered urgent enough.¹⁴¹

These end-user departments themselves could also establish internal bodies to liaise with the timber HLOs and allocate those supplies they did receive. Most noticeable in

November 1918; TNA/CAB/40/24, Minutes and meetings of the Timber Allocation Sub-Committee, *passim*.

¹³⁸ TNA/CAB/40/23, letter Secretary War Priorities Committee to Controller Timber Supplies (Board of Trade) and Chairman Timber Allocation Subcommittee, 23 November 1917.

¹³⁹ *Ibid.*, Ball’s report on the work of the Timber Allocation Subcommittee sent to the Secretary of the War Priorities Committee, 21 November 1918.

¹⁴⁰ *Ibid.*

¹⁴¹ *Ibid.*, and letter Chairman Timber Allocation Subcommittee to Secretary War Priorities Committee, 15 March 1918; TNA/MUN/4/3417 Department of Munitions Requirements and Statistics, including letter from the War Priorities Committee regarding the ‘extremely serious’ need to minimize use of timber, which was sent to all of the main departments (Admiralty, War Office, Ministry of Munitions, Ministry of Shipping, Ministry of Food, Air Ministry, Office of Works, Board of Trade), 22 October 1918.

the research carried out for this thesis was the Ministry of Munitions. They established their own Directorate of Timber Supplies during 1917 which represented the Ministry on numerous timber-related committees mentioned above, in order to better secure and then allocate the very large quantities of timber needed by itself or its contractors.

¹⁴² The Department of Timber Supplies at the Ministry of Munitions was run by Mr. D. Bain, C.B.E, the Ministry of Munition's Deputy Director in charge of 'Packing and Timber'. Sometimes referred to as the 'Ministry of Munitions Controller of Timber', he did eventually become their 'sole channel' for all wood requirements.¹⁴³ Bain's Directorate suggested and applied space saving import techniques and home grown timber self-sufficiency methods to secure the quantity and types it needed, especially in regards to ammunition cases. This included taking control of some national box factories and saw mills as well as establishing its own special drying kilns, in order to start relying more heavily on home grown timber for ammunition packaging.¹⁴⁴ Bain had two Assistant Controllers, and the Directorate was split into three teams with roles similar to some of the priorities vexing the wider timber management organisations:

¹⁴² TNA/MUN/5/44/264/6 'List of Committees appointed by the Minister of Munitions or Upon Which the Ministry of Munitions was Represented, as of July 1918', prepared by the Historical Records Branch; TNA/CAB/21/80, May 1917 Estimates of Ministry of Munitions requirements of softwood for June, July, August 1917, these came to a total of 157,446 tons; TNA/CAB/40/23 letter Controller Timber Supplies (Board of Trade) to Secretary War Priorities Committee, 28 November 1917; TNA/MUN/5/31/263/23/35, or MUN/5/31/263.01/1-14 or MUN/5/44/263.92/1 for various charts of the organisation and functions of the Ministry of Munitions and Timber Supplies Department (Ministry of Munitions) at different stages throughout the war, although largely as at 11 November 1918; TNA/BT/71/21, Bird, p. 5; TNA/MUN/4/3417, several examples of correspondence from contractors to the Timber Supplies Department (Ministry of Munitions) and from the Timber Supplies Department (Ministry of Munitions) to the Controller Timber Supplies (Board of Trade) asking the Board of Trade to sell timber to specific contractors working for them. One example being the Crittal Manufacturing Company who were constructing aircraft shelters, correspondence dated 13, 17 & 19 December 1917.

¹⁴³ TNA/CAB/40/23, letter Controller Timber Supplies (Board of Trade) to Secretary War Priorities Committee 28 November 1917; Hansard, House of Commons Sitting 2 May 1918; TNA/MUN/4/3417, correspondence between Timber Supplies Department (Ministry of Munitions) and the Department of Munitions Requirements and Statistics at the Ministry of Munitions, July 1917.

¹⁴⁴ TNA/MUN/5/389/1860/5, 'History of the Munitions Supplies Dept. 1917-1919 by D. Bain'; TNA/MUN/4/3417, Correspondence between Timber Supplies Department (Ministry of Munitions) and the Department of Munitions Requirements and Statistics at the Ministry of Munitions, July 1917; TNA/BT/71/21, Bird, p. 5.

compiling accurate figures of requirements and stocks, orders and permits to control supplies and use within the Ministry of Munitions, and salvage to improve self-sufficiency. However, they also had teams with roles more specific to the Ministry of Munitions, such as a specialist team managing timber for trench warfare.¹⁴⁵ Such centralisation within the major users could only help liaison and communication between these users and the HLOs overseeing the whole forestry effort, based in London.

Developments in France: Centralisation.

However, developments towards greater centralisation also took place in sourcing and controlling wood closer to the Western Front. Many of the bodies outlined above were responsible for supplies arriving in France. However, major changes can also be seen in control of the forestry effort at GHQ, to achieve greater self-sufficiency. Once again these are especially noticeable, as it was in civilian bodies, from late 1916 onwards.

The Order of Battle of the BEF in August 1914 included not just the RE, but at GHQ the Quartermaster General's Branch and, under the Headquarters of Administrative Services and Departments, the Directorates of Supplies, Transport, Railway Transport, and Works.¹⁴⁶ All of these had a hand in obtaining, transporting or managing supplies of various types of wood. However, understandably given its pre-war scale of use, there was no single body responsible for this resource. As trench warfare set in, and trench systems grew in size and sophistication, timber was acquired by British forces as, where, and when it could be. Individual armies, corps or smaller

¹⁴⁵ TNA/MUN/5/31/263/23/35, Timber Supplies Department (Ministry of Munitions) organisation and functions as of 11 November 1918; TNA/MUN/5/44/263/92/1 Chart of Organisation of the Timber Supplies Department (Ministry of Munitions), c. August 1918 to January 1919.

¹⁴⁶ *History of the Great War Based on Official Documents*, 1914, Vol.1, pp. 415-16.

units either cut it down or purchased it locally.¹⁴⁷ Various levels of the military structure were therefore taking responsibility for obtaining and distributing supplies as necessary, from the private soldier upwards. As one Canadian infantry officer noted of conditions near the ‘firing-line’ in March 1915, ‘in some places the houses are in ruins; wood all taken for firewood...’ and as Mottram vividly depicts the British Army was said to have burnt a million hop poles, along with any other wood they could get their hands on.¹⁴⁸

Compensation claims for timber were settled in cash. A small committee established by the British QMG in October 1914 to deal with claims from French and Belgian civilians was expanded into a Claims Commission by the War Office in December 1914. In October 1915 it took on the duty of ‘acquiring all land required for military purposes in the Army areas...’ and within the many claims arising from war damage, occupation of buildings and factories, use of roads, vehicle accidents, pillage and theft and disputes over contracts was ‘appropriation of timber from forests’.¹⁴⁹

However, with regards to high level management of wood supplies in France and Belgium, several branches can be said to have been important in these early stages. The majority of timber and timber articles were considered as ‘Engineer Stores’, and unfortunately through much of the war they were not recorded separately by the QMG’s Office in its weekly reports of ‘Embarkation and Shipments,’ unlike many

¹⁴⁷ See the earlier sections of this thesis on the ‘Uses’ and ‘Shortages’ in chapter 1; TNA/BT/71/21, Bird, p. 30.

¹⁴⁸ From Officer of 15th Battalion ‘Letters From the Front’ in Lieut., Mary Plummer, Elizabeth Flager MacKeen, Jessie Pope et al., *With the First Canadian Contingent: Published for the Canadian Field Comforts Commission*, (Toronto & London: The Musson Book Company Ltd & Hodder & Stoughton Ltd, c. September 1915), p. 56; R.H. Mottram, *The Spanish Farm*, (London: Chatto & Windus, 1924), pp. 15, 221; R.H. Mottram, *The Twentieth Century, A Personal Record*, (London: Hutchinson, 1969), p. 60; R.H. Mottram, *Through the Menin Gate*, (London: Chatto & Windus, 1932), pp. 50, 71, 173.

¹⁴⁹ *History of the Great War Based on Official Documents*, 1916, vol.1, pp. 112-13.

other supplies, from forage to nurses.¹⁵⁰ Fuel in these reports meant coke and charcoal for men in trenches, coal for offices in the first and second echelons, but not ‘fuelwood’ often obtained locally.¹⁵¹ This failure to differentiate timber from other imports of Engineer Stores, up to at least December 1916, could imply that the QMG’s Office and others had not yet realised its essential status, although it could also be due to confusion between departments over who was responsible for tracking its stocks. It has been estimated, however, that approximately seventy-five per cent of RE stores were timber or articles using timber.¹⁵²

Early management and distribution of large supplies in France therefore rested with the QMG, RE Engineer in Chief and RE Director of Works, each of these making forecasts of requirements.¹⁵³ It was the RE Engineer in Chief who ordered the amounts required and the RE Directorate of Work who provided storage and distribution.¹⁵⁴ These would be allocated monthly to the Chief Engineers of each army. As shall be seen in chapter 3, the French Forestry Authorities provided the RE Directorate of Works with much of their supplies, and from the end of 1915 began allocating forest areas in which the RE could arrange cutting and transport. Some basic and underequipped RE forestry operations were established by June 1916, but were very much struggling with demand.¹⁵⁵

The supply structure remained similar to this until mid-1916 when it was recognised that transportation to and through France was overworked and failing and

¹⁵⁰ TNA/WO/95/30, 31 and 32, QMG War Diaries May-December 1916.

¹⁵¹ TNA/WO/95/31, QMG War Diary August-September 1916.

¹⁵² Pritchard, *History of the Corps of Royal Engineers*, pp.77-8.

¹⁵³ *Ibid.*, pp. 165-6.

¹⁵⁴ TNA/CAB/21/80, Minutes of Lord Curzon’s Committee on Timber Supplies, meeting 8 May 1917, p. 3, point 3: Lord Lovat (Director of Forestry in France) informed the meeting of the processes for estimating and ordering supplies prior to the establishment of the Directorate of Forestry (GHQ).

¹⁵⁵ Pritchard, *History of the Corps of Royal Engineers*, pp. 165-6, 559; Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34; TNA/BT/71/21, Bird, p. 39.

increased use of expert Canadian lumbermen in French forests was essential.¹⁵⁶ In June 1916 Kitchener therefore agreed that Colonel, later General, McDougall should visit France and report back on how forests could be put to better use by the CFC, either currently working in Britain or being raised in Canada.¹⁵⁷ McDougall's report of the 23 June 1916 was based on a four-day trip by himself and two officers to the timber-cutting operations already being carried out by RE units.¹⁵⁸ Although not all of the report's recommendations were enacted, it was certainly followed in terms of many of its recommendations regarding the organisation of HLOs, and types of forestry work suitable in France. These will be discussed in chapter 3. With regards to HLOs and agreements, the report recommended greater co-operation between organisations supplying timber, either from the UK or France, to the armies to ensure that none was imported to France that could be obtained there. Evidently the existing 'improvised' and under great pressure forestry organisation in France needed reorganising, preferably under an officer experienced in forestry work. This organisation would then pass any requests from the armies to London along with recommendations on the source of timber, given known sites in France. Lastly, all forestry companies should still ultimately be controlled from London, by a single 'Chief' with a knowledge of the requirements and ongoing or potential sites of operations in both countries, as they would be best placed to determine the most efficient solution. This seems like a good bit of personal empire-building, but, with regard to McDougall's later overall command of all CFC operations from London, it did work. However, management of the supplies, either imported or cut by the increasing Canadian presence in France, still required streamlining as per McDougall's recommendations.

¹⁵⁶ Brown, *British Logistics*, pp. 132-3; Bird and Davies, *The Canadian Forestry Corps*, p. 8.

¹⁵⁷ TNA/BT/71/21, Bird, p. 30; Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34-5.

¹⁵⁸ *Ibid.*

In late 1916 purchasing for and transport to France was still the responsibility of the War Timber Commission in London. The Commander-in-chief was then ultimately responsible for deciding allocation of supplies, arranging transportation of imports and produce from French forests, and salvaging and sending back to the UK any material that could be reused.¹⁵⁹ At this stage these tasks would, therefore, still have been allocated to the staffs of the QMG, Engineer in Chief and Directorate of Works at GHQ. For instance the QMG office was often involved in timber supplies, liaising with the French mission at GHQ over British requests to extract timber from particular French forests.¹⁶⁰ The QMG office also began holding monthly conferences to ‘consider and consolidate’ timber supply demands for a particular month, generally aimed at three months following the conference.¹⁶¹

Up to late 1916 at least, there were overall logistical problems in getting supplies to the front, largely due to what Ian Brown argues was an *ad hoc* approach to transport administration and problem-solving by career soldiers rather than professional planners.¹⁶² During the battle of the Somme, July to November 1916, although Cook argues that efficiency in getting supplies to the front had improved, Brown shows very thoroughly that the BEF’s supply system nearly broke down. Lack of supplies, especially ammunition, were common as problems shifted from production levels to ‘theater [sic] supply’, and the BEF continued to grow.¹⁶³ It was recognition of this that led to the work of Geddes from October 1916 in streamlining and

¹⁵⁹ TNA/BT/71/21, Bird, p. 39.

¹⁶⁰ TNA/WO/95/31 QMG War Diary August-September 1916, see entries for 13 September 1916 and 18 September 1916.

¹⁶¹ See for example TNA/WO/95/31 QMG War Diary August-September 1916 (inc. Appendix IX.45) conference held 1 September 1916 to ‘consider and consolidate demands for timber for the month of December’; TNA/WO/95/32, QMG War Diary October-December 1916, (inc. Appendix X.49) conference held on 1 October 1916 to consider and consolidate demands for timber for the month of January 1917.

¹⁶² Brown, *British Logistics*, passim, for instance see pp. 109-122.

¹⁶³ Cook, *At the Sharp End*, pp. 473, 474; Brown, *British Logistics*, pp. 1- 2, 109-134.

professionalising this transport administration, an excellent example of the successful introduction of civilian experts which as seen throughout this chapter was a central part of the forestry effort from its beginnings.¹⁶⁴

The first major reorganisations in terms of forestry administration in France came several months after the pivotal period of December 1916. It was felt by GHQ that supplies received through British and international organisations working in London, such as the War Timber Commission and *Commission Internationale d'Achats de Bois*, and the different departments involved in France were inadequate.¹⁶⁵ The BEF was also under some pressure from the French Government to clarify and improve the timber situation and practices.¹⁶⁶ In February 1917 the War Office therefore suggested to the Commander-in-chief that a single officer be put in control of all of forestry operations then being carried out under the RE Directorate of Works, who had also requested a separate directorate for timber, and a Director of Canadian Operations in France.¹⁶⁷ Therefore, at the same time that it was taking control of operations in the UK, through the Directorate of Timber Supplies (War Office), the War Office also sought a more centralised control of forestry in France. At the beginning of March the establishment of the Directorate of Forestry (GHQ) was approved. It was felt this should be a RE Directorate, essentially growing from their RE Directorate of Works, which also spawned independent directorates for Stores, Roads, Docks, Lands and RAF Works. It was decided, however, that the Directorate of Forestry at GHQ would come directly under the control of the QMG.¹⁶⁸ It became effective on 2 April 1917

¹⁶⁴ Brown, *British Logistics*, passim, for instance see pp. 109, 143, 147-9, 174, 231-3.

¹⁶⁵ TNA/BT/71/21, Bird, p. 3.

¹⁶⁶ Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p.

¹⁶⁷ Bird and Davies, *The Canadian Forestry Corps*, p.11; Pritchard, *History of the Corps of Royal Engineers*, p. 166.

¹⁶⁸ *Ibid.*, pp. 539-60, 565; Addison, *Work of the Royal Engineers*, p. 23; Maclean, *Farming and Forestry on the Western Front*, p. 97; Nicholson, *Canadian Expeditionary Force*, p. 499.

and the RE Directorate of Works passed responsibility for the supply of wood to the new Director of Forestry, the pre-war forestry expert Lord Lovat, recognised at high levels of government for high energy in devotion to his duties.¹⁶⁹ Lovat's Deputy Director, Major R.L.B Thompson, was appointed from the staff of the Directorate of Works and promoted to Colonel, and twenty-three experienced officers were employed.¹⁷⁰

The Directorate of Forestry (GHQ) was established to take overall control, from the War Timber Commission in London and various other bodies at GHQ, of the direction of all works by the CFC and Royal Engineer Forestry Companies already working in French forests by the spring of 1917.¹⁷¹ To achieve this it had numerous main roles. It firstly had to estimate requirements, although Lovat was keen to point out the difficulties in getting these accurate, then negotiate with the French authorities to provide areas of forests, prepare 'sawing specifications' and issue 'Rights of Access' for the forestry units in liaison with the French *Commission Forestière d'Expertises*.¹⁷² Once the resultant timber was obtained it was responsible for allocating stocks available to particular areas or schemes, and keep track of stock levels in the RE timber yards it was delivered to. It was also tasked with establishing a larger stock in order to respond to sudden needs from the front.¹⁷³ This closer control

¹⁶⁹ TNA/BT/71/21, Bird, p. 202; Pritchard, *History of the Corps of Royal Engineers*, p. 565; G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 140, G.S.O states that Lovat was a Brigadier-General when appointed to Directorate of Forestry (GHQ) in March 1917 [according to Brown, *British Logistics*, pp. 9-10 'G.S.O' was the pseudonym of Frank Fox, who worked at GHQ throughout the war]; Hansard, House of Lords Sitting 26 June 1917, cols. 639-40.

¹⁷⁰ Pritchard, *History of the Corps of Royal Engineers*, pp. 565-6.

¹⁷¹ Maclean, *Farming and Forestry on the Western Front*, p. 97; Pritchard, *History of the Corps of Royal Engineers*, p. 166; TNA/BT/71/21, Bird, p. 3; Sir Douglas Haig's 'Passchendaele' Dispatch, section on 'Forestry and Quarry Units' as quoted on www.1914-1918.net [accessed 17 February 2012]; Bird and Davies, *The Canadian Forestry Corps*, p. 11.

¹⁷² *Ibid.*, p.36.

¹⁷³ TNA/CAB/21/80, report from Lovat to Curzon, 15 May 1917; Pritchard, *History of the Corps of Royal Engineers*, p. 566; Maclean, *Farming and Forestry on the Western Front*, p. 98; Bird and Davies, *The Canadian Forestry Corps*, p. 36.

over exactly what quantities and type of wood was cut in France, when it was cut, and who it was supplied to, also allowed GHQ to provide the Directorate of Timber Supplies (War Office), and its replacement the Timber Supply Department (Board of Trade), in London with smaller and slightly more accurate requirements for additional timber.¹⁷⁴

In February 1917 the role of allocating supplies between the Allied armies had not been passed from the War Timber Commission to the Directorate of Timber Supplies (War Office), as many roles had, but to the French Ministry of War in Paris and the British C-in-C.¹⁷⁵ Although not contributing to the picture of centralisation of all elements, this did make organisational and logistical sense given the urgent need for supplies by a particular army at a particular time, especially in preparation for offensives. However, in May 1917 a month after the Directorate of Forestry (GHQ) had been established, it was decided that an equivalent cross-national organisation, similar to the War Timber Commission in London, was also required nearer the front to better allocate timber between the Allies. Two conferences, held on 2 and 25 May, between the French Government and Directorate of Forestry (GHQ) representatives, resulted in agreement that an inter-allied committee should be formed to better direct the work of the CFC in France, towards meeting the most pressing needs. The resultant committee would grow into *Le Comité Interallié des Bois de Guerre*. The committee included Lovat and Lieutenant-Colonel Sutherland from the Directorate of Forestry (GHQ), General McDougall of the CFC and French representatives. In July 1917 an American representative, Captain P.D.L Lyall, was also added.¹⁷⁶ The *Comité Interallié des Bois des Guerre* can, as stated above, be seen as a subcommittee of the

¹⁷⁴ Ibid., p.11.

¹⁷⁵ TNA/BT/71/4/78217, letter to C-in-C BEF from the Army Council, 10 February 1917.

¹⁷⁶ Bird and Davies, *The Canadian Forestry Corps*, p.36.

Commission Internationale d'Achats de Bois and War Timber Commission with the responsibilities of coordinating timber buyers across the Allies and distributing the supplies obtained in France, as well as purchasing additional supplies from Spain, Portugal and Switzerland.¹⁷⁷ By the end of 1917 Haig was praising the work of the forestry units, the *Comité Interallie des Bois des Guerre* and the French Forestry Authorities who had negotiated the use of their natural resources.¹⁷⁸

Reorganisations in timber management within the BEF were slightly slower to occur than in central government in London, but did follow similar patterns in terms of looking to increase self-sufficiency through more centralised and defined areas of control, and use of appropriate experts. The major reorganisation also occurred at similar times, and for similar reasons as those in the UK, namely late 1916 into 1917 due to acceptance that the war could continue for some time, unrestricted submarine warfare could disrupt shipping space already needed for other important imports, transport networks were struggling and therefore resources produced as close to the point of use were needed. In timber terms, due to good forest management by the French State in the hundred years before the war, this proved possible.

Conclusion to establishing and reorganising the HLOs; lessons learnt and acted upon.

The Timber Supply Department (Board of Trade) and Directorate of Forestry (GHQ) can, therefore, be seen as the pinnacles of the British organisations that took control of the wartime effort to obtain the necessary supplies of timber needed by the Home and Western Fronts. Allocation, based on availability and urgent needs was also

¹⁷⁷ TNA/BT/71/21, Bird, p. 27.

¹⁷⁸ Bird and Davies, *The Canadian Forestry Corps*, p. 38, they state that Field-Marshal Sir Douglas Haig's 25 December 1917 despatch praised their work, but it was Christmas so probably praised everyone's work.

eventually centralised in the Timber Allocation Subcommittee and in France in the *Comité Interallie des Bois des Guerre*. These organisations grew from earlier models, as contextual changes were recognised as necessitating them. It is clear that the policies of increased state intervention, as seen from December 1916, and applied across many areas as well as forestry, were not ‘knee-jerk’ reactions or a complete U-turn from laissez-faire to state control. They came through organisations and views that had evolved slowly in the first two years of war the purposes of which became increasingly important and difficult as requirements grew and increased in urgency, but shipping losses and additional space needed for more vital supplies also grew. However, standardised solutions across materials had emerged in terms of continuing to look for locations to import from, when shipping was available, whilst increasing self-sufficiency by bringing together and trying to streamline committees and subcommittees of civilian experts on various materials, issues of concern such as transport or machinery, or geographical areas.¹⁷⁹ Forestry fits well into this recognised wartime approach in terms of methods used and the timings they were introduced.

Continuity in Internal HLO Structures

As well as sensible reorganisations of responsibilities and streamlining as needs arose, the internal structures of some of the important HLOs also bore striking resemblances even as their names and managing organisations changed. This would have helped to ensure greater efficiency as roles passed from one to another, often in quick succession.

To achieve its aims the Home Grown Timber Committee structured itself and its work simply. The country was divided into administrative areas, each with officers

¹⁷⁹ Dewey, *British Agriculture*, passim, for instance see pp. 23-28, 70-71, 29-91, 96-7, 99.

responsible for purchasing timbered land then arranging its working and transport of the products. Initially England and Wales were divided into five areas, with Scotland and Ireland remaining single areas. However, these large spaces proved difficult for divisional officers to manage as required quantities increased, so additional suitably trained officers were employed and the UK subdivided into more numerous administrative areas.¹⁸⁰ Four Home Grown Timber Committee subcommittees were established to streamline the management processes and enable the Executive Committee and Director to concentrate on making policy decisions. The subcommittees carried out detailed investigation into one of either supply, labour, conversion or transport issues. The main committee received reports on their findings to enable quicker and better-informed decisions. This basic structure, along with the addition of the Pit-wood Joint Subcommittee, as stated above a combination of the Home Grown Timber Committee, Coal Mining Organisation Committee and Board of Trade, survived until the Home Grown Timber Committee disbanded at the end of March 1917.¹⁸¹

The Directorate of Timber Supplies (War Office) also eventually consisted of four branches. Although with broader parameters than the Home Grown Timber Committee subcommittees, they covered similar areas. Timber Section 1(TS1) dealt with establishing requirement levels, purchasing supplies, and issuing licences for imports and sales. TS2 was named, and promoted, 'Economies', and TS3 was labelled 'Forestry' dealing with acquisitions of standing wood and its conversion. TS4 dealt with the re-occurring essential issues of labour, equipment and transport that regularly held back supplies. TS4 also managed the Directorate's field staff, taken on from the

¹⁸⁰ TNA/BT/71/21, Bird, p. 18.

¹⁸¹ Ibid, pp. 17, 24.

Home Grown Timber Committee, and those German POWs put to forestry work in Britain, as well as the necessary machinery for cutting, conversion and transport. However, CFC units in the UK continued to take their directions from TS3 'Forestry' as part of the home grown timber effort.¹⁸²

The Timber Supply Department (Board of Trade) largely maintained the same structure as the Directorate of Timber Supplies (War Office), which essentially moved as a whole to the Board of Trade, although some alterations were made for efficiency. In regards to administration, to avoid confusion in the months following the move to the Board of Trade, the Army Council and War Office authorised the Controller of Timber Supplies (Ball) to act on their behalf under DORA reg.2C. One of the first things Ball did was to improve the office and paperwork arrangements that the War Office had in place. He tried to rationalise the different 'Registration' arrangements, of which there were approximately six being operated by the War Office, and to define unit roles clearly to remove any residual overlapping of tasks.¹⁸³ This inevitably led to some slight structural changes. When responsibility transferred to the Board of Trade the best structure for the four Directorate of Timber Supplies (War Office) 'TS' teams, were still being finalised, yet they were moved over as whole units to the Board of Trade, so work was not lost or undue confusion caused. However, this also meant that at this time they were also working largely separately from the rest of the Timber Supply Department (Board of Trade) creating some early 'imperfect knowledge of each other's function'.¹⁸⁴

At the beginning of 1918, however, a separate 'Branch V' was established specifically to deal, in close consultation with the Government Timber Buyers, with

¹⁸² TNA/BT/71/4/78217, War Office, Office Memo No.913, 7 March 1917; TNA/BT/71/21, Bird, pp. 200-3.

¹⁸³ Ibid., pp. 51, 205.

¹⁸⁴ Ibid., p. 205.

buying and transporting all wood from overseas, essentially focussing on the USA and Canada.¹⁸⁵ Furthermore, sections TS3 'Forestry' and elements of TS4, who had responsibility for field staff and German POWs, were combined immediately into Branch III, in charge of home grown timber operations.¹⁸⁶ Communication between Branch III and the CFC was closely maintained by Liaison Officers stationed in CFC operational areas. These were overseen by Major G.L. Courthope, M.C. M.P., an Assistant Controller of Timber Supplies, and described in 1919 as 'a leading authority on forestry questions' as well as being 'President of the English Forestry Association and of the Royal English Arboricultural Society'.¹⁸⁷ Clearly he was a suitable Assistant Controller and understandably included in several wartime advisory committees on forestry.

Just as important as labour, were sufficient supplies of transport and new and replacement plant and stores for sawmills.¹⁸⁸ Therefore these elements of TS4 formed 'Branch IV', established under an Assistant Controller. They did not solely work to assist their own field divisions and CFC units, but helped private firms, in a sign of the desperate need for home grown timber. However, the administration of home grown timber orders and permits was left to Branches I and II, TS1 and TS2 under the War Office, enabling them to take even tighter control of consumption in the UK, whether home-grown or imported.¹⁸⁹ The Board of Trade also felt the need to reduce the number of field divisions in England and Wales, which had grown under the War Office, and place one officer in charge of each. Frequent meetings were then held

¹⁸⁵ Ibid., p. 207.

¹⁸⁶ Ibid., p. 206; Hansard, House of Lords Sitting 26 June 1917, cols. 637-8.

¹⁸⁷ Bird and Davies, *The Canadian Forestry Corps*, pp. 12, 23.

¹⁸⁸ Hansard, House of Lords Sitting 26 June 1917, cols. 637-8; TNA/BT/71/21, Bird, p. 207.

¹⁸⁹ Ibid.

between Branch II at HQ and the Divisional Officers to tackle any general concerns and share experiences.¹⁹⁰

In France and Belgium the Directorate of Forestry (GHQ) oversaw work carried out through an Army Area Forestry Group, including an HQ and ‘Forestry Control’ team, and a ‘Lines of Communication’ Forestry Group which included an HQ for several groups and forest districts, not necessarily on the direct British lines of communication, but throughout France.¹⁹¹ These ‘districts’ would manage the timber units in their areas and supply the results to RE timber yards. Distribution from RE yards was then still the responsibility of the Directorate of Works and Transport services.¹⁹² Technical staff from all of the main forestry areas would meet GHQ staff weekly, at the Directorate of Forestry (GHQ) offices, to liaise with each other over issues including changes in demands of volumes or types of timber and the regularly updated six-months supply forecasts they received. They also discussed current output, working conditions encountered in the forests, and how good forestry practices could be maintained.¹⁹³

The internal structures of the pinnacle HLOs that emerged can therefore be seen as well laid out and sensible given the types of work required of them, for instance acting as interfaces between different needs from different end-users and those converting the trees in the woodlands of Britain or France. Some continuity, for instance from the Home Grown Timber Committee to the War Office and then Board of Trade management organisations, can also be easily traced in terms of staff and structures. Furthermore, it will now be shown that there was also continuity in the high level personnel in these bodies.

¹⁹⁰ Ibid., p. 206.

¹⁹¹ Addison, *Work of the Royal Engineers*, pp. 23-4.

¹⁹² Pritchard, *History of the Corps of Royal Engineers*, p. 566.

¹⁹³ Maclean, *Farming and Forestry on the Western Front*, pp. 97-8.

Continuity in HLO Staff and their Advisory Committees.

Knowledge and experience were passed from one organisation to the next or to other bodies operating simultaneously, through staff transfers, advisory committees and close contact in many meetings, noted discussions, interviews and memoranda. The Board of Trade recognised by mid-August 1914 that several of their employees, such as C.F Rey, Mr Ashley and R.L Robinson, who had been Head of the Office of Woods, was Superintending Inspector of Forestry at the Board of Agriculture and Fisheries, was effectively in charge of Office of Works forestry, and later became Secretary to the Acland Committee, plus other forestry experts at the Board of Agriculture and Fisheries, were duplicating investigations into and responses to some enquiries.¹⁹⁴ The subsequent agreement, that the Board of Trade would be responsible for pit-wood requirements and imports, meant these organisations ‘narrowly escaped’ irritating duplication of work.¹⁹⁵ It was also agreed that to reduce such duplication the Board of Agriculture and Fisheries’ Samuel Committee would restrict itself to considering the possibilities of obtaining home grown timber, and that the Boards of Trade and Agriculture would liaise closely.¹⁹⁶

Employees of the Board of Trade, such as Rey, met with organisations during August and September 1914 to establish details of availability, supply and prices related to pit-wood services. These included the Timber Trade Federation, Mining Association, Marine Department and transport companies. On 25 August a meeting between the Board of Trade, the Director of Canadian Forestry Mr Campbell, and

¹⁹⁴ TNA/BT/71/4/78217 numerous letters sent by Directorate of Timber Supplies (War Office) in March and April 1917 to other government departments requesting a representative to serve on the Consultative Committee, and their replies; Board of Agriculture and Fisheries; Office of Woods, Forests and Land Revenues, *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 5; TNA/LAB2/1488/LE37858/46/1914, note from Rey to Smith on current pit-wood situation, 19 August 1914.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

Robinson, at that stage representing the Office of Woods, discussed the possibility of a supply of pit-props being obtained from areas of Canada.¹⁹⁷ A few days later the Board of Trade even met with the head of Amalgamated Press, Lord Rothermere, to see if use could be made of its existing Newfoundland Timber Department.¹⁹⁸ In September 1914 The Board of Trade also began to deal directly with Britain's Trade Commissioner in Canada and Newfoundland, Mr Hamilton-Wickes. Interaction between the Board of Trade in London and Canada and Newfoundland was at times slightly complicated, but this largely arose due to confusion between who was to take certain actions, Hamilton-Wickes or William Windham, who was in Canada on a Board of Trade fact-finding mission. However, any confusion and duplication was minor and corrected quickly by the Board of Trade.¹⁹⁹

The Home Grown Timber Committee's initial Chairman was F.D Acland who, as already noted, was the Parliamentary Secretary to the Board of Agriculture and Fisheries who would later be appointed as Chairman of the Forestry Subcommittee of the Reconstruction Committee.²⁰⁰ Although not directly dealing with wartime supply issues, membership of the Acland Committee was all-encompassing in terms of British forestry at the time, and many names crop up with respect to the wartime effort. Various producers were represented, such as the Boards of Agriculture, the Office of Woods and large landowners. The main consumers, the Office of Works, Ministry of

¹⁹⁷ TNA/LAB2/1488/LE37858/18/1914, note by Rey 24 August 1914.

TNA/LAB2/1488/LE37858/46/1914, notes regarding 'Supply of Pit-Props', n.d (c.late August 1914).

¹⁹⁸ TNA/LAB2/1488/LE37858/18/1914, including for example notes by Rey in August and September 1914; TNA/LAB2/1488/LE37858/46/1914, notes regarding 'Supply of Pit-Props', n.d (c.late August 1914).

¹⁹⁹ TNA/LAB2/1488/LE37858/110 and 18/1914, Telegrams of 10 and 12 September 1914 from Colonial Office to Governor General and his reply of 22 October 1914, as well as from Board of Trade to His Majesty's Trade Commissioner; TNA/LAB2/1488/LE37858/18,46,110,111 or 193/1914, passim; *Cd.7728 Reports to the Board of Trade upon the Supply of Imported Pit-Timber*, for resultant December 1914 report; also see Board of Agriculture and Fisheries, *Cd.7729, Report on supplies of home-grown pit-wood in England and Wales*, (London: HMSO, 1914) for equivalent report on HGT capabilities for pit-timber.

²⁰⁰ Hansard, House of Commons Sitting 2 May 1917, col. 339.

Munitions, Admiralty, War Office and Board of Trade, all had at least one representative. Forestry expertise was provided by pre-war specialists, including Sir Stirling Maxwell, and representatives from the University of Cambridge and Scottish Office.²⁰¹ This was an indication of the way expertise and experience would come together and permeate the wartime forestry effort in order to advance it efficiently.

The Home Grown Timber Committee's first Director was John. D. Sutherland. Formerly of the Scottish Office and later holding a high level role with the Directorate of Timber Supplies (War Office), Sutherland would eventually be appointed Assistant Director of Forestry in France, with the temporary rank of Lieutenant-Colonel.²⁰² Senior members of the Home Grown Timber Committee also formed the basis of the Pit-wood Joint Subcommittee, established to deal with all issues relating to home grown timber for use in mines. Acland chaired this committee, as well as the Home Grown Timber Committee, and H.G. Richardson was secretary of both.²⁰³ The Local Pit-wood Committees established in mining areas by the Home Secretary, consisted of representatives of local mine and forest owners as well as the Home Grown Timber Committee, and their brief was to investigate and collate requirements for the Pit-wood Joint Subcommittee and coordinate liaison between mines and landowners to improve sources. The Pit-wood Joint Subcommittee would, in turn, advise the Local Pit-wood Committees on the national situation, this illustrating the high levels of liaison.²⁰⁴

²⁰¹ TNA/BT/71/21, Bird, pp.16-17 for full list of committee members.

²⁰² Bird and Davies, *The Canadian Forestry Corps*, p. 7; TNA/BT/71/21, Bird, pp. 16-17; Ian Beckett, *The First World War: The Essential Guide to Sources in the UK National Archives* (Public Records Office, 2002), p. 214.

²⁰³ TNA/BT/71/1/6564, notes of the first meeting of the Pit-wood Joint Subcommittee, 18 April 1916; TNA/BT/71/21, Bird, pp. 2, 23.

²⁰⁴ *Ibid.*, p. 23.

Boards of Agriculture Forestry Advisory Officers, who had also been working with educational centres before the war, were also placed at the disposal of the Home Grown Timber Committee to utilise their local knowledge.²⁰⁵ By the time the British asked the Canadian Government for help in February 1916 some of the staff that had transferred to the Home Grown Timber Committee from the Boards of Agriculture already knew the Canadian Director of Forestry in Ottawa, and this would help in their later dealings with the Canadian Lumber units. Sutherland also provided valuable advice and ensured good cooperation with the Canadians.²⁰⁶ Although in these early days it was difficult to employ enough suitably trained officers to work in all of the Home Grown Timber Committee divisions around the UK, not surprisingly given the embryonic state of British pre-war forestry coupled with the enlistments to Kitchener's Armies, they were gradually found.²⁰⁷ The Department of Timber Supplies at the Ministry of Munitions also assembled appropriate staff for their needs, including surveyors, technical assistants, inspectors and foremen. They also sought 'Technical Assistance' from timber experts Messrs. Kilner and Drew.²⁰⁸

As seen above, there were apprehensions over the decision to pass control of timber supplies from the Board of Agriculture and Fisheries, charged when established with improving supplies with expert forestry, to the War Office.²⁰⁹ However, Bampfylde-Fuller, the first and only Director of the Directorate of Timber Supplies at the War Office, had at times run agricultural departments in Indian provinces as well as ending up as Lieutenant-Governor of Eastern Bengal and Assam before the war, and so he

²⁰⁵ *Cd.8881 Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 13.

²⁰⁶ Bird and Davies, *The Canadian Forestry Corps*, pp. 6, 7.

²⁰⁷ TNA/BT/71/21, Bird, p. 18.

²⁰⁸ TNA/MUN/5/31/263/23/35, Timber Supplies Department (Ministry of Munitions): Organisation and Functions as of 11 November 1918; TNA/5/44/263/92/1, Chart of Organisation of the Timber Supplies Department (Ministry of Munitions), c. August 1918 to January 1919.

²⁰⁹ Hansard, House of Lords Sitting 26 June 1917, cols. 635-6, Earl Selborne; Hansard, House of Lords Sitting 20 June 1917, cols. 545-7, Lord Heneage.

was clearly used to administering large and important organisations.²¹⁰ Furthermore, although the Home Grown Timber Committee had started out as just a few officers lent by the Boards of Agriculture, when handing responsibility to Bampfylde-Fuller all but a very few of its 178 administrative staff and skilled forestry officers, were taken on by the Directorate of Timber Supplies (War Office).²¹¹ Concerns over lack of expertise were further quashed as each of the heads of the War Office Timber Sections had relevant experience. To head TS1, largely dealing with foreign purchases, Captain W. Roberts Crow, an imported timber merchant of the firm W.R Crow and Sons was appointed, and he later became an Assistant Controller of Timber Supplies in charge of Branch I of the Timber Supply Department (Board of Trade). Other personnel in Crow's section, such as a number of inspectors tasked with regulating prices, were also taken from the timber trade.²¹²

Unusually TS2, 'Economies', did take on all new staff when established. However, its role centred on creating and running a permit system for the sales of imported softwoods, so it was more administrative in nature. Their high level staff did, however, often have relevant engineering qualifications. The team was initially headed by W.S. Gale, an architect and surveyor who had been working in the Aeronautical Inspection Department. His successor, from May 1917, was G.M. Harriott who amongst other professional qualifications was a Member of the Institute of Civil Engineers.²¹³

TS3, 'Forestry', dealt mainly with increasing home grown timber supplies and therefore liaised with and provided assistance for the CFC. This team not only took its initial director, Sutherland, from the Home Grown Timber Committee so he could continue in a similar role, but also large numbers of its administrative and field staff

²¹⁰ *The Times*, 'Controller of Timber', 20 February 1917, p. 9.

²¹¹ TNA/BT/71/21, Bird, p. 24; Hansard, House of Commons Sitting 2 May 1917, col. 339.

²¹² TNA/BT/71/21, Bird, pp. 201, 207.

²¹³ *Ibid.*, p. 201.

as well. In London this amounted to some 130 members, including an accounts department of approximately thirty-five clerks and secretaries, who had already been sitting on various committees, and a large number of permanent civil servants on loan.²¹⁴ Concerns were raised as to whether the expertise of forestry officers employed by the Board of Agriculture and Fisheries, under the Home Grown Timber Committee, was still being utilised for selecting areas for cutting and negotiating prices.²¹⁵ It was, however, stressed that the majority of these Boards of Agriculture Home Grown Timber Committee field officers had been transferred to TS3, along with its labour and the majority of its equipment and plant including its 164 mills. Even orders placed by the Home Grown Timber Committee for more equipment were simply transferred to the Directorate of Timber Supplies (War Office).²¹⁶

Sutherland's replacement at TS3, after his move to the Directorate of Forestry (GHQ), also illustrates contemporary recognition of the need to utilise those trained in other parts of the empire, as the army had found in terms of officers when drastically expanding its size in 1914 and 1915. Mr Hugh Murray had been Senior Conservator of Forests (Bombay) but now took charge of this team which was looking to increase home grown timber production in the UK. He maintained this role with the War Office and then Board of Trade until the end of the war.²¹⁷

TS4, responsible for labour, equipment and transport, was commanded by Lieutenant-Colonel A.C. MacDonald R.E., a Canadian who had trained at the Royal Military College of Canada. However, between graduating from there in 1885 and

²¹⁴ *The Times*, 'Controller of Timber', 20 February 1917, p. 9; Hansard, House of Lords Sitting 20 June 1917 cols. 546-7; TNA/BT/71/21, Bird, p. 201.

²¹⁵ Hansard, House of Lords Sitting 1 May 1917, cols. 996-7; Hansard, House of Lords Sitting 26 June 1917, cols. 635-36.

²¹⁶ Hansard, House of Lords Sitting 1 May 1917, cols. 996-7; Hansard, House of Lords Sitting 20 June 1917, cols. 546-47; TNA/BT/71/21, Bird, pp. 20, 202.

²¹⁷ *Ibid.*, pp. 202-3.

1915 he worked as a civil engineer in various parts of north, central and South America. Before his role at the Directorate of Timber Supplies (War Office) he had also been in charge of the building of many of the army camps in England.²¹⁸ Furthermore, Captain Gammell, who had been appointed by the Home Grown Timber Committee in 1916 to manage the use of German POWs in British forests, also maintained this role in TS4.

Continuity can also be seen in forestry management in Ireland and Scotland. In Ireland, the War Office's Directorate of Timber Supplies had to make no changes to the structure or staff concerned with managing forestry work. This was due partly to the comparatively small amount of forestry work being undertaken in Ireland, when compared with the rest of Britain, and as the work was being left to civilian contractors. Furthermore it was being managed by A.C. Forbes, who had worked for the Department of Agriculture for Ireland, who had been loaned by them to the Home Grown Timber Committee and then taken on by the Directorate of Timber Supplies (War Office).²¹⁹ However, one of the common questions raised in parliament regarding the timber effort, largely by Irish Nationalist MPs, was why Irish forestry and its timber trades were not so well represented in the management and advisory bodies? They wanted these increased or for Ireland to be given its own versions of the forestry HLOs, who could then establish specific controls so that Irishmen could look after Irish interests. Answers came back that the controls to be enforced by governing bodies applied to all of the UK. Furthermore, that Forbes, who essentially ran the timber effort in Ireland for the different governing bodies during the war, was a member of the Home Grown Timber Committee and subsequent managing bodies.

²¹⁸ James K. McDonnell and Robert Bennett Campbell, *Lords of the North*, (Ontario, 1997), p.147.

²¹⁹ Hansard, House of Commons Sitting 30 March 1917, col.765; TNA/BT/71/21, Bird, p.203.

Moreover, Irish timber trade representatives and Chambers of Commerce from several Irish cities would, or had been, included on Advisory Committees for the HLOs.²²⁰ However, when the Unionist MP John Lonsdale suggested more help for Irish merchants to obtain wood for packing cases and a separate Directorate of Timber Supplies for Ireland, other Hon. Members shouted ‘Home Rule!’, a sign of the tensions over Ireland throughout the war, and the sense of humour MPs could bring to serious debates.²²¹

In Scotland the Directorate initially retained the services of Mr Richardson as their Executive Officer. He had been in charge of production in Scotland under the Home Grown Timber Committee. However, in April 1917 he returned to the Board of Agriculture for Scotland and was replaced briefly by Sutherland, who also carried on as head of TS3 until he left on 5 May to take up his position as Assistant Director of Forestry (GHQ).²²² Senior management roles were therefore generally very appropriately staffed. However, as an indication of the continuing difficulties of recruiting sufficient forestry experts as the task grew in scale and locations, the accountant at the Edinburgh Office of the Directorate of Timber Supplies (War Office), Mr. Sinclair, was forced to become Executive Officer and manage the direction of work in Scotland, even though suffering from ill health.²²³ Yet he, as Sutherland had been, was also helped with forestry matters by Dr. Borthwick, ‘Forestry advisory officer to the Board’.²²⁴

At the time of its establishment the Directorate of Timber Supplies at the War Office were advised by the War Cabinet not only to consult experts attached to the

²²⁰ WA(C) 22 February 1917, col.1486; Hansard, House of Commons Sitting 30 March 1917, col.765; WA(C) 17 May 1917, col.1805; Hansard, House of Commons Sitting 23 July 1917, col.856.

²²¹ Hansard, House of Commons Sitting 23 May 1917, cols.2280-2281.

²²² TNA/BT/71/21, Bird, p.202.

²²³ TNA/BT/71/21, Bird, p.202.

²²⁴ Hansard, House of Commons Sitting 25 October 1917, cols.1034-5.

Home Grown Timber Committee but also those such as Professor Somerville of Oxford University, Sir Hugh Shaw-Stewart or Sir Herbert Maxwell.²²⁵ Another prominent and important feature, illustrating the War Office's recognition of being new to the field of large-scale forestry and its willingness to use existing expertise, was the number of advisory committees of such experts that it established. Firstly a Consultative Committee, which the Army Council had insisted upon in transferring responsibility to the Directorate of Timber Supplies (War Office), was formed during March-April 1917, and met for the first time on 1 May.²²⁶ Letters asking for representatives were sent to the Office of Works, Board of Agriculture and Fisheries, Ministry of Munitions, Admiralty, Ministry of Shipping, Air Board, Board of Trade, the Controller of Mines at the Board of Trade, and the Railway Executive Committee.²²⁷ Within the replies to this request are several names that further indicate the continuity of experts between organisations. For instance the Board of Agriculture and Fisheries representative was its Superintending Inspector of Forestry, R.L. Robinson.²²⁸ The Ministry of Munitions nominated Bain, their 'controller of timber supplies' with previous experience of timber supplies at the Office of Works.²²⁹ The Lords Commissioners of the Admiralty felt that the Admiralty's interests in timber, given its own purchases and usage levels, were so important that they should have at least two representatives on this committee from the Navy Contracts Department. The

²²⁵ TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, p.2.

²²⁶ *The Times*, 'Controller of Timber', 20 February 1917, p. 9; TNA/BT/71/4/78217, War Office Memo No.913, 7 March 1917 and numerous letters sent by Directorate of Timber Supplies (War Office) in March and April 1917 to other governments departments requesting nominations for a representative to serve on the Consultative Committee, as the Army Council had decided when establishing the Directorate of Timber Supplies (War Office) that the needs and interests of many other departments needed to be heard. Replies were gradually received; see TNA/BT/71/21, Bird, p. 204 for a full list of members.

²²⁷ TNA/BT/71/4/78217, numerous letters from Directorate of Timber Supplies (War Office) in March and April 1917.

²²⁸ *Ibid.*; *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, p. 5.

²²⁹ TNA/BT/71/21, Bird, pp. 16-17; TNA/BT/71/4/78217, letter Ministry of Munitions to War Office, 4 April 1917.

Admiralty also recognised the need for the Ministry of Shipping to be represented.²³⁰

The Railway Executive Committee sent Mr. Stanier, a Great Western Railway Stores Superintendent who was also acting as the Secretary of the Timber Sub-committee of the Railway Executive Committee.²³¹

Leading forestry experts and landowners, such as Lord Lovat and Sir Stirling Maxwell, Lord Powis, the Duke of Somerset, Sir Hugh Shaw-Stuart, and once again, R.L. Robinson, many of whom had worked for or advised the Boards of Agriculture before the war and then the Home Grown Timber Committee, were formed into the Timber Advisory Committee. This was intended to represent the interest of large landowners, others concerned with the ‘disposal of standing timber,’ and those interested in questions relating to silviculture.²³² A Merchants Advisory Committee was also appointed to advise the War Office. It consisted of five merchants chosen by the Timber Trade Federation, as well as two from well-respected firms not belonging to the federation. They joined Bampfylde-Fuller, Captain Crow (Head of TS.1) and representatives of the Government Timber Buyer (Messrs. L. Meyer) on the committee. It first met on 30 March 1917, and held several meetings during the short life of the Directorate.²³³ A small Advisory Committee of Scottish Merchants was also formed on which Sutherland was the main Directorate of Timber Supplies (War Office) representative.²³⁴ Furthermore, an advisory committee of home grown timber merchants was established, including men such as A.W. Ardran, President of the

²³⁰ Ibid., including letter Admiralty to War Office, 17 March 1917, and reply 20 April 1917.

²³¹ Ibid., letter Railway Executive Committee to War Office, 4 May 1917; for a full list of members of this committee see TNA/BT/71/21, Bird, p. 204.

²³² Hansard, House of Lords Sitting 26 June 1917, cols. 635-36; *The Times*, ‘Controller of Timber’, 20 February 1917, p. 9; TNA/BT/71/4/78217, letter Bampfylde-Fuller to Robinson (Board of Agriculture and Fisheries), 12 May 1917; TNA/BT/71/21, Bird, p. 204.

²³³ *The Times*, ‘Controller of Timber’, 20 February 1917, p. 9; TNA/BT/71/4/78217, letter Bampfylde-Fuller to Robinson (Board of Agriculture and Fisheries), 12 May 1917; TNA/BT/71/21, Bird, p. 203.

²³⁴ Ibid., p. 204.

National Federation of Sawmill Proprietors, J. Heaton (Jnr), Chairman of the Home Grown Section of the Timber Trade Federation, and at least two representatives from Scottish timber merchant associations.²³⁵ It was also felt that the Directorate of Timber Supplies (War Office) would generally utilise 'trade experts' to manage the timber situation.²³⁶ The Merchants Advisory Committee also then fed staff into later management. For instance C.O Hughes, who had represented the trade on this committee, joined the Timber Supply Department (Board of Trade). His replacement on the committee was in turn replaced by Mr R.J. Williams, of Messrs. Denny, Mott & Dickson, who became the official timber-buying agents of the Admiralty. These are yet more illustrations of suitable use of experienced personnel.²³⁷

It can be seen therefore that the change from Boards of Agriculture or Office of Woods control, through the Home Grown Timber Committee, to the War Office did not create much discontinuity with regards to staff at senior management, field officer or administrative level. A further example of continuity between the organisations, and also of economising on forest produce in the form of paper-pulp, can be seen in that memos emanating from the Directorate of Timber Supplies (War Office) as late as May 1917, when they were already passing responsibility on to the Board of Trade, were still occasionally written on Home Grown Timber Committee headed paper.²³⁸ Not surprisingly, given the short existence of the Directorate of Timber Supplies (War Office), similar continuity can be seen when responsibilities later passed to the new Timber Supply Department at the Board of Trade.

²³⁵ Ibid.

²³⁶ *The Times*, 'Controller of Timber', 20 February 1917, p. 9.

²³⁷ TNA/BT/71/21, Bird, p. 203.

²³⁸ TNA/MUN/4/3417, Ministry of Munitions Requirements and Statistics, memo Directorate of Timber Supplies (War Office) Branch III to Ministry of Munitions, 4 May 1917, memo paper still headed with 'The Secretary Home Grown Timber Committee'.

Concerns were once again raised over the potential for expert forestry and administrative voices to be lost to this ‘exceptionally important role’ when responsibility was passed on for the second time in several months, some expecting ‘a watering down of expertise with each move’.²³⁹ Yet rather than a complete change, this move appears, as in the case of the Home Grown Timber Committee and Directorate of Timber Supplies (War Office), more like a merger that aided rationalization. Bird writing soon after the war, and with an obvious personal interest in making the Board of Trade management of timber supplies appear as efficient as possible, argued that the move to the Timber Supply Department (Board of Trade) streamlined operations further, removed more duplications and corrected some ‘inequalities’ that had led to friction. Essentially he felt it made the timber effort gradually ‘more and more homogeneous’.²⁴⁰ Bird’s views, whatever his personal reasons for painting a rosy picture, have been found to be generally accurate through this research. Continuity once again occurred in the important areas of advisory committees and forestry experts.

The civil servants, such as accounting staffs, taken on by the Timber Supply Department (Board of Trade) were largely those from the Office of Woods, Office of Works, Boards of Agriculture who had gone to the Home Grown Timber Committee and then the Directorate of Timber Supplies (War Office) when it was formed, and were simply passed on once again.²⁴¹ However, one concern was whether the experts and interested landowners of the Timber Advisory Committee would continue to advise the Timber Supply Department (Board of Trade).²⁴² It was confirmed that the

²³⁹ Hansard, House of Lords Sitting 26 June 1917, cols. 635-7.

²⁴⁰ TNA/BT/71/21, Bird, p. 205.

²⁴¹ *Ibid.*, pp. 208, 219-221; TNA/BT/62/1/21, Department of the Controller of Trading Accounts of the Board of Trade, memos, correspondence and financial development and trading reports.

²⁴² Hansard, House of Lords Sitting 1 May 1917, col. 996, Earl Selborne; Hansard, House of Lords Sitting 26 June 1917, cols. 635-36.

Timber Advisory Committee would be taken on by the Board of Trade, along with many other such advisory bodies, but that some alterations might have to be made.²⁴³ The Timber Advisory Committee retained many of the usual suspects, including Stirling Maxwell, but the ‘alterations’ appear in that Lovat and Robinson were now absent and, interestingly, that it was now to include a representative of nurserymen, illustrating a recognition of the long-term nature of forestry.²⁴⁴ New advisory committees were also formed with the Chambers of Commerce of London, Manchester, Bradford, Glasgow and Belfast. These were included mostly in regards to attempts to reduce timber in packing.²⁴⁵

Experts that had been lent to the Home Grown Timber Committee and Directorate of Timber Supplies (War Office) by other bodies simply continued their roles under the Board of Trade. Whether from universities, the Boards of Agriculture, Office of Woods, or the India Office, such as W.H. Lovegrove, the Conservator of Forests for Kashmir, experts were lent to the effort, generally on a long-term basis and through numerous changes in HLOs.²⁴⁶ It was not only in advisory roles that experts were utilised, and reutilised, but also in timber-related trade positions. It was decided that the Timber Supply Department (Board of Trade) Special Representative on the British War Mission to Washington, appointed in January 1918, should deal with all matters relating to timber in the US and Canada. Colonel Reginald M. Beckett of the CFC and previously of the important timber firm of Dobell, Beckett & Co, was chosen.²⁴⁷ Even when bespoke forestry or trade experts were not available, the Controller of Timber

²⁴³ Ibid., col. 638; TNA/BT/71/3/55295, ‘Memo showing necessity for the control of timber at the beginning of the Submarine Campaign, and the extent to which restriction and controls have been removed since Armistice’, (n.d).

²⁴⁴ Hansard, House of Lords Sitting 1 May 1917, cols. 996-98, Lord Derby.

²⁴⁵ Hansard, House of Lords Sitting 26 June 1917, col. 638; TNA/BT/71/3/55295, ‘Memo showing necessity for the control of timber’, (n.d).

²⁴⁶ TNA/BT/71/21, Bird, p. 206.

²⁴⁷ Ibid., pp. 65, 207.

Supplies with his connections was able to obtain on loan several managers from railway companies with experience in organising large operations within large organisations.

As well as senior management, expert advisers and clerical staff, the Timber Supply Department (Board of Trade) also took on forestry field officers from their predecessors, with a few minor tweaks to roles.²⁴⁸ The work in Scotland and Ireland was now decentralized further and Assistant Controllers appointed to take charge of these areas, but these were still men who had been involved from the start in these areas. In Scotland the Controller of Timber Supplies persuaded the forestry expert Sir John Stirling Maxwell to accept the position on a voluntary basis. Maxwell's Executive Officer in Scotland was Sinclair who had been in charge after Sutherland departed his post under the Directorate of Timber Supplies (War Office) for France.²⁴⁹ In Ireland the ever reliant Forbes who, as shown above, had been loaned by the Department of Agriculture for Ireland to run operations for the Home Grown Timber Committee and had stayed in a similar role for the War Office directorate, was simply made Assistant Controller of Timber Supplies (Ireland).²⁵⁰

Similarities in terms of HLO use of varied committee members, continuity of staff, and recognition and elimination of duplication can also be seen in other examples in the forestry effort. Although only meeting three times, Lord Curzon's Committee on forestry matters made some particularly important decisions in the management of the wartime timber effort, having brought together many important figures. As well as Curzon himself, Bampfylde-Fuller the Director of Timber Supplies (War Office), Lord Lovat who was by then Director of Forestry at GHQ, Sir Albert Stanley the President

²⁴⁸ Ibid., pp. 205-6; Hansard, House of Lords Sitting 1 May 1917, cols. 996-8.

²⁴⁹ TNA/BT/71/21, Bird, p. 206.

²⁵⁰ Ibid.

of the Board of Trade, Sir H. Llewellyn Smith the Permanent Secretary to the Board of Trade, and G. Calthrop, the Controller of Mines were all included.²⁵¹ Two suitably experienced Canadian lumbermen were appointed by the War Timber Commission as Liaison Officers to communicate directly between the French Government and Canadian Forestry units operating in France.²⁵²

The War Timber Commission itself also established an HQ at the Office of Works offices in London and included representatives from the Office of Works, War Office, Admiralty, QMG Department and for a short time the Home Grown Timber Committee.²⁵³ The French were represented by members of their War Ministry, Ministry of Agriculture and the 4th Bureau of the French Staff, the Belgian War Ministry also being represented.²⁵⁴ As the Directorate of Timber Supplies (War Office) took responsibility for obtaining softwoods for the British Army from March 1917 and the *Commission Internationale d'Achats de Bois* continued its role of overall management of foreign purchases, the membership of the War Timber Commission was actually widened, reflecting its increasingly overarching policymaking status. Bampfylde-Fuller became its chairman and representatives of the Ministry of Shipping were added.²⁵⁵

However, as well as aiding knowledge exchange, duplication of work was also quickly identified by the members due to the cross population of this and numerous other high-level committees, commissions and boards.²⁵⁶ By mid-1918 it was

²⁵¹ TNA/CAB21/80, Lord Curzon's Committee on Timber Supplies, Report of First Meeting, 8 May 1917.

²⁵² Bird and Davies, *The Canadian Forestry Corps*, p. 36.

²⁵³ Bird and Davies, *The Canadian Forestry Corps*, pp. 10-11.

²⁵⁴ *Ibid.*, p. 11.

²⁵⁵ TNA/BT/71/21, Bird, pp. 27, 35.

²⁵⁶ *Ibid.*, p. 35; TNA/CAB/40/23, general correspondence regarding the appointment of the Timber Allocation Sub-Committee, specific examples include letters sent by the War Priorities Committee on 22 and 23 November 1917, from the Controller Timber Supplies (Board of Trade) to the Secretary War Timber Commission on 28 November 1917, the War Priorities Committee to the Timber Allocation Subcommittee 23 September 1918, from Ministry of Munitions to the Secretary War

therefore decided that to aid coordination between the growing number of subcommittees, the Secretary of the War Priorities Committee, Col. F. J. Byrne, would be an *ex-officio* member of all of them.²⁵⁷ Also, from at least July 1918, confirmation of establishment and make up of new subcommittees, along with their agendas and meeting minutes, were very well circulated in an effort to keep all relevant parties informed.²⁵⁸

In a report to the War Priorities Committee on the work of the Timber Allocation Subcommittee, ten days after the armistice, Ball stressed that its major role and achievement had been to provide close liaison between the main users of timber, the priority government departments, and the Timber Supply Department (Board of Trade) who ended the war responsible for its purchasing, importation, production and distribution in the UK.²⁵⁹ He argued that the Timber Allocation Subcommittee, of which he had been chairman, had personally also helped him in his parallel role as Controller of Timber Supplies and that the interaction of the Timber Supply Department (Board of Trade) with the priority users through the Timber Allocation Subcommittee had resulted in programmes that had averted overlap and wastage of timber.²⁶⁰

With regards to senior management and advisory roles it is apparent that, as Bird states, they were indeed 'occupied by gentlemen with extensive experience of the

Priorities Committee 29 November 1917 and 3 December 1917, memos Secretary War Priorities Committee to Chair Timber Allocation Subcommittee dated 16 and 17 May 1918; TNA/CAB/40/24, minutes of the meetings of the Timber Allocation Sub-Committee, correspondence in October 1918 reference adding Major G.W. Parkinson, M.C of the Air Ministry Works and Buildings Department.

²⁵⁷ TNA/CAB/40/23, letter Colonel Byrne to the chairmen of all of the War Priorities Committee Sub-Committees, 3 June 1918.

²⁵⁸ *Ibid.*, for instance see letters Secretary War Priorities Committee to Chair Timber Allocation Subcommittee 5 and 29 July 1918.

²⁵⁹ TNA/CAB/40/23, Report on the work of the Timber Allocation Subcommittee by Ball, sent to the Secretary of the War Priorities Committee, 21 November 1918.

²⁶⁰ *Ibid.*

timber trade or forestry’.²⁶¹ This section has illustrated that throughout the war, as HLOs and their numerous subcommittees changed name or governing body, a core of suitable expertise and invaluable knowledge from all branches of the forestry and timber trades was maintained, from controllers to field teams and administration offices.

Environmental Concerns Raised or Considered By the HLOs

Even though concerns regarding deforestation were raised by some experts prior to and in the early years of the war, at this time of national emergency little heed was given to environmental concerns in establishing the roles of these HLOs.²⁶² The work of the Acland Committee (the Forestry Subcommittee of the Reconstruction Committee) on potential post-war issues was kept separate from those concerned with providing supplies for the war. However, its establishment illustrates that future environmental concerns regarding forestry were raised and considered from as early as July 1916, but they were not paramount for the HLOs considered here.²⁶³ Yet the existence and work of the Acland Committee would have been known by those in the organisations discussed above as there was cross-population of members with this committee as well. This knowledge might have helped those ultimately responsible for supplying wood for the war effort to prioritise immediate needs over sustainability. Throughout the research into the HLOs looking to obtain supplies, only occasional evidence has been found of specific environmental concerns, and most of these were raised but not acted upon in UK, as will be seen below. In terms of concerns raised by

²⁶¹ TNA/BT/71/21, Bird, p. 208.

²⁶² See chapter 1 of this thesis or Stebbing, *British Forestry*, passim.

²⁶³ *Cd.8881 Final Report of the Forestry Sub-Committee of the Reconstruction Committee*, p. 3; Ministry of Reconstruction, *Cd.8916: A List of Commissions and Committees set up to Deal with Questions Which Will Arise at the Close of the War*, (London: HMSO, 1916).

French Forestry Authorities, as their forests were increasingly used, these had to be taken into consideration by the British authorities, as will be made clear in chapter 3.

In the early days of ‘Business as Usual’ and hopes in the UK for a short war, timber merchants cannot be harshly blamed for wanting to make profits in a climate of sudden and extreme need for their product. However, once the Home Grown Timber Committee had ceased to operate, as of March 1917, the Board of Agriculture and Fisheries’ sole interest in regards to the wood question became the ‘extensive’ felling going on in their areas at the time. They were still the Statutory Forestry Authority for England and Wales, and as such did raise concerns regarding the effects these could have on post-war forestry.²⁶⁴ In terms of the bodies at the War Office and Board of Trade some consideration was given to sustainability measures, and some were hoped for, but little achieved in practical terms.²⁶⁵ In a memorandum to the Secretary of the War Office in February 1917’ Bampfylde-Fuller, along with recognising the desperate need to increase output from UK woodlands, also stated that his new organisation ‘should also keep in view the question of reconstituting forests and safe-guarding the future interests of forestry in this country’.²⁶⁶ However, even though the work of the Directorate of Timber Supplies (War Office) was initially intended to include the re-forestation of cleared areas, little could be done in practical terms in this respect given more urgent priorities.²⁶⁷ Bampfylde-Fuller also felt that the Board of Agriculture and Fisheries should be represented on the Advisory Committee to his Directorate of Timber Supplies because of its interest, as the Statutory Forestry

²⁶⁴ TNA/BT/71/4/78217, Letter from Mr Robinson (Board of Agriculture and Fisheries) to Sir Bampfylde-Fuller (Director of Timber Supplies, War Office), 9 May 1917.

²⁶⁵ TNA/BT/71/21, Bird, p. 202.

²⁶⁶ Ibid.

²⁶⁷ Ibid; TNA/BT/71/4/78217, memo Directorate of Timber Supplies (War Office) to Secretary War Office 26 February 1917, p. 11.

Authority for England and Wales, in the effects of the amount being cut.²⁶⁸ However, R.L. Robinson, then Superintending Forestry Officer at the Board of Agriculture and Fisheries, subsequently stated that the first meeting of this committee was solely concerned with ‘consumption and supply of timber’ and that as such the Board of Agriculture and Fisheries was somewhat superfluous now that the Home Grown Timber Committee had been handed to the War Office.²⁶⁹

Some politicians took a keen interest in areas ‘denuded of trees’ and what government was doing to help reforestation.²⁷⁰ One Irish Nationalist was incorrectly informed that three Boards were carrying out such work in Great Britain, and had already been allocated 40,000,000 trees to plant, whereas no one was taking responsibility for such work in Ireland along the lines of the recommendations of the Irish Afforestation Commission. Although the Board of Agriculture and Fisheries were at that stage in January 1918 of considering afforestation in England and Wales after the war, including raising large numbers of seedlings, it was nowhere near 40,000,000 and they were definitely not ready for planting.²⁷¹ Furthermore it was stated in response, by the Chief Secretary for Ireland, that some planting was being carried out, but that this was ‘not on a scale to keep pace with fellings’.²⁷² Requirements for the war effort meant home grown timber production was being extended in Ireland at the beginning of 1918, and although the consent of the Department of Agriculture and Technical Instruction for Ireland was needed in some cases, in most it had no power to prevent fellings.²⁷³ Throughout the UK little could be achieved in regards to re-afforestation, except for urging its importance on

²⁶⁸ Ibid., letter Bampfylde-Fuller to Robinson (Board of Agriculture and Fisheries), 12 May 1917.

²⁶⁹ Ibid., letter Robinson (Board of Agriculture and Fisheries) to Bampfylde-Fuller, 9 May 1917.

²⁷⁰ Hansard, House of Commons Sitting 17 January 1918, cols. 468-69.

²⁷¹ Ibid.

²⁷² Ibid.

²⁷³ Ibid.; Hansard, House of Commons Written Answers 14 March 1918, cols. 489-490.

landowners who had signed contracts to make use of their trees, and keeping details of timber operations for future reference.²⁷⁴ Environmental concerns were, therefore, not high on the priorities of the HLOs obtaining supplies but they were given some consideration during the war. However, it was the efforts to streamline the management structures and what levels of supplies were maintained that would determine how contemporaries would either criticise or praise their efforts.

Contemporary Praise and Criticism for the HLOs

Praise for the various high level departments and bodies involved in the war effort was bound to be high and regular in the days, months and years immediately following the successful completion of the war. For instance, see the notes on the work of Bird and articles in various American forestry journals in 1918 and 1919 in the historiographical review. However, this praise can also be used not only to illustrate the sincere appreciation of many contemporaries, and views of the work done, but also the importance attached to the type of work carried out by these management organisations, away from the front, and why their establishments, roles and efforts were considered so vital.

An excellent example of this is found in the letter that General Smuts wrote, on behalf of the War Cabinet, to Sir James Ball, in his role as Chairman of the Timber Allocation Subcommittee, in December 1918. In thanking him for that committee's assistance to the war effort through its assistance of the Permanent Subcommittee of the War Priorities Committee, he made the feelings of the Government clear in regards to the need for greater centralisation and control,

The colossal war effort of this country introduced an element of competition for labour, for manufacturing capacity and for supplies of all sorts which might have led to serious confusion had it not been for the assistance of an

²⁷⁴ TNA/BT/71/21, Bird, p. 202.

organisation for bringing together the several competing interests. In this organisation your Committee has assisted materially in overcoming the difficulties with which we have had to cope. Believe me, Yours sincerely...²⁷⁵

However, not all were happy with the efforts made, and a body of forestry experts submitted a damning memorandum on forestry administration to the War Cabinet in January 1918, six months after the Board of Trade had taken responsibility. Rather than defending previous efforts, the Controller of Timber Supplies, J.B Ball, added to the memorandum that previous arrangements had been allowed to lapse as there was not a single central body with 'sufficient authority to keep things up to the mark' and that things in mid-January 1918 were beginning to head in the same direction as earlier in the war. Importantly, A.H Stanley, the President of the Board of Trade, concurred with this view.²⁷⁶ Yet, no obvious rearrangement resulted from this plea for even greater centralisation, and the work and organisational structures continued as before. Furthermore, some argued in March 1918, that the country had been vulnerable in 1914 and 1915 due to its massive reliance on imports, including timber, and that was why numerous new ministerial or departmental bodies, or semi-official versions of these, had had to be established to introduce new methods to take closer control. Furthermore, given these necessities, the number of directorates and committees established and staff employed by them was relatively small, and indeed successful given the forestry work achieved.²⁷⁷ It is such positive contemporary conclusions that this research most concurs with.

²⁷⁵ TNA/CAB/40/23, letter General Smuts to Ball 18 December 1918, see also reply of 19 December 1918.

²⁷⁶ TNA/CAB/24/39/62, 'Note by the Timber Controller on the Memorandum on Forestry Administration drawn up by Lord Lovat and Other Gentlemen', 16 January 1918.

²⁷⁷ Hansard, House of Lords Sitting 6 March 1918, see arguments put forward by Lord Hylton, Lord Ribblesdale and Earl Curzon in cols. 276, 283-4, 306.

Example Achievements of the HLOs.

Such conclusions are even more evident when taking account of the relatively few examples of actual shortages of wood identified, on which see chapter 1, and that when they were this was more likely due to transport issues. Also just a small selection of the increases in figures achieved under these HLOs also suggests that overall they were a success.

During 1916 the Home Grown Timber Committee supplied 150,000 tons for military purposes, an average of 12,500 per month.²⁷⁸ Production increased steadily, and by February 1917 it was supplying 24,000 tons per month of sawn timber from England and Scotland for the war effort.²⁷⁹ The Home Grown Timber Committee expected to produce 450,000 tons in 1917, nearly 40,000 tons per month, illustrating its confidence that its measures were beginning to work given the 300,000 tons increase on 1916.²⁸⁰ The majority of the sleepers, telegraph poles and other forms of timber it acquired or produced in Britain were sent to France, reducing dependence on North Sea and cross-Atlantic shipping.²⁸¹

The Pit-wood Joint Subcommittee initially found it difficult to come to agreements with mine owners in England, Wales and Scotland. However, a conference brought forest and mine owners together, and resulted in a contract implemented in Scotland for the supply of approximately 51m lineal feet of pit-wood, and for the Home Grown Timber Committee to agree contracts to supply 32,000 tons of pit-wood by April 1917, primarily to collieries in south Wales, along with an additional 15,000 tons to provide the Board of Trade with a reserve stock.²⁸²

²⁷⁸ TNA/BT/71/21, Bird, pp. 20-21, see p. 21 for month by month figures.

²⁷⁹ TNA/BT/71/4/78217, memo Bampfylde-Fuller to Secretary War Office, 26 February 1917, p. 7.

²⁸⁰ Ibid., memo Bampfylde-Fuller to Secretary War Office, 26 February 1917, p. 7.

²⁸¹ TNA/BT/71/21, Bird, p. 2.

²⁸² Ibid., pp. 23-24; TNA/BT/71/1/6564, Joint Sub-Committee on Pitwood, passim.

Finally, Lovat was proud of the fact that under his Directorate demand for imports to France had fallen from 180,000 tons per month to 125,000 by May 1917, although he stated that this was an absolute 'bedrock'.²⁸³ Most importantly, however, the Commander-in-chief believed that by September of 1917 the Directorate of Forestry (GHQ) had enabled the Army to become practically self-supporting in terms of timber, supplying over 750,000 tons of timber to the British Army alone between May and October 1917.²⁸⁴ This being 300,000 tons more than the Home Grown Timber Committee had expected to produce in the UK during the whole of 1917. By November 1918 the Directorate of Forestry (GHQ) was managing some four hundred and twenty five officers, 11,000 other ranks, and 6,000 POWs in France. It produced over two million tons of timber in the last year of the war alone, an average of 166,666 tons each month.²⁸⁵

Conclusion: Common Sense and Continuity in Trying Circumstances.

As well as simply detailing the main organisations and their roles or agreeing with positive contemporary views, this chapter illustrates that although the forestry effort could appear at times to fit into the 'over-complicated' and too bureaucratic British stereotypes, a great deal of work was undertaken to create and develop a system as efficient as possible. This system managed to supply the Home and Western Fronts with these sudden and unprecedented wood and timber requirements. Furthermore, given the particularly small and disjointed beginnings this system had to grow from,

²⁸³ TNA/CAB21/80, Minutes of Lord Curzon's Committee on Timber Supplies, meeting 8 May 1917, p.3, point 3.

²⁸⁴ Sir Douglas Haig's 'Passchendaele' Dispatch, section on 'The Marquise Quarries' as quoted on <www.1914-1918.net> [accessed 17/2/2012].

²⁸⁵ G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 140.

Bird's overall assertion was correct that 'one of the most individualistic branches of trade and commerce was brought under close but not inharmonious control'.²⁸⁶

The War Timber Commission, Timber Supply Department (Board of Trade), Directorate of Forestry (GHQ) and Timber Allocation Subcommittee were the pinnacles of the organisations managing the timber effort for the British Empire, and often the French forces. These were evolutions, reorganised, updated and rationalized from earlier bodies as needs became apparent. It has also been shown that the major changes took place at times when higher political machinations were occurring, such as May 1915 and December 1916, themselves induced by the context of the war's wider progress. Forestry can, therefore, be seen to fit into the standard pattern recognised in the historiography of closer more centralised controls being brought in with Lloyd George's moves to the Ministry of Munitions and then Downing Street.

A major factor in the surprisingly few examples of duplication and confusion this management structure created was the consistency of staff utilised. Interaction and liaison were well maintained, especially at directive and senior levels where experienced, knowledgeable and relevant forestry and timber trade personnel were utilised well throughout the war. However, at this level environmental concerns could not be given too much weight, even with pre-war and occasional wartime warnings. Some recognition of the need for future sustainability was indicated in the establishment of the Acland Committee, and this did give freer reins for those involved in the HLOs to concentrate on obtaining supplies.

The consistent management roles to do this can be categorised as establishing requirements and current stocks, maintaining as high a level of imports as possible compatible with shipping restrictions, increasing home grown timber production,

²⁸⁶ TNA/BT/71/21, Bird, p. 1.

deciding on allocation based on current context and urgencies, and establishing controls to maximise efficiency of production and use. It is to these HLO methods that the following chapter turns to in more detail.

Chapter 3: HLO Methods: the measures taken to secure the necessary supplies.

Chapter 2 detailed how and why the main forestry HLOs were established and how these evolved as needs altered, generally towards a greater level of central control over facets of the timber and wood effort. This chapter will now examine the many and varied methods that these HLOs used to achieve their goal of keeping the Home and Western Fronts adequately supplied with forest produce. It will be seen that many central conclusions evident in previous chapters can also be seen when investigating the controls put in place by the HLOs. As well as simply illustrating how the supplies were maintained as well as possible, the amount of administrative efforts between different concerned bodies will reinforce the thesis theme of a complicated situation sensibly handled, as previously seen not something always argued about the British war effort. It will demonstrate that the HLOs, themselves becoming more centralised as seen in chapter 2, in turn implemented another of the December 1916 Coalition's philosophies, increased levels of State control on a particular element of the war effort. Timber and wood certainly became resources closely 'controlled' by centralised bodies, as the historiography has previously shown many other areas did, from munitions to agriculture. The measures taken to control these resources, whilst not always being happily accepted by all concerned, will be seen to have been introduced based on widespread high-level liaison, or if not then at least amended following introduction.

One of the central measures recognised as key to success was the need for greater self-sufficiency in the UK and France, as reflected in the establishments of many of the HLOs, such as the Home Grown Timber Committee and Directorate of Forestry

(GHQ) detailed in chapter 2. It will be shown that the great importance attributed to this means of obtaining supplies was understandable given the distinct lack of shipping space, especially following the resumption of unrestricted submarine warfare by Germany in February 1917. A major part of the reasoning of the architects of this campaign was their calculations regarding Scandinavian pit-props, and how stopping this supply would bring the British coal industry to a standstill.¹ Although the campaign was ultimately unsuccessful, arguments exist about its effectiveness, and official sources, including Parliamentary debates and cabinet meeting minutes, illustrate that shipping space was one of the main concerns for political and military planners throughout the war, and timber was a bulky resource that grabbed their attention.²

However, the diplomatic efforts to ensure suitable forested areas of France were made available to British and British Empire forestry units highlight inter-Allied co-operation in good terms, again not something that has always been argued for elements of the War. Whilst outlining these diplomatic agreements, the concerns that the French Forestry Authorities had regarding the use of their woodlands will also be detailed in order to supplement those concerns raised by organisations or individuals in Britain, as outlined in chapter 2. It will be seen that, unlike in the UK where concerns were noted but led to little in the way of practical action in terms of afforestation, the French Forestry Authorities tried to ensure that good forestry practices were followed, even with the pressure to supply high quantities in response to urgent demands. The overall

¹ Holger H. Herwig, 'Germany's U-Boat Campaign', in Roger Chickering and Stig Förster (eds.), *Great War, Total War: Combat and Mobilization on the Western Front, 1914-1918* (Washington, D.C.: German Historical Institute, 2000), pp. 202-3.

² Ibid; Swettenham, *To Seize the Victory*, p. 151; *History of the Great War Based on Official Documents*, 1917, vol.1, p. 536; TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, pp. 2-3; TNA/CAB/23/1/74, Minutes of War Cabinet Meeting 74, 19 February 1917, pp. 1-2; TNA/BT/71/21, Bird, pp. 38, 54.

conclusion reached is similar to that arrived at in regards to the establishment of the HLOs, that in the many methods they introduced to meet this unprecedented situation a good deal of administrative work was undertaken in sensible directions, leading to maintained supplies.

To satisfactorily cover the methods used, whilst evidencing these themes and conclusions, the measures have been split into three categories, controlling more, buying more, and producing more. An obvious fourth category of necessary measures, that of obtaining the necessary levels of manpower, skilled and unskilled, by the HLOs will be covered in chapter 4 as stated in the thesis introduction. However, the first category addressed in this chapter are those measures that increased State control over stocks and uses. This category will begin with a brief contextual review of the important contemporary events and arguments regarding greater levels of State control. It will be seen that in relation to major changes the timings of these coincide with those covered in chapter 2 regarding centralisation, most specifically that December 1916 marked a clear turning point. The methods to ensure better control will then be illustrated including increasing the legal powers available to the HLOs to introduce tighter controls, at times involving arduous legal wranglings, as well as establishing and monitoring stock levels, determining future requirements, and allocating supplies based on this information and contextual priorities. An important element in State intervention was the introduction of various permit and licence schemes related to transporting, buying, selling or pricing different types of timber, in order to direct supplies to essential users and uses. Maximising available stock through methods such as requisitioning, salvaging, encouraging economy and investigating alternative materials were also used by the HLOs to help maintain stocks.

The second category looks at the measures aimed to increase the amounts bought by the HLOs. These include supplies from both home-grown and imported resources and as such include a raft of controls on shipping imports and pricing of supplies as well as detailing from where imports could still be obtained. Finally, in the third category, those measures aimed to improve the vital component of producing increased amounts of timber nearer to where it was actually needed will be investigated, especially as transportation of such bulky material became increasingly difficult. This section will also look at encouragements introduced to try to produce more UK grown timber, as this was necessary even following the successful implementation of agreements and procedures to use forests throughout France.

From the Privy Council order prohibiting the importation of furniture woods, hardwoods and veneers in February 1916 to the 10 April 1919 Pit-wood Order (1919), at least sixty-one control orders including elements relating to types of wood, its transportation or its use were made or amended. See Appendix ‘Control Orders & Notices’ for a full list.³ Relatively few regulations affected types of wood or timber supplies before February 1917, those that did were mainly aimed at controlling wider transport arrangements, especially shipping restrictions, as opposed to primarily or solely aimed at a particular type of forest produce.⁴ However, once the War Office and then Board of Trade became responsible, a steep increase in orders being made and notices released can be seen in national newspapers and trade journals.⁵ Bird was

³ For examples of notices published in trade journals see TNA/BT/71/2/23994 (mainly from 1918); TNA/BT/71/21, Bird, Appendix 1, ‘Notes on Defence of the Realm Regulations and Orders Regarding the Control of Timber’, p. 1 and Appendix 2, ‘Post Armistice Period’, p. 2.

⁴ Ibid., Appendix 1, p. 1; TNA/BT/71/3/55295, Memo regarding the control of timber during the war (24 March 1919), such a conclusion was also stated in post-war notes dated 21 to 24 March 1919 on the controls that had been put in place by the Board of Trade.

⁵ War Office, ‘Army Council Order: Imported Soft Wood’, *Fourth Supplement to the London Gazette of 13 April 1917*, 16 April 1917, pp. 3569-70 (order dated 14 April), a copy also appeared in *The Edinburgh Gazette*, on 20 April 1917, pp. 776-777; TNA/BT/13/75, including signed copy of order.

therefore accurate in claiming that between January 1917 and the end of the war timber supplies, as with so many other resources, could most definitely be labelled as ‘controlled’.⁶ Ultimately evidence that the controls and measures put in place did work can be seen in the lack of widespread, desperate or long-lasting shortages. By November 1918 a stock of surplus softwoods had even been created in Britain by the Timber Supply Department (Board of Trade).

Controlling Use

Greater Government intervention

To prevent defeat in this ‘total’ war British Governments increasingly realised they would need to tighten controls over parts of British commerce, industry and society.⁷ This was especially true of Lloyd George’s coalition from December 1916 to December 1918, and the war greatly altered relationships and the distribution of power between government and organised business, as well as trade unions and other rank-and-file movements. Before the war government intervention in business was mainly supported by Conservative/Unionist MPs in matters such as protectionist trade tariffs, but was strongly resisted by Liberal Governments in favour of laissez-faire policies.⁸ For instance pre-war governments had seen Acts to alleviate housing problems as a means to promote private development, with no need for direct intervention.⁹

As seen in chapter 2 the Government Timber Buyers were appointed in October 1914 to try to centralise government purchases, transport and storage of timber, nevertheless strict controls over timber and many other materials were lacking early in the war. This was not, however, simply a ‘slavish adherence’ to laissez-faire. In terms of numerous industries and agriculture there were examples of interventionism

⁶ TNA/BT/71/21, Bird, p. 38.

⁷ Turner, *British Politics*, p. 1.

⁸ *Ibid.*, pp. 1, 2, 109.

⁹ Swenarton, *Homes Fit for Heroes*, p. 189.

on relatively small scales, or there were good practical reasons and arguments not to interfere.¹⁰ By the spring of 1915 arguments on the merits and drawbacks of increased levels of intervention in industries important to the war effort were rife between different political parties and factions.¹¹ Kitchener wanted improved results by concentrating labour and materials on existing War Office suppliers. Some in Cabinet, including the President of the Board of Trade, wanted to allow expansion without any controls, through the price mechanism. However, Lloyd George argued for high levels of intervention to expand industry's capacity to produce munitions, and during spring 1915 his support was increased as he successfully created a sense of emergency and urgency, to which increased state controls appeared a good answer.¹² The May 1915 political crisis, mainly due to the shell shortages scandal, led Asquith to form his coalition cabinet, yet even with Lloyd George's move to the Ministry of Munitions this administration was still recognised for its procrastination.¹³ However there was substantial intervention before December 1916 in the normal course of trade when necessity demanded, whether to secure military supplies or sugar and meat.¹⁴

Chancellor Reginald McKenna's first wartime Budget in September 1915 has been argued to signal an abrupt abandonment of Free Trade, even though he was a Liberal MP and free trade advocate. Duties on imports were explained not only as a way to raise revenue for making war, but also as a way to reduce imports and therefore demands for tonnage, as well as limiting civilian consumption. It was also made clear

¹⁰ Dewey, *British Agriculture*, pp. 23, 24, 91, 24; Turner, *British Politics*, pp. 59-60.

¹¹ *Ibid.*, pp. 59, 84, 85, 343; Martin Pugh, 'Runciman, Walter, first Viscount Runciman of Doxford (1870-1949)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011, <<http://www.oxforddnb.com/view/article/35868>>, [accessed 20 May 2015]; TNA/CAB/37/123/21, Walter Runciman M.P., 'Shortage of Merchant Shipping Tonnage', 11 January 1915.

¹² Turner, *British Politics*, pp. 59-60.

¹³ Morgan, 'George, David Lloyd', n.p; Swenarton, *Homes Fit for Heroes*, pp. 49-50; Turner, *British Politics*, pp. 4, 58; Dewey, *British Agriculture*, p. 24.

¹⁴ *Ibid.*

that they were wartime measures only. Tariff reformers thought it a small victory, more suspicious Liberals a sell-out.¹⁵ Some argue that agriculture was left to its own devices until the end of 1916, but policies to encourage self-sufficiency were slowly introduced at times earlier than this, especially during the spring and summer of 1916.¹⁶ Reasons stricter proposals were declined in agriculture before the end of 1916 included occasional reductions in losses to submarines and hopes over potential increases in the enlistment of agricultural workers. Although initial interventionist measures might not have gone far enough for many, Turner convincingly argues that recommendations made, or measures actually adopted, during the first two years of the war became the templates for later wartime controls. Throughout agriculture and industry the common types of measures discussed before the end of 1916 can be seen as forerunners of those that became prominent in forestry. Rather than compulsion, initial encouragements aimed to create greater output within usual market structures, through measures such as price controls to encourage production and sales of particular items.¹⁷ Therefore, it is too simplistic to say that no intervention took place before December 1916, but economic controls and interventionist policies were much slower to develop up to this period, even though threats such as those created by blockade had been recognised and well discussed.

However, as Lloyd George's coalition was settling in and German submarines were further reducing imports, the number of politicians keen to increase state intervention to alleviate shortages of all kinds grew. Firmer controls of important areas were introduced, for instance in relation to numerous types of imports and the establishment of centralised ministries and other HLOs, tasked with stopping the

¹⁵ Turner, *British Politics*, pp. 59, 84, 85; Cregier, 'McKenna, Reginald (1863–1943)', n.p.

¹⁶ Dewey, *British Agriculture*, p. 31.

¹⁷ *Ibid.*, passim, for instance pp. 5, 23-35, 79, 36-197, 91; Turner, *British Politics*, pp. 1, 109, 126, 172-6.

economy from drifting out of control and ensuring wartime supplies.¹⁸ Again the common methods widely introduced do reflect those introduced in forestry. A commitment to greater self-sufficiency within the UK alongside the regulation of consumption, the monitoring of local actions and giving new powers to appropriate departments through new legislative controls will all be described below. Such measures were often very similar to those recommended or tried in the first two years of the war, and often resisted by sections of parliament as well as by business and land owners, were now pushed through.¹⁹

This contextual situation with regards to types of interventions in other areas of the war effort being similar to those in forestry is also borne out in relation to timings of controls. As will be seen, up until 1917 controls consisted of those helping early attempts to establish timber stock levels, some restrictions on imports of specific, mainly furniture, woods and the Army Council being empowered in April 1916 to take land, trees, buildings and plant to produce timber, although this authority was rarely used. Firmer control measures such as banning imports, setting maximum prices, or permit schemes for sales, purchases and uses did not begin being introduced until the start of 1917, their frequency and detail increasing under the new coalition, as they did in other industries and agriculture.²⁰

The Powers to Control

To enable this tighter control of forestry to be effected the HLOs responsible had to be empowered to legally enforce it. Although the compulsory powers allocated to the main forestry bodies were necessarily different in fine detail, they were

¹⁸ Ibid.

¹⁹ Turner, *British Politics*, pp. 173-6.

²⁰ See the appendix to this thesis 'Control Orders & Notices' for chronological list of all controls implemented, including details; Turner, *British Politics*, pp. 5, 6, 121, 153; Dewey, *British Agriculture*, passim, for instance see pp. 23, 34, 91, 106.

fundamentally similar to those used to aid food production. The Defence of the Realm Act (DORA) regulations gave agricultural authorities access to unoccupied agricultural land and this was followed from January 1917 with powers to inspect land, enforce 'Cultivation Orders' and take over the running of a property if it was believed that the tenant/landowner was not producing sufficient amounts.²¹ As seen above, the first powers to be given in regards to the timber effort were under 'Order No.231 of 1916' (12 April 1916), which empowered the Army Council to take land, trees, buildings, plant, water supply or 'motive power', for the purpose of 'felling and converting timber', as well as housing forestry workers.²² Although this had to be done through one of the military bodies, it was put in place so the Home Grown Timber Committee had access to some compulsory powers to encourage production. Legally at this time, however, powers had to be administered through one of the 'War Departments'.²³

The controls put in place by the Directorate of Timber Supplies (War Office) were also authorised by the DORA, as they were working under the War Office, so the Army Council simply allocated powers to Bampfylde-Fuller in April 1917²⁴

...relative to the requisition and taking possession of, and to the regulation, restriction and prohibition of the manufacture, purchase, sale, delivery of or payment for or other dealing in, and to the felling, converting, storing, transporting, removing or distribution of timber and trees.²⁵

Regulation 15C gave the right to call for returns 'and all other particulars', meaning timber merchants had to furnish a census of stocks, machinery and employees. Regulation 2E could impose any limitation on manufacture or trading of

²¹ Ibid., pp. 92, 97-8.

²² TNA/BT/71/21, Bird, Appendix 1, p. 1.

²³ Ibid.

²⁴ TNA/BT/13/75, letter Guedalla, War Office Contracts Solicitor, to Ball, Controller Timber Supplies (Board of Trade), 7 June 1917.

²⁵ Ibid., Army Council Minute/Order, 25 April 1917 and letter Controller Timber Supplies (Board of Trade) to Sir H. Llewellyn Smith (Board of Trade), 29 May 1917, point 1.

goods, could fix prices, and could force people to sell at those prices even if they did not want to.²⁶ It could also prohibit, except under certain very specific circumstances, any dealings in timber. This had been used already with regard to wool, hay and straw, and the War Office had managed to obtain convictions for refusal to sell wool at a certain price.²⁷ When used in conjunction with 2E, regulation 8A could also allow for any scheme of prioritization to be enforced. Regulation 2C allowed for the requisitioning of standing timber, plant and housing for workmen.²⁸ Finally, Regulation 2B meant the Directorate of Timber Supplies (War Office) could requisition, or give notice of requisition. This could impose embargoes on sales or movements of goods, and could temporarily ‘freeze’ a market, for example fixing the prices of sawn timber. It was also the regulation that gave an existing body, Sir James Woodhouse’s Commission for agreeing compensation for requisitioned goods, the exact principles to operate under.²⁹ Overall, therefore, it is clear that, as a War Office Contracts Branch solicitor stated, the DORA conferred ‘large powers in few words’ onto the Army Council, and hence the War Office’s Directorate of Timber Supplies.³⁰

Although Bird states that when the Timber Supply Department (Board of Trade) took over responsibility in May 1917 new control measures for timber supplies simply continued to be made under DORA regulations, by order of the Army Council on behalf of the Board of Trade, the truth was more complicated than this.³¹ As the Board of Trade took responsibility from the War Office, both parties knew it was important

²⁶ Ibid., letter War Office to Board of Trade outlining DORA regulations that War Office wanted Board of Trade to administer (2b, 2c, 2e, 15c), 12 June 1917 and letter Guedalla to Ball, 7 June 1917.

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid., including correspondence from War Office to Board of Trade, June 1917, including letter War Office Contracts Department to Controller Timber Supplies (Board of Trade), 7 June 1917; Dewey, *British Agriculture*, pp. 94-5.

³⁰ TNA/BT/13/75, letter Guedalla to Ball, 7 June 1917.

³¹ TNA/BT/71/21, Bird, pp. 51-2.

for the Board of Trade to have similar powers to those held by the Army Council and Ministry of Munitions in regards to creating and amending statutory orders under DORA.³² Initially the Army Council looked to authorise the Controller of Timber Supplies (Board of Trade) to ‘exercise their powers under DORA’, as they had for the Directorate of Timber Supplies (War Office).³³ However, it was recognised by solicitors from both sides that powers simply granted by the Army Council could only be a very temporary measure. Discussions therefore ensued with regards to the best option for giving the Controller of Timber Supplies (Board of Trade) the necessary powers.³⁴

At this time the DORA regulations relating to the Board of Trade (2F-2J) covered similar areas to those mentioned above for the War Office and could potentially be made to work for the Board of Trade. However, they were felt to be ‘far less neat and concise’ and the powers they conferred were ‘carefully limited and elaborately stated’.³⁵ The wording did not give the Board of Trade as much power specifically over timber as it had in the Army Council sections, although it was still felt by some that they could be used to the same effect, although some would have to be conjoined with Army Council powers.³⁶ For instance 2B, which the Directorate of Timber Supplies (War Office) had used to requisition stocks of sawn timber and fix its prices,

³² TNA/BT/13/75, correspondence War Office to Board of Trade during June 1917.

³³ Ibid., letter Controller Timber Supplies (Board of Trade) to Sir H. Llewellyn Smith (Board of Trade), 29 May 1917, point 1, also correspondence War Office to Board of Trade June 1917 including letter with draft ‘Authorisation Minute’ dated 1 June 1917 sent by the Board of Trade to Army Council for signing as a temporary measure to give the Controller Timber Supplies (Board of Trade) same powers as Directorate of Timber Supplies (War Office) had had until a Board of Trade order could be completed. Also see letter from War Office to Board of Trade 6 June 1917 enclosing Army Council authority for Controller Timber Supplies, also dated 6 June 1917, letter War Office to Board of Trade 12 June 1917, and note Guedalla to Controller Timber Supplies (Board of Trade) 25 June 1917; TNA/BT/71/21, Bird, Appendix 1, p. 4.

³⁴ TNA/BT/13/75, correspondence War Office to Board of Trade June 1917.

³⁵ Ibid., letter Guedalla to Ball, 7 June 1917.

³⁶ Ibid., memorandum Board of Trade Solicitors Office to Sir Herbert Llewellyn Smith, Permanent Secretary to the Board of Trade, 2 June 1917, letter Guedalla to Ball 7 June 1917 and Correspondence War Office to Board of Trade June 1917.

might also be used in conjunction with 2F, although provisions for making compensation would need amending in 2F and this could lead to complicated compensation arbitrations, rather than automatically utilising Woodhouse's Commission with its 'precisely stated' claim principles.³⁷ Furthermore, 2C was a regulation specifically related to standing timber, which the Directorate of Timber Supplies (War Office) had been empowered to use, and which provided powers, not obtainable elsewhere in DORA, to enter land.³⁸ It was recommended that 2C needed to be expanded in order to be covered by the Board of Trade, as standing timber could be argued not to be an article of commerce. Therefore wording that left no doubt that articles of commerce at this time would include trees 'whether standing, felled or converted' would have to be included under 2F to 2J. By the summer of 1917, after much legal wrangling, regulations 2C, 2JJ and others allowed the Board of Trade to use, amend or create wide ranging powers over trees or timber 'required for the public safety or defence of the Realm', although still occasionally requiring Army Council approval.³⁹ It was on 29 August 1917 that the Board of Trade also authorised their new Controller of Timber Supplies (Board of Trade) to exercise its powers under DORA that enabled him to requisition and fell and convert any trees or wood. However, it was not until April 1918 that contraventions of such Board of Trade orders became summary offences.⁴⁰ Yet it is clear from the correspondence and resultant

³⁷ Ibid., correspondence War Office to Board of Trade June 1917, including letter War Office Contracts Department to Controller Timber Supplies (Board of Trade) 7 June 1917.

³⁸ Ibid., memorandum Guedalla to Ball, 30 July 1917.

³⁹ Ibid., correspondence War Office to Board of Trade June and July 1917, see especially Board of Trade Solicitors Office to Sir Herbert Llewellyn Smith, Permanent Secretary to the Board of Trade, 2 June, C.W. Bird to Controller Timber Supplies 23 June, and reply to Sir W F Marwood 25 June, Board of Trade Solicitors Office to Controller Timber Supplies (Board of Trade) 14 June, Guedalla to Ball, 30 July, copy of Order in Council of 22 August 1917, pp. 1-3; Sir Charles Cook (ed.) *Defence of the Realm Manual (6th Edition) Revised to August 31, 1918*, (London: HMSO), p. 54 [notes of 'revokes' going past at least 25 November 1918]; TNA/BT/71/21, Bird, pp. 51-2, Appendix 1, pp. 1, 4.

⁴⁰ Ibid., Appendix 1, pp. 5, 6; Cook (ed.), *Defence of the Realm Manual (6th Edition)*, pp. 46-47.

regulations that the need for whoever was controlling the forestry effort to have sufficient powers under DORA was well recognised. Powers had to be worded carefully and exactly to allow this.

Involving the Timber Trade in establishing controls.

It is, however, a sign of the urgent nature of the initial controls needed in early 1917, as well as that the trade were initially shocked and horrified by government controls, that the 4 February Army Council Order, issued in the press the following day, was followed on the 8 February by an ‘explanatory circular’ sent to sections of the trade. This asked them to observe slightly different conditions to those stated in the release. Clearly press notices, although wording was carefully debated before release, were aimed primarily at grabbing attention and providing basic details, with clarifications being sent as and when needed to the trades.⁴¹

However, even with the powers in place to create and enforce such measures, as seen in chapter 1 and stated in the introduction to this chapter, the war did lead government departments increasingly to seek help from and collaboration with industrial and trade experts in extending the administrative ‘boundaries of the state’.⁴² It was practical and convenient to consult with and utilise organised business or labour bodies during the war.⁴³ By the end of the war the membership of the Timber Trade Federation had risen to 1,217 firms and the organisation regularly gave the standard assurances to government of its ‘wholehearted desire to co-operate’ with all its resources and experience to aid in the nation’s victory.⁴⁴ The Executive Council claimed with pride that it was ‘now officially recognised as a medium of

⁴¹ TNA/BT/71/21, Bird, pp. 41-2.

⁴² Turner, *British Politics*, p. 12.

⁴³ *Ibid.*, pp. 12, 354.

⁴⁴ Resolution No.1 of Timber Trade Federation meeting of 17 October 1917, as quoted in Latham, *History of the Timber Trade Federation*, p. 68.

communication between Government Departments, Public Authorities, Railway Companies, Ship-owners, allied Associations and the timber trade'.⁴⁵ However, from at least the beginning of 1917, sections of the trade would continue to be unhappy throughout the war with many government actions and measures that at times they felt were too numerous, or ineffective and confusing as they had not been properly consulted beforehand.⁴⁶

After the Timber Supply Department (Board of Trade) had taken responsibility in May 1917 two Merchants' Advisory Committees (Imports and Home-Grown) were established, and Timber Trade Federation members were commonly included on many other committees advising HLOs.⁴⁷ In October 1917 the Controller of Timber Supplies (Board of Trade) also agreed that a further advisory committee representing every branch of the trade, throughout the country, be nominated to advise him, and further committees were established to help him. These caused 'great activity in the Federation's Sections' all around the UK as concerns with various State measures arose.⁴⁸ Yet records illustrate that the vast amount of correspondence and discussion to arrive at 'agreed' details for orders and notices was largely between government departments, rather than with the appropriate Timber Trade Federation body.⁴⁹ Furthermore, amendments to orders could take a great deal of administrative effort and time to be agreed upon. For instance the Army Council Order 'Imported Softwoods' (14 April 1917) limited and regulated their sale, severely worrying the Timber Trade Federation. In response they held an emergency meeting and formed a

⁴⁵ Latham, *History of the Timber Trade Federation*, p. 73.

⁴⁶ *Ibid.*, pp. 65-69; Resolution No.4 of Timber Trade Federation meeting of 17 October 1917, as quoted in Latham, *History of the Timber Trade Federation*, p. 69; Timber Trade Federation Report as quoted in TNA/BT/71/21, Bird, pp. 4-5.

⁴⁷ See chapter 2 of this thesis; Latham, *History of the Timber Trade Federation*, pp. 68-9.

⁴⁸ *Ibid.*, pp. 69-71.

⁴⁹ TNA/BT/71/2/24847, The Timber Order 1918, various correspondence.

'Retail Timber Members' Section encompassing 144 members. Its negotiations with the Controller of Timber Supplies(Board of Trade) did lead to sales being allowed, if their value was less than £5 in any one week, without the necessity of the permits and licences introduced under the order. However, this relaxation does not appear to have been officially introduced until the 'Timber Control Order (1918)' of 16 July, over a year after the regulations were introduced.⁵⁰ 'Timber Control Order (1918)', the culmination of many orders and controls, was, however, written by the Board of Trade in conjunction with a trade committee and the Government Timber Buyers. It replaced the majority of the previous orders, defined and covered various types of timber and instituted new forms of permits. It focused on issues relating to sales, purchasing, maximum prices and essentially introduced a rationing scheme in distributing imported softwoods.⁵¹

Yet the historian of the Timber Trade Federation argues that their report on 1918, and minutes from a mid-October 1918 meeting of over 400 members, strongly suggests that the government's increased and drastic interventions were leading to 'serious alarm' and 'grave apprehension' at existing and proposed measures. Phrases such as 'complete bondage' were used, restrictions on imports were felt to be providing 'the imminent practical extinction of the Imported Foreign Timber Trade', and the Hardwood Branch was 'in reality almost completely controlled by indirect methods'⁵² Other areas of industry were also unhappy with State intervention and its

⁵⁰ Latham, *History of the Timber Trade Federation*, p. 69; TNA/CAB/40/23, 'Timber Control Order (1918)'; TNA/BT/71/21, Bird, Appendix 1, pp. 6-7.

⁵¹ TNA/CAB/40/23, 'Timber Control Order (1918)'; TNA/BT/71/21, Bird, Appendix 1, pp. 6-7; BT/71/3/55295, 'Memo showing the necessity for the control of timber at the beginning of submarine Campaign, and the extent to which restriction and controls have been removed since Armistice', 1 January 1919.

⁵² Latham, *History of the Timber Trade Federation*, pp. 68-71, including 'Resolution No.2 of Timber Trade Federation meeting of 17 October 1917', as quoted on p. 68.

results, seeing it as always ‘cumbersome, expensive and irritating’.⁵³ Somewhat hypocritically, however, following the armistice the Timber Trade Federation stated that overall the Timber Supply Department (Board of Trade) that had had most dealing with them, having taken over management of supplies at a time when they were at their hardest to obtain, did manage to carry out controls in a ‘highly intelligent, fair and efficient manner...in the face of immense difficulties and complications’.⁵⁴ Perhaps this was written in the euphoria of recent victory as the course of government and trade consultations in the war clearly did not run smoothly. However, it can be seen that those represented by the Timber Trade Federation were increasingly utilised by the HLOs in establishing controls as the war progressed.

Establishing and monitoring stocks and requirements.

With these contextual elements to controlling use outlined, this chapter will now move on to the actual methods and measures introduced by the HLOs. One of the first tasks in securing adequate supplies was to establish what supplies of specific types of wood were already available in stores around the UK. As shall be seen below, this was a much easier task than establishing what future requirements would be, but powers and advertising, mainly through notices in trade journals and national newspapers, were still needed to persuade stockholders to complete returns. The earliest attempts, as soon as the war started, were by the Board of Agriculture and Fisheries and Board of Trade to establish pit-woods stocks.⁵⁵ Once the slight overlap of roles had been rectified, see chapter 2, the Board of Trade led the way and made a census of all stocks of pit-wood in the country. They did this under the ‘Article of Commerce (Returns

⁵³ Report of the Committee on Industrial and Commercial Efficiency’, F.B.I. circular (in E.E.F microfilm papers, F137/148), as quoted in Turner, *British Politics*, p. 379.

⁵⁴ Timber Trade Federation Report as quoted in TNA/BT/71/21, Bird, pp. 4-5.

⁵⁵ TNA/LAB2/1488/LE37858/46/1914, note by C.F Rey (Secretary of Board of Trade) to Sir H.L. Smith (Permanent Secretary of Board of Trade) on current pit-wood situation, 19 August 1914.

etc.) Act, 1914'. All members of the Timber Trade Federation and any other merchants who appeared as supplying wood on returns from the Local Colliery Owners' Associations, were contacted.⁵⁶ With the establishment of the Pit-wood Joint Subcommittee and Local Pit-wood Committees from April 1916 these local liaison bodies also kept track of stocks of pit-wood, and how best these could be obtained locally.⁵⁷

It was then not until late November 1916, when the supply situation was worsening, that the newly established War Timber Commission decided the Board of Trade should carry out a further census of all stocks held by private merchants and consumers in Britain. This did show a useful potential supply of approximately 1.8m tons in merchants' stores with 1.2m being held by consumers.⁵⁸ However, at this time approximately 30,000 standards, or 90,000 to 99,000 tons, per month were required by the War Office, Ministry of Munitions and BEF. However, only approximately 10,000 standards, 30,000-33,000 tons, were being received into the UK in imports.⁵⁹ Assuming these were maintained at 30,000 tons per month, and the requirements did not exceed 99,000 tons per month, this gives a short-fall of 69,000 tons each month. Therefore the 3m ton potential stockpile noted above, if all was requisitioned, could have maintained adequate supplies for thirty months. But maintaining levels of imports seemed impossible, the uses for timber continued to grow, and current owners might have already been using them or proposing to sell them for war purposes anyway. By April 1917 the Army Council, the Directorate of Timber Supplies (War Office) having taken responsibility, felt the need to issue an order under DORA. Dated

⁵⁶ TNA/BT/71/21, Bird, p. 14; TNA/LAB2/1488/LE37858/46/1914, notes on obtaining pit-props c. late August 1914.

⁵⁷ TNA BT/71/1/6564, notes of first meeting of Pit-wood Joint Subcommittee, 18 April 1916; TNA/BT/71/21, Bird, pp. 2, 23.

⁵⁸ *Ibid.*, pp. 33-34, 38-9.

⁵⁹ *Ibid.*

2 April it confirmed that ‘all persons engaged in the purchase or sale of timber to furnish such particulars as to their business as may be required by or on behalf of the Director of Timber Supplies’.⁶⁰ From this month onwards the certification needed for sales or purchasing, see below, meant that any amounts the merchant could obtain had to be noted on the application forms or post-sale notices, and would be open for inspection by the authorities.⁶¹ Other means to establish stocks included the 4 July 1917 ‘Home Grown Timber Prices (Great Britain) Order (1917)’, issued by the Army Council for the Board of Trade under DORA. It required the submission of particulars from timber businesses when requested, and called for returns of stocks, machinery and manpower levels.⁶² Permit and licensing systems can also be seen as helping the HLOs to keep track of stocks, as well as helping to ensure timber was only used for war purposes. Many permit systems introduced to control sales and purchases further required the purchaser to note the overall quantities the merchant had for sale, and submit this for the authorities to decide whether to inspect it.⁶³

A desire to continue and improve upon accuracy of stock information can be seen in the ‘Timber Control Order (1918)’. As well as standard forms on which sellers had to furnish all details of their sales, the order also specified that anyone

engaged in the purchase, sale, transport, conversion, or manufacture of timber of any description shall furnish such particulars as to their business or transactions as may be required from time to time by or on behalf of the Controller.⁶⁴

⁶⁰ TNA/BT/13/75, Copy of Army Council Order, from *London Gazette* 3 April 1917; TNA/BT/71/21, Bird, Appendix 1, p. 2.

⁶¹ ‘Army Council Order: Imported Soft Wood’, *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777; Latham, *History of the Timber Trade Federation*, p. 67; TNA/BT/71/21, Bird, Appendix 1, p. 2.

⁶² TNA/BT/13/75, letter War Office to Board of Trade 12 June 1917 and letter Guedalla to Ball, 7 June 1917; TNA/BT/71/21, Bird, Appendix 1, p. 4.

⁶³ ‘Army Council Order: Imported Soft Wood’, *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777; Latham, *History of the Timber Trade Federation*, p. 67.

⁶⁴ TNA/CAB/40/23, ‘Timber Control Order, 1918’.

One of the keys to managing a successful business is to know what is held in stock. It is the base which enables decisions to be made on what is needed to buy or make. It can be seen that the managers of wartime forestry appreciated this and attempted to do it. The next key is to try to establish probable requirements.

For the first few months of the war there is little evidence that collating timber requirements for the national effort occurred. The competition for wood between various bodies was intense, as previously illustrated. The Board of Agriculture and Fisheries and Board of Trade had occasionally tried to gauge requirements in regards to pit-wood.⁶⁵ However, these were not attempts to collate regular estimates of all timber requirements. Similarly, some efforts by specific departments to collate their own needs were understandably made as they were each still responsible for sourcing their own supplies at this stage. For instance, as demands grew on the Western Front after August 1915, the War Office instigated supply levels based on ‘regularly calculated forward planning needs’ of approximately 50,000 tons per month for trench defence timber and fuel.⁶⁶ It was not, therefore, until the more centralised Directorate of Timber Supplies (War Office) was established to oversee the effort that attempts were made to establish clear methods for collating all essential estimates, and relating these with efforts to secure supplies. In early 1917, however, individual requirements and requests were still being sent by separate departments of the Ministry of Munitions directly to the War Cabinet. These were refused consideration and the Ministry of Munitions asked to collate estimates for all of their operations and forward them to the Controller of Timber Supplies (Board of Trade), who in turn would send them, with his overall proposals, to the War Cabinet for final agreement.⁶⁷

⁶⁵ TNA/LAB2/1488/LE37858/46/1914, notes on obtaining pit-props c. late August 1914.

⁶⁶ Maclean, *Farming and Forestry on the Western Front*, p. 96.

⁶⁷ TNA/MUN/4/3417, memo ‘Importation of Shooks’, 27 July 1917.

A common theme in correspondence throughout the war was the difficulties users had in providing satisfactory estimates of their future needs. The main reason was understandably changing situations in the context of the war. However, important users often relied on subcontractors who would send incomplete returns of their needs, or were likely to estimate amounts in excess of their realistic needs by way of ‘protection’.⁶⁸ Attempts by Lord Curzon’s Committee and the Directorate of Timber Supplies (War Office) to gauge overall requirements confirmed the very difficult nature of obtaining monthly estimates of the consumption of softwoods from the principal departments in the UK or France.⁶⁹ On the 10 May 1917 Lord Lovat, then the Director of Forestry (GHQ), openly stated that he was not prepared to express any opinion on the likely timber situation in France after October due to the uncertainty of military operations upon which he had to base his estimates. He stated that ‘the Static period might by then have commenced – or it might not’⁷⁰ and writing a few days later that;

It is impossible to form a reliable estimate of the timber requirements of an army in the field. All estimates should be regarded merely as opinions at the time at which they are made, should be subject to frequent revision, and in calculating requirements of transport based on such estimates a liberal margin should be left for unexpected developments or shortages.⁷¹

Lovat also pointed to examples of other factors that made estimation difficult, including quantities and timings of demands from the French Army being altered, often with sudden urgent demands. At the time of writing he gave the example of an additional 150,000 sleepers a month for the next three months being required, although he felt this would probably be altered again before a final requirement was decided

⁶⁸ TNA/CAB/21/80, minutes of Lord Curzon’s Committee on Timber Supplies, meeting 10 May 1917, p.7, pt. 10 ‘Admiralty Requirements’.

⁶⁹ Ibid., p. 3 and note and estimates from Bampfylde Fuller, Director of Timber Supplies (War Office), to Secretary Lord Curzon’s Committee on Timber Supplies, 15 May 1917.

⁷⁰ Ibid., p. 2.

⁷¹ Ibid., letter Director of Forestry to Lord Curzon, 15 May 1917.

upon, and would need to be met at the cost of a reserve of timber that he had hoped to build up for the winter ahead. This reserve was already likely to be reduced by a proposed hospital accommodation hutting scheme, that he was still unable to get an estimate of requirements for.⁷²

In general, returns from departments on their existing stores and future needs were slow in being prepared, or not forthcoming at all, until well into 1918.⁷³ Overall therefore the chances of accurately estimating future timber requirements were very slim, yet best attempts were clearly made in order to help those sourcing and managing it.

Allocation of Supplies Based on Priorities.

Allocation of supplies to different important users based on stated prioritisation was another control used by the HLOs to ensure adequate supplies where most needed. As seen in chapter 2, there were many different high level bodies involved at different times in various elements of the effort, so understandably there was confusion at times over who had the necessary powers to allocate or sanction supplies to different end users. Confusion over who was responsible for approving and allocating Ministry of Munitions timber supplies in the summer of 1917 were amongst the main reasons for the establishment of the Timber Allocation Subcommittee.⁷⁴ From September 1917 it was their responsibility to work within the maximum import levels set by the War Cabinet and decide how these should be allocated. This was not just in terms of the end users but also in regards to specifying levels of different types of wood required

⁷² Ibid.

⁷³ TNA/CAB/40/23, for instance see notes of a meeting 19 January 1918 between Lieutenant J.X. Murphy, of the War Priorities Committee, and Mr E Batch, Secretary of the Timber Allocation Subcommittee. Also, see letter Chairman of Timber Allocation Subcommittee (Ball) to Secretary War Priorities Committee, 15 March 1918, reporting on timber situation.

⁷⁴ TNA/MUN/4/3417, memos on 'Importation of Shooks', 20 and 27 July 1917.

and from where this would be sourced.⁷⁵ The Timber Allocation Subcommittee could, therefore, not only allocate supplies of timber to particular departments but also allocate shipping tonnage directly for the import of timber for a specific department.⁷⁶

The Timber Allocation Subcommittee received notification from the War Priorities Committee at the end of December 1917 that procedures for prioritizing the distribution of stores based on need was a priority.⁷⁷ The War Priorities Committee therefore needed to be informed of any large allocations to any Allied units before they were carried out in case this affected schemes of allocation already in place. Even if the proposed allocation had already been approved by the *Commission Internationale de Ravitaillement* (International Committee of Supply), timber requirements had to be sent by the ‘Consuming or Supply Department’ to the War Priorities Committee, via the Timber Allocation Subcommittee, in regular statements.⁷⁸

However, disagreements over who received priority supplies continued, and in September 1918 the Ministry of Munitions and War Priorities Committee established a Joint Priority Board on which one representative from each of the Ministry of Munitions, Admiralty and War Office would ‘interpret’ decisions made by the War Priorities Committee, in timber terms the Timber Allocation Subcommittee, and give priority to individual orders. This board set priorities for ‘war and munitions work’ and if unanimous decisions could not be reached by these three representatives they referred the decision back to the War Priorities Committee.⁷⁹ However, as a sign that

⁷⁵ TNA/CAB/40/24, notes on Meeting of the Timber Allocation Committee, 28 February 1918.

⁷⁶ TNA/CAB/40/23, letter Chair Timber Allocation Subcommittee to Secretary War Priorities Committee, reporting on current timber situation, 15 March 1918.

⁷⁷ *Ibid.*, letter Secretary War Priorities Committee to Secretary Timber Allocation Subcommittee 28 December 1917.

⁷⁸ *Ibid.*

⁷⁹ TNA/CAB/40/23, letter Secretary War Priorities Committee to Timber Allocation Subcommittee Chairman, 23 September 1918.

timber shortages reaching crisis points were rare, by mid-March 1918 the Timber Allocation Subcommittee had had to deal with just one dispute between departments over shipping allocation, and this had been resolved fairly easily.⁸⁰ Further evidence of this can be seen in that from July 1918 onwards the Timber Supply Department (Board of Trade) felt in a position that it could keep back a reserve stock for emergencies for government departments, whilst the rest of their stock was formed into a national stock of softwoods for allocation as seen fit. This was then made available for purchase by approved trade merchants and retailers under the ‘Timber Control Order (1918)’.⁸¹

In France and Belgium procedures varied slightly over the course of the war, if adequate supplies could not be imported, or sourced, to meet the needs of each of the Allied Armies. The normal course of action was then that the British Commander-in-chief and French and Belgian War Ministers would consult and determine what reductions might be possible from their demands, so as to help meet the most urgent requirements.⁸² If timber needs still could not be met, bodies such as the *Commission Internationale d’Achats de Bois* were to liaise with the commanders-in-chiefs to allot what supplies were available.⁸³ It can be seen, therefore, that the HLOs were given powers to control forestry operations and, along with controlling bodies for other important resources, were expected to use them. The initial measures put in place tried, as much as was practical, to establish, monitor and prioritise stocks and requirements,

⁸⁰ Ibid., letter Chair Timber Allocation Subcommittee to Secretary War Priorities Committee reporting on current timber situation, 15 March 1918.

⁸¹ BT/71/3/55295, see memo 1 January 1919.

⁸² TNA/BT/71/1/6456, ‘Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber’, 15 November 1916, Clause 6; TNA/BT/71/21 Bird, pp. 32-3.

⁸³ Brown, *British Logistics*, pp.133; TNA/BT/71/21, Bird, p. 31.

and then armed with this information to allocate supplies in the most efficient way for the war effort.

Maximising Stocks

The next group of controls to be looked at are those that tried to maximise the supplies that were available by various means such as stopping exports, economising use, salvaging or investigating alternative materials. Although achieving relatively small results, this group shows that all possible measures were being considered to make wood supplies last longer. Surprisingly, not all resources useful for the war effort were immediately restricted from exportation due to fears of shortages, and some that were initially stopped from being exported were later allowed again if it was determined supplies were adequate, although exports did generally reduce by late 1916, if not always stop.⁸⁴ As shown in chapter 1, Britain pre-war had been a large net importer of timber, rather than exporter, and as such this was not a great issue in terms of necessary controls. However, exports of timber from Ireland to the UK were regulated by the Board of Trade's 'Export of Timber (Ireland) Order, 1917' of 4 December. This was administered by the Assistant Controller of the Timber Supply Department in Dublin and required permits to be obtained before any round or sawn Irish timber, excluding pit-wood, could be exported to Britain. It aimed to prevent British and other nationalities' merchants from exploiting these resources, whilst still allowing scope for business with and in Britain.⁸⁵

From food rationing to steps to enforce economy in the consumption of paper,⁸⁶ economising was an obvious method to adopt to reduce imported tonnage and ensure

⁸⁴ Dewey, *British Agriculture*, pp. 70-74; *The Times*, 'Iron Contract for Argentina', 10 July 1916, p. 5.

⁸⁵ *London Gazette*, 'Export of Timber (Ireland) Order 1917', n.p. (clipping seen in TNA/CAB/40/23); BT/71/3/55295, memo, 1 January 1919; TNA/BT/71/21, Bird, Appendix 1, p. 5.

⁸⁶ TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p. 2.

essential supplies were maintained. Any of the HLOs managing or reporting on timber were given a responsibility to ensure 'economy in its use for all purposes'.⁸⁷ A 'Cabinet Instruction on Economy in the use of Timber' was approved on 16 February 1917, based on reports from committees such as Lord Curzon's.⁸⁸ Three months later Directorate of Timber Supplies (War Office) estimates of consumption against stocks and production illustrated a need for priority recipients to reduce their use by fifty per cent, and called on the bodies to investigate immediately how they could do this.⁸⁹ Two months after this the War Cabinet 'instructed' all departments to report to the Directorate of Timber Supplies on the steps taken to reduce timber use, along with an estimate of the reduction they were expecting.⁹⁰ Other attempts aimed at economising specific types of wood, such as that used for packing cases or wood used at the front, were also made, either through orders or advice.⁹¹

Requisitioning as a means of obtaining resources is more associated with occupying forces, as Germany did behind the Eastern Front in order to obtain vast amounts of timber and other materials.⁹² However, all combatants had to resort to requisitioning supplies from their own countries too. It was felt powers to requisition were needed, as encouragement to producers of home grown timber, as they were in agriculture. As shown above, the first powers to be given in regards to the forestry

⁸⁷ TNA/BT71/4/78217, War Office Memorandum No.913, 7 March 1917, p. 1 point 2;

TNA/BT/71/3/55295, memo regarding the control of timber during the war, 24 March 1919.

⁸⁸ TNA/CAB/23/1/70, *War Cabinet Paper G.-124* in Minutes of War Cabinet Meeting 70, 16 February 1917, pp. 2, 3.

⁸⁹ TNA/CAB/21/80, note and estimates from Directorate of Timber Supplies (War Office), to Secretary Lord Curzon's Committee on Timber Supplies, 15 May 1917. Priority recipients seen as Admiralty, Shipping Controller, Air Board, Ministry of Munitions, War Office, Office of Woods, BEF and UK Railways; TNA/BT/71/21, Bird, p. 50.

⁹⁰ TNA/MUN/4/3417, memo 'Importation of Shooks', 20 July 1917.

⁹¹ TNA/CAB/40/23, letter Chairman of Timber Allocation Subcommittee (Ball) to Secretary War Priorities Committee, 15 March 1918, reporting on timber situation; TNA/BT/71/21, Bird, Appendix 2, p. 1; BT/71/3/55295, memo of 1 January 1919; G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 129.

⁹² Liulevicius, *War Land on the Eastern Front*, pp. 7, 61, 63, 64-68 (quotes p. 66), 71, 72, 73, 95-96 (89-92 on the 'Movement Policy' instigated to ensure supplies).

effort enabled requisitioning, and these were passed to successive HLOs to use as necessary.⁹³ In early February 1917 the Army Council issued a DORA order giving notice that they intended to take possession of all stocks of sawn softwood timber in the UK, whether planed or un-planed, including sleepers. This was in order both to safeguard the resource for military purposes and to prevent further inflation in prices.⁹⁴ From this time onwards the government essentially 'requisitioned' most important stocks and supplies through permit schemes administered for national, or urgent civilian needs.⁹⁵ To make it clearer, under Army Council Order 'Timber' of 3 May 1917, any stocks of imported softwood larger than 250 standards in the UK were to be requisitioned to ensure all suitable stocks were only used for government purposes.⁹⁶ Any timber bought in Russia before

1 January 1917, that had not yet been shipped to the UK, was only to be sold to the Directorate of Timber Supplies at the War Office or their representatives.⁹⁷ The order clearly specified that it did not affect timber already in stock in the UK and was intended to allow the Government to obtain the stocks covered, approximately 60,000 standards (200,000 tons).⁹⁸ However, the order caused 'acute controversy' and many merchants refused to sell, meaning the controls had to be compromised by the successor of the War Office Directorate of Timber Supplies, the Controller of Timber Supplies (Board of Trade).⁹⁹ Just over a year later this was followed by the *Softwood*

⁹³ TNA/BT/13/75, letter War Office to Board of Trade 12 June 1917; TNA/BT/71/21, Bird, Appendix 1, pp. 1, 4; Dewey, *British Agriculture*, pp. 95, 96, 100, 101.

⁹⁴ TNA/BT/71/4/78217; TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

⁹⁵ See Appendix to this thesis 'Control Orders'; Latham, *History of the Timber Trade Federation*, p. 67; TNA/CAB/40/23, 'Imported Softwood'.

⁹⁶ TNA/BT/13/75 Army Council Order of 7 May 1917; TNA/BT/71/21, Bird, Appendix 1, p. 3; Latham, *History of the Timber Trade Federation*, p. 67.

⁹⁷ TNA/BT/13/75, Note Guedalla to Controller Timber Supplies (Board of Trade), 25 June 1917; TNA/BT/71/21, Bird, Appendix 1, p. 3.

⁹⁸ TNA/BT/13/75, note Guedalla to Controller Timber Supplies (Board of Trade), 25 June 1917; TNA/BT/71/21, Bird, p. 3.

⁹⁹ TNA/BT/13/75, various correspondence; TNA/BT/71/21, Bird, Appendix 1, p.4.

Requisitioning Order, 1918 (22 July 1918) whereby all sawn and planed softwood arriving in the UK after this date was requisitioned. The only exclusions in this order were ‘box-shooks’, the sets of parts for packing cases that had been flat-packed to save space in transportation.¹⁰⁰

Most controls related to softwoods, but in August 1917 any stocks of mahogany and American walnut exceeding 5,000 super-feet in various forms, although not including veneers, were also requisitioned to fulfil Admiralty needs. First the trade had to complete returns of their stock for the Board of Trade, then following inspections by the Timber Supply Department (Board of Trade) carried out quickly by early September, the controls were relaxed and merchants allowed to sell those kinds not required. Controls were withdrawn on 30 November 1917 as it was discovered that there were actually residual stocks after the requisition.¹⁰¹

The principles upon which Woodhouse’s Commission would allocate compensation for requisitioned timber were provided under DORA.¹⁰² Firstly, if a price had been set by a previous order the compensation would be determined on that. However, if a price had not been set a grower or producer would be compensated on the basis of cost of production plus an amount equivalent to a ‘reasonable’ pre-war profit. If the stock was requisitioned from a stockholder or ‘middle-man’ then compensation was based on their actual costs plus a reasonable pre-war profit amount.¹⁰³ This sounds reasonably simple but calculating the cost of producing useful wood from standing timber under wartime conditions was difficult, and therefore

¹⁰⁰ TNA/CAB/40/23, ‘Imported Softwood’.

¹⁰¹ Latham, *History of the Timber Trade Federation*, p. 67; TNA/BT/71/21, Bird, Appendix 1, p. 5.

¹⁰² TNA/BT/13/75, letter Guedalla to Controller Timber Supplies (Board of Trade), 7 June 1917.

¹⁰³ *Ibid.*

calculating the ‘actual’ value of loss sustained in many cases was too.¹⁰⁴ However, it is clear that requisitioning of stocks, especially through permits and licences, was a major method the HLOs used. From August 1917, when the Army Council or Board of Trade bought either standing, felled or converted wood they would only pay a set price under DORA regulation 2B. If the seller felt this was insufficient they had to take their case to the Defence of the Realm Losses Commission which could consider compensation claims for ‘reasonable profit...subject to any limit on maximum prices’, showing that some negotiation was permitted and that some leeway allowed given the variety of produce in forestry works.¹⁰⁵

The collection of materials to salvage and reuse was an important element of the war effort on both the Home and Western Fronts. Materials from string, clothing, glass, metals, ammunition, waste paper and, of course, timber and wood were collected, sorted and reused.¹⁰⁶ GHQ (France) established a Salvage Service, responsible for finding and reusing many different types of materials, including timber.¹⁰⁷ Units at all levels near the front or on the lines of communication would salvage timber of all kinds from old battlefields and work hard to save stocks in the face of enemy advances. Salvaged timber could either be directly re-used or converted as necessary at workshops on the lines of communication.¹⁰⁸

¹⁰⁴ TNA/BT/13/75, memo Guedalla to Ball 30 July 1917 and correspondence War Office to Board of Trade June 1917, including letter War Office Contracts Department to Controller Timber Supplies (Board of Trade) 7 June 1917; Dewey, *British Agriculture*, pp. 94-6, 100.

¹⁰⁵ TNA/BT/13/75, *Statutory Rules Order, No.886 I(2)* of 22 August 1917; TNA/BT/71/21, Bird, Appendix 1, pp. 1, 4.

¹⁰⁶ See for instance the poster ‘Pick ‘Em Up’ by A J Owen showing a soldier picking up a clip of rifle ammunition on a road near the front with the caption ‘Remember you are saving your own property’ (Art.IWM PST 13432) (The Dangerfield Printing Co. Ltd, London); TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p.3; Bosanquet, *Our Land at War*, p. 27.

¹⁰⁷ G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 129.

¹⁰⁸ Bird and Davies, *The Canadian Forestry Corps*, p. 43; Nicholson, *Canadian Expeditionary Force*, p. 489.

A final means of maximising stocks can be seen in the search for alternative materials that would mean wood or timber would not have to be used from stocks, and forms in permit schemes, see below, often required the buyer to confirm that no ‘substitute material’ was available.¹⁰⁹ This was especially important in terms of building materials during the war, and in the post-war period. A great deal of research was carried out on timbers, as these were the largest material elements in the cost of a house, and a ‘severe and sustained’ timber shortage seemed inevitable. Suggestions included that more traditional timber roof frames be replaced by concrete or steel ones, and although researchers were not convinced by concrete they recommended that steel roofs produced in large standardised spans would probably be an ‘advantageous substitute for timber’ if necessary, but most wartime reports only called for more research.¹¹⁰ In France, at the first BEF Monthly Conference to estimate monthly timber requirements, on 1 September 1916, the possibility of using coal instead of wood for fuel, to save nearly 30,000 tons of imports, was also discussed. It was felt unlikely that enough coal could be obtained from French mines, but such was the need that the QMG was to approach the French anyway.¹¹¹

Maximising stores through these varied measures was therefore a small part of the overall effort to control wood and timber supplies. However, as shown above, the forestry HLOs did take control of the resource in several very important ways. These methods to control use, including obtaining the powers to control, trying to build as accurate a picture of the supply and demand situations, utilising permit or licence schemes to regulate uses and allocating supplies based on priorities were all essential to the overall success of the forestry effort. It has also been demonstrated that those

¹⁰⁹ ‘Army Council Order: Imported Soft Wood’, *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777.

¹¹⁰ Swenarton, *Homes Fit for Heroes*, pp. 92-94, 105-111, 113-114.

¹¹¹ Brown, *British Logistics*, p. 133.

approaches used were not dissimilar to those undertaken, in terms of methods and timings, in controlling other resources. However, controlling use was only one category of options open to the HLOs, buying more and cutting more were equally as important to ensure there were any stocks to control.

Buying More - purchasing throughout the war.

As can be seen from Appendix 'Control Orders & Notices' there was overlap in many official orders and notices in terms of the product targeted and methods being utilised. For instance, one order could include controls relating to home grown timber as well as imports and exports, whereas some were solely about one or the other. Some were for softwoods, some hardwoods, some included both. Some initiated returns of stock, as covered above, and some, the details of which will be covered in this section, related to buying and selling in the UK, importing new stocks, and standard prices. It will illustrate that from the beginning of 1917, as intervention increased, the HLOs introduced tight controls on sales, involving a fair degree of form filling for seller and purchaser. However, those who could show that their requirements were for work of national importance could obtain adequate amounts if the current HLO approved. It also reinforces the argument made above that although authorities could introduce regulations in a panic, they were then prepared to discuss these with trade organisations and amend them as necessary to make more workable and effective. Overall, it will be seen that government HLOs and their contractors continued to try to purchase supplies, from the UK and abroad, as an important method to help the war's timber effort.

Buying UK home grown timber, or timber already imported into the UK

The orders and notices that came out with regards to buying and selling timber in the UK were unquestioningly confusing at times to those in the trade. Definitions

might not be clear on types, quantities, actions allowed or actions restricted. On more than one occasion they had to be clarified in subsequent press notices. What they do all show, however, is that the HLOs were trying hard to ensure that the supplies available in the UK, whether or not brought directly by the Government Timber Buyers or one of their main departments, were only used for work of 'national importance'. This term, from April 1917 at least, was defined as those works ultimately for, or for the good of, a government department, or for urgent repairs to public or private buildings or communications that might otherwise affect the health and safety of the public. It also included wood required for crates for the distribution of food and other necessities, but not luxuries or packing cases for export goods.¹¹²

Common elements to control orders or notices regarding buying stocks in the UK, which shall be discussed here, included defining what was or was not allowed and to what type of wood or timber this applied. This was further confused by occasional 'exceptions' and certainly in the early days by there being different HLOs responsible for granting permissions to applications once assured the work was of national importance. The system was streamlined by the introduction of the forestry management bodies at the War Office and then Board of Trade, but the forms required before and after a sale could still be onerous for purchasers and sellers, although they clearly represent these HLOs trying their hardest to keep track of the overall situation and determine where and for what the precious supplies could be used.

From the 5 February 1917, consent in the form of a licence, permit or order from the Army Council, Admiralty or Ministry of Munitions was required to sell, remove, 'secrete', or deal in anyway with sawn softwood timber.¹¹³ However, just two months

¹¹² 'Army Council Order: Imported Soft Wood', *London Gazette*, 16 April 1917, p. 3570; TNA/BT/71/21, Bird, p. 42.

¹¹³ TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

later a scheme specifically related to buying imported softwood was signed providing more detail and resulting from Timber Trade Federation consultations. Merchants could now not sell, in any single month, an amount of imported softwood exceeding one per cent of the timber they had had in UK stock on 1 April 1917.¹¹⁴ If they could sell an amount under this level they had to be satisfied that it was for work of national importance. If the individual sale amounted to more than one standard they had to receive a standard 'Timber Control Form A' from the buyer.¹¹⁵ Anyone wanting to buy imported softwood in a quantity greater than one per cent of the merchant's stock at 1 April 1917 had to apply to the Directorate of Timber Supplies (War Office) on 'Timber Control Form B' setting out why they needed it, or if for a government department giving details of the department and the work on 'Timber Control Form C'.¹¹⁶ Some specialist timbers were also included in specific orders such as the 'Teak and Lignum Vitae Permit Order' (3 October 1917) which, in order to ensure supplies for the Admiralty, brought in the need for permits to sell or buy teak logs, planks, boards and decking, along with any Lignum Vitae. Again, small sales were exempted at this time.¹¹⁷

Yet in February 1918 the Timber Allocation Subcommittee still felt that controls of consumption of home grown timber were non-existent and therefore assumed a great deal of waste. It stated that if the war were to continue 'for any considerable period' it would have to rely 'to a very great extent' on home grown timber and therefore further immediate controls were 'extremely urgent'.¹¹⁸ By April more encompassing orders were being released, such as the 'Timber Order 1918' (25 April

¹¹⁴ 'Army Council Order: Imported Soft Wood', *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777.

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

¹¹⁷ TNA/BT/13/75; TNA/BT/71/21, Bird, Appendix 1, p. 4.

¹¹⁸ TNA/CAB/40/24, Notes on Meeting of the Timber Allocation Committee, 28 February 1918.

1918) which restricted purchases of imported timber and laid the foundations for the July 1918 ‘Timber Control Order (1918)’, which as stated above was the pinnacle of timber controls, aimed to centralise all softwood purchasing, as well as ration distribution.¹¹⁹ Its clauses related to most facets of the softwood timber efforts, for both imported and home grown timber, although the most obvious method to control stock levels, and where they went, was to put sales and purchasing onto permit systems.¹²⁰ Its first two clauses clearly stated that no one in the UK could 'buy, sell, receive, take or make delivery of, or enter into any transaction or negotiation in relation to the sale, purchase or transport of any timber with other parties' either with parties outside the UK, for timber that had been imported, or for home grown timber whether standing or felled, unless it was in accordance with the terms of a specific permit granted by or on behalf of the Controller of Timber Supplies (Board of Trade). The order covered the types of timber listed in the ‘home grown timber Prices Order 1918’ of 25 March 1918.

However, the clauses of ‘Timber Control Order (1918)’ relating to sales of home grown timber did not include measures to control the sale of land with trees growing on it. For this the ‘Standing Timber Order (1917)’ would have to continue to be applied.¹²¹ At auctions of already converted timber grown in the UK, both auctioneer and whoever won particular lots needed permits from the Controller of Timber Supplies (Board of Trade), the auctioneer before the sale and the purchaser subsequently. If the purchaser was not granted a permit the Controller of Timber

¹¹⁹ TNA/BT/71/21, Bird, Appendix 1, p. 6; BT/71/3/55295, memo of 1 January 1919.

¹²⁰ Ibid.

¹²¹ TNA/CAB/40/23, ‘Timber Control Order, 1918’; TNA/BT/71/21, Bird, Appendix 1, pp. 6-7; BT/71/3/55295, memo of 1 January 1919.

Supplies could, as an alternative, supply one to someone else who had bid at the auction and who was willing to pay an amount equal to the highest price bid.¹²²

Further exceptions for home grown timber in the 'Timber Control Order (1918)' included that a sawmill purchasing wood in log form to convert for sale, or sawmills, merchants or retailers purchasing logs or timber for resale, did not require a permit if the purchaser gave the merchant a certificate that they were only going to convert and/or re-sell the wood. It was also felt necessary to state that no permit was required if an estate used wood for the purposes of the owner.¹²³ The price schedules in the order would not apply to existing stocks, the Controller of Timber Supplies to decide on the prices specific stocks imported pre-order could be sold at, on a case by case basis if applications were made.¹²⁴ Furthermore, if the purchase was lower in value than £5 in any one week and a declaration was signed by the purchaser stating value of wood, and that it was for work of national importance or 'urgent necessity' a copy of a 'Declaration by Purchasers' form was simply to be kept by the seller for inspection/use by the Timber Supply Department (Board of Trade) as and when required. However, the merchant also had to supply details of the value of all imported timber they had sold in each transaction to the Timber Supply Department (Board of Trade) within seven days of the last day of the month in which the timber was sold.

Other types of exemptions included, in regards to colliery or other types of mine, owners who could purchase manufactured pit-props or pit-wood, including sawn props, pillar wood, crowns and pit sleepers, without need of a permit, and these could be home grown timber or imports. However, they would need one to purchase either standing wood or other types of converted timber. Sellers could also provide up to five

¹²² Ibid.

¹²³ Ibid.

¹²⁴ *The Times*, 'New Timber Order', July 18 1918, p. 3.

standards of 165 cu/feet if they were given a ‘Timber Control Form B’ signed off by the Timber Supply Department (Board of Trade) or provided directly by the Admiralty or Ministry of Shipping as the timber was urgently needed for ship repairs. ‘Timber Control Form B’, and a completed ‘Timber Control Form C’, then had to be sent to the Controller of Timber Supplies.¹²⁵ Orders and notices would also often allow permission to fulfil deliveries of orders made before the date of the notice.¹²⁶ This is just a small selection of the variety within control orders and notices, to give an idea of the very complicated nature of trying to accurately define the many different types of wood required. See Appendix ‘Control Order & Notices’ for a fuller review of all those controls put in place. However, what is clear is that administrative management schemes were being tried and amended to arrive at the ‘Timber Control Order (1918)’ in July, which centralised a lot of previous controls introduced by various previous HLOs. It also shows the culmination of previous attempts to introduce licence or permit systems.

It was from 1 April 1917 that rather than the Army Council, War Office or Admiralty issuing permits to enter in sales or purchases of imported timber, these permissions had to be obtained from the Directorate of Timber Supplies (War Office), as the current relevant HLO.¹²⁷ When published in the London and Edinburgh *Gazettes* the notice included copies of the different Timber Control Forms that had to be used for applications and notifying the HLO for any transactions on imported softwoods, as well as some guidelines.¹²⁸ To be granted permission to buy, all of the intended work had to be for one of the main government departments or for national importance,

¹²⁵ TNA/CAB/40/23, ‘Timber Control Order, 1918’; TNA/BT/71/21, Bird, pp. 6-7; BT/71/3/55295, memo from 1 January 1919.

¹²⁶ TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

¹²⁷ ‘Army Council Order: Imported Soft Wood’, *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777.

¹²⁸ *Ibid.*; TNA/BT/71/21, Bird, Appendix 1, p. 2.

as defined above. Timber Control Forms from this date required the buyer to self-certify that the wood was required for 'a Government contract or for work of national importance', that their existing stocks were 'insufficient' to enable them to complete the work, and that no substitute material other than wood was appropriate or available.¹²⁹ The purchaser had to complete the relevant Timber Control Forms but the merchant had responsibility to check the legitimacy of their approval.¹³⁰ It was then the 'Timber Control Order (1918)' which extended this permit system to home grown timber as well as imported timber, on similar lines to that which had applied to imports for a year already.¹³¹

Following the issue of 'Timber Control Order (1918)', completed copies of 'Timber Control Form C' essentially became monthly returns of the sales merchants had made. Sales could still be made on the basis that a Timber Supply Department (Board of Trade) permit had been received, the sales made by a particular merchant totalled under £5 in one week, or the sale was to the Admiralty or Ministry of Shipping. 'Timber Control Form C' required separate detail of each sale, for instance whether the sale was of imported or home grown timber and whether it was sold from 'National' stocks or those belonging to the supplier themselves. It illustrated the desire of the Timber Supply Department (Board of Trade) to keep as accurate a record as possible of the sales situation.¹³² On 9 September 1918 a small amendment order to 'Timber Control Order (1918)' gave the Controller of Timber Supplies power to vary the quantities of timber that could be purchased without a permit, in order to help the

¹²⁹ Ibid.

¹³⁰ Ibid.

¹³¹ *The Times*, 'New Timber Order', 18 July 1918, p. 3.

¹³² TNA/CAB/40/23, 'Timber Control Order, 1918'; TNA/BT/71/21, Bird, Appendix 1, pp. 6-7; TNA/BT/71/3/55295, Memo of 1 January 1919.

‘working’ of the permit-rationing scheme.¹³³ These forms clearly show attempts to monitor and control stocks around the UK.

Although guidelines and standard forms would be published in some of the notices from April 1917, confusion from the proliferation of materials and restrictions that could be included on a single order was occasionally added to through wording that firms and trade organisations found too vague. However, as stated above, complaints from the Timber Trade Federation could lead to clarification circulars and notices.¹³⁴ These could confirm points people had been unclear about, specify for how long a notice was going to be in place if this had been missing, but also introduce some new parameters. For instance instead of ‘no sales of more than two standards of soft sawn timber’ to any one person at any one time, it might give permission to sell individual lots under one standard at the merchants’ discretion, on the proviso that they were sure the wood was required for urgent civilian needs and the price was no more than it would have been for similar sales in the week ending 31 January 1917.¹³⁵

Satisfactorily defining and communicating orders to control sales of timber in the UK was clearly not an easy task, given the many branches of the forestry effort. However, the HLOs did their best, and gradually learnt to include trade expertise in the wording of such notices. Furthermore they were clearly trying to build up as accurate a picture of stocks as possible, and determine where these went to. Anyone not abiding by such orders could be guilty of an offence under the DORA, and false

¹³³ TNA/BT/71/21, Bird, Appendix 1, p. 7.

¹³⁴ Ibid., p. 41.

¹³⁵ ‘Army Council Order: Imported Soft Wood’, *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777; TNA/BT/71/21, Bird, pp. 41-2, 66, Appendix 1, p. 2.

statements on a Timber Control Form were to be punished with either a £100 fine or six months in prison¹³⁶

Importing Goods

This tighter control over stocks in the UK, as well as increasing home grown timber production which will be covered below, was not only important due to serious shipping restrictions, but also as the UK's financial position became increasingly worse. At times this, like the U-Boat threat, looked like it might cause Allied defeat. Areas such as foreign investment, gold reserves, debt to American banks and credit availability looked catastrophic at times.¹³⁷ However, when the US entered the war its government paid overdrafts owed by Britain to US banks such as JP Morgan out of the first Liberty Loan, saving the credit of the Allies, and the US treasury itself started making advances to the Allies, making foreign purchasing of wartime supplies possible 'in enormous quantities', including timber.¹³⁸ However, it is clear that even though the UK could financially continue to purchase timber from abroad, reducing amounts of imports of this particularly bulky product was important. Any available shipping space was needed for important resources that were not as readily available in forested parts of France and the UK, such as ammunition and American soldiers. Reduction in timber imports was therefore recognised as vital to easing shipping strain, but they did continue and were essential.¹³⁹

¹³⁶ TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; 'Army Council Order: Imported Soft Wood', *London Gazette*, 16 April 1917, pp. 3569-70, copy in *Edinburgh Gazette*, 20 April 1917, pp. 776-777; TNA/BT/71/21, Bird, pp. 41-2.

¹³⁷ Peter Dewey, 'The New Warfare and Economic Mobilization', in John Turner (ed.) *Britain and the First World War*, (London: Unwin Hyman, 1988), pp.82-3; Swenarton, *Homes Fit for Heroes*, pp. 50-51, 53-54; Hendrick, *The Life and Letters of Walter H. Page, Volume 2*, pp. 269-72, 290.

¹³⁸ *Ibid.*, p. 273.

¹³⁹ National Film Board of Canada, *Images of a Forgotten War, Canadian Forestry Corps*, <<http://www3.nfb.ca/ww1/wartime-film.php?id=531249>> [accessed 31 July 2016]; Bird and Davies, *The Canadian Forestry Corps*, p. 6, who give shipping restraints as main reason needed to appeal to Canada for lumbermen, as well as confirming that munitions, food and other commodities needed shipping space.

As seen in chapter 1, Britain had been especially reliant on imports of timber, other essential products and numerous raw materials in the pre-war years. Many raw materials were simply not available in the UK but reasons for reliance on imports also included adherence to free-trade economic principles and, importantly for timber, a high confidence in the ability to maintain shipping routes. Although reliance on imports had been recognised by some as a weakness in times of war, no action had been taken to correct this.¹⁴⁰ Chapter 2 then illustrated that the Timber Trade Federation had been trying to improve import arrangements with various nations or specific ports, such as St Petersburg, in the immediate pre-war years, and they had also hosted a visit from exporters of pine lumber from the Gulf Coast in 1911, worked on a Canadian reciprocity agreement, and investigated shipping problems from Riga on the Baltic.¹⁴¹ It has been argued that in 1914 and 1915 imports of wood still occupied between twelve to fourteen per cent of all shipping space entering British ports, although such amounts would reduce as self-sufficiency improved.¹⁴² As with other materials at this busy time it is hard to say that statistics of exact quantities are likely to be all encompassing or one-hundred per cent accurate for all times during the war. However, detailed records of timber-carrying ships were kept at the time, and once established the Timber Supply Department (Board of Trade) certainly registered imports so examples, for instance of the amounts imported in later years of the war,

¹⁴⁰ See chapter 1; Bryan Ranft, 'The Royal Navy and the War at Sea', in John Turner (ed.), *Britain and the First World War*, (London: Unwin Hyman, 1988), p. 64; Dewey, *British Agriculture*, pp. 3, 4, 7, 15-18; A Committee Of The Royal Society, *Cd.8421 The Food Supply Of The United Kingdom. A Report Drawn Up By A Committee Of The Royal Society At The Request Of The President Of The Board Of Trade* (1916 sitting, but '1917' on published document), passim; Latham, *History of the Timber Trade Federation*, pp. 17, 63; Turner, *British Politics*, p. 102.

¹⁴¹ Latham, *History of the Timber Trade Federation*, pp. 54-58 [The Gulf coast is taken here to be the pine belts from Florida around to Texas on the Gulf of Mexico, and a bit of Florida's Eastern Coast, although could also have been from Mexico or Honduras as well].

¹⁴² E.G Richards, *British Forestry in the 20th Century*, p. xvii.

can be taken as reasonably accurate.¹⁴³ Even the censor kept an eye on quantities of timber shipped, passing intercepted telegrams from various timber and shipping agents and/or merchants to the HLOs.¹⁴⁴

Chapter 2, when looking at the organisations involved, also briefly demonstrated that it was imports, especially of pit-wood, that received the first wartime attention by the HLOs in terms of sourcing new supplies from Canada and Newfoundland, as early as 25 August 1914.¹⁴⁵ However, limiting imports of all kinds of materials became a general governmental policy from at least September 1915, and it is clear that the restrictions on shipping, further considered below, were closely linked to levels of German submarine activities, just as political emergencies and changes were.¹⁴⁶ This section will expand on the detail of such issues in specific relation to timber and the controls that the HLOs instigated to try to maintain necessary supplies, whilst also abiding with restrictions placed on shipping space that, from January 1916, began to dramatically reduce the amounts that could be imported.¹⁴⁷ Therefore a great deal of administrative effort was needed to keep up with the regularly changing context of shipping losses and resultant controls, yet once again this work was carried out thoughtfully, with some imaginative methods proposed, and ultimately successfully in order to make up the difference between the quantities of home grown timber available

¹⁴³ TNA/MT/23/379, (file T16966, 1915 - Not MT23/379/8 as listed on TNA website). These records are very detailed shipping accounts; MT/23/381/14, for instance files T17816/1915 and T22278/1915, also has examples of importers trying to charter tonnage (for instance Dutch shipping) to get timber to the UK from places such as the White Sea in June 1915; TNA/BT/71/3/55295, memo regarding the control of timber during the war, 24 March 1919.

¹⁴⁴ TNA/PRO/10/98, Board of Trade Emergency Departments, Section 6 (Timber Supply Department), information "from C.P.C", derived from censored correspondence, concerning the Swedish, Norwegian, etc. timber trade, September 1917 - August 1918.

¹⁴⁵ See chapters 1 and 2 of this thesis; TNA/LAB2/1488/LE37858/110 and 18/1914, Telegrams of 10 and 12 September 1914 from Colonial Office to Governor General and his reply, also of 22 October 1914 from Board of Trade to His Majesty's Trade Commissioner; TNA/LAB2/1488/LE37858/18,46,110,111 or 193/1914, passim; *Cd.7728 Reports to the Board of Trade Upon the Supply of Imported Pit-Timber*, passim; *Cd.7729 Report on supplies of home-grown pit-wood in England and Wales*, passim.

¹⁴⁶ Turner, *British Politics*, p. 84

¹⁴⁷ *Ibid.*

and those demanded by the war. It was especially vital to maintain some degree of forestry imports, as it was with other materials, earlier in the war as home grown timber efforts, such as establishing the CFC, finding forests for them to work in and building up production levels, all progressed.¹⁴⁸ The section will also contribute to the overall argument that timber, like shipping space, did indeed become a highly managed and controlled materiel.

To show these areas it will firstly briefly cover where in the world imports were obtained from and some issues with these in terms of planning future supplies, such as which months might certain shipping ports be frozen shut. As might be expected, or deduced from earlier chapters, traditional European sources gave way to higher levels of Canadian and American purchases, but they never stopped entirely. Then some contextual information on controlling shipping during the war will lead into shipping controls directly aimed to reduce the amounts of timber imported and how the timings of these can understandably be seen to reflect wider concerns in regard to shipping. Following this, how controls related to purchasing imports were increasingly centralised and the measures taken to control imports of timber will be examined, illustrating the complex nature of such an administrative task, but that once again the Timber Trade Federation were involved by the State in amending early orders into more workable versions.

Although imports were maintained from the more traditional and geographically closer Scandinavian suppliers, the 'New World' countries provided an increasingly important portion of British imports. Their potential was quickly seized upon, yet the overwhelming sense in reviewing the work and correspondence of the Board of Trade is that its sole priority was to obtain the necessary supplies as soon as possible, from

¹⁴⁸ Dewey, 'The New Warfare', pp. 82-3.

wherever they could still be sourced and shipped. Therefore, although some small quantities of specialist woods for specialist requirements, such as mahogany for aeronautical supplies were still imported from West Africa, or teak from Burma for the Admiralty, the main sources remained European countries but with trans-Atlantic imports increasing in importance.¹⁴⁹

Imports continued from Norway and Sweden throughout the war, although Swedish owners were occasionally reluctant to release their ships, due partly to submarines and also what the British saw as an ‘unfriendliness’ towards the UK at times.¹⁵⁰ Shipments from the Baltic Sea States of Estonia, Latvia and Lithuania had supplied a great amount of timber to the UK before the war, but were more vulnerable and closer to the routes expected to be blocked from August 1914. The Baltic, Black Sea and German ports were lost to British trade, and in terms of timber this was serious.¹⁵¹ However, the White Sea ports of northern Russia were utilised from the early days to bolster supplies, when not frozen shut.¹⁵² Timber Allocation Subcommittee proposals for 1918 imports included 734,000 tons of timber, excluding mining wood, for the Admiralty and Board of Trade from Scandinavia and Russia.¹⁵³ Baltic supplies being vulnerable meant the Board of Trade also increased imports of pit-wood from France, especially the Bordeaux and Bayonne areas, where they could be shipped from Bay of Biscay ports, as well as from Portugal and occasionally Spain from early in the war. These areas continued to supply wood of all kinds throughout

¹⁴⁹ TNA/CAB/40/24, notes on meeting of the Timber Allocation Subcommittee, 28 February 1918.

¹⁵⁰ Ibid; TNA/CAB/21/80, Lord Curzon’s Committee on Timber Supplies, minutes of meeting 8 May 1917, p. 5.

¹⁵¹ TNA/CAB/37/123/21, Walter Runciman M.P., ‘Shortage of Merchant Shipping Tonnage’, 11 January 1915, p. 2.

¹⁵² TNA/LAB2/1488/LE37858/18/1914, note by C.F Rey (Secretary of Board of Trade) 24 August 1914.

¹⁵³ TNA/CAB/40/24, notes on Meeting of the Timber Allocation Committee, 28 February 1918.

the war. Switzerland was occasionally mentioned as a potential source as well, but overland transportation was harder.¹⁵⁴

However, the most important change to occur in regard to where imports came from was the increased use of trans-Atlantic timber trade from Canada, Newfoundland, the east coast of America and the Gulf States.¹⁵⁵ From August 1914 the possibility of a supply of pit-props being obtained from Nova Scotia, New Brunswick and the north bank of the St. Lawrence River led to a request for prices from the Canadian Government and a joint fact-finding mission of mining and timber experts to Canada and Newfoundland.¹⁵⁶ Certain types of timber imports from Canada were stopped in the height of the shipping crisis in April and May 1917, but these were temporary and imports continued at a high rate throughout the war.¹⁵⁷ By 1918 proposals for imports often linked Canada and the USA together. For instance the Timber Allocation Subcommittee's proposals to supply the main users in 1918 included one for 464,500 tons from east coast Canada and America.¹⁵⁸

It should also be remembered that when making and enforcing timber shipping restrictions, as well as the ordering of imports, authorities had to consider the time of

¹⁵⁴ Ibid; TNA/LAB2/1488/LE37858/46/1914, note by Rey to Sir H.L. Smith 19 August 1914 and note by Rey 24 August 1914; G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 140.

¹⁵⁵ Swettenham, *To Seize the Victory*, p. 96.

¹⁵⁶ TNA/LAB2/1488/LE37858/18/1914, including for example, notes by C.F Rey (Secretary at Board of Trade) 24 August 1914 and 14 September 1914; TNA/LAB2/1488/LE37858/46/1914, notes regarding 'Supply of Pit-Props', n.d (c.late August 1914); TNA/LAB2/1488/LE37858/110 and 18/1914, Telegrams of 10 and 12 September 1914 from Colonial Office to Governor General and his reply. Also see telegram of 22 October 1914 from Board of Trade to His Majesty's Trade Commissioner; TNA/LAB2/1488/LE37858/18,46,110,111 or 193/1914, passim; *Cd.7728 Reports to the Board of Trade Upon the Supply of Imported Pit-Timber*, passim; *Cd.7729 Report on supplies of home-grown pit-wood in England and Wales*, passim; TNA/LAB2/1488/LE37858/110/1914 Copy of Cable from Secretary of State for Colonies to Canadian Government dated 25 August 1914.

¹⁵⁷ TNA/MUN/4/3417, memo, 'Importation of Shooks', 20 July 1917; TNA/CAB/40/24 notes on Meeting of the Timber Allocation Subcommittee, 28 February 1918: Pritchard, *History of the Corps of Royal Engineers*, pp. 559, 566 the RE Directorate of Works carried on placing orders for Canadian timber to be imported to France until Directorate of Forestry (GHQ) established April 1917. For the Passchendaele offensive large orders were placed for trench boards. In August 1917 375,000 were sent to the front, equal to 400 miles of duckboard paths across the broken ground.

¹⁵⁸ TNA/CAB/40/24, Meeting of the Timber Allocation Subcommittee, 28 February 1918.

year and weather prospects. Most timber imports were confined to summer and autumn as the ports they were sent from, such as on the White Sea, could be frozen in or at least affected by ice. In November 1916 the only effective import market left to the UK was Canada as the White Sea was frozen, and even when it was clear only approximately 10,000 standards per month could be obtained from there due to shipping and 'other difficulties'.¹⁵⁹ The Ministry of Munitions were keen to point this out to the War Cabinet in July 1917 following an April ban on exports from Canada. They felt they could make no more economies in so far as their needs for wood for ammunition packages. Therefore, if the embargo was not lifted and sufficient stocks imported before October the position would become critical as the majority of the Canadian ports handling timber could be ice-bound during the winter and early spring.¹⁶⁰

However, as in the case of the ban on Canadian imports in spring 1917, occasions when imports of wood to the UK and France were completely stopped were rare and short-lived. Recognition of its vital nature endured, timber often coming in fourth behind food, munitions and men in priorities of imports, yet there were understandable concerns.¹⁶¹ The Timber Trade Federation Importers' Section feared during the early weeks of the war that timber being imported would be considered contraband. Early information from the British Minister at Stockholm led them to believe that whilst mining timber would be treated as contraband by the Germans, other types would be exempt from interference. However, near the end of November 1914 Germany declared that 'all timber would be regarded as contraband'.¹⁶² Even before the

¹⁵⁹ TNA/BT/71/21, Bird, pp. 33, 39.

¹⁶⁰ TNA/MUN/4/3417, memo 'Importation of Shooks', 20 July 1917.

¹⁶¹ TNA/BT/71/21, Bird, p. 38; for creation of Lord Curzon's Committee on Timber Supplies, see TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies minutes of meeting 10 May 1917, p. 3; TNA/BT/71/3/55295, Board of Trade memo showing necessity for the control of timber.

¹⁶² Latham, *History of the Timber Trade Federation*, p. 62.

commencement of an official German blockade the British Cabinet were discussing the vital nature of imports in conjunction with shortages in available shipping, and its higher prices, which had occurred almost immediately war broke out.¹⁶³

The number of British Merchant Navy ships available often varied depending on British and international need for transport to and from the UK, and a large proportion of British imports and exports of all kinds, about twenty-five per cent in January 1915, were carried in non-British registered ships. This complicated their wartime control.¹⁶⁴ Then, on the 4 February 1915 the German Government declared a blockade of the British Isles, saying they would sink any merchant ships under Allied flags in British waters, with only a narrow strip being allowed for neutral shipping along the Dutch coast and around the Shetlands.¹⁶⁵ This was aimed to prevent commodities of all kinds from reaching or leaving the British Isles or Northern France in the necessary quantities. Although supplies were being severely affected by and during the summer of 1915 Asquith and the Cabinet took little practical action and their inaction helped in Lloyd George's campaign for greater efficiency, more State intervention in important areas and eventually to his new coalition government.¹⁶⁶

At this stage Walter Runciman, Liberal MP and President of the Board of Trade, has been called 'well equipped' for his role of controlling shipping by historian Martin Pugh. However, being the son of a wealthy shipping company owner, and ship owner himself, he was criticised by the contemporary Tory press for his stance on allowing private merchant companies to continue with minimal State intervention, at a time

¹⁶³ Pugh, 'Runciman', n.p; TNA/CAB/37/123/21, Runciman, 'Shortage of Merchant Shipping Tonnage', 11 January 1915, pp. 1-6, quote on p. 4.

¹⁶⁴ Ibid.

¹⁶⁵ *History of the Great War Based on Official Documents*, 1915, vol.2, pp. 109-10.

¹⁶⁶ Turner, *British Politics*, pp. 82-3, 102, 103; *History of the Great War Based on Official Documents*, 1915, vol.2, p. 110; Pugh, 'Runciman', n.p; TNA/CAB/37/123/21, Runciman, 'Shortage', 11 January 1915.

when shippers were seen to be making large profits. Runciman did not believe in 'business as usual' once the war had started, but he also felt the State was limited in what it could achieve through complete intervention, especially in shipping. In an opposite stance to that taken by Lloyd George, Runciman felt no government department, however hard-working and well-intentioned, could efficiently organise such a large fleet given the many complexities.¹⁶⁷ The Allies, with their vast empires to draw upon, had great scope for importing materials but Runciman's January 1915 report gives many valid reasons for the early reduction in merchant shipping available.¹⁶⁸ The early German U-boat campaign did take a heavy toll on tonnage, and shipping space shortages were felt throughout 1915.¹⁶⁹ However, this reduction in availability was severely added to by 'blockages' at British and French ports for several reasons, including the unprecedented quantities arriving and labour shortages in ports and on the railways leading out from them. 'Bunching' occurred on the quaysides, in warehouses and on ships, keeping ships in port for much longer to load and unload than would be the case under peacetime conditions.¹⁷⁰

During 1916, at the same time as the quantity of timber requirements grew, submarines continued to cause shipping losses, with well over a million tons of British shipping being lost in total in 1916, causing the Shipping Control Board to consider carefully what materials should be prioritised. Those that could be obtained more locally, especially in France, were justly seen as primary targets for tighter controls, and therefore increased self-sufficiency.¹⁷¹ On the 23 November Germany repeated

¹⁶⁷ Pugh, 'Runciman', n.p; TNA/CAB/37/123/21, Runciman 'Shortage', 11 January 1915, pp. 4-5.

¹⁶⁸ Ibid, pp. 1-6.

¹⁶⁹ Bird and Davies, *The Canadian Forestry Corps*, p. 6.

¹⁷⁰ TNA/CAB/37/123/21, Runciman, 'Shortage', 11 January 1915, pp. 1-6.

¹⁷¹ Maclean, *Farming and Forestry on the Western Front*, p. 96; *History of the Great War Based on Official Documents*, 1916, vol.2, p. 550 inc. fn 1; Ranft, 'The Royal Navy and the War at Sea', p. 65; Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p; G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 139.

their specific declaration that timber was considered contraband, and again this was largely to target pit-props to hinder the British coal mining industry, General Ludendorff even stressing the importance of disrupting British pit-prop supply in a speech in early January 1917.¹⁷² However, due to shipping space availability and the price of Scandinavian pit-prop timber having doubled since 1914, Britain's imports of Scandinavian timber were already down by approximately twenty per cent by December 1916, and were reducing rapidly. Aware of these factors, and recognising the poor state of Britain's forests, Holtendorff was convinced that rising Scandinavian prices, greater restrictions to Scandinavian supplies, and a lack of availability of suitable home grown timber would force the British coal industry to collapse.¹⁷³ However, he did not take into account the amounts of home grown timber that would actually be available or could be imported across the Channel from France, Portugal and Spain 'with impunity' thanks to the British Grand Fleet. The domestic construction of homes was also stopped and wood directed to the mines by the new management HLOs.¹⁷⁴ Furthermore, the decision to brand wood as contraband had to be revoked just four months after November 1916. Following the first few months of unrestricted submarine warfare, Germany had had to conclude agreements with the main European neutral countries, including Scandinavian ones, which meant these nations could maintain their trade with the UK, including wood. However these four months, and the increase in U-boat activity that went with it, led to a 'great dislocation' of supplies from Scandinavia.¹⁷⁵

¹⁷² TNA/BT/71/21, Bird, p.33; Herwig, 'Germany's U-Boat Campaign', pp. 192-196, (inc. fn 30 on p.196), 202-3.

¹⁷³ Ibid., p.196.

¹⁷⁴ Ibid., pp.202-3; Ranft, 'The Royal Navy and the War at Sea', p. 59.

¹⁷⁵ TNA/BT/71/21, Bird, p. 33; Herwig, 'Germany's U-Boat Campaign', p. 196.

Once established in December 1916 Lloyd George's War Cabinet had the final say in setting overall shipping restraints and maximum levels of imports. It was for the departments underneath them, such as the Ministry of Shipping, Admiralty, Ministry of Munitions, and with regards to timber the Directorate of Timber Supplies (War Office) then Timber Supply Department (Board of Trade) and Timber Allocation Subcommittee, to make arguments to maintain supplies. Into January 1917 the situation was clearly still desperate and about to become even worse. At a War Cabinet meeting on 11 January discussions centred on combating the 'present serious shortage of tonnage' which was being exacerbated by the Governments of France and Italy putting pressure on their British counterparts to obtain more tonnage to ship increased amounts of coal to these allies.¹⁷⁶ However, even with heavy tolls on shipping during 1915 and 1916, it was claimed by Captain Miles in his volume of the *History of the Great War Based on Official Documents* for this period, that it had been recognised that the submarine 'promised no decisive effect without recourse to the politically doubtful expedient of unrestricted warfare'.¹⁷⁷ Whether or not this was accepted by contemporary senior British planners, Germany did declare unrestricted submarine warfare on the 1 February 1917.¹⁷⁸

The most commonly quoted result of this action is that on 3 February the USA severed diplomatic relations with Germany, declaring war on them on the 6 April.¹⁷⁹ The decision to adopt unrestricted submarine warfare therefore not only pressed the Allies into securing many of their natural resources closer to home, which in terms of timber they could, but would also bring many more lumberjacks to France, namely the

¹⁷⁶ TNA/ CAB/23/1/32, Minutes of War Cabinet Meeting 32, 11 January 1917, pp. 3-4; TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p. 3.

¹⁷⁷ *History of the Great War Based on Official Documents*, 1916, vol.2, p.531.

¹⁷⁸ *Ibid.*, inc. fn 4; Swettenham, *To Seize the Victory*, p. 152.

¹⁷⁹ *History of the Great War Based on Official Documents*, 1916, vol.2, p.531, inc. fn 4.

US 20th Engineers. Allied and neutral shipping losses resulting from submarines more than doubled between January and April 1917 in regard to numbers of vessels sunk, and trebled in regard to gross tonnage lost. However, April was the peak of losses, although that was not known at the time, and losses remained high throughout the summer, affecting planning for shipping availability. Although the convoy system was introduced as a general strategy in May 1917, and losses steadily reduced, the submarine campaign continued throughout the rest of the war. Yet in December 1917 there were just eighty-five sinkings, compared to one hundred and seventy in April.¹⁸⁰ However, throughout 1917 government departments still fought to have their demands for allocation of merchant shipping space met, and as 1917 progressed both shortage of maritime transport available and dependence on neutral shipping increased.¹⁸¹

Permits to ship materials were not always straightforward to obtain, as shown above for buying and selling in the UK, and other cargos often took priority over timber. In February 1917 the War Cabinet instructed the Shipping Controller to create a scheme to provide enough shipping for Britain to supply France and Italy with coal on a regular basis, as this was the 'imperative need'. Moreover, that import amounts as a whole had to be reduced even further to provide a margin of safety and the War Cabinet believed additional restrictions 'could best be made in timber'.¹⁸² Sweden and Norway between them had some 190,000 tons of shipping space available to export softwood in May 1917, yet licences to import were refused even though requested by the Directorate of Timber Supplies (War Office). Lord Curzon's Committee on timber controls stated that uncontrolled use of these ships should not be approved unless it

¹⁸⁰ Swettenham, *To Seize the Victory*, pp. 151, 180, 181, 193; *History of the Great War Based on Official Documents*, 1917 vol.1, p. 536; Herwig, 'Germany's U-Boat Campaign', p. 196.

¹⁸¹ Hansard, House of Lords Sitting 10 May 1917; *History of the Great War Based on Official Documents*, 1917, vol.1, p. 23.

¹⁸² TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, p. 3.

was clear that the vessels could not be used in any way for food or munitions, and that the Ministry of Shipping would have to be asked to confirm whether this was the case.¹⁸³ The shipping of essential supplies was vitally important and a massive task, put under strain by insufficient tonnage and then an unrestricted submarine blockade. It is clear that controls over shipping materials increased from late 1916, but especially from February 1917, and that much responsibility fell on the Shipping Controller and his staff.

Buying Foreign Timber and Importing it.

Therefore, having illustrated the very demanding context of the overall shipping situation, this section on measures to buy sufficient foreign timber will move on to the controls specifically related to elements of the forestry effort, whether purchasing or shipping. It will be seen that as shipping restrictions necessarily grew, HLO controls tightened through licence schemes and occasional stoppages of wood product imports. Furthermore, as was seen in controls relating to uses or buying timber in the UK, the trade were once again unhappy at some of the wording with early orders, but were gradually included in amending or writing future orders. The licensing committee for imports at the Board of Trade did not originally have representation from the trade on it, but would eventually.¹⁸⁴ The wording of ‘The Prohibition of Imports (No.6) Proclamation’, at the end of March 1916, was said by the Timber Trade Federation historian to be another example of the early ‘uninstructed methods of the Government’ as it was some time before it was decided and confirmed that plywood, planed and prepared or tongued and grooved boards were not to be treated as ‘wood

¹⁸³ TNA/CAB/21/80, Lord Curzon’s Committee on Timber Supplies minutes of meeting 8 May 1917, p. 5.

¹⁸⁴ TNA/BT/71/21, Bird, Appendix 3, ‘Prohibitions of Import Affecting Timber 1916-18’, p. 3; Latham, *History of the Timber Trade Federation*, p. 65.

manufactures'.¹⁸⁵ Yet the overriding theme of those orders and notices illustrated below is that although efforts were being made to create shipping space whilst still importing as much timber as possible, the numerous controls and their amendments meant the situation often altered and became confusing for the imported timber trade.

An order of 10 January 1917 meant permits from the Board of Trade were needed to charter neutral tonnage, or buy goods on terms which included freight. Initially this was limited to goods weighing over 1,000 tons but this limit was removed in March, so that permits were needed for any chartering of tonnage or for 'freight-included' purchases. Although not directed specifically at imports of timber, the Board of Trade had to clarify the requirements to the Timber Trade Federation in a letter of the 24 February, which interestingly, in an age of steam and diesel-powered shipping, also allowed for the permit-free shipment of timber from Canada in sailing vessels.¹⁸⁶

However, as can be seen in Appendix 'Control Orders & Notices', the first specific import controls including timber were also introduced in January and February 1916. Proclamations and Statutory Rules Orders were introduced, prohibiting imports of hardwoods, furniture woods and veneers unless licences were obtained from the Board of Trade.¹⁸⁷ Widening the net, 'The Prohibition of Imports (No.6) Proclamation' prohibited, from 30 March 1916, the import of beech, birch, elm and oak timber or furniture woods, without a licence.¹⁸⁸ It was then not until February 1917 and the German resumption of unrestricted submarine warfare, that the War Cabinet approved a total reduction of 500,000 tons of imports per month. This included measures such as the total prohibition of many paper items, but also that no less than 200,000 tons (forty per cent) of this figure must be made through reductions

¹⁸⁵ Ibid., pp. 66-7.

¹⁸⁶ Order of the 10 January 1917, No.5 / No.39D, see TNA/BT/71/21, Bird, Appendix 1, p. 1.

¹⁸⁷ Latham, *History of the Timber Trade Federation*, p. 65; TNA/BT/71/21, Bird, Appendix 3, p. 3.

¹⁸⁸ Ibid.

of timber imports. It is not surprising therefore that this was the same meeting at which the establishment of the Directorate of Timber Supplies (War Office) was confirmed to absorb the roles of the Home Grown Timber Committee and other timber-related bodies.¹⁸⁹

Furthermore, just three days later the War Cabinet were told by the Shipping Controller that another report into shipping was likely to conclude the need for further restrictions above the 500,000 tons a month agreed already.¹⁹⁰ These necessary reductions in overall shipping and the War Cabinet focus on timber led Lord Curzon's Committee, now really concentrating on timber, to conclude that the total shortage of shipping for 1917 would be equivalent to a reduction of imports by 8m tons over the year, as opposed to the 6m tons previously thought.¹⁹¹ Curzon was therefore asked to reconvene the interdepartmental Committee on the Restriction of Imports under Sir Henry Babington-Smith. In order to investigate how best to reduce timber imports by a further 100,000 tons per month on top of the 200,000 tons per month reduction agreed three days earlier, they were instructed to prepare two alternative programmes for submission to the War Cabinet that would enable the reduction of either 250,000 or 500,000 tons of timber imports per month.¹⁹²

February 1917, therefore, unsurprisingly proved a busy month for import restrictions on forestry produce. An Army Council Order of 4 February 1917 essentially acted as a brief ban on imports as no one from that date was to be allowed

¹⁸⁹ TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, pp. 2-3;

TNA/CAB/23/1/74, Minutes of War Cabinet Meeting 74, 19 February 1917, pp. 1-2

¹⁹⁰ Ibid., p. 1; TNA/CAB/23/1/70, Minutes of War Cabinet Meeting 70, 16 February 1917, pp. 2-3; TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, pp. 1-2 [Note - Shipping Report was *War Cabinet Paper G.-129*].

¹⁹¹ Ibid.

¹⁹² TNA/CAB/23/1/74, Minutes of War Cabinet Meeting 74, 19 February 1917, p.2;

TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, pp. 1, 4-5, Appendix 1 pp. 6-7, Appendix 2 'Prohibition of Imports a Memorandum by Mr. Balfour', pp. 7-9;

TNA/BT/71/21, Bird, p.45, Appendix 1, p. 38.

to buy, sell or deal in sawn softwood timber, including sleepers, which were not already in the UK.¹⁹³ Some concessions were, however, quickly made to the Timber Trade Federation, and a system of applying for licences from the War Office for foreign transactions was introduced.¹⁹⁴ On 8 February the Importers' Section of the Timber Trade Federation held a meeting at which they acknowledged that the Government's actions in terms of preventing further inflation of prices had worked. However, they suggested that until Swedish imports were more readily available again the Government should allow imports of softwood to come into the country freely.¹⁹⁵ So in what smacks of self-interest, yet can also be said to have wanted to improve supplies necessary for the war effort, the Timber Trade Federation was happy with stopping inflation through setting maximum prices; but not with further layers of bureaucracy. They noted that 'the country would best be served by allowing all softwood to come in freely, without the delay and hindrance to buyers of obtaining a licence for buying and to sellers of obtaining licences for selling and chartering'.¹⁹⁶ On the 21 February 1917, amongst the dire warnings being given about the drastic import cuts that would be needed from various reports from Babington-Smith's Committee, the Shipping Controller, admirals and Directorate of Timber Supplies (War Office), the War Cabinet unsurprisingly decided that a report was needed on obtaining much more timber from France, which will be covered below. However, all imports of timber without a War Office licence, or later on a Department of Import Restrictions, part of the Board of Trade, licence on the recommendation of the Timber Supply Department (Board of Trade), were confirmed as prohibited through a

¹⁹³ TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

¹⁹⁴ Ibid, p. 45, Appendix 1, pp. 1-2.

¹⁹⁵ TNA/BT/71/21, Bird, p. 43.

¹⁹⁶ Ibid., Minutes as quoted by Bird.

proclamation on 23 February.¹⁹⁷ The Directorate of Timber Supplies (War Office) felt it was not safe to commit to any large reductions in imports in February 1917 as the spring months should be used for imports, but agreed that it was ‘desirable to bring the imports under control with a view to reductions in future’.¹⁹⁸ To achieve this he recommended that imports of all kinds of timber could in the future be prohibited, but that at this stage they should be ‘freely licenced’.¹⁹⁹ Bampfylde Fuller felt that it would be undesirable to set up a separate licensing system for wood products, but that it would be ‘indispensable in the near future’.²⁰⁰ The effort in the work required to set it up in the short term would be outweighed in the longer term, therefore this administrative work should be done so systems were in place for when it was really necessary.²⁰¹

To illustrate the tightening of import controls following the recently introduced unrestricted submarine campaign and these high-level responses, we can look to the mid-March 1917 Board of Trade announcement that general import licences for many different classes of wood would be revoked on 2 April. From that date on, special licences would be required for each consignment rather than type of wood.²⁰² Furthermore, on 23 April the War Cabinet published their decision that, with the exception of timber cargoes that had already been loaded or were in the process of being loaded,

...no further timber should be shipped until the sanction of the War Cabinet has been obtained and that such sanction would not be given until the

¹⁹⁷ TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, p.2; TNA/BT/71/21, Bird, p. 45, Appendix 1, pp. 1-2, Appendix 3, p. 3.

¹⁹⁸ TNA/BT/71/4/78217, memo Directorate of Timber Supplies (War Office) to Secretary War Office 26 February 1917, p. 9.

¹⁹⁹ Ibid.

²⁰⁰ Ibid.

²⁰¹ Ibid.

²⁰² TNA/BT/71/21, Bird, p. 46.

Department desiring such timber had fully established the urgent necessity for this importation before the War Cabinet.²⁰³

On the 27 April 1917 the PM gave a speech indicating an even more drastic prohibition of timber imports due to lack of tonnage, although around that time concerns were raised that ships were returning from Scandinavia without any ballast, or bringing less important items than timber back. From its early days in February 1916, the *Commission Internationale d'Achats de Bois* had proved valuable in identifying ships of different allied nations returning from timber producing areas such as Archangel, having dropped off military supplies, which could return with timber.²⁰⁴ HLOs, such as Lord Curzon's Committee, were keen from early 1917 that 'ballast voyages' be granted licences for timber imports, as long as foodstuffs or munitions were not displaced.²⁰⁵ Furthermore, there were concerns that the absolute banning of any imports of timber to save shipping space had led to the stoppage of supplies of essential special woods, such as that required for manufacturing aircraft.²⁰⁶ The Timber Trade Federation, in spring 1917, definitely wanted greater freedom to import more without the levels of bureaucracy created by the permit/licence systems, although pleased that such systems were helping to stem inflation of prices, as shown below.²⁰⁷

As shown, December 1916 was a major turning point in the management of forestry, as it was in the political management of the war, including increased centralisation and controls of timber and many other materials. In this month the

²⁰³ War Cabinet, Minutes of Meeting No.123 as quoted in TNA/MUN/4/3417, memo, 'Importation of Shooks', 20 July 1917; TNA/BT/71/21, Bird, p. 54.

²⁰⁴ TNA/BT/71/21, Bird, p. 28.

²⁰⁵ TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies minutes of meeting 10 May 1917, p. 3; TNA/BT/71/21, Bird, pp. 48, 49.

²⁰⁶ *Ibid.*, p. 48.

²⁰⁷ *Ibid.*, p. 43.

continued importance of timber in relation to the lack of shipping was reiterated.²⁰⁸ On 3 May 1917 even the export of shooks from Canada by the Ministry of Munitions were stopped by the Director of Munitions Sea Transport unless departments had War Cabinet approval.²⁰⁹ Furthermore, on 15 May it was announced that as softwood was required even more urgently from Scandinavia than pit-wood, 50,000 tons would be imported to the north-east ports of England before the 15 September, but after that date import licences would not be granted. Later this amount was doubled so that 75,000 tons could be imported to Humber ports and 25,000 to ports between the Humber and the Tyne before mid-September.²¹⁰

However, adding to any confusion, just seven days later an Army Council Order, that also regulated prices of imports of softwoods from Norway, Sweden and even Denmark which was not actually a timber-producing country, once again allowed some importation of timber. This would be permitted only on the strict condition that the shipping space used was definitely not needed for food or munitions, and any such shipping availability was to be occasionally ‘announced’.²¹¹ Yet in July 1917 Lord Curzon’s Committee still had to state that, ‘The whole policy of the Restriction of Imports would be upset unless a rigid limit was placed upon the importation of Timber’.²¹² Furthermore, at the same time the Canadian authorities were instructed by the Admiralty to close down all exports of timber. This caused serious concerns about shortages and, it was alleged, a knock-on effect in Canada where a backup of timber waiting to be shipped at ports and on the railways forced many sawmills to stop working and lose employees. This damaged some major firms’ ability to produce to

²⁰⁸ Turner, *British*, p.191, 192.

²⁰⁹ TNA/MUN/4/3417, memo, ‘Importation of Shooks’, 20 July 1917.

²¹⁰ TNA/BT/71/21, Bird, pp. 50, 54.

²¹¹ Army Council Order ‘Soft Wood’, *London Gazette*, 22 May 1917, p. 4943 (copy seen in TNA/BT/13/75); TNA/BT/71/21, Bird, Appendix 1, pp. 3-4.

²¹² TNA/MUN/4/3417, Memo, ‘Importation of Shooks’, 20 July 1917.

their maximum limits for 'some time to come'.²¹³ As previously stated such complete bans were therefore quickly examined and generally short-lived.

For instance, concerns over 'special' woods for bodies such as the Admiralty were raised in Lord Curzon's Committee and it was therefore agreed that the Directorate of Timber Supplies (War Office) and subsequently the Controller of Timber Supplies (Board of Trade), could issue special permits for the importation of timber not otherwise obtainable in the UK. Furthermore, these special permits were to be issued for any timber already contracted to be shipped before the end of May 1917.²¹⁴ The situation regarding controlling and limiting imports of timber between February and May 1917 was perceptibly hectic and confusing, but efforts to clarify were being made to enable as much timber as possible still to be imported, most of the time.

Two months later, on 20 July, the Board of Trade announced a further regulation to authorise more timber shipments. Imports from Canada and the USA could be made in neutral 'sailing' ships, or as 'deck loads' on any vessel under a general licence.²¹⁵ This included the importation of mahogany and hardwoods in neutral 'steamers' and as deck loads, although 'little advantage could be taken of this concession'.²¹⁶ Adding to the complex nature of the allowances and conditions under which particular types of wood could be imported, it was announced on 6 September 1917 that timber could be imported from the USA or Canada in either an un-requisitioned space under deck of British or Allied liners or steamers, or in neutral steamers if approved by the Inter-Allied Chartering Executive, as long as this did not displace food or munitions.²¹⁷

²¹³ Ibid.

²¹⁴ TNA/CAB/21/80, Minutes of Lord Curzon's Committee on Timber Supplies meeting 8 May 1917; TNA/BT/71/21, Bird, p. 54.

²¹⁵ Ibid.

²¹⁶ Latham, *History of the Timber Trade Federation*, p. 68.

²¹⁷ TNA/BT/71/21, Bird, p. 55.

Such complex concessions were not popular with the timber trade as they took a lot of effort and time to arrange and as demand was still high enough to sell on a lot more than they were importing. This was true even though permit systems had curtailed civilian use as any timber allocated had to be for government orders or work of national importance.²¹⁸ In the case of shooks the Admiralty was not prepared to relax its instructions to the Canadian authorities until after July 1917 at the earliest. This was even though experts at the Ministry of Munitions and War Office felt they could be stored on and between decks of ships and that shipping in this form of premade case boards, of which there were 21,000 tons on order in Canada, saved fifteen to twenty per cent in shipping space.²¹⁹ Turner points to May 1917 as being the end of Lloyd George's coalition's 'honeymoon period', and early to mid-1917 clearly saw a great deal of panic controlling of imports, amongst which timber featured most heavily.²²⁰ This resulted in more confusion and annoyance in the trade, and it is easy to see why at times, yet consultation by the HLOs with trade bodies did result in clearer definitions.

In 1918 the submarine campaign was still considered serious, some staff officers even blaming it for a lack of wooden defensive material during the German spring offensive, even though losses of timber in 1918 only amounted to approximately 2,800 standards, as compared to the 12,700 standards that were lost to U-Boats in 1917.²²¹ However, initially the new maximum figure for imports for 1918 set by the War Cabinet was to be 1m tons down on the 1917 amount imported, but on 15 February 1918 they reduced the amount by a further 200,000 tons. Therefore sanctioned imports for 1918 were set at 2,875,143 tons, a reduction of 1,200,000 from the 1917 total

²¹⁸ Ibid., pp. 55-6.

²¹⁹ TNA/MUN/4/3417, Memo, 'Importation of Shooks', 20 July 1917.

²²⁰ Turner, *British Politics*, pp. 191, 192.

²²¹ G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 129; TNA/BT/71/21, Bird, p. 68.

imports of 1,675,000 tons of wood of all types.²²² This equated to nearly a forty-two per cent reduction. Although a significant reduction, largely viable thanks to improving amounts of French and home grown timber production, the need for more tonnage for natural resources including timber was still an issue being discussed at the highest level up to the end of the war.²²³

In March 1918 it was announced that the general licences that had covered the importation of a diverse range of specialist wood materials, including shooks, Canadian wood and pine blocks for making matches, would be replaced by more case specific permits from 2 April, and on 1 May the general licence allowing deck cargoes of timber was also cancelled.²²⁴ Finally, as a result of the increasingly acute timber position and following long-term detailed discussions amongst the HLOs, the wide-ranging 'Timber Control Order (1918)' was introduced in July. This brought together many elements regarding the purchase of imports from previous directives, such as those outlined above, to be administered under the Timber Supply Department (Board of Trade).²²⁵

A press notice on 7 June 1918 had already announced that a 'rationing scheme' was to be introduced and invited importers, merchants, retailers, agents, brokers and shippers whose transactions in imported softwoods, sawn and planed, averaged over 100 standards per annum during the years 1912-14 to apply to register and be included in the scheme.²²⁶ Another press release on the 18 July stated that the Board of Trade were preparing the way for a rationing scheme for imported softwood and that this

²²² TNA/CAB/40/24, notes on Meeting of the Timber Allocation Subcommittee, 28 February 1918.

²²³ Hansard, House of Commons Sitting 14 November 1918.

²²⁴ TNA/BT/71/21, Bird, p. 65, Appendix 1 p. 6, Appendix 3, p. 3.

²²⁵ Ibid, pp. 65, 207; TNA/CAB/40/23, letter from E. Batch, Secretary to Timber Allocation Subcommittee, to Lieut. J.X. Murphy, War Priorities Committee, 28 March 1918; BT/71/3/55295, 'Memo showing necessity for the control of timber', 1 January 1919.

²²⁶ *The Times*, 'Control of Timber', 7 June 1918, p. 3; TNA/BT/71/21, Bird, p. 66.

scheme would begin on the following Monday, 22 July.²²⁷ The ‘Timber Control Order (1918)’ confirmed that from now on no person could ‘buy, sell or enter into a contract to buy or sell, any timber that had been imported’ into the UK unless in accordance with a permit they had been granted by the Controller of Timber Supplies (Board of Trade). Exceptions included if the purchase was for timber lower in value than £5 in any one week, in which case a declaration had to be signed by the purchaser giving the value of the wood bought and declaring that it was to be used for work of national importance or ‘urgent necessity’.²²⁸ With regard to buying wood in the UK, the ‘Timber Control Order (1918)’ proved the zenith in terms of controlling timber imports and essentially stopped all private importation without permits.²²⁹

Early Timber Trade Federation concerns included that there was not the incentive for private firms to purchase and import foreign timber since, as seen above and in chapter 2, the government had made arrangements for its departments to supply timber to each other, rather than through the usual trade channels, and these would become increasingly centralised.²³⁰ Yet the numerous control orders and HLO-trade discussions outlined above suggest that private imports would continue, except for a few brief periods, as long as the material imported was allocated towards war purposes and therefore the appropriate licence was granted. However, in a similar but much later scenario to the Government Timber Buyers based in the UK being given responsibility for buying the majority of government timber from August 1914 onwards, purchasing supplies in the USA and Canada were centralised under the new

²²⁷ BT/71/3/55295, memo of 1 January 1919.

²²⁸ Ibid.; TNA/CAB/40/23, ‘Timber Control Order, 1918’; TNA/BT/71/21, Bird, Appendix 1, pp. 3, 6-7.

²²⁹ Army Council Order ‘Soft Wood’, *London Gazette*, 22 May 1917; BT/71/3/55295, ‘Memo showing necessity for the control of timber’, 1 January 1919; TNA/BT/71/21, Bird, Appendix 1, pp. 3-4, 28.

²³⁰ Latham, *History of the Timber Trade Federation*, p. 63; TNA/BT71/4/78217, letter to C-in-C BEF from Army Council, 10 February 1917; TNA/BT/71/21, Bird, p. 38.

British War Mission in the spring of 1918. By March 1918 the Timber Supply Department (Board of Trade), on Timber Allocation Subcommittee recommendations, were attempting to centralise all state requirements to be purchased from the USA or Canada. Supplies would be purchased through the British War Mission in the US or the Imperial Munitions Board in Canada.

The British War Mission in Washington was a high-level delegation to try to stop diplomatic misunderstandings between the two countries following a visit by the highly experienced ‘elder statesman’ Balfour, who had been Foreign Secretary since December 1916.²³¹ The Timber Supply Department (Board of Trade) required a special representative to be attached to the British War Mission in the USA, and, as previously stated, Lieutenant-Colonel Reginald Beckett of the CFC and with connections to the important timber firm Dobell, Beckett & Co. was appointed in January 1918. He was to deal with all matters relating to timber in the US and Canada. Branch V of the Timber Supply Department (Board of Trade) dealt specifically with purchases and transport of foreign timber, especially from North America, and they now liaised with the Washington Mission and the Imperial Munitions Board in Canada through Lieut. Col Beckett.²³²

The effectiveness of these measures to control and centralise timber import matters, as well in producing more home grown timber, can be seen in that even with massive increases in amounts required in the war effort by 1916, imports were half the 1913 figure, so around 5.8m tons, and by 1918 they would be less than 2m tons.²³³ However, this section has shown that imports were still important and required a great

²³¹ TNA/CAB/40/23, letter Chair Timber Allocation Subcommittee to Secretary War Priorities Committee reporting on current timber situation, 15 March 1918; Hendrick, *The Life and Letters of Walter H. Page, Volume 2*, pp. 248-50, 254, 255, 256, 257-260, 262-6, 291-2.

²³² TNA/BT/71/21, Bird, pp. 4, 65, 207.

²³³ Nicholson, *Canadian Expeditionary Force*, pp. 499, 500.

deal of management at high-levels across government and the trade. Although the convoy system decreased losses, the situation with regards to lack of tonnage remained a serious drawback to resource availability, including timber, throughout the rest of the war and a few other materials remained higher priorities.²³⁴ Yet the forestry concerned HLOs had to continue making ‘representations’ to the Ministry of Shipping for tonnage to meet requirements, and taking steps, as they did with home grown timber, to ensure it was appropriately allocated.²³⁵ Any complete bans did not last for long and many orders or notices were quickly amended in conjunction with appropriate experts if found to be impracticable. However, given the nature of timber supplies in terms of requiring orders well in advance alongside the changing priorities that the war threw up, another clear conclusion is that managing import controls for this resource led to regular amendments to quantities and types allowed, creating confusion for those in the trade.

Price controls

A final set of controls included under the ‘buying more’ category, along with home grown timber and imports, are those that related to the prices that could be paid for timber. The best known cases of profiteering, however, came in munitions manufacturing, especially in regards to artillery shells. As in these shell contracts, forestry supplies undertaken by the Government Timber Buyer had not been put out to tender, therefore no competitive bidding had taken place.²³⁶ However, although as

²³⁴ Ranft, 'The Royal Navy and the War at Sea', pp. 53, 64-5; TNA/BT/71/21, Bird, p. 54; Elisabeth Glaser, 'Better Late than Never: The American Economic War Effort, 1917-1918', in Roger Chickering and Stig Förster (eds.) *Great War, Total War: Combat and Mobilization on the Western Front, 1914-1918*, (Washington, D.C.: German Historical Institute, 2000), p.401; Marc Frey, 'Bullying the Neutrals: The Case of the Netherlands', in Roger Chickering and Stig Förster (eds.) *Great War, Total War: Combat and Mobilization on the Western Front, 1914-1918*, (Washington, D.C.: German Historical Institute, 2000), p. 239; See for example of debates the Hansard, House of Commons Sitting, 14 January 1918, col. 122.

²³⁵ TNA/BT/71/21, Bird, p. 54.

²³⁶ Swettenham, *To Seize the Victory*, pp. 132-3.

seen in chapter 2 there were some complaints that Meyers had been given too much responsibility early in the war, and questions over prices were raised in Parliament, the potential for profiteering by landowners and merchants was largely kept at bay by measures put in place by the HLOs, especially in terms of maximum prices. The first of these did not come until 5 February 1917, as concerns over supplies were high by then, as seen above. Following an Army Council notice, prices were not to exceed those common during the week ending 3 February 1917. This week, Monday 29 January to Saturday 3 February, is often identified by either the week beginning or ending dates.²³⁷ Other Statutory Rules Orders also often related to controlling other elements of the forestry effort, and included clauses or sections limiting amounts paid either in single transactions, or over a set amount of time, or to a particular section of the trade.

Examples include the 'Standing Timber Order (1917)' which introduced a limit of £300 in any three months on purchases of this resource and fixed maximum prices for larch, spruce, and scots pine. It was introduced in July 1917 to restrict profiteering as prices rose, and to ensure wood bought was quickly converted. However, loop-holes in it had to be closed by the 'Timber Control Order (1918)'.²³⁸ The Army Council Order 'Timber' of 3 May 1917 fixed the maximum price the Directorate of Timber Supplies (War Office) would pay to stockholders of Russian (White Sea) softwoods not yet shipped to the UK at no more than ten per cent more than it had been purchased for, and the 'rationing' scheme included in the 'Timber Control Order (1918)' essentially consisted of a schedule of maximum prices.²³⁹

²³⁷ TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

²³⁸ Ibid, Appendix 1, p. 4; Latham, *History of the Timber Trade Federation*, p. 67.

²³⁹ TNA/BT/13/75, note Guedalla to Controller Timber Supplies (Board of Trade) 25 June 1917; TNA/BT/71/21, Bird, Appendix 1, p. 3.

Agriculture can once again provide comparisons with forestry in terms of reasons why prices rose and with regard to the measures discussed, rejected or implemented. Measures that were introduced for wood prices included applying maximum or minimum prices and price freezes, set to those commonly charged on a specific date for specific products. Price increases naturally followed resource shortages and increased transport costs, especially in shipping due to reductions in tonnage space, increased needs, growing cost of 'War Risk' marine insurance, government economic policies and the subsequent high rates of inflation. Some products were affected more than others, but measures were needed for most resources, particularly those heavily reliant on imports such as timber.²⁴⁰

As mentioned above, Rey (Board of Trade) held discussions with the Timber Trade Federation and shipping and rail companies in August 1914 to establish rates relating to the supply of pit-wood.²⁴¹ The Home Grown Timber Committee also secured 'very favourable' prices for the government. These were, however, still occasionally affected by contractors other than the Government Timber Buyers being willing to pay higher prices to fulfil government work.²⁴² From May 1916 it was also noted that the high price rises in building materials, especially timber, adversely affected the trade when temporary buildings were urgently required. Ultimately concrete was allowed to replace wood in these structures, yet the high prices of more modern building materials continued until the post-war boom turned into recession in winter 1920/1.²⁴³ However, it was only in June 1916 that the Home Grown Timber

²⁴⁰ TNA/CAB/37/123/21, Runciman, 11 January 1915, pp. 1-6; Dewey, *British Agriculture*, pp. 5, 24, 32, 71, 80, 81, 86, 93-4 for examples of agricultural materials' price rises, controls, farmers' responses such as rationally growing what would make them the most money; Turner, *British Politics*, pp. 172-3.

²⁴¹ TNA/LAB2/1488/LE37858/18/1914, note by Rey, 24 August 1914.

²⁴² TNA/BT/71/21, Bird, p. 18.

²⁴³ Swenarton, *Homes Fit for Heroes*, pp. 48-49, 51, 52, 58-9, 115, 129, 130 (correspondence between Treasury and War Office in July-August 1915, PRO T161/68 s5222/2 as used in Swenarton, *Homes*

Committee and Timber Trade Federation agreed a list of maximum prices for different types of fir felling and converting work.²⁴⁴

It was then not until the 4 February 1917 Army Council Order, whereby timber use not for schemes of national importance was stopped, that maximum prices for purchases were introduced. As stated above, prices for specific types were not to exceed those accepted at week ending 3 February.²⁴⁵ Just four days after this order on purchases in the UK, the importers section of the Timber Trade Federation also acknowledged that government actions to prevent further inflation of their prices, seemingly meaning the restrictions on imports and shipping introduced in March 1916 and January 1917, had worked.²⁴⁶

The price elements of the 4 February order were then reinforced by the Army Council on 7 May, instilling the same limit, that prices could not exceed those ‘current’ during the week ending 31 January, specifically for imported softwoods.²⁴⁷ Apparently as an afterthought to this order, the Army Council twelve days later ordered that softwood imports from Norway, Sweden and Denmark were actually allowed again, if shipping was available. Such imports could now be sold again as long as stocks were less than 250 standards in size as these, as seen above, would have been requisitioned by the government. With regards to prices, however, the Army Council recognised that import cost increases left merchants unable to sell at prices restricted to those of week ending 31 January 1917, as per the 7 May order, without making a loss. Therefore foreign softwoods could now be sold at these prices, plus a thirty-three per cent increase on the understanding that profit would be no more than ten per cent. Ball

Fit for Heroes, p. 201, endnote 9).

²⁴⁴ Latham, *History of the Timber Trade Federation*, p. 66.

²⁴⁵ *Ibid.*, p.67; TNA/BT/71/4/78217 and TNA/BT/13/75 for copies of notice; TNA/BT/71/21, Bird, pp. 41-2.

²⁴⁶ *Ibid.*, p.43.

²⁴⁷ *Ibid.*, Appendix 1, p. 3; TNA/BT/13/75, Army Council Order of 7 May 1917;

argues that the order's wording was confusing for many, and his argument is certainly justified. Not least of the confusion came about as Denmark was not actually a timber exporting country, as already noted. Furthermore, at a time when timber was most urgently needed, a number of holders of old stock, below 250 standards, now decided to keep it back in the hope that further price concessions would come. This was an issue not dealt with until the extensive 'Timber Control Order (1918)' was imposed fourteen months later.²⁴⁸

On the 14 May 1917 when asked in parliament if the government would 'consider the advisability of fixing maximum prices for various grades of timber, as has been done in the case of certain other commodities' due to wartime conditions increasing prices, the Under-Secretary of State for War, replied that it was not proposed to do so for home grown timber at that time.²⁴⁹ However, as a sign of the increasing problem, the first attempt to set prices for home grown timber, although not including Ireland, came less than two months later. Introduced to stop timber merchants paying too much for standing or felled wood the 'Home Grown Timber Prices (Great Britain) Order, 1917' of 4 July 1917, created a schedule of maximum prices for some coniferous timber. As a first attempt it only covered quite specific products, such as certain sizes of sawn spruce, scotch fir and larch. Later home grown timber orders would be more comprehensive.²⁵⁰

The 4 July order had set maximum prices for quite specific types of timber. However, four months later the 'Home Grown Timber Prices Order 1917' (note that no longer includes 'Great Britain' so applied to whole of UK) of early December 1917, replaced it and established a more comprehensive set of maximum prices for all home

²⁴⁸ Ibid., Army Council Order 'Soft Wood', copy from *London Gazette*, 22 May 1917, p. 4943; TNA/BT/71/21, Bird, Appendix 1, pp. 3-4.

²⁴⁹ Hansard, House of Commons Sitting 14 May 1917, col. 1331.

²⁵⁰ TNA/BT/71/21, Bird, Appendix 1, p. 4; Latham, *History of the Timber Trade Federation*, p. 67.

grown timber, no matter what stage it was at. It also gave prices for all of the usual trade sizes. If a type, size or state was not covered in the order it would be set on a case by case basis by the Controller of Timber Supplies (Board of Trade) with expert advice. The order even allowed for price weightings for sawmills and retailers in certain locations.²⁵¹ This order was then itself replaced just over three months later on 25 March 1918 by the imaginatively entitled 'Home Grown Timber Prices Order, 1918'. The prices remained similar, but the Controller of Timber Supplies (Board of Trade) now 'certified' specific mills in port and city locations to be allowed to charge a higher price than 'ordinary' mills in towns or the country. These 'certified' mills were usually those that had been adapted to work on imported timber, but were now having to use more home grown timber.²⁵²

The regulation detailed above that allowed imports from North America in neutral 'sailing' ships or as 'deck loads' on any vessel with a general licence also regulated the price of such imports as of 20 July 1917. The price was to be based on the same assumption used for those timbers imported from Scandinavia, in that the 'current' prices were taken to be as those 'ruling in Liverpool Port' rather than the Irish Ports during the last week of January 1917.²⁵³ With regards to home grown timber, however, the Timber Trade Federation still felt in October 1917 that the government entering into competition had forced up prices. They had appealed 'on patriotic grounds' for more production and set a schedule of maximum prices, meaning a loss for 'port mills', home grown timber producers and merchants, which actually resulted in a reduction of production according to the Timber Trade Federation, who again felt under consulted before the measures were introduced.²⁵⁴

²⁵¹ TNA/BT/71/21, Bird, Appendix 1, p. 5.

²⁵² Ibid., p. 6; BT/71/3/55295, memo of 1 January 1919.

²⁵³ TNA/BT/71/21, Bird, p. 54.

²⁵⁴ Resolution No.4 of Timber Trade Federation meeting of 17 October 1917, as quoted in Latham,

The ‘Timber Control Order (1918)’ which covered all softwoods, imported or HG, and as seen previously brought many threads of the timber effort together, included several clauses related to sweeping price controls. It gave the Controller of Timber Supplies powers to set maximum prices for buyers and sellers of imports, to vary these from time to time, and introduced several new price schedules. Stocks of imported softwood already in the UK could still be sold in accordance with price restrictions in force immediately before the order if the necessary permits had been granted by the Timber Supply Department (Board of Trade). Those with stocks imported from Norway, Sweden or Russia before 15 May 1917 or from Canada or the USA before 19 July 1917 had to make a return of these stocks to the Timber Supply Department (Board of Trade) who might then authorise them to sell at a price fixed by the Controller of Timber Supplies.²⁵⁵ This really did centralise control over price setting in the hands of the Controller of Timber Supplies and his staff at the Timber Supply Department (Board of Trade).

However, pit-wood would be treated slightly differently, as HLOs in terms of the mine industries needed to be involved, and this led to separate debates. Up to May 1917 guidance was issued by the Coal Controller to collieries and price disputes were dealt with through arbitrations.²⁵⁶ The May 1917 Army Council orders relating to the shipping and prices of imported softwoods should have meant that at least foreign pit-wood was restricted to end of January 1917 prices. However, there were still concerns in Parliament in June that pit-prop prices had risen to three or four times their pre-war costs due to HLOs going into the market, competing with others, but being able to fix the prices they would pay. This, it was argued, was done at times on ‘very insufficient

History of the Timber Trade Federation, p. 69.

²⁵⁵ TNA/CAB/40/23, ‘Timber Control Order, 1918’; TNA/BT/71/21, Bird, Appendix 1, pp. 6-7; TNA/BT/71/3/55295, memo of 1 January 1919.

²⁵⁶ *Ibid.*; TNA/BT/71/21, Bird, Appendix 1, p. 7.

data' meaning 'extraordinary' costs sometimes being paid for it. Therefore government departments were setting costs too high and forcing market prices up, hampering other mine owners' efforts.²⁵⁷

Viscount Haldane recommended 'controlled' prices, as introduced for other resources. He felt being able to do so was one of the reasons centralisation of resources under the War Office and then Board of Trade bodies had occurred. He therefore wanted prices reduced by the Board of Trade to 'something not more than double' the pre-war costs, with its 'power of control' used to ensure 'moderation in the prices charged for the timber sold'.²⁵⁸ However, the Earl of Selborne replied that Haldane's intimations that the prices of pit-props had been a price fixed by landowners earlier in the war was not accurate, prices being market-led by imports until these were stopped in favour of home grown timber. Once imports stopped, prices could be regulated by the government, and this he stated they were now correctly doing.²⁵⁹ Lord Curzon, in defence of policy, added that his committee had been primarily concerned with continuing to get pit-props for mining and had concentrated on securing larger supplies, focusing on labour and haulage. The question of prices was to be addressed after this, but he had 'ceased to deal with the matter'.²⁶⁰ However, 'The Pitwood Order, 1918' of 29 July, just a month after this debate, gave more definite legal force to the May 1917 arrangements, as the 'Timber Control Order (1918)' did, and the Controller of Timber Supplies was given powers to vary the maximum prices as he felt necessary through press notices.²⁶¹

²⁵⁷ Hansard, House of Lords Sitting, 26 June 1917, Viscount Haldane and Earl of Selbourne, cols. 637, 640-1.

²⁵⁸ Ibid.

²⁵⁹ Ibid.

²⁶⁰ Ibid., col. 640.

²⁶¹ TNA/BT/71/3/55295, memo of 1 January 1919; TNA/BT/71/21, Bird, Appendix 1, p. 7.

Purchasing Controls - Conclusion

The ‘Timber Control Order (1918)’ and its pit-wood equivalent can be seen as the culmination in terms of orders to control the sales and purchases of timber essential for the war effort. The notices, orders, regulations that proceeded this were at times confusing, and were definitely bureaucratic burdens on many, but they were well intentioned. In general they were precisely worded, all encompassing, strict and aimed at centralising knowledge and control of what was happening to stocks of timber already in the UK or to be bought and delivered to the UK or France. They were often disliked by the trade, seen as government intervention into market forces, but given the vital need for this resource they were reasonable and sensible measures at the times introduced. Furthermore, trade concerns were listened to by the HLOs and amendments made if necessary. These permit systems for sales and purchases, put in place and amended at times during the war, essentially acted as rationing and allocation schemes for timber. Permits issued by the Controller of Timber Supplies under the ‘Timber Control Order (1918)’ for the sale or purchase of imports or home grown timber could specify the uses that timber could be used for, as well as the district in which it could be used, or resold, along with ‘any other conditions which the Controller may see fit to impose’ and under DORA were legally binding.²⁶² Buying more timber and controlling sales most definitely remained important roles for the HLOs in ensuring efficient supplies.

Cutting more

Given the lack of shipping space and general transport problems already detailed it is clear why greater production closer to the end-users was so obviously needed. Although not at their peak, shipping space shortages were felt throughout 1915, and

²⁶² TNA/CAB/40/23, ‘Timber Control Order, 1918’, 16 July 1918, pp. 1-2, points 13, 20.

towards the end of that year was when the need for improving levels of UK and French home grown timber productions were increasingly accepted.²⁶³ This section will therefore look at the methods used by the HLOs to improve home grown timber output, firstly in the UK, and then in France. It should also be remembered that how the HLOs looked to find the labour to work the areas of woodlands, acquired through the methods laid out below, will be covered in chapter 4.

In the UK

The poor state of the UK's woodlands in 1914 were indicated in chapter 1, but obviously some areas still existed even if generally small and/or not well managed in terms of timber extraction.²⁶⁴ By 1914 oak was still reasonably popular in plantings, as were other broad leaved hardwoods. The growing properties and/or commercial uses of beech, ash and wych elm made these species popular. Elm was not generally planted in organised woodlands, as enough of it occurred naturally, especially in new hedgerows. Many of the principal species, mentioned above, were also established as 'miniature woodlands' in new hedgerows as well as plantations, producing a range of timber types and sizes for local use and serving to shelter and enclose agricultural land.²⁶⁵ However, although occasionally used in France during the war, hedgerow and roadside trees did not make for efficient large-scale timber operations, whereas plantations of softwoods allowing for a high degree of clear-felling were ideal for the quantities required at speed, but to reiterate, these were rare.

²⁶³ Bird and Davies, *The Canadian Forestry Corps*, p.6; TNA/BT/71/3/55295, memo regarding the control of timber during the war, 24 March 1919.

²⁶⁴ See chapter 1 of this thesis; Board of Agriculture and Fisheries; Office of Woods, Forests and Land Revenues, *Cd.7488 Joint Annual Report of the Forestry Branches 1912-1913*, pp. 7, 16-24 for an 'Historical Note on the management of the Crown Forests and Woods' which gives brief details of the history of the Crown Forests from William the Conqueror up to 1914; Ross, *Scotland: History of a Nation*, p. 40.

²⁶⁵ Miles, *Forestry in the English Landscape*, pp. 33-4.

In the decades before the war the home grown timber trade centred, and some argue flourished, largely on hardwoods such as oak, ash, elm and beech, and these had Timber Trade Federation and other trade representation looking to further their aims in the pre-war years. The overall goals of, and arguments regarding, the forestry profession had also expanded in the pre-war years. However, very few practical improvements had been made.²⁶⁶ Nevertheless, in late 1916 and early 1917, at the height of the shipping crisis, Lord Curzon's Committee felt that there should still be enough timber in the UK and France to meet the needs of the war effort for several years, if adequate labour could be found quickly enough.²⁶⁷ Furthermore, in January 1918 within debates over the need to build more shipping due to increasing demands for material imports, there were also still calls for the nation to provide much more 'material within its own shores, such as timber, in order to prevent the use of too much tonnage from abroad'.²⁶⁸

There were several measures the HLOs could use to stimulate the official production of home grown timber. In August 1914 they looked to reduce transport rates, and they quickly forbade the unofficial cutting of timber by the numerous new military units being organised or trained around the UK. Then the 'Standing Timber Order (1917)' not only meant permits were needed to purchase most types of standing timber, as detailed above, but the permits were also intended to stop timber being bought by those who could not start working the timber for war purposes quickly enough.²⁶⁹ At times the onus was even put back on the end-users. When measures had

²⁶⁶ See Introduction to this thesis; Latham, *History of the Timber Trade Federation*, pp. 23, 53-4, 57.

²⁶⁷ TNA/BT/71/21, Bird, p. 38.

²⁶⁸ Hansard, House of Commons Sitting 14 January 1918, col. 122, Mr James Hogge (Liberal MP and Party Whip 1918-1922).

²⁶⁹ TNA/CAB/40/23, 'Timber Control Order, 1918'; TNA/BT/71/21, Bird, Appendix 1, pp. 4, 6-7; TNA/LAB2/1488/LE37858/18/1914, note by Rey, 24 August 1914; Swettenham, *To Seize the Victory*, p. 52 taken from Currie's memoirs.

to be put in place to get adequate supplies for South Wales collieries, it was proposed that mine owners should find any spare labour and lorries they could to carry out such work, even though both were in great demand by the army.²⁷⁰

However, the main HLO methods used to ensure production of more home grown timber were to utilise Office of Woods trees, purchase parcels of private woodlands and use any labour they could obtain to convert it, and finally encourage and help large landowners to exploit their estates.²⁷¹ The ‘principal’ duties of Board of Trade officers, taken on from the Boards of Agriculture via the Home Grown Timber Committee and the War Office, were to

...make flying surveys to ascertain what forests are suitable for exploitation; to value the timber and conduct preliminary negotiations with proprietors, reporting results to headquarters; to draw up simple working plans in order to safeguard proprietors' interests; and to see that these working plans are observed by the labour staff engaged on extraction. In some cases they will also control the labour staff.²⁷²

Landowners of all sizes could sell, or occasionally give, standing timber to the governing bodies. Files show that at least 1,101 such contracts were entered into just by the Home Grown Timber Committee between February and June 1916, varying greatly in locations and sizes of land.²⁷³

Bird stated that by 1917 UK home grown timber had provided more than fifty per cent of the country’s timber, and an even higher percentage of pit-wood, and the Timber Allocation Subcommittee estimated home grown timber output in the UK for March 1918 to March 1919 would provide thirty-five per cent of the UK’s timber

²⁷⁰ TNA/BT/71/21, Bird, p. 50.

²⁷¹ TNA/MUN/4/3417, Ministry of Munitions Requirements and Statistics, letter Home Grown Timber Committee to Office of Woods, 1 December 1916.

²⁷² Hansard, House of Lords Sitting 1 May 1917, col. 997.

²⁷³ Home Grown Timber Committee contracts held in TNA/BT/71/5 to 71/20, contract numbers 1 to 1,101. Some numbers listed as missing but most there according to records. Also see files for individual (generally larger) estates where wood felled such as TNA/BT/62/15/3 ‘Claremont Estate – Requisitioned timber’ and BT/62/6/3 ‘Thurstonfield Estate, commission on loss and damages’; Gunner, *Canadian Lumber Camp Eartham and Slindon*, p. 3.

needs.²⁷⁴ Both figures are well up from the seven per cent that domestic produce contributed to the UK's overall timber use in 1913²⁷⁵ It can be seen, therefore, that although imports were still vital and, as will be seen below, French timber produced by the CFC was the main source for the Western Front, the timber produced in the UK was an important contribution to the overall British forestry effort.

In France

However, it was clear that due to shipping restraints on imports, delays at French ports and on railways, and the bulky nature of wood that the BEF, and its allies, becoming more self-sufficient nearer the Western Front made perfect sense.²⁷⁶ As seen in chapter 2, British felling of French trees began early in the war and procedures were quickly put in place between the allies for this. Yet it was only in late 1916 that discussion led to a firm diplomatic agreement to clarify the terms in which more and more lumbermen, mainly Canadian, could be put to use in France. This agreement came into force on 15 November 1916, citing as its *raison d'être* the 'shortage of freight'.²⁷⁷

It will be seen in this section that the situation did gradually improve, and the armies on the Western Front were eventually able to rely on French timber for the vast majority of their needs. Due to increasing shipping concerns in early-to-mid 1917 and increasing French concerns over the future state of their forests, agreements and

²⁷⁴ TNA/BT/71/21, Bird, p.1; TNA/CAB/40/24 Notes on Meeting of the Timber Allocation Committee, 28 February 1918.

²⁷⁵ TNA/CAB/24/34/46, 'Minute by the Timber Controller for the War Cabinet on the Critical Position of the Timber Supply', 1 December 1917; Hill, 'The Canadian Forestry Corps', p. 302 puts at 11.5m tons; Nicholson, *Canadian Expeditionary Force*, pp. 499, 500; TNA/BT/71/21, Bird, p. 1.

²⁷⁶ TNA/BT/71/21, Bird, p. 30; Maclean, *Farming and Forestry on the Western Front*, p. 9; also see chapter 2 of this thesis for reasons why the Directorate of Forestry (GHQ) was established in March 1917.

²⁷⁷ TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber', 15 November 1916, Clause 1 [this is the latest translation found and was attached to a letter of 4 November 1916. I thoroughly checked the translation against the French version, agreed to by the British authorities on 15 November, and am happy that it is an accurate translation of the final agreement]

measures had to be altered and refined, leading to a slightly amended agreement in October 1917.²⁷⁸ Furthermore, although nearly becoming self-sufficient the Allies did have to rely on varying levels of imports into France throughout the war, either to make up shortfalls or because specific types could not otherwise be obtained. The focus of the HLOs, however, remained the utilisation of French forests and woodlands as much as possible. When the Signal Service requested imports of the 'long English poles' as preferable to using the 'shorter French poles', they were quickly instructed by Lord Curzon's Committee to use whatever poles were available in France.²⁷⁹

It is clear that the French forestry profession and much of their forests were in a significantly better state for timber production than the UK's in 1914. A tradition of close control of forest resources and high standards by the State, for the good of the nation, had existed for a hundred years. Following the French Revolution old forest regulations had been abolished and 'an environmental Reign of Terror' followed, with cutting and burning leaving many communal forests in ruins and alpine slopes bare. Thankfully for the 1914-18 Allies, the French State then acted and sponsored reforestation, strict rules being drawn up under Napoleon to ensure national self-sufficiency, and cementing the union between forestry and the nation-state in France.²⁸⁰ Furthermore, from a practical standpoint, ninety per cent of French forested land remained behind the front and out of the combat zone.²⁸¹ Trees in the huge pine forests planted under Napoleon in the South of France, from which the locals made

²⁷⁸ TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, pp. 1, Articles 1, 7.

²⁷⁹ TNA/CAB/21/80, Lord Curzon's Committee on Timber Supplies Minutes of 8 May 1917, p. 4.

²⁸⁰ Pyne, 'Frontiers of Fire', p. 28; Maclean, *Farming and Forestry on the Western Front*, p. 97; Hill, 'Canadian Forestry Corps Work in France', p. 1200.

²⁸¹ Jeanneney, 'The Impact of World War I on French Timber Resources', pp. 226-227.

money from resin and turpentine, went 'sterile' after forty years of being worked and therefore represented 'millions of trees ready to be cut'.²⁸²

Colonel McDougall's 23 June 1916 report for the War Office on utilising French forests, see chapter 2 on establishment of the Directorate of Forestry (GHQ), *Comité Interallie des Bois des Guerre* and War Timber Commission, had also recommended some practical points on utilising French forests. Beech woods, those generally being worked at the time by Royal Engineer Forestry Companies and various labour units, should only be used for 'rough' timber for mines, roads and firewood. It was unsuitable for many of the uses at the Front. Therefore good quality, well-priced, pine forests should be obtained for the CFC to work. Finally, given the perceived prolongation of the war and the increasing needs for timber, many more lumbermen could be put to work than the previously suggested 1,000.²⁸³

On 29 September 1916, as timber supplies were still not satisfactorily reaching the armies, a British Mission, was sent to France to meet officials in regards to supplying the BEF.²⁸⁴ The mission was comprised of J. Sutherland, Director of the Home Grown Timber Committee, F.R.S Balfour of the Home Grown Timber Committee, Frank Baines (later Sir) of various roles including at the Office of Works, and James Eggar of the Office of Works. The CFC was represented by Colonels McDougall and Rathburn, along with Majors Hepburn, McDonnell and Miller.²⁸⁵ Amongst others they met with the French Minister of War, the *Directeur de Génie* (Director of Engineering) General Chevalier, and Commandant Joseph Thiollier, *Inspecteur des Eaux et Forêts* (Inspector of Water and Forests). The mission also inspected various forests including in Brittany, Normandy and the Jura, discussing

²⁸² Hill, 'Canadian Forestry Corps Work in France', p. 1200.

²⁸³ Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34, 35.

²⁸⁴ *Ibid.*, pp. 35-6; TNA/BT/71/21, Bird, pp. 30-31.

²⁸⁵ Bird and Davies, *The Canadian Forestry Corps*, pp. 35-6.

arrangements for felling with the relevant French forestry officers in each area.²⁸⁶ Previous negotiations from mid-August, between the Director of Army Contracts and the French Minister of War, and a conference at British GHQ, had already led to a draft agreement before the mission was arranged, but a version was now agreed and 'put in force' as of 15 November 1916.²⁸⁷ This illustrates good levels of liaison between relevant allied experts.

However, even with this in place and increasing numbers of lumbermen heading to France, dire warnings from various sources regarding the drastic cuts to shipping prompted the War Cabinet to decide that a report was needed on how to obtain even more timber from France. The Directorate of Timber Supplies (War Office) had also strongly recommended that employing more Canadian lumbermen in France was a policy to be 'pursued with the greatest possible energy'.²⁸⁸ The Cabinet therefore requested that the Secretary of State for War organise a senior officer, assisted by a timber expert, to go to France, investigate the situation and report back on three central questions: whether the total requirements of all kinds of timber could be obtained in the vicinity of the Western Front, what labour the Army could provide, and whether the transport system in place was adequate for this. If not, they were to report on what actions were needed to make the timber supply adequate.²⁸⁹ By May 1917 Lord Lovat, the Director of Forestry at GHQ in France, was reporting that following the agreement a joint committee had been established in Paris and that standing timber had been

²⁸⁶ Ibid., p.35; TNA/BT/71/1/6456, holds notes on preparations for, and discussions from, the mission.

²⁸⁷ TNA/FO/93/33/266 'Agreement for the Supply of Timber for the Armies of the Two Countries', see letter Grey of Fallodon to Cambon, 15 November 1916, this file also contains the agreement in French; Brown, *British Logistics*, pp. 132, 133; Bird and Davies, *The Canadian Forestry Corps*, pp. 10-11; Maclean, *Farming and Forestry on the Western Front*, p. 97.

²⁸⁸ TNA/CAB23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, p. 2; TNA/BT/71/4/78217 memo from Directorate of Timber Supplies (War Office) to Secretary to the War Office, 26 February 1917, pp. 8-9.

²⁸⁹ TNA/CAB/23/1/77, Minutes of War Cabinet Meeting 77, 21 February 1917, p. 2.

secured for a further six CFC companies. However, he still felt the position, although improving, was 'far from satisfactory'.²⁹⁰

In October 1917 an amended agreement between the French and British was drafted to replace the 15 November 1916 agreement. It took effect from 1 October 1917, although was not signed by all parties until early 1918, and still cited shortage of vessels as the main cause of difficulties in supplying the military services with sufficient timber.²⁹¹ The exact terms of the November 1916 and October 1917 agreements can appear confusing. Elements such as numbers of personnel or units allotted, which army the produce would go to, and if and how compensations were to be made, can appear slightly different between drafts and copies. This is mainly because subtle changes were made during extensive negotiations before each agreement.²⁹² The negotiations do, however, show the diplomatic efforts undertaken to arrive at a forestry agreement that would suit both the practical needs of the Allies and the environmental concerns of the French.

For example, in drafts of the November 1916 agreement, one CFC battalion was to be placed at the disposal of the French and given a pine forest 'to strip', earlier lumber units having been unofficially 'loaned'.²⁹³ Haig, however, was concerned at the prospect of handing CFC men over to the French in case it hampered current local BEF production.²⁹⁴ In the final November 1916 agreement it was therefore simply stated that an area that could occupy a maximum of 2,200 Canadian lumbermen would be allotted to the British. This area, according to Maclean, had all been provided before

²⁹⁰ TNA/CAB/21/80, Report from Lovat (Directorate of Forestry at GHQ) to Curzon, 15 May 1917, p. 1.

²⁹¹ TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917; G.S.O, *G.H.Q. Montreuil-Sur-Mer*, p. 140.

²⁹² TNA/BT/71/1/6456 and TNA/RECO/1/374 for the types of discussions and alterations in negotiations.

²⁹³ Hill, 'The Canadian Forestry Corps', pp. 301-2; Brown, *British Logistics*, p. 132.

²⁹⁴ *Ibid.*

the final agreement was signed.²⁹⁵ If more lumbermen could be raised then the French Government would try to assign more forest.²⁹⁶ In the October 1917 agreement wording regarding amounts of land to be provided or number of forestry troops to be used became slightly vaguer. However, the French confirmed they would 'endeavour to place at the disposal of the British...forest coupes reasonably sufficient to allow the fulfilment of the requirements of the' BEF.²⁹⁷

In the initial drafts of the November 1916 agreement the timber produced by the single CFC battalion were to be split equally between the two armies and the forests and their timber provided free of charge to the British Government.²⁹⁸ However, in the ratified agreement all timber would go to the British unless the French Military Transport service felt that forest locations meant it was logistically sensible to exchange it for French supplies elsewhere on the lines of communication.²⁹⁹ If more than the 2,200 lumbermen were raised and the French managed to provide more coupes, then the British would either refund the value of the cuttings at 'cost price' or the produce would be 'evenly divided' between the two armies.³⁰⁰ Which option was taken was decided by the War Timber Commission on a case by case basis.³⁰¹ Lovat estimated that in July 1917 of the 95,000 tons produced they would give the French

²⁹⁵ TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber', 15 November 1916, Clause 1; TNA/BT/71/21, Bird, p. 31; Brown, *British Logistics*, p. 133; Maclean, *Farming and Forestry on the Western Front*, pp. 96-7.

²⁹⁶ TNA/BT/71/1/6456 'Draft Agreement Between the British and the French Governments', 15 November 1916, Clause 2b; TNA/BT/71/21, Bird, p. 31; Brown, *British Logistics*, p. 133.

²⁹⁷ TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, Article I.

²⁹⁸ Brown, *British Logistics*, pp. 132, 133; Maclean, *Farming and Forestry on the Western Front*, pp. 96-7.

²⁹⁹ TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments', 15 November 1916, Clause 2a; TNA/BT/71/21, Bird, p. 31; Brown, *British Logistics*, p. 133; Maclean, *Farming and Forestry on the Western Front*, pp. 96-7.

³⁰⁰ TNA/BT/71/1/6456 'Draft Agreement Between the British and the French Governments', 15 November 1916, Clause 2b; TNA/BT/71/21 Bird, p.31; Brown, *British Logistics*, p. 133.

³⁰¹ *Ibid.*; TNA/BT/71/1/6456 'Draft Agreement Between the British and the French Governments', 15 November 1916, Clause 2b.

7,000 tons, nearly seven and a half per cent. In August 12,000 tons, or eleven per cent of the 107,000 production targets, and in September 18,000, or sixteen per cent of the 112,000 tons hoped for were to be sent to the French Armies.³⁰²

Under the October 1917 agreement fifty-six CFC companies were singled out for special arrangements whilst any other forestry and labour units could carry on work for the British Army, under conditions not dissimilar to the November 1916 terms.³⁰³ Ten of the fifty-six were to work coupes which the British had bought from, or through, the French Government. The produce would be ‘exclusively reserved’ for the BEF.³⁰⁴ The remaining forty-six companies were supplied coupes for free by the French, the British Government paying the costs of felling, transporting to sawmills and loading onto trucks. The produce being equally divided between the two nations’ armies. Additional transport was to be provided by the nation the timber was going to, as were funds for any further costs, but the forestry units were also responsible for maintaining access routes.³⁰⁵

The October 1917 agreement does seem to allocate a greater proportion to the French than its predecessor, perhaps because timber shortages were keenly felt on the eastern flank of the French armies abutting Switzerland. Here there were plenty of trees but no one to cut them.³⁰⁶ Hill states that an agreement was reached that if the CFC produced timber in the Vosges and Jura mountains for the French Armies there, ‘treble’ that amount would be given over to the British in standing timber behind their lines.³⁰⁷ The CFC did carry out extensive work in these areas, but no such official

³⁰² TNA/CAB/21/80, Minutes of Lord Curzon’s Committee on Timber Supplies 8 May 1917.

³⁰³ TNA/RECO/1/374, ‘Convention Relative to the Exploitation of the French Forestry Resources’, 20 October 1917, Article II.

³⁰⁴ *Ibid.*, Article IIIa.

³⁰⁵ *Ibid.*, Articles III (B) and IV (B); Maclean, *Farming and Forestry on the Western Front*, p. 97.

³⁰⁶ Hill, ‘Canadian Forestry Corps Work in France’, p. 1200.

³⁰⁷ *Ibid.*

agreement regarding triple quantity compensations has yet been found. Although perhaps looking to stress the close relationship between Canada and France, Hill in 1919 argued that even though the majority of their produce had gone to the British the ‘best record’ of the CFC came from the work they had done for the French Armies, in these areas and the Landes and Gironde regions south of Bordeaux.³⁰⁸ This might also be due to the suitable nature of the forests for logging.

The importance of conserving French forests, however, was never forgotten in the agreements. Alongside the establishment of a reconstruction subcommittee on forestry during the war, and the subsequent establishment of the Forestry Commission, it is the British Empire forces’ use of French woodlands that best illustrates contemporary concerns over good forestry management. Since early 1915, after damage to the first forests exploited by the British in the Pas-de-Calais and Nord departments, the French military command had added a forestry team to its military liaison-mission at GHQ to try to stop the ‘anarchic exploitation of the forests’.³⁰⁹ Lord Curzon told the House of Lords in June 1917 that the French had ‘handed over to us for control large timber-growing areas in France’ to supply all of the Allies in France.³¹⁰ However, it was clearly not that simple. French environmental and sustainability concerns were key factors in the negotiations and terms of both the 1916 and 1917 agreements. The French were reluctant, even with the pressure of supplying the war effort, to allow unmanaged cutting, preferring, where possible, to insist on good forestry practices.³¹¹

At the height of the submarine menace, the Directorate of Timber Supplies (War Office), which had recently taken on overall responsibility for the timber effort, was very keen for more use to be made of French forests. It noted that the ‘French Forest

³⁰⁸ Ibid., p. 1199.

³⁰⁹ Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p.

³¹⁰ Hansard, House of Lords Sitting 26 June 1917, col. 639-40.

³¹¹ Maclean, *Farming and Forestry on the Western Front*, pp. 97, 98.

Department' had not yet allowed cutting in forests close behind the front, only those in accordance with their regular well-managed scheme. They saw these areas as the most useful in relieving supply congestion and asked the War Office to urge the French to allow 'unrestricted' clear-cutting of the forests and woods nearest the front, while recognising that this would 'sacrifice their future for a certain number of years'.³¹² At the mid-August 1916 GHQ conference to consider additional British use, French authorities were only prepared to grant rights to woodlands that had reached maturity and were included in their 'conservative forest management policies'.³¹³ The original coupes allocated were therefore small, could potentially be situated within larger forests and were distributed throughout France. These did not lend themselves to efficient timber work.³¹⁴ However, the British mission of September 1916 made it clear that they wanted a minimum of 500 hectares to enable a continuous operation, as well as having good transport links and storage near the BEF area, and the CFC would clearly have preferred to work in clear-cutting areas.³¹⁵ Nevertheless, under the 'scientific principles' of French State forestry many areas could only be thinned. In the Jura, for example, the British and French agreed that for rapid production the minimum 500 hectares would be in compact blocks/coupes of 150-200 hectares, from which at least 200 cubic metres per hectare could be felled.³¹⁶

It was in the 15 November 1916 agreement that the French did agree to try to locate areas that could be clear-cut, and some did occur in plantation scots pine forests. However, if this was not possible, such as in native oak and beech woods, then French

³¹² TNA/BT/71/4/78217 Memo Directorate of Timber Supplies (War Office) to Secretary War Office, 26 February 1917, p. 9; Bird and Davies, *The Canadian Forestry Corps*, p. 35, they state that the Sept/Oct 1916 mission recommended that an area of well grown pine, at least 80 years old and covering a minimum of 100 hectares, should be made available nearer to the BEF lines than the Jura.

³¹³ Maclean, *Farming and Forestry on the Western Front*, p. 97.

³¹⁴ Ibid.

³¹⁵ Bird and Davies, *The Canadian Forestry Corps*, p. 35.

³¹⁶ Ibid.

forestry regulations had to be adhered to, as the work was ultimately under their control.³¹⁷ Although the 1917 agreement acknowledged that there were ‘special cases’ where particular French forestry regulations could be exempted to improve operational efficiency, for instance if an area particularly suited Canadian methods or the equipment available to the unit onsite meant the regulations could not be followed. Such areas would be investigated and the British had to agree to either carry out, or pay for, replanting.³¹⁸ Additional French foresters were also employed by their government following the November 1916 agreement and establishment of the Directorate of Forestry (GHQ) in March 1917. They were given powers to authorise or prohibit the felling of trees by the British in state-owned forests, as well as to regulate private forests in which the British were working under contract with the owners. It was for the Directorate of Forestry (GHQ) to negotiate with the French as to which areas could be worked, and in conjunction with them prepare ‘sawing specifications’. In theory only trees marked by the *Commission Forestière d’Expertises* could be felled, and only once specifications and marking was complete would entry rights be authorised for that specific area. The CFC or Royal Engineer Forestry Companies would then assume responsibility for the operation.³¹⁹

A sign, however, that environmental concerns grew amongst the French authorities can be seen in the wording of the October 1917 convention which, although very similar in meaning to its predecessor, states clearly, unlike the earlier agreement, that

³¹⁷ TNA/BT/71/1/6456, ‘Draft Agreement Between the British and the French Governments For the Co-ordination of Requirements and Supply of Timber’, 15 November 1916, Clause 1; Brown, *British Logistics Logistics*, p. 133; Maclean, *Farming and Forestry on the Western Front*, p. 97; TNA/BT/71/21, Bird, p. 31.

³¹⁸ TNA/RECO/1/374, ‘Convention Relative to the Exploitation of the French Forestry Resources’, 20 October 1917, Article IV (B).

³¹⁹ Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p.; Bird and Davies, *The Canadian Forestry Corps*, p. 36.

As the resources of the French forests are not unlimited, the French Government reserves the right to determine the selection of the coupes and to regulate the supply so as to:

1. Ensure the satisfaction of its own requirements as well as those of the other allied Armies
2. Safeguard the general interests of the Country's forestry resources.³²⁰

The French State owned a lot of wooded land, although during the war, as in Britain, the government also looked to purchase private wooded land to allocate to forestry units. At times they had difficulty persuading land owners, especially in the south of France, to part with forested land seen as a long-term livelihood rather than a means of short-term profit, even if a very good price was offered.³²¹ As seen above in the 1916 agreement, any forestry work was to be carried out as per French regulations, yet by the end of 1917 more specific delineations were introduced. In state forests, or those belonging to communes or public bodies, regulations remained as per the French Forestry Authorities' wishes. However, if the French Government had allocated land purchased from private owners the British had to agree to adhere to any clauses the owner had required, 'technical or otherwise'. This was on the understanding that the Directorate of Forestry (GHQ) would have agreed to these before the purchase was completed by the French.³²²

As Tim Cook concludes, having to take the positions of all parties into account when in a coalition often makes relations vulnerable to 'fissures under sustained pressures'.³²³ Whilst it is clear that the work in France greatly reduced transport strains and kept the armies adequately supplied, the processes and relationships did not necessarily always run smoothly. Hodicq says that the use of French forests by the

³²⁰ TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, Article 1.

³²¹ Hill, 'Canadian Forestry Corps Work in France', p. 1200.

³²² TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, Article IV (A&B).

³²³ Cook, *At the Sharp End*, p. 406.

British was the ‘perfect illustration of the military and commercial cooperation between the Allies nations during the war,’ but relations were not always as cordial as would have been hoped for by either party, the French at times despairing at the work carried out.³²⁴

Lovat, as the head of British forestry in France, also had some irritations due to his French counterparts. Amongst other problems, such as lack of skilled personnel in the field, Lovat felt that in attempting to establish and run the Directorate of Forestry (GHQ) the French, although allies, were not always proving ‘friendly’ or ‘reasonable’, often holding ‘different business principles’ to the British and creating ‘minor difficulties’.³²⁵ For instance, and as a further illustration of the ‘impossible’ nature of estimating timber requirements for armies in the field, the French had recently ‘presented their wholly unexpected demand’ for fifty per cent of CFC produce. A compromise was reached, but French requirements, which they had hoped to have by July, could not be fulfilled until September.³²⁶ He also complained that the French were holding up the purchase of woods for the CFC as they felt that the British Government had carried out a ‘breach of faith’ over a small amount of silver spruce promised to them for airplanes. He tried without success to tell them that that was ‘Fuller’s affair’, meaning Bampfylde-Fuller the Director of Timber Supplies at the War Office, but to no avail.³²⁷

When the American lumbermen arrived, skilled French foresters were in short-supply and due to the cheapness of timber in the USA compared with France, they came with very different ideas on logging techniques and forestry practices. At first

³²⁴ Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p; Brown, *British Logistics*, p. 133.

³²⁵ TNA/CAB/21/80, Report Lovat (Director of Forestry (GHQ)) to Lord Curzon, 15 May 1917, pp. 2, 3, 5, 6.

³²⁶ *Ibid.*, p. 1.

³²⁷ *Ibid.*, p.6 (postscript).

the French and American forestry personnel did not get on, because the men of the 20th Engineers were more likely to destroy young trees unnecessarily or fell trees during optimum growth periods. However, John Jeanneney argues that most disagreements were resolved and effective relationships grew, and it appears the same for British Empire forestry units.³²⁸

Brown concludes that through the November 1916 agreement this particular logistical problem was resolved 'quite well', unlike others at the time. As seen in chapter 1, except occasionally in local areas near the front, supplies were maintained well.³²⁹ However, the simple fact that it was accepted that imports would still be required illustrates that it was accepted that self-sufficiency would never truly be reached. Under the November 1916 agreement the British also agreed to 'share proportionally' with the French any tonnage that the 'Admiralty' allocated to the War Timber Commission or *Commission Internationale d'Achats de Bois* for imports to France. Rates for this shipping were to be the same for the French and British governments.³³⁰ Lovat estimated that the Directorate of Forestry (GHQ) would gradually increase its monthly outputs from May to September 1917 as more Canadians arrived. He hoped that by the end of September they might be independent from needing additional supplies to be shipped to them. However, up to then they were still dependant on imports to make figures up to the estimated requirements of 125,000 tons per month. He also felt that 9,000 tons (2,000 in sawn, 7,000 in poles) should continue to be shipped monthly from the Bordeaux ports to Northern France until July, by which time the Directorate of Forestry (GHQ) should be able to supply the poles. After that time he felt the 7,000 spare tonnage per month should be used to carry

³²⁸ Jeanneney, 'The Impact of World War I on French Timber Resources', p. 227.

³²⁹ Brown, *British Logistics*, pp. 132-3.

³³⁰ TNA/BT/71/1/6456 'Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber', 15 November 1916, Clause 5.

sleepers from Bordeaux to Northern France to reduce that tonnage needing to be brought across the channel.

Shipping of imports was also continually needed as certain materials could not be obtained in France. 4,000 tons per month of suitable pitch pine, the usual demand from inland transport in France, was not grown there, although standard gauge sleepers could be produced. Seasoned wood for hutting, required in May 1917 at 5,000 tons per month but likely to increase come winter and with a new hospital building policy, could not be produced and seasoned in France. Lovat saw these two amounts as being permanent requirements and estimates on 'the safe side' to 'secure against all eventualities'. However, he also requested a safety margin of 20,000 shipping tons to be available for August to October 1917 for imports from England to meet unexpected requirements.³³¹ Lovat accepted in this request that his superiors would think he was 'erring on the side of caution,' but argued his position succinctly in that he was 'the largest timber merchant in the world, with no stock of implements, little or no reserve of timber, and a client to deal with who must have what he demands'. He was, however, as often occurred, still asked to liaise directly with the Shipping Controller as previous estimates had requested more tonnage than had been required and it was clearly the shipping space that was most worrying to the authorities throughout most of the war.³³²

Discussions of the possibility of stocks and reserves being established in France give a more positive picture of the efforts there. These stocks and reserves were mentioned on occasion by various bodies, though only if more could be obtained than required through imports and French timber. The 15 November 1916 agreement

³³¹ TNA/CAB/21/80, Report Lovat (Directorate of Forestry at GHQ) to Curzon, 15 May 1917, pp. 4, 5.

³³² Ibid., Minutes of Lord Curzon's Committee on Timber Supplies 8 May 1917, pp. 3-4 and 10 May 1917, point. 2 as well as report from Lovat to Curzon, 15 May 1917, pp. 2-6.

stipulated that if surpluses could be obtained, the War Timber Commission and *Commission Internationale d'Achats de Bois* were to organise stores in France.³³³ Lovat felt he could build up sufficient stocks of fuel-wood for the 1917/18 winter if minor difficulties 'mainly connected with the French' were overcome, whilst noting that requirements for fuel jumped from 3,500 to 26,000 tons p/m during the winter. Also a stock of 30,000 road-slabs, enough 'for the ordinary requirements of an advance', could be built up from French forests as these slabs could be used over and over again. Lovat's desire to create this stock of road-slabs further illustrates the importance of timber in an advance and also GHQ's desire to salvage and reuse wood. Standard gauge sleepers could also be produced in France, and Lovat hoped to produce a reserve of 500,000 of these by increasing production gradually, yet massively, from 20,000 in April 1917 to 250,000 in August 1917.³³⁴ Lovat felt that after September 1917 his Directorate of Forestry (GHQ) would be able to supply anticipated demands 'almost' independently from imports from overseas, though as seen above certain amounts of purchases did continue to arrive at French ports, even if some were from Bordeaux.³³⁵

As well as the forests allocated to British Empire forestry units, contracts therefore continued to be made for the supply of French timber from the French Forestry Authorities either by the HLOs in London or those such as the RE Directorate of Works (Foden Contracts), QMG, and then Directorate of Forestry (GHQ) in France. The Bordeaux forests were particularly key as timber could be shipped up to northern ports and contracts ranged from 4,000 to 12,000 tons per month via this route.

³³³ TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber', 15 November 1916, Clause 6; Brown, *British Logistics*, pp. 132, 133; TNA/BT/71/21, Bird, pp. 31, 33.

³³⁴ TNA/CAB/21/80, Report Lovat (Directorate of Forestry (GHQ)) to Curzon, 15 May 1917, p. 5.

³³⁵ TNA/BT/71/21, Bird, p. 50.

However, in May 1916 the 9,000 tons per month which Lovat had wanted to continue to be shipped to Northern France from the Bordeaux ports were being held up. Shipping constraints were leaving 20,000 tons in store at Bordeaux which Lovat felt would greatly help the June 1916 position, possibly as stocking up for the Somme.³³⁶

The French were, however, keen to stick to agreed procedures. In response to a question, the QMG was informed on 3 September by the French major-general responsible for the areas behind the front, that authorisation for purchases of timber by the British Army could not be delegated even to high ranking French administrative officers. Purchases had to follow the procedures established by the agreement in February 1916 that established the *Commission Internationale d'Achats de Bois*. Therefore requests for permission to purchase were to go to the French Mission at British GHQ to either the Commander-in-chief if in an Army area, or to the Minister if outside of these areas.³³⁷ Yet in October 1917, probably due to workload for senior officials, it was agreed that operational questions would be referred to the Director of Forestry, *Inspecteur General du Service des Bois* (Ministry of Armament) or *Directeur General des Eaux et Forêts* (Ministry of Agriculture) to settle between them, but that any of these could delegate their powers to officials or committees at any time.³³⁸

Under the 15 November 1916 agreement, centrally increasing forestry work in France, the Allies confirmed the previous arrangements made between the French Ministry for War and the Office of Works, that they would also continue buying timber through the *Commission Internationale d'Achats de Bois*. Furthermore, as seen in chapter 2, it was under the November agreement that the War Timber Commission

³³⁶ Pritchard, *History of the Corps of Royal Engineers*, p.559; TNA/CAB21/80, Minutes of Lord Curzon's Committee on Timber Supplies 8 May 1917, p. 7.

³³⁷ TNA/WO/95/31, Letter Major-General Ragueneau to QMG (Lt-Gen Sir R.C Maxwell), 3 September 1916 (translation by Robert Newman).

³³⁸ TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, Article VI.

was established, a body that would quickly become more executive in purpose.³³⁹ The French and Belgian Ministers for War and the British Commander-in-chief would submit their requirements for the armies in the field and other ‘various services’, along with the urgency of these, to the War Timber Commission at least three, but ideally six, months in advance.³⁴⁰ For instance, monthly conferences were established by the BEF to determine current needs, the first meeting in September 1916 requesting approximately 100,000 tons, nearly 72,000 tons of which was not already contracted for. The War Timber Commission were to keep track of requirements and amounts produced in British and French forests, or obtained from any other sources, and keep the Admiralty informed of shipping requirements. They would also make suggestions, based on information gathered, on further methods to affect economies in freight to the relevant forestry or transport bodies.³⁴¹ Haig saw that requirements were drawn up, although he would have preferred the War Timber Commission as an advisory body rather than one that could exert any power over his forces. He already felt the BEF was more dependent on the authorities in London for meeting their needs than the French Army was on Paris. Haig was also concerned that if there were a shortfall in supplies reaching the BEF, there would be no local responsibility to fix this.³⁴² The British Commander-in-chief also agreed not to make further purchases in France without French permission, with the exception of small local purchases by Corps or

³³⁹ TNA/BT/71/1/6456, ‘Draft Agreement Between the British and the French Governments for the Co-ordination of Requirements and Supply of Timber’, 15 November 1916, Clause 3.

³⁴⁰ *Ibid.*, Clause 4.

³⁴¹ *Ibid.*, Brown, *British Logistics*, pp. 132, 133; TNA/BT/71/21, Bird, pp. 31, 33; Maclean, *Farming and Forestry on the Western Front*, p. 97.

³⁴² Brown, *British Logistics*, p. 132.

Divisional Chief/Commanding Engineers in Army areas, a promise he restated in October 1917.³⁴³

As already noted, British GHQ did already have a system of obtaining permissions from the French to cut some of the BEF's timber needs in France, and units had been in French forests since the early days of the war. However, the diplomatic agreements of November 1916 and October 1917 outlined above were clearly about three key areas. Firstly, to massively expand forestry operations nearer the front and to do this quickly as importing got harder but demands from both armies did not abate. Secondly, and undoubtedly very importantly to the French Forestry Authorities given their nation's long standing affinity with forests and woodlands, to ensure as high and professional a level of control over the work of the Canadian and British units to help secure sustainability. The fact timber was needed in unprecedented quantities and therefore work needed to be at unprecedented speeds was not lost on the French authorities, and concessions were made to this. However, forestry HLOs and units in France were never going to be given free reign over French trees, and understandably so. Thirdly, although as much would be taken from French woodlands as possible, this was unlikely to be enough at certain times or in all the forms required. Therefore centralised purchasing and supplies to the two armies remained a vital element of the effort and a great deal of administrative work went into ensuring this facet of the coalition worked as well as possible.

Ending State Intervention and Controls

The summer of 1917 marked the peak of government commitment to intervention into agriculture, a much earlier date than for forestry which continued increasing until

³⁴³ TNA/BT/71/1/6456, 'Draft Agreement Between the British and the French Governments', 15 November 1916, Clause 7; TNA/RECO/1/374, 'Convention Relative to the Exploitation of the French Forestry Resources', 20 October 1917, Article V; TNA/BT/71/21, Bird, p. 33.

the end of the war. In terms of numbers of timber-related controls released monthly during the war, the level of details included in individual orders, and the range of items covered it can be seen that controls continued to grow and be adapted from January 1917 throughout the war.³⁴⁴

The facts that stocks were established at times in both Britain and on the continent and that shortages were never crippling to the war effort indicates how well the controls put in place worked. Different ministries had their own reasons for either expanding, maintaining, reducing or ending the controls they had put in place over their industries or materials, and these were largely for practical reasons rather than doctrinal belief that state control was superior to laissez-faire.³⁴⁵ As seen in chapter 2, Addison, Minister in charge of Reconstruction at this time and known to have free trade predilections, believed in the positive value of involving businessmen in decision-making and implementation. Yet other ministers felt it was better for them to make decisions about controls with input from business. Similarly, some industries were unhappy at the thought of partnership with government, even an anti-socialist one, whilst others looked to take advantage of government's dependence on them to get involved and help define limits of intervention policies following the war. Debates in industries such as shipbuilding, steel, housing and many others would be well discussed throughout Parliament and business. Overall in 1918 and 1919 businesses, ministries and ministers in favour failed to come up with a plausible, combined, strong political case for extending boundaries of state intervention.³⁴⁶ The war did illustrate productivity problems in UK industry as a whole, as well as in forestry, and left hopes and fears regarding the ability of politicians on all sides to achieve the levels of

³⁴⁴ See Appendix to this thesis, 'Control Orders & Notices'; Dewey, *British Agriculture*, pp. 99-101.

³⁴⁵ Turner, *British Politics*, p. 362.

³⁴⁶ *Ibid.*, p.388.

reconstruction and change promised in the post-war period in conjunction with industries, trades and unions. However, through the Standing Council on Priority, composed mostly of businessmen, any overly rigid controls seen to restrain the development of trade were very quickly ended, and even though some controls followed more slowly, there was a ‘pell-mell rush to decontrol,’³⁴⁷ which included the timber trade.

The Timber Trade Federation in October 1918, as government and many business organisations did during the war, looked to the post-war period. They felt that further state controls or dealing in timber after the war was ‘neither defensible nor necessary’ and would be ‘unfair and disastrous’ to the trade.³⁴⁸ So although happy to help as much as they could, the Timber Trade Federation were arguing that better results could be achieved if they were still more involved in the methods introduced to improve supplies. There was also mention that future unfair controls ‘would be resisted’, suggesting threats of non-cooperation.³⁴⁹ As with many other raw materials, all timber controls, except in regard to pit-wood, were withdrawn by the end of March 1919. The ‘Timber Control (Amendment No.2) Order 1918’ on 5 December 1918, was the initial major step towards ending controls. It withdrew permits for home grown timber sales and revoked various parts of the ‘Timber Control Order (1918)’. It allowed for the purchase of up to £100 worth, in any one calendar month, of imported softwood without a permit, as long as it was needed for work of ‘national importance or urgent necessity’. Form A still had to be forwarded to the Timber Supply Department (Board of Trade) giving details of all transactions during the month and declaring that the timber was needed for work of national importance. Nonetheless, the ‘Timber Control

³⁴⁷ Ibid., pp. 362-363, 389; Swenarton, *Homes Fit for Heroes*, pp. 83-96.

³⁴⁸ Resolution No.3 of Timber Trade Federation meeting of 17 October 1917, as quoted in Latham, *History of the Timber Trade Federation*, p. 68.

³⁴⁹ Ibid., p. 75.

(Amendment No.2) Order 1918’, the ‘Timber Control Order (1918)’ itself, and many other wartime timber controls were revoked by a notice on 5 March 1919, under the ‘Articles of Commerce (Relaxation of Restriction) Order, 1918’. Priority now became to get rid of softwood stocks accumulated during the war.³⁵⁰

However, pit-wood and ‘semi-manufactured’ wooden articles such as box-shooks remained under some control as they either continued to be, or were made subject to, import licences. However, this was not applied to such semi-manufactured goods from British Empire territories, and this restriction on manufactured goods did not last long as many were needed in the UK urgently. The ‘Pitwood Order 1918’, which gave Controller of Timber Supplies power to give notices altering maximum prices, was superseded by the ‘Pitwood Order 1919’ on 10 April 1919, which fixed new maximum prices for imported and home-grown pit-wood. Notices had preceded this order in late January 1919 announcing that import licences would now be granted for supplies from Spain, Portugal, Scandinavia, Finland and Newfoundland for imports to certain districts, and giving new maximum prices for these. This Order also allowed for the controls of pit-wood to be transferred from the Timber Supply Department (Board of Trade) to the Mines Department at the Board of Trade. All control of pit-wood ended in the autumn of 1919 and all import restrictions into the UK were lifted in September 1919.³⁵¹

Conclusions on the Methods Used by the HLOs.

In terms of forestry the British Government had to take a tighter rein as the war progressed, due to the poor state of pre-war forestry, essential nature of the resource

³⁵⁰ Ibid.; TNA/BT/71/21, Bird, Appendix 2, pp. 1-2, 73; ‘Timber Control (Amendment) Order, 1918’, *The London Gazette*, 6 December 1918, p. 14481.

³⁵¹ TNA/BT/71/21, Bird, p. 73, Appendix 1 p.7, Appendix 2 p.2; BT/71/3/55295, memo of 1 January 1919.

and lack of shipping tonnage. Wider debates have and will continue to take place about the benefits and drawbacks of government policies on centralisation at differing times and for different fields, from agriculture to munitions. However, this chapter has outlined that forestry was very much a ‘controlled’ resource, especially and unsurprisingly under Lloyd George’s coalition. It was often under similar measures as agriculture although not necessarily at similar times, due to the very different natures of the crops. Furthermore, with negotiations, trials, errors, and clarifications between politicians and the trade, the measures put in place to control this resource were sensible, appropriate to the wider context of the war, open to amendments and ultimately therefore fair and effective.

Firstly stock levels and requirements, notoriously difficult to estimate accurately, had to be established for numerous types of wood, and as seen this was an important role for numerous organisations. The powers to control, from restricting areas of trade such as imports to requisitioning land and facilities to produce timber, had to be established and passed from body to body, and a great deal of administrative effort went into getting these correct. The immediate assumption might be that in a war requiring such vast quantities of supplies to be shipped around the world the bulky nature of timber would lead to complete stoppages of its shipping. However, it has been shown that although restrictions of certain types at specific times were put in place, these were generally short-lived if the type was essential. Timber was only behind food and munitions in the shipping priority lists. Some areas of Europe managed to maintain exports to Britain and France, although it was the recognition and increased use of the ‘New World’s’ timbers that stands out.

Increases in home grown timber were also recognised as vitally important, and measures and controls were put in place to increase quantities produced and ensure

that they, along with imports, were bought and sold solely for work of national importance related to the war effort. Common measures included permit systems, price setting and stock inspections. Sensible measures in encouraging economy and salvage of wood were also introduced, along with investigations into alternative materials. Finally, it was the method which was decided upon reasonably late, at the beginning of 1916, of putting as many trained lumbermen as possible in woodlands as close to where the timber was required which was the most important innovation. Even with the pressing nature of the work, environmental concerns remained, with French authorities at least. Furthermore the coalition worked well together, if not always harmoniously, to get over cultural and professional differences. Whether in England, Scotland and then France it was this method that paid the most dividends, and it is to the establishment and management of the different forestry units by various HLOs that we now turn.

Chapter 4: Establishing and Structuring the Skilled Forestry Units.

The preceding chapters have concentrated on the important elements of who, why and how in regards to the administrative establishment, growth, management and control of the forestry effort. At the sharp end of the process, however, numerous forestry units were required, and establishing and refining the structures of these to increase efficiency were amongst the most important actions the HLOs had to take. It is these methods that the HLOs this chapter will therefore examine. No single review comparing the reasons behind, and actions taken to ensure, the establishment of all of the forestry units exists in the historiography. In correcting this, the chapter will also reinforce common themes in the thesis. These include that sensible solutions were put forward and actions taken to solve the problem of too few timber experts available to supply the war's needs. Also, although springing from various sources, the units that provided the solutions gradually came under the overarching forestry HLOs. Finally, in establishing and then managing these units appropriate personnel were utilised.

To illustrate these central themes, as well as outlining the processes used, the chapter will firstly provide a section on the contextual elements of manpower concerns relating to industry, agriculture and the forces that would have been necessarily present in the minds of those organising the units. This focuses on Britain and Canada, the main sources of forestry labour. It will be seen that whilst those in some forestry roles were exempt from military service, the numbers required, along with the introduction of specialist units from the empire and increasing use of women, meant there were not the same high levels of concern amongst forestry planners as there were in regard to agricultural and industrial workers.

The chapter is then split into four main themes. These concern initiating, raising and expanding the units, funding the units, staffing the units especially at senior officer level, and finally structuring the units in terms of where they sat in the civilian administrative or military command structures, as well as the flexibility they were allowed in their own sizes and frameworks. In each of these themes, when relevant information has been located, the units will be compared in a set order based chronologically on when they or their predecessors originated. The central units covered within the research in this chronological order are the Royal Engineer Forestry Companies, Women's Forestry Service, Canadian Forestry Corps (CFC), Newfoundland Forestry Corps and New England Sawmill Units.

In illustrating who originally requested the units, and why this happened when it did, it will be seen that, similarly to the HLOs managing them, there was no one instigator. Rather, numerous different bodies heard of the need for more timber, from varying sources, and tried to help. Following on from that naturally comes an overview of the administrative work to organise, recruit or transfer personnel to create the necessary bodies, such as training women as measurers, planning to recruit Canadian lumbermen, or transferring whole newly formed Canadian infantry units to a 'forestry' status. An outline of what proportion of the overall effort each of the units represented will then show that whilst the CFC were the main formation each of the others made a valid contribution, whether in terms of numbers employed, output, or, as becomes clear below, in positive morale effects on contemporaries.

Although not always a prominent or regular feature in histories, it will then be shown that in this unprecedented effort discussion was required over who would fund these units at different stages. It will be seen that originators, such as the Canadian Government or New England States, were generally keen to pay to recruit and equip

such units, whilst British Government departments were so desperate for them that they were also happy to pay any additional or ongoing wage, transport, accommodation and maintenance costs where necessary. Reviews of those chosen to command the units by the HLOs, with some examples of more junior officers and even non-commissioned officers (NCOs), will confirm that suitable experts were once again used.

Where the units were placed in the overall frameworks controlling the effort, and how they were allowed some fluidity in their unit structures, depending on the locations they were put to work in, will then finish the chapter. These small and specialist units fitted into the administrative structures more easily than some larger formations, such as military CEF units in Britain, as they were often simply considered specialist branches of the engineering or supply arms. They had their own controlling HLOs in the War Office or Board of Trade, and although discussion took place over where they would be controlled from, their separate, specialist and urgent task led to getting boots in the forests being the priority. Nonetheless, their places in the management structures were established quickly to ensure that urgent goals could be met in the most efficient manner. Overall it will be shown that although it was decidedly original to have so many different forestry specific units within a war effort, initiating, raising, officering and structuring them were managed in a resourceful manner by the HLOs.

General manpower concerns

In terms of labour the British Government lacked mechanisms to count men, or women, leaving certain trades to join others or the forces, or those leaving the military for industry. This was especially true in the early days of war. The Board of Trade did carry out eighteen 'sample surveys' to gauge numbers joining the forces from specific

jobs, yet only one of these ‘Z8’ reports survives. Furthermore, the reliability of the information submitted for this report differed from firm to firm and by industry. This was especially true in agriculture, and forestry was rarely considered a separate form of employment.¹

Therefore, exact figures such as British foresters and woodsmen leaving, or returning to, their trades during the war are impossible, yet when those statistics available for forestry or agriculture are used in conjunction with other sources they can help give an idea of where this area sat in the overall context of wartime labour issues that the HLOs had to face.² The major issue in attempting to become more self-sufficient in terms of wood supplies, alongside sourcing enough standing timber, was undoubtedly the lack of manpower to cut and convert it. As seen in the previous chapters, however, it was widely recognised that more labour, skilled and unskilled, directed towards forestry would improve self-sufficiency, in turn saving precious shipping tonnage, especially from the beginning of 1916.³ Much has been written on the overall issue of obtaining more labour and directing it towards priority needs in the military, factories, fields or mines. From the initial ‘rush to enlist’, through the Derby Scheme and on to conscription, a great deal of detail can be found.⁴ This brief section will illustrate the most important issues regarding the general manpower question that did have, or could have had, an impact on forestry. Especially concerns over dilution of expert roles and any relevant exemptions from the Military Service Acts.

¹ Board of Trade, *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women During the War in The United Kingdom. With Statistics up to April 1918*, passim, for instance see pp. 3-4, 6, 12, 14; Dewey, *British Agriculture*, pp. 38, 40-43, 45-47, 51, 55, 57 fn 15, 85, 86.

² *Ibid.*, pp. 36, 43-44, 56, 85.

³ Hansard, House of Lords Sitting 23 May 1917, col. 288, ‘Forestry labour in UK to save on timber import tonnage’; also see chapter 2 of this thesis.

⁴ Noakes, *Women in the British Army*, pp. 61-2, Grievess, *The Politics of Manpower, 1914-18*, passim.

Britain's role in the coalition was not simply to provide troops and a naval blockade, but also munitions, essential raw materials, shipping and increasingly large amounts of financial credit or loans, for herself and her allies. Such priorities naturally competed with each other, and is one of the reasons why this thesis is so important to our understanding of the war. From early on, labour shortages were created by the rapid increase of government orders, as well as employee enlistment in the armed forces.⁵ Manpower allocation between the armed forces and vital industries was therefore a major challenge throughout this 'total' war. Debates and disagreements over the possibilities and details of measures and concerns were considerable. They included the overall management of organisations of labour, industrial as well as military conscription, allocation of skilled and unskilled labour within the civilian workforce, manpower 'ceilings', the use of women and schoolchildren, trade unions and other labour movements' concerns over dilution, increasing the mobility of labour, and post-war concerns. Such matters were common concerns in the British and Canadian parliaments. They also became 'prevalent' in public psyches.⁶

No single HLO was specifically given the overall roles of locating all additional labour and at the same time controlling all available manpower, or definitively adjudicating between concerned parties. This led to weak administration and confusion.⁷ For instance, industrial conscription, although discussed, could not be introduced for various reasons, not least Lloyd George's promise to Labour MPs that it would not be if they would back him as Prime Minister.⁸ Workforce 'dilution', for instance the introduction of more unskilled men or women and non-union workers,

⁵ Turner, *British Politics*, pp. 369-70; Dewey, *British Agriculture*, p. 4.

⁶ Turner, *British Politics*, pp. 64-111 (esp. 82, 84), 88, 128, 165-70, 191-92, 174-6, 262, 344, 368-387, 369 fn 120; Dewey, *British Agriculture*, pp. 39, 109.

⁷ Turner, *British Politics*, pp. 165-7, 170, 267, 263, 376.

⁸ *Ibid.*, passim, or see pp. 166, 167, 170 for examples.

was very unpopular in certain areas of the country and in particular industries. It proved to be one of the main causes of industrial unrest, but these objections were generally overcome and dilution continued or even increased, aiding production throughout the war.⁹

The main policies introduced included increasing the use of women, and even schoolchildren at certain times of the year. Home Army reservists and soldiers still in the UK were also sometimes used to help in agriculture and industry. The various HLOs also sought to improve production by protecting workers in certain roles felt essential to the war effort. Furthermore, various ways of allocating manpower to where it was most needed were also attempted, for instance increasing the use of unskilled men and those unfit for military service, so as to allow skilled workmen to be reallocated to improve production. The use of Irish and colonial labour as well as enlisted soldiers in training or as labour battalions in agriculture, factories or dock work, was recognised as ‘dilution’ but at times seen as the only answer.

There was resistance to certain methods but in most industries and agriculture, even though there were serious concerns and some loss of production, the labour force did cope through expansion, restructuring, new working methods and tighter controls.¹⁰ All this can be seen in the forestry effort and in agriculture. As early as May 1915 the War Office told recruiting offices not to accept skilled farm workers, and the National Register, a survey of the national labour force carried out in autumn of 1915, ‘starred’ some professions for exemption, including some in skilled agricultural roles.¹¹ The introduction of the Trade Card Scheme in November 1916 which handed responsibility to the trade unions themselves for determining which workers were

⁹ Ibid., pp. 80, 107-8; Swenarton, *Homes Fit for Heroes*, p. 50.

¹⁰ Latham, *History of the Timber Trade Federation*, p. 64; Turner, *British Politics*, pp. 84, 171, 175-176, 262; Dewey, *British Agriculture*, pp. 17, 48-51, 83-7, 100, 103.

¹¹ Ibid., pp. 38-9.

entitled to exemptions on the grounds of craft identity. In forestry this meant the Timber Trade Federation. During 1915 the English Timber Section of this federation spent a lot of time dealing with which occupations in the trade should be reserved. For instance, in the home-grown timber trade at this time, mill sawyers, timber carters, hauliers and wood fellers were all reserved. They were protected by badges issued by the Ministry of Munitions.¹²

The first Military Service Act was passed in January 1916, becoming operative from 2 March for single men aged eighteen to forty-one. Certified occupations were still protected and this list included some lower levels of skills previously not protected, but clearly not all could be.¹³ In February 1916, at the time Britain was asking Canada for lumbermen, military recruitment targets in Britain were not being met, yet some industries were starting to suffer because of over-enlistment, a crisis that would continue into the middle of 1916. General conscription was finally enacted on 25 May, providing compulsory enlistment of all males between eighteen and forty-one, subject to specific exemptions for those in reserved occupations as well as for medical unfitness or conscientious objection.¹⁴

Canada's establishment targets, the total number of service personnel it wanted to recruit, equip and train, also meant voluntary enlistment was no longer going to be adequate, especially when increases in monthly enlistments began to fall again after May 1916. Furthermore, although the pre-war stagnation in business and high levels of unemployment had reduced during 1915, by the beginning of 1916 many worried about the negative effects that further enlistments or conscription would have on Canada's skilled working population, especially in important industries such as

¹² Latham, *History of the Timber Trade Federation*, p. 64.

¹³ Noakes, *Women in the British Army*, p. 61; Dewey, *British Agriculture*, pp.5, 39-40.

¹⁴ Turner, *British*, pp.59, 81, 83, 85, 86, 89, 94,109; Cregier, 'McKenna, Reginald (1863-1943)', n.p.

forestry and agriculture. Although conscription was forced through, becoming law on 29 August 1917, Borden's Government, like his British equivalents, still had problems with manpower until the end of the war.¹⁵

In Britain questions of providing more protection for agriculture, as well as other industries, were raised at the end of 1916 and into the early months of 1917. Discussions between the War Cabinet, Secretary of State for War, President of the Board of Agriculture and Fisheries and engineering trade unions or organisations over further exemptions did not always resolve issues and there were strikes in some industries. In agriculture another 30,000 men were taken for military purposes in mid-January 1917, the Government promising to provide an equal amount of soldiers to work on the land.¹⁶ Amidst the arguments during early 1917 it was becoming increasingly apparent that an effective production policy and labour requirements did go very closely hand in hand. A great deal of wrangling took place in the War Cabinet between supporters of using labour in the military or in civilian industrial or agricultural roles.¹⁷

For three weeks from 2 April 1917, labour organisations, War Office officials and relevant ministers held negotiations regarding the severe need for more men in the forces, and which roles should still be considered exempt from conscription.¹⁸ The War Cabinet decided to introduce a new Schedule of Protected Occupations in early May, although the Department for National Service was ridiculed for failing to introduce industrial compulsion and matching important jobs with the necessary

¹⁵ Nicholson, *Canadian Expeditionary Force*, pp. 215-19, 221, 231, 342-346; Cook, *Shock Troops*, p. 369; Swettenham, *To Seize the Victory*, pp. 193-4.

¹⁶ Dewey, *British Agriculture*, p. 106; Turner, *British Politics*, pp. 128-9, 166, 175.

¹⁷ *Ibid.*, pp. 175, 176; Dewey, *British Agriculture*, p. 106

¹⁸ Turner, *British Politics*, pp. 167-70; Peter Dewey, *War and Progress: Britain 1914-1945* (Harlow and New York: Longman, 1997), pp. 40-1; Committee on Civil Defense, 5 March 1918 (PRO CAB 24/44 GT 3639) as used in Swenarton, *Homes Fit for Heroes*, pp. 74, 203 fn 18.

skilled men.¹⁹ If a potential recruit was considered essential for farm work their County Agricultural Executive Committee they had up to three weeks to find a suitable replacement, either to take up work on the farm or go into the military in their place. Only from 27 June 1917 was farm labour fully protected against the demands of the army.²⁰ It was agreed that no man listed as working on areas of national importance on 1 June 1917 could be called up, or even medically examined, without the consent of their County Agricultural Executive Committee. This for the first time brought agriculture in line with other fully protected occupations such as munitions and mining. This state lasted for nine months, until the German 1918 spring offensives, and meant that before that the County Agricultural Executive Committees were especially busy, and powerful.²¹

Military Service Act (No.2) became law on 18 April 1918, extending the age limits for military service to those between seventeen and fifty-one and it included Ireland for the first time.²² Two days later the Ministry of National Service also withdrew exemptions granted to agriculturalists between eighteen and twenty-three years old and in medical grade 1 or category A.²³ The Board of Trade also considered proposals to withdraw exemption certificates of men under twenty four and medically fit still who were working for them following Military Service Act (no.2), calculating the number of men they employed who would be affected. Separate debates were also needed with respect to Board of Trade employees in Ireland.²⁴ However, as the German territorial advances were eventually halted and the situation on the Western

¹⁹ Turner, *British Politics*, pp. 167-8, 170.

²⁰ Dewey, *British Agriculture*, pp. 2, 38-9, 106.

²¹ *Ibid.*, pp. 99-100,106.

²² Turner, *British Politics*, pp. 264, 284-5, 287, 288.

²³ Dewey, *British Agriculture*, pp. 101, 107.

²⁴ TNA/BT/13/84 (E35241 & E32690), Military Service Act Exemption Certificates, withdrawal, 1918.

Front once again stabilised for the Allies, ‘deliberate efforts were made to return skilled men from the army to essential jobs in industry’.²⁵ Yet even before this, private forestry firms were also requesting specific soldiers to be released from duty for timber-felling, indicating that not all timber production could ever be totally centralised. For instance, one Scottish coal company requested in February 1918 that the Timber Supply Department (Board of Trade) in Scotland ‘obtain the release of a wood-feller from the Army’, proposing to pay him very well (£4:10/- a week and a 9/- bonus) to cut pit-wood. The Assistant Controller of Timber Supplies (Scotland), however, felt that taking back skilled men ‘from operations dealing with heavier timber’, which suggested he was in a Royal Engineer Forestry Company in either England or France working under the Timber Supply Department (Board of Trade), was not the best use of this resource. Sir Stirling Maxwell also suggested that it would now be acceptable to limit any pit-wood operation to no more than ‘two skilled men of military age’.²⁶ The matter of the coal company paying wages ‘out of all reason’ to take men away from more important operations, while the army, or Timber Supply Department (Board of Trade), could not pay such amounts, was passed by Ball on to the Coal Mines Department to take up with the particular company.²⁷

The Timber Trade Federation were again busy with labour issues in 1918 when a Sawmilling and Employers of Labour Section was established. The Ministry of Labour consulted the Timber Trade Federation over proposals put forward by the National Federation of Sawmilling Associations requesting an Industrial Council for the sawmilling industry. Following negotiations the Sawmilling Industry Council

²⁵ Grievés, *The Politics of Manpower, 1914-18*, pp. 193-199.

²⁶ TNA/BT/71/2/24668, letter, Stirling Maxwell (Assistant Controller of Timber Supplies) to Ball (Controller Timber Supplies), 26 February 1918.

²⁷ *Ibid.*, also letter, Ball (Controller Timber Supplies) to Sir Richard Redmayne, 28 February 1918 [Redmayne at this stage was chief technical advisor to the Controller of Coal Mines].

gradually took shape.²⁸ Debate also continued between the Ministry of National Service and Timber Supply Department (Board of Trade) as to the exact roles of employees in what were classed as ‘composite’ firms, those with several roles in the timber industry, and eventually, by July 1918, strict guidelines were set in terms of what roles did constitute a valid exemption from National Service. The Timber Supply Department (Board of Trade) Labour Inspectors could therefore follow the lines of demarcation for employee roles in composite firms as set out in black and white.²⁹

A great deal of effort was clearly made to try to get the correct quantity and quality of manpower to the correct position, either on the Home or Battle Fronts. Although this did not always work especially efficiently, overall the efforts must be seen as a success as supplies, human and material, did, in the majority of cases, get to where they were needed. This was not an easy task, given the unparalleled scale of materials required. Furthermore, roles within the timber trades were at times considered equivalent to those in other industries and therefore important enough to be named and protected for the war effort, but the numbers involved were much fewer and therefore rarely considered separately.

Initiating, raising and expanding the units

With the contextual situation regarding human resources in mind, the following review of the bodies requesting or responsible for originating forestry units show that, although there were eventually HLOs centrally responsible for the effort, the units each grew more organically from the suggestions or actions of different organisations. These ranged from the existing military structure of the Army’s engineer and supply

²⁸ Latham, *History of the Timber Trade Federation*, p. 71.

²⁹ TNA/BT/71/4/72058, letter E. H. Blakesley, Timber Supply Department (Board of Trade) to Major Peterson, Labour Supply Department (Ministry of Munitions), 19 July 1918. See note that Timber Supply Department Labour Inspectors would follow the lines of demarcation for employee roles in composite firms as set out in STA.7D para. 7.

elements deciding more timber was needed, to female volunteer organisations and American public bodies. However, all would eventually need the approval of the British military or Government before being put into place.

Looking through the *History of the Great War Based on Official Documents* series indicates that, as previously stated for the HLOs in terms of purchasing and allocating, there was no one organisation or body in the RE or Army Service Corps responsible for felling, collecting and allocating wood in France until well into 1917. The massive expansion of the RE and Army Service Corps is well-documented, and many existing or new units get regular mentions, from field companies to requisition, pay, drainage, gas and printing work, to name just a few, but not so forestry. Initially, however, before such numbers of experts could be organised, the establishment of specific forestry units was driven from those near the front lines, as would be expected, and this was the case for the Royal Engineer Forestry Companies. The earliest example of Canadians officially working on forestry duties is from September 1915, when the RE Directorate of Works in France asked for a detachment of lumbermen to work in local forests. This was made up from 101 Squadron at the Canadian Remount Depot in France, and eventually three such units were created. When the Remount Depot was disbanded in April 1916 it was these three detachments, left with no parent unit, which became No.1 Canadian Forestry Company.³⁰ At this time there were also several *ad hoc* forestry companies drawn from infantry battalions working for their parent divisions, as opposed to the Directorate of Works.³¹ The first mention of a specific forestry unit in the *History of the Great War Based on Official Documents* comes in the 1916 Appendices, with reference to the closing before an advance of ‘special’ RE

³⁰ Broznitsky, *Russians in the CEF*, n.p.

³¹ *Ibid.*

establishments, including sawmills, and it seems clear that such units simply grew out of urgent necessity.³²

The initial realisation of the benefits of a WFS, as with women's roles in other vital areas, were not so naturally accepted or acted upon and some struggles and passing of time were required before advances in agricultural roles allowed to women resulted in the WFS. The 'total wars' of the twentieth century led to significant changes in gender roles, the clearest example of recognition of such from the First World War being the extension of the franchise in 1918 to include some women for the first time, partly due to women's wartime efforts and arguably as the war provided a convenient reason to do so given the pre-war suffragette movements. Women were no longer so clearly viewed in terms of the domesticated ideal of previous periods.³³ As with the overall manpower question, there has been much written on the changing roles of women during and after the war. The themes addressed centre on what these changes were, how they were received, potential adverse moral effects on women, to what extent new roles lasted as soldiers returned, to what extent women were happy to return to more home-based work and what the long-term effects on society were.³⁴ The historiography largely focuses on industrial roles, to a slightly lesser extent to roles in agriculture, and occasionally to increases in numbers in transport services and

³² I went through any engineering work in all of them, no mention of timber matters until closing of Sawmills before an advance in the Appendix VIII of the 1916 volumes, p. 98. For small selection of examples of other RE/ASC work and establishments see, *History of the Great War Based on Official Documents*, 1914, vol.1, pp. 417, 427; *History of the Great War Based on Official Documents*, 1914, vol.2, pp. 7, 161, 473-488; *History of the Great War Based on Official Documents*, 1916, vol.1, pp. v, 65, 66; *History of the Great War Based on Official Documents*, 1916, vol.2, pp. 541, 575; Colonel G.H. Addison, *The Work of the Royal Engineers in the European War, 1914-1919: The Organization and Expansion of the Corps, 1914-18* (Chatham: Institution of Royal Engineers, 1921), passim; Pritchard, *History of the Corps of Royal Engineers*, pp. 174-5.

³³ Noakes, *Women in the British Army*, passim, for instance see pp. 1-19, 63.

³⁴ For examples, *History of the Great War Based on Official Documents*, 1916, vol.1, p. 154; *History of the Great War Based on Official Documents*, 1917, vol.1, p. 17; Beckett, *The First World War: Essential Guide to Sources*, pp. 203-4; Noakes, *Women in the British Army*, pp. 15-16.

clerical roles.³⁵ Surprisingly, however, given the very manly perceptions of forestry work, Monty Python's version excepted, there is relatively little on the WFS.³⁶

Women struggled to be accepted in new roles, especially more militaristic ones behind the fronts, even when their labour was in dire need, at times many struggling to be allowed to 'do their bit'. Much early war work, even with lots of offers for help in other roles, was restricted to 'traditional feminine spheres of activity'.³⁷ However, women increasingly provided vital work in many roles, especially into the second year of the war. This was well recognised by the end of the war and has been since.³⁸ Common contemporary debates included what acceptable roles were, how women should be employed, for instance whether directly under service regulations or attached through separate organisations, pay and responsibility levels, discipline, and whether volunteer recruitment or conscription was preferable. Women new to an industry were also often given a lower status. For instance 200 women were thought needed to replace 143 men in clerical and domestic work.³⁹

During the early stages of the war women's contributions came mainly through numerous volunteer organisations.⁴⁰ Early committees on women's employment in agriculture investigated lightweight roles, such as vegetable preserving or jam making,

³⁵ *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 16; Noakes, *Women in the British Army*, pp. 15-16, 45-6, 73, 75-77, 79-81.

³⁶ *Ibid.*, passim; Moira Petty, 'They Came, they Sawed, they Played Conkers: Women's Timber Corps 1942-1946', *Saga Magazine*, (November, 2012), pp. 40-45; Emma Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', *Agricultural History Review*, 59 (2011), pp.101-3, [Vickers gets most of her First World War information from 'F18/230, C.W. Bird, 'Supply and Control' which seems to be a copy of the same document I have used under BT/71/21 Bird, circa. 1922)].

³⁷ Noakes, *Women in the British Army*, pp. 17, 46, 51.

³⁸ *Ibid.*, passim, for instance see pp. 1-19, 63; Ministry of Reconstruction, *Cd.9228: Final Report of the Civil War Workers', Committee on Substitute Labour*, (London: HMSO 1918), pp. 3-4; Beckett, *The First World War: Essential Guide to Sources*, p. 207; Dewey, *British Agriculture*, pp. 43, 45, 46, 51, 55; *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, pp. 3-6 for example of complicated nature of calculating exact figures.

³⁹ Noakes, *Women in the British Army*, pp. 64-71, 76-7, 80.

⁴⁰ *Ibid.*, pp. 17, 46, 51.

with certainly no mentions of forestry.⁴¹ Yet as early as March 1915 women had started work in some roles in Scottish forests, cutting and preparing large quantities of hazel rods which the navy needed. The Arboricultural Society and the advisory committee of the National Relief Fund in Scotland also looked to see if women could be used in other forestry work.⁴² The first central signs of changes in attitudes towards female labour were seen in parliamentary debates in 1915, which were followed by the introduction of the National Registration Act under which the occupations of women between sixteen and sixty-five were to be recorded in August 1915, the same as for men. Nonetheless, this did not lead to placing many women in more vigorous roles, compared with the numbers wanting such work.⁴³ As a sign of the early lack of central control and direction in the use of women in the war effort it has even been argued that these volunteer organisations were one of the factors that led to some 50,000 women, who had undertaken pre-war paid work, becoming unemployed by March 1915, especially in textiles.⁴⁴

At the beginning of 1916 voluntary organisations were still trying to break down anti-feminine bias and spread recruitment.⁴⁵ In agriculture the initial response was disappointing, so in February 1916, in a joint Boards of Agriculture and Board of Trade initiative, Women's County War Agricultural Committees were formed to carry out systematic recruitment work. Successes were dependent on local energy and initiative, which was variable, as the Board of Agriculture and Fisheries had no powers of compulsion over them once established.⁴⁶ At the time that male conscription began

⁴¹ Central Committee on Women's Employment, *Cd 7848, Interim Report*, 1915, pp.9-42.

⁴² Scottish Advisory Committee on the Administration of the National Relief Fund in Scotland, *Cd.8129, Report up to 31 March 1915*, pp. 9, 10.

⁴³ Noakes, *Women in the British Army*, pp. 52-59.

⁴⁴ *Ibid.*, p. 41.

⁴⁵ Dewey, *British Agriculture*, p. 55; *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, passim.

⁴⁶ *Ibid.*, p.13; Dewey, *British Agriculture*, p. 52.

in March 1916, debates over the use of women were changing, some calling for legislation to force women into war work. Official bodies such as the War Office, which had refused female labour early in the war, were now also welcoming it and the Women's Services Committee urged organising more female labour in non-combat positions wherever possible.⁴⁷ Within this context it was the Women's County War Agricultural Committees, Board of Agriculture and Fisheries and Board of Trade who, as will be detailed below, pushed for the WFS, as a sub-section of the Women's National Land Army, and this was officially established on 1 August 1917.

However, even with the very gradual inclusion of women in the forestry effort and a handful of Royal Engineer Forestry Companies growing from absolute necessity near the front, it was Canada that would have to provide the bulk of the manpower required to obtain the necessary quantities of wood and timber. As shown in the pre-war forestry section in the introduction to this thesis, Canada was greatly superior to the motherland in terms of lumber producing skills and resources, and was therefore the natural choice to turn to in order to contribute the majority of resources needed in response to the continued and growing requests for lumbermen and sawmills.⁴⁸ Although some Royal Engineer Forestry Companies and Canadian Forestry Companies were already at work close behind the Western Front, it was not until the end of 1915 that those in Britain, such as the Home Grown Timber Committee who suffered from a lack of necessary labour, especially skilled, were thinking of the pool of trained lumbermen in Canada. The Home Grown Timber Committee approached the Director of Forestry in Ottawa with a view to obtaining men to work in the UK, along the same lines as those who had been employed to work in the UK munitions

⁴⁷ Noakes, *Women in the British Army*, pp. 61-64, for instance Noakes uses TNA, War Office 162/30 *Sir George Newman: Report of the Women's Services Committee*, 14 December 1916, p. 6.

⁴⁸ Hill, 'The Canadian Forestry Corps', pp. 300-1.

industries. However, it was decided that it would be better to raise a military unit, rather than employ civilians, to exploit British home grown timber and this meant official communications.⁴⁹

Therefore in January 1916 relevant communications between the British and Canadian Governments began.⁵⁰ It was, however, an urgent telegram, sent by the Colonial Secretary to the Governor-General of Canada on the 15 February 1916 that asked if the 'Canadian Government would assist in the production of timber for war purposes', as due to lack of shipping space sufficient Canadian timber could not be imported.⁵¹ Furthermore, the main difficulty in utilising UK forests was finding sufficient skilled forest workers, at least 1,500 of whom were therefore needed very urgently, preferably as a 'Battalion of Lumbermen...formed of specially enlisted men'.⁵² Hill states that the 'potential' for an overseas body of Canadian lumbermen had been suggested prior to this by 'the well-known Canadian lumberman Alexander McDougall' who would become CO of the CFC, but that this idea was not particularly well-received by the Imperial War Commission at the time.⁵³ Unfortunately, Hill does not state when or how this idea was put forward, and no evidence of it has been found, although it is clear, as he also points out, that it was only when the shipping situation worsened that this telegram was sent.⁵⁴ As will be seen below in exploring the rapid growth of the CFC, the telegrams continued requesting more and more men for forestry.⁵⁵

⁴⁹ Bird and Davies, *The Canadian Forestry Corps*, p. 6.

⁵⁰ Telegram Perley to Borden 11 January 1916, as stated in Nicholson, *Canadian Expeditionary Force*, p. 499.

⁵¹ Hill, 'The Canadian Forestry Corps', Appendix 2, p. 300.

⁵² Bird and Davies, *The Canadian Forestry Corps*, pp. 5-7; Nicholson, *Canadian Expeditionary Force*, p. 499.

⁵³ Hill, 'The Canadian Forestry Corps', Appendix 2, p. 300.

⁵⁴ Ibid.

⁵⁵ Telegram 6 March 1916, Colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p.5.

Unlike Canada, Newfoundland was not initially invited to contribute forestry expertise by the British Government. The 2 March 1917 War Cabinet was attended by high level representatives of many of the larger Dominions and Colonies as well as high level British politicians and staff officers. Sir Edward Morris, the Premier of Newfoundland, reported that a director of the Anglo-Newfoundland Development Company, Mr Beeton, had suggested that the 1,500 'mostly' skilled timbermen working for that company in Newfoundland could be quickly re-stationed in British forests.⁵⁶ This offer of a non-combatant military Forestry Corps, along similar lines of employment and organisation to the CFC, was gratefully accepted. Negotiations were therefore officially opened by a telegram from the Colonial Office to the Governor of Newfoundland on 2 April 1917.⁵⁷

Finally, the Massachusetts Committee on Public Safety, formed in 1917 in anticipation of the United States' involvement in the war which it officially entered on 6 April 1917, was ultimately responsible for the establishment of the New England Sawmill Units.⁵⁸ Therefore a brief history of that massive organisation here provides

⁵⁶ TNA/CAB/23/2, Minutes of a Meeting of the War Cabinet (no.85), 2 March 1917, point 12; The Anglo-Newfoundland Development Company was formed to establish a paper-mill in Newfoundland when Alfred Harmsworth (Baron Northcliffe) felt he needed an alternative paper source for his family's newspaper and publishing businesses, due to instabilities in Europe. Harold Harmsworth (Lord Rothermere) and Mayson Beeton carried out investigations and felt Grand Falls had great potential, including access to lumber the potential for hydroelectricity and access to a deep-water port. In January 1905, the Harmsworths formed the Anglo-Newfoundland Development Company. The mill was constructed and opened in 1909, another one under the Reed Company opening in 1912 at Bishop's Falls. This is clearly why there were so many lumbermen and companies in the Grand Falls and Bishops Falls area of Newfoundland, and why the Harmsworths and Beeton could call on so many. See: James Hiller, 'The Origins of the Pulp and Paper Industry in Newfoundland', *Acadiensis: Journal of the History of the Atlantic Region*, Vol.XI, No.2 (Spring 1982), pp. 50-58, 60, 62-66.

⁵⁷ TNA/CAB/23/2, Minutes of a Meeting of the War Cabinet (no.85), 2 March 1917, point 12; TNA/BT/71/1/13676, Telegram colonial Office to Governor of Newfoundland, 2 April 1917, letter Directorate of Timber Supplies (War Office) to Under Secretary of State colonial Office, 19 April 1917, Telegram Governor of Newfoundland to the Secretary of State for the colonies, 15 April 1917, memo Directorate of Timber Supplies (War Office) to Adjutant General 25 May 1917, letter Controller Timber Supplies (Board of Trade) [Board of Trade having just taken over from War Office], to Adjutant General 1 June 1917.

⁵⁸ For an extensive history of the Committee and its activities, including a chapter on 'Committee on New England Sawmill Units', see George Hinckley Lyman, *The Story of the Massachusetts Committee on Public Safety, February 10, 1917 - November 21, 1918* (Boston, Wright and Potter Printing Co. State Printers, 1919), passim.

some context, and also interesting comparisons with the efforts of British HLOs related to the forestry effort explored in chapters 2 and 3. On 9 February 1917, Governor Samuel McCall named one hundred citizens from the state to serve on the Central/General Committee, with James Storrow appointed as chairman. McCall, recognising that US involvement in the war was at least ‘possible’, hoped this would help prepare the Commonwealth of Massachusetts, and potentially the wider country, through its plans and if it came to it, which it did, its actions.⁵⁹ Central aims included securing and marshalling adequate supplies, equipment and resources for the State’s civilians and important bodies, especially its military organizations.⁶⁰

To achieve this, their initial actions were similar to those described earlier in this work. They established or included HLOs and subcommittees, gave them responsibility, and where possible substantial powers to coordinate specific important areas, such as transport, agriculture or labour. Most of these committees then began by surveying the State’s existing stocks and natural resources.⁶¹ To maximise efficacy, as also seen in the British Government’s efforts, such centralised overarching organisations required an increasing network of subcommittees at different local levels and with interconnected facets.⁶²

⁵⁹ Brenda Howitson and Abigail Cramer, ‘Historical Note’ in *Guide to Ms. coll. 106 - Massachusetts Committee on Public Safety Records* (State Library of Massachusetts, Special Collections [SLMSC] Department, Prepared July 1998, updated August 2012), p. 2; SLMSC, *Records of the Massachusetts Committee on Public Safety February 10 1917 to November 20 1918, Box 1*, Meeting of February 14, 1917, and others.

⁶⁰ SLMSC, *Records of the Massachusetts Committee on Public Safety...Report of Executive Committee*, November 1, 1917 (Boston), p. 3.

⁶¹ *Ibid.*, p. 3; SLMSC, *Records of the Massachusetts Committee on Public Safety...February 10 1917 to November 20 1918, Box 1*, ‘First Meeting of Provisional Committee, Meeting of February 10.1917’ and notes from very frequent meetings in February 1917, and throughout rest of war (Boxes 1 & 2); Howitson and Cramer, ‘Historical Note’, p. 2.

⁶² *Ibid.*; SLMSC *Records of the Massachusetts Committee on Public Safety...February 10 1917 to November 20 1918, Boxes 1&2*, for instance see folder 14, ‘Correspondence & Reports of & to Committee Feb 20 1917 to April 30 1917’, includes Meeting of April 16, 1917 and letter to the State Council of Defense for California (date 30 April 1917) giving the reasons behind the formation, structure, actions, achievements of the Massachusetts Committee on Public Safety up to that point, pp. 1-10; SLMSC, *Records of the Massachusetts Committee on Public Safety, Report of Executive Committee*, November 1, 1917 (Boston), *passim*.

The idea of such a ‘State’ council looking into their wartime footings was one that did not appear to meet with much approval or support from the National Council of Defense until after war had been declared. They then quickly realised ‘that better results would be obtained if the bulk of the preparedness work were done by and through such committees’.⁶³ Committees utilised methods similar to those seen in relation to the British forestry effort, namely regulation of exports, distribution systems, controlling speculation and profiteering, prevention of waste, and education work.⁶⁴ Just ten days after the USA’s entry into the war, the Massachusetts Committee on Public Safety was advised of the Allies’ great need for lumbermen. In the Executive Committee meeting of 16 April 1917, Colonel William Gaston, Chairman of the Finance Committee, raised a private telegram he had received from Lieutenant-Colonel Vernon Wiley, of Army Contracts in London. It suggested he raise a battalion of New England lumbermen for immediate service in Europe because ‘Timber for forces in France urgently calls for skilled lumbermen’.⁶⁵ Although Wiley’s suggestion to Gaston was a private one, Gaston himself recognised the situation was ‘critical’, and once he saw how the Massachusetts Committee on Public Safety were prepared to act very quickly on the idea he was happy that they officially pass it on to the relevant British authorities, at that time the Secretary of State for War and Director of Timber Supplies at the War Office, as the ‘very desirable initiative should appear yours’.⁶⁶

⁶³ Ibid.

⁶⁴ Howitson and Cramer, ‘Historical Note’, p.2; SLMSC *Records of the Massachusetts Committee on Public Safety, February 10 1917 to November 20 1918*, Boxes 3&4 solely devoted to work of the Food Administration Committee.

⁶⁵ TNA/BT 71/2/13713, telegram Colonel Wiley, Army Contracts Department London, to Gaston, n.d (c.15 April 1917); SLMSC, *Records of the Massachusetts Committee on Public Safety*, especially ‘Meeting of April 16, 1917’ and ‘Meeting of Feb 28, 1917’, p. 61, point no. 6.

⁶⁶ TNA/BT 71/2/13713, for instance telegram from Colonel Wiley, Army Contracts Department in London, to Gaston on 20 April 1917.

Therefore, it can be seen that the initial ideas to raise specialist forestry units came from various sources within existing British, Newfoundland and American military or governmental bodies. It will now be shown that whilst this led to different HLOs taking responsibility for their establishments, growth and early administration, their management became centralised under the main military and government forestry HLOs after they began and then expanded their operations.

The following section therefore gives details of important events and timings in regards to the raising of each of the units, to illustrate how this was carried out, as well as differences and similarities between them. There are difficulties in establishing exact numbers of membership of some of the units, as with estimates of their overall production, but figures quoted are used to give an idea of their growth over time. Furthermore, summaries at the end of each unit highlight what can be deduced from these figures and a table at the end of the section allows a close overall comparison of the statistics. Principally, the CFC was undoubtedly the main forestry unit in terms of numbers employed and production, but the Royal Engineer Forestry Companies, WFS, Newfoundland Forestry Corps and New England Sawmill Units also each made important contributions to the overall effort. Furthermore, the establishment and growth of each unit, whilst different in many ways, came from the increasing recognition of the urgent importance of this resource, and a realisation that an untapped supply of men or women existed, of experienced experts and those willing to learn and work hard.

The RE Directorate of Works formed a Forestry Branch in the autumn of 1915 and a small unit providing firewood, wiring picket posts and light timber joined the 8th RE Labour Battalion who had been transferred to the lines of communication to carry

out road-making and forestry operations.⁶⁷ There were no official Royal Engineer Forestry Companies listed as existing on 1 August 1916, yet by early summer 1916, as Canadian lumbermen started to arrive in Britain, there were five basic and underequipped RE operations behind the lines, under the control of the RE Directorate of Works.⁶⁸ In August 1917 all Royal Engineer Forestry Companies came from Regular or Special Reserve Units, none from Territorial ones, although the 1918 figures were combined.⁶⁹ The establishment of a Royal Engineer Forestry Company was sanctioned on 11 May 1917, although the majority were already at work in France by then, and this equalled four officers and 110 other ranks.⁷⁰ By the summer of 1918 there were eleven Royal Engineer Forestry Companies working in France and these carried on until the end of the war.⁷¹

Few details have yet been located giving the amounts of timber felled or operations worked on solely by women. As well as general problems over labour figures discussed above, issues of proving exact number of women in the forestry effort are not helped by the fact that those in the WFS were not always covered separately by either Board of Trade reports, or in Boards of Agriculture figures as they were not employed by farmers.⁷² However, what can be seen is that arguments within the wider historiography of their taking on positions that they were not associated with

⁶⁷ Lieutenant colonel Edward De Santis, 'Royal Engineer Labour Battalions', *Reubique*, n.d, pp. 1-2 <<http://www.reubique.com/labourbt.htm>> [accessed 16 February 2012], taken from *The Work of the Royal Engineers in the European War, 1914-1919. Work Under the Director of Works (France)* (The Institution of Royal Engineers, Chatham, 1926), p. 185.

⁶⁸ Pritchard, *History of the Corps of Royal Engineers*, pp. 165-6, 559; Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34; TNA/BT/71/21, Bird, pp. 3, 30, 39; Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p; Maclean, *Farming and Forestry on the Western Front*, p. 97.

⁶⁹ Addison, *The Work of the Royal Engineers*, pp. 61-71, especially 62, 64-5, 68-69; Pritchard, *History of the Corps of Royal Engineers*, pp. 38-42.

⁷⁰ TNA/CAB/21/80, Report by Lovat to Curzon, 15 May 1917, p. 2; Addison, *The Work of the Royal Engineers*, pp. 23-4.

⁷¹ *Ibid.*, pp. 61-71, especially 62, 64-5, 68-69; Pritchard, *History of the Corps of Royal Engineers*, pp. 38-42.

⁷² Cd.9164 *Report of the Board Of Trade on the Increased Employment of Women*, p. 14.

before the war are added to by forestry. No evidence links women with work such as measuring and felling in the pre-war years, but these were roles which a small number would take on from the summer of 1917.

Attempts were made during and just after the war to illustrate the scale, effectiveness and future prospects in terms of female employment. However, many were classed by the business of their employer, rather than their exact role. For instance a clerical role in a timber merchant might be categorised under headings such as 'forestry', 'sales' or 'agriculture' depending on the particular classifications within various censuses, returns or surveys. Furthermore, 'Substitute Labour' figures during the war could also include older men who had returned to work alongside women, and at times those women 'registered' did not necessarily equate to those actually working.⁷³ Many women in the furniture industry were known to be making ammunition boxes, but they would appear under 'Furniture' or 'Wood Trades' in industrial returns.⁷⁴ Increases in female employment in the 'Wood Trades' were therefore more to do with increases in areas such as ammunition box and aircraft production than forestry.⁷⁵

As seen above, within the overall questions about obtaining and directing manpower, increased female roles are often prominent. The Women's County War Agricultural Committees focused on drawing up registers of women willing to work in agriculture, training schemes, and contacting farmers and Labour Exchanges to encourage their use.⁷⁶ There were government inducements by the spring of 1916 including cheap clothing supplies, armbands to show your contribution to the war effort

⁷³ *Ibid.*, passim (Just for England, Wales and Scotland as Irish figures not then available); *Cd.9228: Final Report of the Civil War Workers', Committee on Substitute Labour*, pp. 3-4; Dewey, *British Agriculture*, pp. 54, 55.

⁷⁴ *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 8.

⁷⁵ *Ibid.*, p.6.

⁷⁶ Dewey, *British Agriculture*, pp. 52-3.

and eventually certificates signed by the Presidents of the Boards of Agriculture and Trade, stating that ‘women working on the land contributed as much to the war effort as did the soldiers or sailors’.⁷⁷ However, more centralisation and systematic recruitment were still required and in March 1917 the more organised Women’s National Land Army was established.⁷⁸

Wartime female agricultural workers were largely employed in lighter work such as dairy work or gardening, but they were frequently reported to be working in more ‘manual’ roles such as ploughing.⁷⁹ Such heavier types of work were not believed to have been undertaken in large amounts, especially by the Women’s National Land Army, but when it was it was ‘highly commended by farmers’.⁸⁰ However, agricultural work was often not popular amongst women and recruiting was slow, for several reasons.⁸¹ It might have seemed an appealing and healthy choice, especially when compared with factories, but work in the countryside was hard for anyone not accustomed to it. Other occupations, especially munitions, were also in high demand and provided better pay and shorter hours.⁸² Nonetheless, the Women’s National Land Army, naturally associated with forestry type roles, grew from earlier voluntary organisations, and the Women’s County War Agricultural Committees aimed to provide more systematic and rigorous recruitment, definite terms of employment and better training. The aim was to establish a permanent, skilled and mobile force for both agricultural and forestry work.⁸³ Women recruited to the Women’s National Land

⁷⁷ Ibid., p. 53.

⁷⁸ *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 13; Noakes, *Women in the British Army*, pp. 17, 46, 51, 68.

⁷⁹ Ibid., passim, for instance see p. 81; Dewey, ‘The New Warfare’, pp. 75-6; Dewey, *British Agriculture*, p. 109; *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 14.

⁸⁰ Ibid.

⁸¹ Noakes, *Women in the British Army*, pp. 52-59, 64, 172 fns 20 & 21.

⁸² Dewey, *British Agriculture*, pp. 50, 51, 55; *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 13.

⁸³ Ibid.

Army through the Boards of Agriculture were 'drafted into one of three services', to the War Office Forage Section, to farms where they were employed by farmers but remained under Boards of Agriculture control, or to the 'Timber Cutting Section' under the Board of Trade.⁸⁴ It was from March 1917 therefore that the Board of Trade officially administered women carrying out forestry work, but still coming under the umbrella of the Women's National Land Army.⁸⁵ Recruitment into forestry and timber-cutting roles became more active in the summer of 1917 as the Board of Trade confirmed that there was both a high demand for, and scarcity of, timber workers in the UK. They were therefore 'experimentally' training women in the relatively light roles of timber measurers, pit-wood or top cutters and clerks.⁸⁶

The WFS was officially formed on 1 August 1917 under the Department for National Service, but consisted of just twenty-five measurers and twenty timber cutters.⁸⁷ Experienced men over military age who came forward were also being utilised alongside them in 'work of a more arduous nature for which women are unfitted'.⁸⁸ However, the push to recruit female forest workers was put forward as one of the reasons for a slight decrease in casual female workers in agriculture in the summer of 1917, suggesting the WFS was recruiting more, although it could also be due to better organised male seasonal labourers such as soldiers still in the UK, POWs and schoolboys during holidays.⁸⁹

⁸⁴ Ibid.

⁸⁵ Ibid.; Beckett, *The First World War: Essential Guide to Sources*, p. 207; 'Women's Forestry Corps' <www.1914-1918.net> [accessed 17 February 2012], n.p.

⁸⁶ Hansard, House of Commons Sitting 13 August 1917, cols. 857-858; TNA/CAB/21/80, Report, Lovat to Curzon, 15 May 1917, p. 2; Addison, *Work of the Royal Engineers*, pp. 23-4; Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', p. 103.

⁸⁷ Ibid.

⁸⁸ Hansard, House of Commons Sitting 13 August 1917, cols. 857-858.

⁸⁹ *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 14.

Included in agricultural figures were somewhere between 16,000 and 28,000 members of the Women's National Land Army by November 1918. They had been recruited from various classes and occupations and were working mainly on farms, but 'a small cohort' had been directed to forestry as part of the WFS.⁹⁰ Based on the figures available, however, it can be argued that approximately 3,000 women carried out some form of forestry work for the WFS, either officially or non-registered, from August 1917 to the end of the war.⁹¹

As stated above, females were also increasingly employed in the 'Wood Trades'. These went from 44,000 in July 1914 to 78,000 by April 1918.⁹² Within these figures in 1914 just 1,500 were shown as employed in 'sawmilling', and these were likely to have been clerical roles. However, this figure had grown to 8,000 by April 1918 and included approximately 5,100 who had taken over roles previously held by males, suggesting women were likely to be carrying out manual roles in the sawmills of private firms.⁹³ These 5,100 women, probably converting wood to timber, can therefore be considered to have aided the 3,000 working under the WFS, giving a reasonably sized female contribution to the overall forestry effort. They might not have matched the CFC for numbers employed or production, yet the above shows that the 3,000 of the WFS, and up to 5,100 other females in related roles, would clearly have helped to keep timber companies staffed as well as surveying, felling and converting a considerable amount of timber. They also provide an illustration of how women

⁹⁰ Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', p. 103; *Cd.9228: Final Report of the Civil War Workers', Committee on Substitute Labour*, p. 5; Beckett, *The First World War: Essential Guide to Sources*, p. 207; *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, p. 13; 'Women's Forestry Corps', n.p.

⁹¹ Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', pp. 103, 104.

⁹² *Cd.9164 Report of the Board Of Trade on the Increased Employment of Women*, pp. 5-9, 13, 14.

⁹³ *Ibid.*, p. 12.

could successfully take over traditionally very male roles.⁹⁴ The WFS was raised by HLOs who pressed for females to be allowed to contribute to the war effort, and saw that there was a dire need for skilled and unskilled female workers in forestry, as well as in the agricultural work with which they are more often associated.

However, the bulk of the wood produced from a single source for the British Empire's war effort came from the CFC, as the original small Canadian forestry units in Europe would become. Being large in land area but small in population Canada had, since confederation in 1867, concentrated on 'subduing nature and developing the country'.⁹⁵ Given the lumber trade that therefore existed in the forests of Canada it made sense that it was this Dominion to which the UK turned to solve this vital supply need.⁹⁶

There was little question that Canada would help the Mother Country at the outbreak of war, although she had the constitutional right to decide what form her participation would take.⁹⁷ Furthermore, the largely Anglo-Saxon nature of Canadian society, except in Quebec, did not automatically mean all would happily support the war effort.⁹⁸ In the decades before 1914 there had been tensions between nationalism and imperialism in Canada, and the Prime Minister, Sir Robert Borden, and his cabinet were initially 'decidedly less' than enthusiastic for war.⁹⁹ Also, her fighting forces were generally 'ill-prepared' for the war.¹⁰⁰ The Militia included a small Corps of Engineers and Signals, but nothing approaching a separate forestry unit as of July

⁹⁴ Ibid, pp. 4, 5, 8, 9, 13, 14, [This report actually goes up to July 1918 in the case of agriculture]; Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', pp. 103, 104; Bird and Davies, *The Canadian Forestry Corps*, pp. 12, 22, 23 [in GB, approximately 165-175 per CFC company].

⁹⁵ Swettenham, *To Seize the Victory*, pp. 28-9.

⁹⁶ Nicholson, *Canadian Expeditionary Force*, pp. 499, 545, and many other sources seen.

⁹⁷ Ibid, pp. xii, xiii, 6-9.; Swettenham, *To Seize the Victory*, p. 28; Cook, *At the Sharp End*, p. 22.

⁹⁸ Ibid, pp. 21-23, 45; Cook, *Shock Troops*, p. 630.

⁹⁹ Cook, *At the Sharp End*, pp. 4, 45.

¹⁰⁰ Swettenham, *To Seize the Victory*, p. 26; Nicholson, *Canadian Expeditionary Force*, pp. 6-12, 14, 15.

1914.¹⁰¹ Furthermore, in 1913 stocks of engineering motor vehicles and horse-drawn wagons were ‘almost entirely lacking’, and this situation would prove extremely difficult to rectify once war had begun as much of this equipment was historically purchased from Britain, and the British War Office now had a priority claim on it.¹⁰²

There had been changes in the political and military command and control of the Dominion’s armed forces in the decades before the war, and the Department for, and Ministers of, the Militia had a huge amount of power.¹⁰³ The Minister of Militia from 1911 to November 1916, when he was forced to tender his resignation, was the characterful ‘enthusiastic champion of Imperial defence’, Colonel (later Honorary Lieutenant-General) Sir Sam Hughes.¹⁰⁴ Hughes can be seen as dynamic, but the overwhelming impression from the historiography is much less favourable. Hughes believed Canadian men had ‘the innate skills of war bred into them’, being able to ‘ride like cowboys and shoot like hunters’, even though most were town or city dwellers, rather than frontiersmen.¹⁰⁵ He appears inflexible, power-hungry, unwilling to delegate, a poor administrator, self-opinionated and unwilling to listen, although occasionally also easily misguided and blind to overwhelming evidence.¹⁰⁶ Hughes became the Canadian equivalent of the Army Council in one man and, like Kitchener in the UK, abandoned pre-war mobilisation plans for much of the CEF, often leading to confusion and extra workload. However, non-infantry arms and services, as the CFC would become, followed the basis of existing mobilisation plans more closely, which

¹⁰¹ Ibid., p. 12.

¹⁰² Ibid., p. 11.

¹⁰³ Nicholson, *Canadian Expeditionary Force*, pp. 8-9, 201.

¹⁰⁴ Ibid., pp. 10-12.

¹⁰⁵ Cook, *At the Sharp End*, p.33.

¹⁰⁶ Nicholson, *Canadian Expeditionary Force*, p. 201.

must have helped.¹⁰⁷ The CFC was also a much smaller force, formed after the lessons of eighteen months of mobilisation had been learned. They were raised and shipped in relatively small sections, and were a specialist body whose practices were based on civilian expert knowledge and experiences. Moreover, it will be seen that given the urgency and increasing scale of requests from London, logical and practical solutions were used by the Canadian HLOs responsible.

It should first be noted here that one particularly forestry-specific element in recruitment that had to be considered by these organisers was that of the season of the year. Similarly to how there were peaks and troughs in recruitment during the perceived ‘rush to the colours’ in 1914, due to factors such as the individual’s need to put family and professional affairs in order, the UK and Canadian Governments recognised in 1916 and 1917 that, in recruiting professional lumbermen, the time of year would be important. These men were, after all, harvesting a natural resource.¹⁰⁸ In the initial telegram of 15 February 1916 to the Governor-General of Canada requesting a battalion of lumbermen, as recorded earlier, the UK Government had noted that although at that time the lumber season would be in progress in the forests of North America they felt ‘sure that men would enlist even at sacrifice of present employment if the reason of the appeal were made known to them’.¹⁰⁹ However, it was the following year, in March 1917, as more and more lumbermen were required, that the Minister of Overseas Military Forces of Canada, Sir George H Perley, had to remind Lord Derby, then Secretary of State for War and in overall charge of solving manpower issues for the war effort, that only after the middle of April would large

¹⁰⁷ Swettenham, *To Seize the Victory*, pp. 30, 31, 36, 124-144, 239; Nicholson, *Canadian Expeditionary Force*, pp. 8-10, 14, 15, 201-212, [quotes on pp. 210, 211]; Cook, *At the Sharp End*, pp. 24, 26-7, 29, 32.

¹⁰⁸ Telegram 15 February 1916, Colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 5.

¹⁰⁹ *Ibid.*

numbers of lumbermen be coming out of the Canadian forests, potentially making it possible to meet the latest request for 2,000, and possibly more.¹¹⁰

Nevertheless, a follow up to the initial British request, a telegram on 29 February 1916, was met by the Canadian Department of Militia and Defence confirming it had authorised the establishment of the 224th Canadian Forestry Battalion four days earlier, and that these men would be provided as soon as possible.¹¹¹ It was suggested by the British that the men should be enlisted into the CEF and sent to Europe in small companies ‘under competent supervision’, although by 6 March the need was so desperate that it was asked if lumbermen could be sent in batches of fifty, rather than waiting for whole units to be formed.¹¹²

Indeed, a small advance party of two subalterns and fifteen men had arrived in England by 17 March, yet there are confusing accounts of exactly when the first Canadian lumbermen arrived or started work. Some suggest that operations, which must have been small scale, had started at the Virginia Water Camp in Surrey by 12 April, with detachments gradually being sent elsewhere in England and Scotland.¹¹³ By mid-April 1916 some 1,600 men had been recruited ‘from all parts of the Dominion’, and \$250,000 worth of machinery, including mills and lorries, had been bought, but these were waiting in Quebec.¹¹⁴ The first major draft of 400 of all ranks, under Lieutenant-Colonel McDougall, arrived in England on the 28 April, the first timber then being produced by the Canadians in Britain on 13 May 1916, at Great Windsor Park, which does include Virginia Water. The second and third drafts arrived

¹¹⁰ Ibid., p. 10.

¹¹¹ Ibid., p. 5; Hill, 'The Canadian Forestry Corps', Appendix 2, p. 300.

¹¹² Telegram of 15 February 1916, Colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 5.

¹¹³ Ibid., pp. 5-6; Cox, 'The Canadian Forestry Corp in Woburn Sands 1917-1918', p. 9; No Author, 'Canadian Forestry Corps', <<http://www.canadiansoldiers.com/corpsbranches/forestrycorps.htm>> [last accessed 4 September 2013] n.p; Hill, 'The Canadian Forestry Corps', Appendix 2, p. 300.

¹¹⁴ Bird and Davies, *The Canadian Forestry Corps*, p. 5.

by the end of May, after which time 1,600 Canadian lumbermen were working in Britain.¹¹⁵ Such swift recruitment, equipping, shipping and beginning of operations can only suggest clear and efficient high level management by those tasked by the Canadian Government with fulfilling the British request, including McDougall.

Once the British saw the benefits of the first lumber units they naturally wanted to increase their numbers. Additional requests were therefore cabled, even before the second and third drafts had arrived, requesting an additional 2,000 lumbermen and necessary plant.¹¹⁶ The Canadians again agreed, initially thinking of sending them in small units due to the urgency, but by June two new forestry battalions, the 238th and 242nd, were formed with 1,000 men in each decided upon as a structure. The 238th arrived in England in September 1916.¹¹⁷

It was around this time that McDougall and others were suggesting taking on additional work in France, as seen in chapter 3. It was suggested that it would be worthwhile to form a further battalion, raised from French Canadians and equipped to work on pine forests, unlike the 242nd which was better equipped for beech woods. However, rather than a new battalion of French Canadians being raised, the 230th, formed as an infantry battalion from French Canadians, was diverted to forestry in early November 1916.¹¹⁸ On the 6 November another telegram was sent from London asking for a further 2,000 men and suggesting that these should mainly be men 'unfit for combatant service'.¹¹⁹ At the end of November the War Office asked if the 119th and 156th Battalions, then forming, could also be made available for forestry to make

¹¹⁵ Ibid., pp. 5-6; Cox, 'The Canadian Forestry Corp in Woburn Sands 1917-1918', p. 9; Nicholson, *Canadian Expeditionary Force*, p. 499.

¹¹⁶ Ibid.; Bird and Davies, *The Canadian Forestry Corps*, p. 8.

¹¹⁷ Ibid.; No Author, 'Canadian Forestry Corps', n.p.

¹¹⁸ See chapter 3 of this thesis; Bird and Davies, *The Canadian Forestry Corps*, pp. 8, 35-6.

¹¹⁹ Ibid., p. 8.

up the 2,000 men requested.¹²⁰ The fact that these battalions had been intended for other purposes, but were ‘converted’ to forestry units suggests, firstly, that the main need was for wood rather than fighting men at this time, and secondly that forestry units could be made up of non-experts, although with experienced men in important positions.

However, requests for more did not stop. At the end of November 1916 the War Office asked that a further 5,000 lumbermen be recruited, and again that these be particularly French Canadians.¹²¹ Furthermore, it was not only new units that could be recruited as or diverted to forestry roles. On the 8 December a routine order from the General Officer Commanding Canadian troops in Great Britain permitted the transfer of officers with any type of experience in lumbering or managing men in the construction trades, and of NCOs and men with experience of any stages or processes within lumber felling, milling or transporting. CFC officers were sent around the various Canadian Bases in Britain and the men selected transferred to the CFC Base Depot.¹²² In March 1917, as it was being agreed by the Canadian Government that the 5th Canadian Division could go to France, the subject was complicated by the ‘urgent demand for lumbermen to be taken out of the present strength of the Fifth Division’, and this required further discussions between Derby and Perley.¹²³

By the end of December 1916, just ten months after the initial British request, there were some 3,038 Canadians engaged in forestry work, 133 officers and 2,905 other ranks in fourteen companies. The majority of these were still working in Britain, eleven companies as opposed to only three in France.¹²⁴ Yet in the coming six to

¹²⁰ Ibid.; p. 9.

¹²¹ Ibid.; Nicholson, *Canadian Expeditionary Force*, p. 499.

¹²² Bird and Davies, *The Canadian Forestry Corps*, p.8.

¹²³ TNA/CAB/21/80, letter Director of Forestry to Lord Curzon, 15 May 1917.

¹²⁴ Cox, ‘The Canadian Forestry Corp in Woburn Sands 1917-1918’, p. 9; Bird and Davies, *The Canadian Forestry Corps*, p. 9.

twelve months this number would grow, and the balance would swing towards operations in France. By June 1917 the desired CFC establishment stood at ninety-six companies, a total of 17,000 men. Of these, forty companies, or 7,000 men, were intended to work in Britain and fifty-six, 10,000 men, in France. At this time 11,000 were actually at work in Europe, 2,000 were waiting to be transported from Canada under previous arrangements, and it was hoped that another 2,500 could be enlisted there.¹²⁵ Indeed, the shipping of skilled lumbermen from Canada to Europe as and when they could be recruited continued throughout the war.¹²⁶ However, in June 1917 the remaining 1,500 recruits were to be made up from men already enlisted in the CEF but transferring, or those who were unfit for front-line combatant service.¹²⁷ For instance the 126th Company at Ampthill received an Adjutant in June 1917 and a Mill Officer in September, both having been wounded at Vimy Ridge in the spring.¹²⁸

There are debates over the exact size that the CFC ended up. Bird and Davies in 1919 stated that the establishment of the CFC was set at 17,000, which it achieved by June 1917, and retained until the armistice.¹²⁹ However, R. Hill in 1920 stated that by June 1917 there were 18,000 Canadian men working for the CFC.¹³⁰ Swettenham put the figure at 22,000 in November 1918, whilst others suggested as high as 24,000, not including attached labour, by the end of the war.¹³¹ By the armistice some official sources said 12,127 Canadians, in fifty-six Companies were working in France and 9,967 in 'England', giving a total of 22,094 CFC, with an additional 9,353 attached

¹²⁵ Ibid, p. 12.

¹²⁶ Nicholson, *Canadian Expeditionary Force*, p. 499.

¹²⁷ Bird and Davies, *The Canadian Forestry Corps*, p. 12.

¹²⁸ Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.

¹²⁹ Bird and Davies, *The Canadian Forestry Corps*, pp. 9, 12.

¹³⁰ Hill, 'The Canadian Forestry Corps', Appendix 2, p. 302.

¹³¹ John Swettenham, *Canada and the First World War* (Toronto: McGraw-Hill Ryerson, 1973), p. 123; National Film Board of Canada, *Images of a Forgotten War, Canadian Forestry Corps*, <<http://www3.nfb.ca/ww1/wartime-film.php?id=531249>> [accessed 31 July 2016].

labourers giving 31,447.¹³² There are also some disagreements with regards to the split between those working in Britain and France by the end of the war. In Britain it seems there were somewhere between nearly 10,000 and 12,000 men, whilst in France somewhere in the region of 12,000, although it seems likely both of these sets include some of the attached transport or labour personnel.¹³³

Nonetheless, this work has taken the most commonly quoted and conservative figures of sixty companies in France and forty-one in Britain, encompassing 17,000 men; to which should be added approximately 16,000 ‘attached’ personnel at peak times including members of the Army Service Corps, medical personnel, transport troops, labour units and POWs. At the start of 1917 a Canadian Corps division included approximately 19,000 men, given a CFC size of 17,000 it would equate to just under the size of one Canadian Corps division.¹³⁴ The desired establishment of 17,000 was certainly reached, and almost certainly exceeded at times, to what degree depending on who was included.

This 17,000 was still a relatively small unit. The CEF, including the Canadian Corps, Cavalry Brigade, railway troops and the CFC, stood at just under 150,000 in July 1918.¹³⁵ Yet, as argued throughout, these relatively few in the CFC made a vital contribution to the overall continuation of the war because of the specialist forestry roles they undertook.¹³⁶ A small but vital and unprecedented force had been established, recruited, equipped and put to work in both Britain and France extremely

¹³² ‘Report of the Overseas Military Forces of Canada’, pp. 369-70 as quoted in Nicholson, *Canadian Expeditionary Force*, pp. 499-500.

¹³³ *Ibid.*; Swettenham, *Canada and the First World War*, p. 123.

¹³⁴ No Author, ‘Canadian Forestry Corps’, n.p; Bird and Davies, *The Canadian Forestry Corps*, p. 9; National Film Board of Canada, *Images of a Forgotten War*; Cook, *Shock Troops*, p. 18.

¹³⁵ *Ibid.*, pp. 17-18, 41, 403; Nicholson, *Canadian Expeditionary Force*, pp. 485-510, see pp. 499-500 for CFC; Swettenham, *To Seize the Victory*, p. 237.

¹³⁶ Cook, *At the Sharp End*, p. 4; Swettenham, *Canada and the First World War*, p. 121.

quickly, and were then rapidly expanded to meet growing needs. It was clearly a success story of organisation and high-level efforts.

As the WFS is important within the historiography of the roles of women during the war effort, due to the male-only perceptions of timber work held by many, so the smaller Newfoundland Forestry Corps were important in terms of being a separate entity formed from within this fiercely imperial colony. Newfoundland had not joined the Canadian Confederation when it had formed in 1867, and it was therefore still a British colony in 1914.¹³⁷ As did its fighting forces, its Forestry Corps maintained a separate identity from Canadian or other British units, and its 500 men converted over 1,200 acres of Scottish woodland.¹³⁸ Like the CFC, the Newfoundland Forestry Corps was to be organised as a military unit, but with some 'special terms and conditions'. It would be a non-combatant force of skilled workmen, ineligible for the Royal Newfoundland Regiment or the Royal Naval Reserve, and raised solely to work in UK forests. No unmarried man of military age and fitness could be enlisted as 'their place' was seen as in the 'fighting forces'.¹³⁹ Similarly to Kitchener's 'Pals' battalions and the Canadian approach, the promise of working alongside those you worked with at home, perhaps with the same foreman as NCO, was intended to assist recruitment. A foreman could be ranked as sergeant, or even as a commissioned officer. The companies making up the structure of the corps would also not be too widely dispersed from each other.¹⁴⁰

¹³⁷ Cook, *At the Sharp End*, p. 22; Swettenham, *To Seize the Victory*, p. 28.

¹³⁸ Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹³⁹ W.E. Davidson, (Governor), 'To The Men of Newfoundland', *Evening Standard* 7 April 1917, as reproduced in Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹⁴⁰ *Ibid.*; TNA/BT/71/1/13676, telegram colonial Office to Governor of Newfoundland, 2 April 1917, Memo Beeton to Murray C.T.S.3 5 June 1917, and various other correspondences; Lyman, *The Story of the Massachusetts Committee on Public Safety*; Howitson and Cramer, 'Historical Note', p. 16; TNA/BT/71/21, Bird, Appendix 1, pp.3-4; TNA/CAB/23/40/6, Minutes of Imperial War Cabinet Meeting 6, 30th March 1917, p.4.

Recruitment was undertaken by the Newfoundland Patriotic Association with enlistment for the duration, although men with skills that became especially required in Newfoundland could be released after six months. Physical and age requirements were 'modified' to allow most of those unfit for the Royal Newfoundland Regiment to join, and only elementary military drill was to be required. Poor standards in drill were not to be allowed to slow the despatch of companies once formed.¹⁴¹ Initial hopes were for a minimum of 1,500 Newfoundland Forestry Corps men, yet by April 1917 the Governor of Newfoundland felt they could raise four companies each of a hundred 'expert woodmen', with two additional 'forestry' companies of miners and railwaymen, if wanted.¹⁴² However, the potential for enlisting other such engineering professionals into separate forestry specific units was not taken up.¹⁴³ Newfoundland's ministers then approved a decision by the Newfoundland Patriotic Association to raise five companies, each of one hundred timbermen, and to dispatch these by 15 May if transport could be supplied, and recruit more timbermen as required.¹⁴⁴ Although some still hoped that not less than 1,500 would ultimately be raised, estimates of actual recruits fluctuated between 400 and 500, with dates of arrival between the beginning of June and end of August 1917.¹⁴⁵ While there was some talk of cutting pit-wood in

¹⁴¹ TNA/BT/71/1/13676, telegram Colonial Office to Governor of Newfoundland, 2 April 1917; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹⁴² TNA/CAB/23/2, Minutes of a Meeting of the War Cabinet (no.85), 2 March 1917, point 12; TNA/BT/71/1/13676, telegram Governor of Newfoundland to the Secretary of State for the Colonies, 15 April 1917, memo Directorate of Timber Supplies (War Office) to Adjutant General 25 May 1917, letter Controller Timber Supplies (Board of Trade) to Adjutant General 1 June 1917, and letter Beeton (now Chief Administrative Officer Newfoundland Forestry Corps) to Controller Timber Supplies (Ball), 14 November 1918; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹⁴³ TNA/BT/71/1/13676, telegram Governor of Newfoundland to the Secretary of State for the Colonies, 18 April 1917, telegram Colonial Office to Governor of Newfoundland, 2 April 1917, letter Directorate of Timber Supplies (War Office) to Under Secretary of State Colonial Office, 19 April 1917, telegram Governor of Newfoundland to the Secretary of State for the colonies, 15 April 1917, memo Directorate of Timber Supplies (War Office) to Adjutant General 25 May 1917, and letter Controller Timber Supplies (Board of Trade) to Adjutant General 1 June 1917.

¹⁴⁴ TNA/BT/71/1/13676, telegram Governor of Newfoundland to the Secretary of State for the colonies, 18 April 1917.

¹⁴⁵ TNA/BT/71/1/13676, see text of cable Beeton to Newfoundland, 20 April 1917.

Wales, Scottish woodlands were clearly the preferred location as it was felt they would most resemble a Newfoundlander's natural working environment.¹⁴⁶

The five companies were quickly raised and the first ninety-nine men left Newfoundland on 19 May 1917. Operations began at Craigvinean in the first week of August 1917, and a second draft of 177 officers and men arrived at Dunkeld, with their CO Major Sullivan, in the last week of August.¹⁴⁷ Additional numbers were then sent over in small parcels, such as forty-three foresters embarking on 3 October and nineteen on 6 February 1918.¹⁴⁸

Some 498 Newfoundland Forestry Corps personnel were enlisted in Newfoundland during the war, and another two were accepted in Britain, yet by the end of war Sullivan actually had just 450 men in Scotland, due to losses, repatriations and transfers.¹⁴⁹ The Newfoundland Forestry Corps, like many other units, had also sought additional labour, such as German POWs, for some time.¹⁵⁰ However, on 14 November 1918 it was allocated fifty more from the Reserve Battalion of the Royal Newfoundland Regiment, then at Winchester, its orders to France having been

¹⁴⁶ TNA/BT/71/1/13676, letter Assistant Director Timber Supplies (TS3) to C.G. Penney and Prof. H.A. Pritchard (district officers for the Directorate of Timber Supplies, War Office), 14 May 1917.

¹⁴⁷ Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p; TNA/BT/71/1/13676, 'Report of logging operations at Craigvinean', Lieut. Cole, Dunkeld, 11 August 1917, memo Directorate of Timber Supplies (War Office) to Adjutant-General 25 May 1917, letter Controller Timber Supplies (Board of Trade) to Adjutant-General 1 June 1917, memo Beeton to Murray (Controller Timber Supplies, Section 3), 5 June 1917, letter Controller Timber Supplies to Stirling Maxwell (Assistant Controller of Timber Supplies, Scotland) 8 August 1917, telegram Governor of Newfoundland to Secretary of State for the Colonies, 5 August 1917, and memo Beeton to Controller Timber Supplies 29 August 1917; The National Archives, 'Keepers Gallery; Newfoundland', c.2015 <<http://blog.nationalarchives.gov.uk/blog/keepers-gallery-newfoundland/>> [accessed 27/2/18], n.p.

¹⁴⁸ Ibid., correspondence between Assistant Controller of Timber Supplies (Scotland) and Newfoundland Forestry Corps, 6 October 1917, 7 Feb 1918 and 14 June 1918.

¹⁴⁹ Ibid., letter Beeton (now Chief Administrative Officer Newfoundland Forestry Corps) to Controller Timber Supplies (Ball), 14 November 1918; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹⁵⁰ TNA/BT/71/1/13676, memos within the Timber Supply Department (Board of Trade) 21 & 22 November 1918; letter Controller Timber Supplies to Assistant Controller of Timber Supplies (Scotland), 23 November 1918; letter Controller Timber Supplies to Beeton 23 November 1918, letter Assistant Controller of Timber Supplies (Scotland) to Controller Timber Supplies, 20 November 1918.

countermanded, to bring the Forestry Corps total back up to 500. However, Sullivan had wanted a total strength of 650 to complete work assigned before the end of summer 1919. The Minister of Militia had given permission for up to three hundred to be transferred, further voluntary transfers also suiting men of the Royal Newfoundland Regiment who would prefer to be repatriated to Newfoundland during the spring.¹⁵¹ However, these were waiting on higher level schemes of demobilisation to be finalised, and do not appear to have taken place.¹⁵²

When the war ended some 6,000 Newfoundlanders had proceeded overseas or were in training, and others had served in the navy or with British or Canadian units. The total of 550 trained foresters, or engineers, raised or transferred into the Newfoundland Forestry Corps therefore represent nine per cent of the colony's known wartime effort, a relatively high proportion.¹⁵³ Furthermore, although a small number in comparison to the approximated 3,000 of the WFS or 17,000 of the CFC, the island's foresters clearly made an important contribution to the forestry effort as well as confirming their status as a colony of Britain as opposed to being part of the Dominion of Canada.

One area of skilled forestry labour that did not require precious empire manpower was the New England Sawmill Units. It will be seen that their very quick establishment once the USA had entered the war was due to the forethought of civil servants and then businessmen in Massachusetts, the Massachusetts Committee on Public Safety as

¹⁵¹ Ibid., letter Controller Timber Supplies to Assistant Controller of Timber Supplies (Scotland), 19 November 1918.

¹⁵² Ibid., letter Assistant Controller of Timber Supplies (Scotland) Stirling Maxwell, to Controller Timber Supplies (Sir James Ball), 25 November 1918 and letter Beeton to Controller Timber Supplies, 14 November 1918.

¹⁵³ Ibid., memo (Directorate of Timber Supplies (War Office) to Adjutant General 25 May 1917, letter Controller Timber Supplies (Board of Trade) to Adjutant General 1 June 1917; letter Beeton to Controller Timber Supplies, 14 November 1918; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.; TNA/CAB/23/2, Minutes of a Meeting of the War Cabinet (no.85), 2 March 1917, point 12.

shown above. At the 16 April 1917 Executive Committee meeting of the Massachusetts Committee on Public Safety, at which Wiley's telegram to Gaston was read, the Massachusetts State Forester, Mr Rane, was able to report that he estimated 500 men could be divided into fifteen portable saw-mill units, to produce approximately 10,000 feet a day, 'if not sawed to small dimensions'.¹⁵⁴ James J. Phelan, a Boston Banker and 'an outstanding figure in national and religious philanthropies' who would become the driving force, personally obtaining funds and arranging assembly of the New England Sawmill Units, then informed the committee of the current labour conditions in the lumber business.¹⁵⁵ Lumbermen had been very scarce in New England since the beginning of the war, although he did not say why, yet he felt there would be no difficulty in recruiting two or three hundred men as this was the particular time of year 'when men were coming out of the woods after the winter operations'.¹⁵⁶ The Massachusetts Committee on Public Safety therefore backed the establishment of a Sawmills Subcommittee to investigate possibilities.¹⁵⁷

Many well-known New England lumbermen and State foresters would help in the efforts, and as well as Phelan the Sawmill Committee included private and State Government representatives. W.R. Brown, an important North American forester both before and following the First World War, Manager of the Berlin Mills Company and

¹⁵⁴ SLMSC, *Records of the Massachusetts Committee on Public Safety, Boxes 1 & 2*, especially meetings of February 28 1917 (p. 61, point no.6) and April 16 1917; BT 71/2/13713, telegram Storrow (Chairman Massachusetts Committee on Public Safety) to Colonel Wiley, Army Contracts Department in London, 17 April 1917.

¹⁵⁵ No Author, 'James J. Phelan, Lay Trustee, Awarded Laetare Medal' in *The Notre Dame Alumnus* (Indiana, The Alumni Association of the University of Notre Dame, April 1931), p. 263; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 158; SLMSC, *Records of the Massachusetts Committee on Public Safety, Boxes 1 & 2*, especially meetings of April 16 1917 and February 28, 1917, p. 61, point no. 6.

¹⁵⁶ SLMSC, *Records of the Massachusetts Committee on Public Safety*, meetings of 16 April and 18 May 1917; TNA/BT/71/2/13713, telegrams Storrow to London 17 April 1917 [this folder contains a lot of detail, in forms of various correspondence, on the establishment of the New England Sawmill Units].

¹⁵⁷ SLMSC, *Records of the Massachusetts Committee on Public Safety, Boxes 1 & 2*, 'Meeting of April 16, 1917'; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 158.

President of the New Hampshire Timberland Owners Association, became its Chairman. H.G. Philbrook, Vice-President of the Connecticut Valley Lumber Company, its Treasurer and Rane as Secretary.¹⁵⁸ Plans were quickly amended to send ten fully equipped units. Funding was agreed by the New England States themselves, the Massachusetts Committee on Public Safety and the lumber interests of the northeast. Each of the six states provided one unit, the remaining four made possible by Massachusetts Committee on Public Safety and private/business subscriptions.¹⁵⁹

Therefore, just one week after Gaston raised the request, a reply was sent to Wiley offering the British Government ‘the services of New England in assembling men and material for ten complete working portable saw-mill units’.¹⁶⁰ Each unit would consist of thirty volunteer civilian ‘experienced’ lumbermen led by a ‘capable man’, with cooks and blacksmith. Each unit would come with ‘portable saw-mill, ten suitable horses, harnesses, wagons, saws, axes, other tools and camp equipment, including all necessary spares, so they were ready for ‘business on landing’. Such preparedness certainly pleased the civilian British authorities.¹⁶¹ Once the offer was officially

¹⁵⁸ Ibid.; Perley W Churchill, ‘W.R. Brown; Modern Pioneer’, in *The Brown Bulletin*, (Brown Company – Berlin, New Hampshire, USA), September 1955, pp. 3, 10, 11; SLMSC *Records of the Massachusetts Committee on Public Safety, Boxes 1&2*, throughout, but especially see the meeting of 27 July 1917 and the address of Governor Samuel W McCall to the Massachusetts Committee on Public Safety on 20 November 1918.

¹⁵⁹ TNA/BT/71/2/13713, *New Englanders, Raising and Transportation of Units*, various correspondences, April 1917 to October 1918; SLMSC *Records of the Massachusetts Committee on Public Safety, Boxes 1&2*, passim; No Author, ‘The New England Sawmill Units in Scotland’ in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.

¹⁶⁰ TNA/BT 71/2/13713, telegram Storow to Wiley, 22 April 1917; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 23 April 1917 as reprinted in ‘*Report of Executive Committee*’, November 1, 1917 (Boston), pp. 4-5.

¹⁶¹ TNA/BT 71/2/13713, telegrams Storow to Wiley, 17 and 22 April 1917; TNA/BT/13/88 (E36139), copy of standard contract between New England Sawmill Unit men and British Government, 15 June 1917; Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 156-163; TNA/BT/71/1/13676, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917; No Author, ‘New England lumbermen did twice the work at half the cost’, *The Northern Times*, 25 November 2010 (updated 29 November 2011) <<https://www.northern-times.co.uk/Features/Times-Past/New-England-lumbermen-did-twice-the-work-at-half-the-cost-7991.htm>> [accessed 10 July 2015], n.p, much of this article is taken from Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 156-163. SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 23 April 1917 as reprinted in ‘*Report of*

accepted by the War Office, War Cabinet, and Board of Trade, Phelan secured formal authorisation from the Federal War Department to raise the units.¹⁶² This illustrates that the US Government recognised the urgency of the need for timber. As well as beginning to raise their own massive timber forces, they were prepared to allow suitable men to help their new allies as soon as possible. Governors of four of the six New England States confirmed they would cooperate with the scheme, so now, having the backing and involvement of the British, their government, State Governors and industry, the Massachusetts Committee on Public Safety appointed a larger consultative committee of twenty-three men which was to oversee the assembly and sending of the New England Sawmill Units.¹⁶³ The chairman, vice-chairman, treasurer and secretary remained as above, but nineteen other men were named. These seem wisely chosen, including the State Foresters of Maine, Connecticut, New Hampshire and Rhode Island, alongside high ranking men from lumber, paper or manufacturers of wood products or their trade associations, and a Boston & Maine Railroad representative.¹⁶⁴

This committee could also look for help to a general Recruitment Subcommittee which established further subcommittees in major cities.¹⁶⁵ The Massachusetts State Board of Trade organised pledges from its constituent bodies, including some lumber

Executive Committee, November 1, 1917 (Boston), pp. 4-5; Hendrick, *The Life and Letters of Walter H. Page, Volume 2*, p. 291.

¹⁶² TNA/BT 71/2/13713, telegrams Directorate of Timber Supplies (War Office) to Sir Cecil Spring Rice (British Ambassador in Washington) to inform Storrow, 5 and 7 May 1917; TNA/CAB/23/2/50 *Minutes of War Cabinet meeting May 4 1917*, p. 2 'Timber: Labour Supply'; Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 156-7; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 14 May 1917.

¹⁶³ *Ibid.*, Maine, New Hampshire, Vermont, Massachusetts – but not Connecticut or Rhode Island at this point.

¹⁶⁴ SLMSC, *Records of the Massachusetts Committee on Public Safety*, meetings of 14 and 18 May 1917 and 'Index of Committees'; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 158.

¹⁶⁵ SLMSC, *Records of the Massachusetts Committee on Public Safety*, see for instances the papers and letters 'of the Recruiting committees of the various Massachusetts cities, towns and counties' regarding establishment and work of committees, dated 9 March 1917- 26 May 1917.

associations to support the Massachusetts Committee on Public Safety, and for military recruitment the National Security League, in mobilising ‘the human resources of our Loyal Commonwealth’ and placing ‘every man in the old Bay State on record as to where he can best serve his country in her hour of need’.¹⁶⁶ Although not a military organisation, each of the men that these committees managed to recruit into the sawmill units, had individual twelve-month contracts with the British Government, expiring on June 15, 1918.¹⁶⁷

On 22 May 1917 Storrow met the British Ambassador in Washington and informed him that the ten units, approximately 360 men, 120 horses and full equipment, could be assembled at Boston and ready for shipment by 2 June. The British Government prepared a standard contract between individual woodsmen and themselves which would be signed on the day of departure. It included that they would be treated as civilians, and pay would as far as possible conform to scales then ‘prevailing in New England’, commencing on the date of departure and ending when they arrived back in New England. New England Sawmill Unit members could contractually expect the same standards of travel, accommodation, medical care and rations as a British Army private on duty, but it was agreed he would only be asked to work on ‘logging or mill work’ within the UK.¹⁶⁸ Furthermore, substitutes for

¹⁶⁶ SLMSC, *Records of the Massachusetts Committee on Public Safety*, letter from Massachusetts State Board of Trade to Constituent Bodies, 16 March 1917.

¹⁶⁷ TNA/BT/13/88 (E36139), copy of standard contract between New England Sawmill Unit men and British Government, 15 June 1917. SLMSC, ‘*Board of Trade Journal*’, 21 March 1918, as quoted in *Records of the Massachusetts Committee on Public Safety*, meeting of 29 April 1918; TNA/BT/71/1/13676, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 159; No author, ‘World War I: New England Sawmill Units in Scotland’, <http://www.20thengineers.com/ww1-book-neunits.html> [accessed 3/9/2013].

¹⁶⁸ TNA/BT 71/2/13713, telegrams Storrow to Wiley, 17 and 22 April 1917; TNA/BT/13/88 (E36139), standard contract between New England Sawmill Unit men and British Government, 15 June 1917; Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 156-163; TNA/BT/71/1/13676, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917; No Author, ‘New England lumbermen did twice the work at half the cost’, n.p.; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 23

passports would be provided, they would not be asked to leave the UK, take on military duties, or work on anything other than logging or milling timber. They would be suitably accommodated, provided with clothes and medical assistance, and returned within a year from date of contract to a New England port.¹⁶⁹ Another contract between the British Government and the Massachusetts Committee on Public Safety indemnified the committee of all responsibility and liability in connection with the New England Sawmill Units once accepted at the port of departure, and that the British agreed to provide suitable transport to convoy the units, preferably from Boston.¹⁷⁰

There was, however, some embarrassment at the British embassy in Washington which felt London had produced a ‘deplorable impression’ following delays in accepting the extremely kind offer. This may have been caused due to breakdown in communications between different bodies. It was at the time when responsibility for forestry was transferring from the War Office to Board of Trade. Or perhaps it was just one telegram of 7 May 1917 from the Foreign Office accepting the offer which had gone astray. Fortunately, although ‘anxiously awaiting’ an official reply, the Massachusetts Committee on Public Safety carried on with arrangements, and the Foreign Office and Controller of Timber Supplies (Board of Trade) reconfirmed by telegram that the misunderstanding was regretted, but that they were ‘urgently in need of New England assistance’ and very grateful.¹⁷¹

April 1917 as reprinted in ‘*Report of Executive Committee*’, November 1, 1917 (Boston), pp. 4-5; Hendrick, *The Life and Letters of Walter H. Page*, Volume 2, p. 291.

¹⁶⁹ TNA/BT/71/2/13713, telegram, Rice (UK Ambassador in Washington) to Secretary of State for Foreign Affairs, 21 May 1917, this was passed on to Army Council and then Directorate of Timber Supplies (War Office).

¹⁷⁰ Ibid.

¹⁷¹ TNA/BT/71/2/13713, telegram Mr Barclay (UK Embassy in Washington) to Ball (Controller Timber Supplies (Board of Trade), 27 May 1917 and reply following a telephone conversation with Foreign Office, 31 May 1917, and telegram to Sir Cecil Spring Rice (British Ambassador in Washington) from Foreign Office on 1 June 1917.

Even before the units had left Boston, the British Ambassador, Sir Cecil Spring-Rice, passed on the thanks of the British War Office and their 'high appreciation of the very welcome co-operation of the New England States in this matter...' The Ambassador stated that, 'I wish to add a word of personal thanks to the gentlemen who initiated a movement of such immense practical importance to the successful prosecution of the great struggle, in which our two nations are so happily united'.¹⁷² This gives an idea of the importance the War Office and parts of the British Government attributed to the timber effort, and the value of American help in this respect as soon as possible.

The only requests the British had during the process were that someone be named in charge of the units and be the central point of contact in official dealings, and that someone be sent to London as soon as possible to settle preliminary arrangements regarding arrival of the force.¹⁷³ These were satisfactorily fulfilled. As noted above, Beeton became Officer in Charge in London. Furthermore, D.P Brown of the Berlin Mills Company, almost certainly a relative of its manager and Massachusetts Committee on Public Safety Chairman W.R. Brown, was appointed General Manager of the units until they were established in Scotland, when he resigned to return to the US and enlist. His position was taken on by Edgar C. Hirst, State Forester of New Hampshire, who had two assistant managers recruited from New England lumber firms.¹⁷⁴

¹⁷² SLMSC, *Records of the Massachusetts Committee on Public Safety*, Meeting of 21 May 1917 and letter British Ambassador Washington to Mr Storrow dated May 16, 1917 as reprinted in '*Report of Executive Committee*', November 1, 1917 (Boston), p. 5.

¹⁷³ TNA/BT 71/2/13713, telegram, Directorate of Timber Supplies (War Office) to Secretary of State for Foreign Affairs for transmission to British Ambassador Washington, 26 May 1917.

¹⁷⁴ Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp.161-2; No author, 'World War I: New England Sawmill Units in Scotland'.

Having obtained the now necessary agreement from the War Office, the Controller of Timber Supplies (Board of Trade) arranged with the Ministry of Shipping to get the 360 men on the ‘first escorted Canadian Liner carrying troops’ and the 120 horses and 350 tons of equipment on the *SS Etonian*, leaving Boston on 27 June.¹⁷⁵ New England’s ‘unique gift’ to ‘Old England’ had been proposed, recruited and equipped in remarkably quick time, just two months.¹⁷⁶ Lovat called the raising of the 348 to 360 men for the ten New England Sawmill Units ‘the best sporting event that has come to my attention during the war’, and being amongst the first Americans to arrive in an already war weary Britain meant that they had a positive effect on the nation’s psyche, as well as providing a valuable contribution to the empire’s timber efforts in the brief period, June 1917 to June 1918, that they were working for the British Government in Scotland.¹⁷⁷

Four days after they landed, and still ten days before they would cut anything, the US Ambassador wrote to his son that alongside the positive effect on Allied morale in the UK and France of the arrival of some of Pershing’s troops, the New England foresters had ‘caused a furor [sic] of enthusiasm’.¹⁷⁸ When the first units arrived at Liverpool most of the municipal buildings were flying the American flag in honour of their arrival on their national day, and crowds cheered the new arrivals.¹⁷⁹ The

¹⁷⁵ TNA/BT/71/2/13713, various correspondence Controller Timber Supplies (Board of Trade), Ministry of Shipping and Washington, 31 May to 8 June 1917.

¹⁷⁶ No Author, ‘The New England Sawmill Units in Scotland’ in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.

¹⁷⁷ Lyman, *The Story of the Massachusetts Committee on Public Safety*; pp. 156, 158, 159; TNA/BT/71/2/13713, letter Director of Military Sea Transport to Controller Timber Supplies (Board of Trade), 16 June 1917; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 5 June 1917, letter from Cecil Spring Rice (British Ambassador in Washington) to James J Phelan (Massachusetts Committee on Public Safety Saw Mill Units) attached to *Records of the Massachusetts Committee on Public Safety*, meeting of 27 July 1917; No Author, ‘The New England Sawmill Units in Scotland’ in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.; TNA/BT/71/1/13676, Memo Bampfylde Fuller (Directorate of Timber Supplies (War Office)) to Assistant Director Timber Supplies (TS3), 26 May 1917.

¹⁷⁸ Hendrick, *The Life and Letters of Walter H. Page, Volume 2*, p. 291.

¹⁷⁹ Letter from New England Sawmill Unit member to home, dated 9 July 1917, as quoted in Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 164.

Massachusetts Committee on Public Safety whose work had led to the units' existence, themselves saw it as fitting that

...the first expedition which left New England in aid of the nation from which New England has taken her name, her traditions, and from whose Islands a large part of her population has sprung, should have been a pioneer expedition...to aid the Allies in supplying the western front of war with necessary lumber and material manufactured from the historic forests of England and Scotland.¹⁸⁰

By March 1918 the Board of Trade was also labelling the efforts as 'one of the striking incidents of the story of how the timber problem has been dealt with', the New England Sawmill Units having 'put up some remarkable records, their total output being well ahead of what was estimated'.¹⁸¹ Furthermore, according to the editors of the contemporary history of the US 20th 'Forestry' Engineers, the New England units were credited by the British Government with 'doing twice the work at half the cost of any organization producing lumber for war service'.¹⁸² Although, as former members of the 20th Engineers, Perez Simmons and Alfred Davies should be expected to relate this sort of praise to their former comrades. George Lyman also had reason to be biased, as the writer of the history of the Massachusetts Committee on Public Safety, yet his claim that the New Englanders produced 'more feet of lumber...per man per day than...any similar organization in Great Britain', seems slightly more plausible, even though it is still impossible to accurately verify it.¹⁸³

The New England units certainly did produce significant amounts of timber. Some 60,000 sleepers, and a great deal of pit-wood and timber, either sawed to specific

¹⁸⁰ SLMSC, *Records of the Massachusetts Committee on Public Safety*, 'Report of Executive Committee', November 1, 1917, pp. 3-4.

¹⁸¹ SLMSC, 'Board of Trade Journal', 21 March 1918, as quoted in *Records of the Massachusetts Committee on Public Safety*, meeting of 29 April 1918.

¹⁸² No Author, 'The New England Sawmill Units in Scotland' in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.

¹⁸³ Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 161.

dimensions for military constructions or passed to re-sawing plants to be turned in munitions boxes. The total production, during approximately nine and a half months of operations, was 19,673,100 foot board measures (one foot, by one foot, by one inch of rough or sawn wood) of timber of all sorts.¹⁸⁴

This was clearly recognised by contemporaries as well ahead of expected output and as ‘signal service’.¹⁸⁵ Furthermore, important contemporaries with knowledge of the effort felt that as civilians working under wartime pressures these small portable units provided a very good output. This could largely be attributed to their being free from some of the constraints of a military unit, or even forestry units. Although relatively small in number and short-lived, the speed with which these units were recruited, equipped, shipped and put to work is indicative of the manpower and equipment resources the USA could, and would, bring to the Allies. The timber they produced contributed to the overall effort, and once American forestry units were active in France, many of these men transferred to these. As Sir Stirling Maxwell, Assistant Controller of Timber Supplies (Scotland), wrote, the ‘gift’ of the New England Sawmill Units, so ‘generously designed’ by the Massachusetts Committee on Public Safety, ‘has most happily achieved its object. It has provided us in time of need with timber we could not otherwise have produced’, as well as bequeathing to the British ‘valuable plant and horses’.¹⁸⁶ These voluntary units were undoubtedly, therefore, a significant but non-standard element in regards to how, where and by whom timber was sourced. In many respects the establishment of these units illustrates

¹⁸⁴ Ibid.; No author, ‘World War I: New England Sawmill Units in Scotland’.

¹⁸⁵ TNA/BT/71/21, Bird, Appendix 1, p. 4; *Board of Trade Journal* article, and letter Ball to Mr. Lewis, both as quoted in Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 164-5.

¹⁸⁶ As reproduced in Ibid., pp. 162-3.

elements both in keeping with, and very different to, those behind the more military CFC and Newfoundland Forestry Corps.

<u>UNIT</u>	<u>Numbers Involved; (totals, not establishments)</u>	<u>Comments on Numbers</u>	<u>Totals Produced</u>	<u>Comments on Production</u>
Women's Forestry Service (WFS)	3,000	Difficult to establish exactly due to merging with other roles. Potentially up to 8,100 if include those working in sawmills/wood trades.	Not known	Difficult to tell, appear to have assisted private timber companies or male forestry units.
Newfoundland Forestry Corps	550	9% of 6k total who served from Newfoundland	Not known	1,200 acres of woodlands worked.
New England Sawmill Units	360		19,673,100 foot board measures	All types included
Royal Engineers Forestry Companies	Approx. 1,254	11 Companies of 110 other ranks and 4 Officers at height, by summer of 1918.	Not known	
Canadian Forestry Corps (CFC)	17-18,000	31-33,000 with attached personnel and labour at peak times	555,942,912 foot board measures in France	Plus 308,629 tons Round Material and 806,502 tons 'Slabs and Fuel'

			257,598,648 foot board measures in Great Britain	(France & Great Britain)
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(For references see text or appendices)

The central conclusions drawn from examining how these organisations went about establishing these units are that although some were based on military structures, the Royal Engineer Forestry Companies, CFC, and Newfoundland Forestry Corps, and some along more civilian lines, WFS and New England Sawmill Units. All except the Royal Engineer Forestry Companies were raised from scratch in surprisingly quick time following the realisation that their services were urgently needed. Taking the CFC as the prime example, the quick action in an ‘unexpected direction’ taken by the Canadian Government, in terms of establishing and recruiting the first forestry battalion, was seen as an example of ‘the energy, rapidity and “hustle” for which the Canadians are famous,’ and of Canada’s willingness ‘to assist the Motherland in any unexpected direction’.¹⁸⁷ Furthermore, each of the units established can be seen to have contributed to wider aspects of either gender or national themes in the historiography. The roles women played in a traditionally manly sphere would lead to even greater responsibilities in the timber effort of the Second World War.¹⁸⁸ The Newfoundland and Canadian New England States’ forestry contributions can take their place alongside their military efforts in their proud communal memories of the war and how it affected their self-image. This is true not only for the efforts in raising these units but also, as shall now be shown, in regards to their funding.

¹⁸⁷ Bird and Davies, *The Canadian Forestry Corps*, p. 5; Hill, 'The Canadian Forestry Corps', Appendix 2, pp. 300-1.

¹⁸⁸ Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', *passim*.

Funding the units

Funding for smaller elements of the war can be overlooked in the historiography, yet agreements on paying for the forestry units were important, and prove to be interesting, as these units could fall in a liminal space between military and civilian efforts. Although arguments over funding could have been protracted, many of the founding HLOs took it upon themselves to fund the raising and equipping of their units, then either continuing to fund their maintenance or passing such costs on to the British Government. It would then be agreed whether the War Office or another HLO, such as the Timber Supply Department (Board of Trade), should fund these costs.

Canada was not a wealthy country at the start of war and would have to obtain loans from Britain, the USA, and the Canadian people themselves in forms of war bonds to pay for its war effort.¹⁸⁹ When the Canadian Government approved the raising of volunteers for overseas service it was felt that the CEF would be part of an Imperial contingent, and in the heady patriotism of 1914 it ‘demanded the right to pay for the CEF’. Later it would change its mind, as it became clear that it would owe hundreds of millions of dollars to bodies including the War Office. Much haggling ensued.¹⁹⁰

Initial financial arrangements for the CEF had been that the Canadian Government would cover its ‘equipment, pay and maintenance’ whilst in Europe.¹⁹¹ In March 1915 formal discussions opened between the two governments, the Canadians still insisting that they pay ‘the entire cost in every particular of their own contingents’, but formal agreement was not drawn up and agreed until January 1917. Under this agreement Canada would pay for their troops’ pay, allowances, pensions,

¹⁸⁹ Cook, *At the Sharp End*, p. 32.

¹⁹⁰ *Ibid.*, p. 36; Cook, *Shock Troops*, p. 45.

¹⁹¹ Nicholson, *Canadian Expeditionary Force*, p. 359.

cost of transporting troops and equipment to Britain, and reimburse Britain for the costs of all supplies and stores issued to them in Britain and for transporting Canadian troops and materials on British railways. With regards to accommodation, whether huts or billets, and barrack and hospital stores the British Government would make no charge. A 'maintenance rate' for Canadian troops in France and Belgium was also agreed at a 'capitation rate' of six shillings per Canadian per day. Yet this became complicated by the rising costs, especially of ammunition leading to disagreement and negotiation stretching in to the 1920s.¹⁹² Altogether the Canadians paid the British Government C\$252,567,942 for costs relating to her overseas contingent.¹⁹³

In his initial request for lumbermen the Colonial Secretary emphasized its urgent nature by informing the Governor-General that 'Incidence of cost will be arranged as agreeable to the Canadian Government'.¹⁹⁴ However, standard military clothing and equipment along with specific forestry machinery and tools, which were mainly bought before leaving Canada, was paid for by the Canadian Authorities. They bore these costs for initial equipment, and also pay, allowances, pensions and transportation to England, much like their fighting forces. Furthermore, not being 'troops' of the Canadian Corps, but part of the CEF, it is unclear if the CFC were included within the figures to be charged the 'capitation' rate discussed above, although it would certainly seem unfair to charge them for elements such as the artillery shell portion. By mid-April 1916 when the first 1,600 men had been recruited 'from all parts of the Dominion' and \$250,000 worth of machinery, including mills and lorries, had been bought and were waiting in Quebec, what is stressed in the historiography and

¹⁹² Ibid.

¹⁹³ Ibid., pp. 359-61; Cook, *Shock Troops*, p. 597.

¹⁹⁴ Telegram of 15 February 1916, Colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 5; Hill, 'The Canadian Forestry Corps', Appendix 2, pp. 300-1.

apparent in primary sources is that provision of food and accommodation for the CFC whilst in Britain was undertaken by the War Office, with additional tools and machinery purchased in the UK being paid for by the British Government.¹⁹⁵ Bird and Davies state that during the early stages of establishment ‘Everybody concerned was far too busy getting on with the work to stop to discuss details of payment’.¹⁹⁶ However, debates over who paid for what in terms of forestry equipment and upkeep of units would continue. It was not until January 1917 when the matter was finally officially agreed along the lines indicated above. That is, the Canadians would fund the initial personal and forestry equipment, transport to Europe, pay, pensions and allowances. The British would pay for all other expenses, such as maintenance and replacement of forestry machinery and other work-related costs.¹⁹⁷

In Newfoundland the Newfoundland Patriotic Association similarly agreed to meet the costs of the initial companies until they embarked, the men picked would bring their own tools, and as with the CFC the British were to cover future maintenance costs.¹⁹⁸ Unlike the civilian New England Sawmill Units, however, it was the War Office who would assist with transporting and housing costs, and the Newfoundland Forestry Corps would use the army for rations and ‘a certain proportion of its stores and supplies’.¹⁹⁹ Individuals’ expenses including pay, board, clothing, additional equipment as well as complete sawmills, transport, separation allowance and pension on the Newfoundland pension scale, were to be borne by the British Government. For the first contingent this arrangement would begin from the date of

¹⁹⁵ Bird and Davies, *The Canadian Forestry Corps*, pp. 5, 10; Nicholson, *Canadian Expeditionary Force*, p. 499.

¹⁹⁶ Bird and Davies, *The Canadian Forestry Corps*, p. 10.

¹⁹⁷ *Ibid.*

¹⁹⁸ TNA/BT/71/1/13676, telegram Governor of Newfoundland to the Secretary of State for the Colonies, 18 April 1917; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

¹⁹⁹ TNA/BT/71/1/13676, telegram Colonial Office to Governor of Newfoundland, 2 April 1917, and memo Beeton to Murray (Assistant Director Timber Supplies (TS3)), 5 June 1917.

departure as the Newfoundland Patriotic Association had provided funding up to that point, but for most it was from the date of enlistment. The arrangement would be in place until the date the men were returned to Newfoundland.²⁰⁰

The New England Sawmill Units were the most obvious example of public and business funding of forestry units. Some funds for Massachusetts Committee on Public Safety work came through the ‘generosity of civilians’, US\$100,000 contributed by November 1917, but US\$2,000,000 of public money was appropriated by the Massachusetts State Legislature for ‘emergency war expenses’ and disbursed by the Governor and Council on the recommendations of the committee. From this would come the US\$12,000 that Massachusetts would contribute towards its sawmill unit. However, much of the money that individual States contributed could be reimbursed by Federal Government.²⁰¹

Rane’s initial rough estimate to equip fifteen units had been from US\$100,000 to US\$150,000,²⁰² and estimates to equip ten saw units were US\$80,000 which gives an average of US\$6,665 to \$10,000 per unit.²⁰³ The Committee on Public Safety were initially prepared to pay up to US\$10,000 to get each New England Sawmill Unit ‘to steamer side’ for the British.²⁰⁴ Yet by 21 May each of the six New England States had been asked to subscribe the cost of one saw mill unit, approximately US\$12,000. In the case of Massachusetts this would come from the Emergency Appropriation Fund.²⁰⁵ Additional expenses in raising the units had come to US\$6,000 by 3 August,

²⁰⁰ Ibid., telegram Colonial Office to Governor of Newfoundland, 2 April 1917, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917.

²⁰¹ SLMSC, *Records of the Massachusetts Committee on Public Safety*, ‘Report of Executive Committee’, November 1, 1917 (Boston), pp. 25-26 and meeting of 18 November 1918; Howitson and Cramer, ‘Historical Note’, p. 2.

²⁰² SLMSC, *Records of the Massachusetts Committee on Public Safety*, meetings of 28 February and 16 April 1917.

²⁰³ TNA/BT 71/2/13713, telegram Storrow to Wiley, 17 April 1917.

²⁰⁴ Ibid., telegram Storrow to Wiley, 22 April 1917.

²⁰⁵ SLMSC, *Records of the Massachusetts Committee on Public Safety*, meetings of 21 May 1917 and 6 June 1917.

but subscriptions were now being received.²⁰⁶ By 10 September total subscriptions amounted to US\$129,176. These included US\$12,000 each from Connecticut, Maine, Massachusetts, New Hampshire, Vermont and US\$6,200 from Rhode Island. Seventy-seven firms and individuals had contributed the remaining US\$62,961 in gift amounts ranging from US\$10 to US\$5,000, and US\$14.50 had been received in interest.²⁰⁷

Although a 'few' more bills might have been forthcoming, for which the Treasurer of the Massachusetts Committee on Public Safety agreed to meet up to US\$12,000 from their General Funds if necessary, these subscriptions would be spent on organising, equipping and getting the sawmill units to a suitable port.²⁰⁸ The striking element in comparing high-level agreements with regards to funding the forestry units is therefore the keenness that many involved showed towards paying to raise and send these formations overseas. Unlike with the CFC and Newfoundland Forestry Corps, once in Britain the Timber Supply Department (Board of Trade) would not get financial help from the War Office with their contractual duties of paying, transporting from New England port to site and back, feeding, generally supplying and housing these units.²⁰⁹

²⁰⁶ Ibid., meetings of 3 August 1917, 10 September 1917 and 15 July 1918.

²⁰⁷ SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 10 September 1918; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 158.

²⁰⁸ SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 10 September 1918 and 'Report of Executive Committee', November 1, 1917 (Boston), p. 4.

²⁰⁹ TNA/BT 71/2/13713, telegrams Storrow to Wiley, 17 and 22 April 1917; TNA/BT/13/88 (E36139), copy of standard contract between New England Sawmill Unit men and British Government, 15 June 1917; Lyman, *The Story of the Massachusetts Committee on Public Safety*, pp. 156-163; TNA/BT/71/1/13676, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917; No Author, 'New England lumbermen did twice the work at half the cost', n.p; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 23 April 1917 as reprinted in 'Report of Executive Committee', November 1, 1917 (Boston), pp. 4-5; Hendrick, *The Life and Letters of Walter H. Page, Volume 2*, p. 291.

Staffing the Units

Having seen how they were funded, the chapter now continues to show that the men and women put in charge by the HLOs, or in positions of power within them, were suitable for the tasks required.

A major part of the establishment of the units was clearly the responsibility of senior officers and the continued management of these officers, their subalterns and NCOs. Fortunately, as seen in terms of the membership of leading positions in the HLOs, sense prevailed and both senior officers and those in positions of responsibility below them were taken from appropriate civilian roles. An early telegram from Britain to Canada made it clear that men recruited for forestry units should be experienced in all stages of forestry and milling work, although such requirements in recruitment did not last beyond November 1916.²¹⁰ It has been argued that the Canadian forces overall recruited officers from a less narrow social background than the British.²¹¹ However, it is also argued that all of the units in the CFC were commanded by men who had given up 'big salaries' to join,²¹² suggesting a degree of experience and knowledge, as well as good social standing. The Germans had realised the good sense in employing an expert to manage their massive and vital forestry works in the Eastern forest of Bialowies and engaged the Bavarian Forestry Councillor, Major Escherich.²¹³ Similarly, examples of the professional and personal backgrounds of some of the high-ranking 'makers' of the CFC illustrate that, as well as generally having engineering qualifications, these men had held high level positions in lumber or other engineering or transport companies.

²¹⁰ Telegram of 6 March 1916, Colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 5.

²¹¹ Swettenham, *To Seize the Victory*, p. 241.

²¹² Hill, 'The Canadian Forestry Corps', p. 301.

²¹³ Liulevicius, *War Land on the Eastern Front*, p. 72.

As recorded above, Alexander McDougall was given charge of commanding all Canadian forestry work from its outset in February 1916, being officially recognised as in command from September 1916. He was well-known in the Dominion for having wide experience in powerful positions and renowned for his organisational abilities. Born in Ontario, to a father who was at one time the Auditor-General of Canada, he was educated in Ottawa, Toronto and then Cornell University (Ithaca, NY, USA) in civil engineering. His career before the CFC included working on and managing large scale projects in bridge, electrical, canal and railroad work, as well as general engineering consultancy work for private companies and the Canadian Government. From 1907 onward this included his time as a managing director of the Eastern Construction Company, and several other companies, which he had formed with family members and friends.²¹⁴ He was essentially commander of the CFC from the beginning, gaining promotions, new job titles and numerous honours as the Corps expanded. He was promoted from Colonel to Brigadier-General (Temporary – whilst in this role) on 1 April 1917, being gazetted as Director of Timber Operations on the same date.²¹⁵ He became Director General of Timber Operations in both Britain and France from June 1917. Furthermore, as a sign of appreciation for his efforts, and clearly reflecting the importance attributed to the hard work carried out by the men under his command, he was promoted to Major-General on 20 December 1918, received the decoration of Companion of the Most Honourable Order of the Bath (C.B.) in the King's New Year Honours 1918, and a few months into 1919 the French Légion d'Honneur.²¹⁶

²¹⁴ Bird and Davies, *The Canadian Forestry Corps*, p. 15

²¹⁵ *London Gazette*, 'Dep. Dir. Of Timber Operations', 20 April 1917, p. 3760.

²¹⁶ Bird and Davies, *The Canadian Forestry Corps*, pp. 9, 11, 12, 15, 35; Nicholson, *Canadian Expeditionary Force*, pp. 499-500.

His Deputy/Assistant Director of Timber Operations, Brigadier-General William Bernard Rickart Hepburn, C.M.G, M.P, was also born in Ontario, and his family had run a steamboat company for many years leading him to go into navigation and steamship companies once educated. He had reached company presidency positions by 1911 when he was elected into the Canadian House of Commons as a Conservative Unionist Member for Prince Edward County. He would retain this post, by a large majority, in December 1917 whilst away with the CFC.²¹⁷ He joined the 224th Forestry Battalion as Major in the spring of 1916, and as the Corps grew his responsibilities also grew until he managed, as Deputy-Director, its detailed work in Britain and France.²¹⁸

Col. Gerald Verner White, C.B.E, Director of Timber Operations in Great Britain, was also born in Ontario, a common theme, with a father in politics. He graduated from McGill University, Montreal, with a Bachelor of Applied Science in Mining Engineering in 1901 and was employed by mining and railway companies until entering the lumber business in 1904, where he stayed until 1916, eventually becoming a Director of the Pembroke Lumber Company. He was also elected to the House of Commons in 1906, for the constituency of North Renfrew, Ontario, a post he held until the General Election of 1917 in which he did not stand. He also had some previous military experience, being a Lieutenant then Captain in the 42nd Lanark and Renfrew Regiment between 1904 and 1915, holding a field officer's certificate. He enlisted for overseas service on November 1915, and was appointed Second-in-Command, 130th Battalion CEF, as a Major. However, when the 224th Forestry was formed in February 1916 he was offered Second-in-Command of that battalion, which he accepted and

²¹⁷ Bird and Davies, *The Canadian Forestry Corps*, pp. 15-16.

²¹⁸ *Ibid.*; *London Gazette*, 'Dep. Dir. Of Timber Operations', 20 April 1917, p. 3760, for his promotion to Deputy Director of Timber Operations and acting Lt. Colonel from 1 April 1917.

headed overseas with it in May 1916. When McDougall was promoted to Temporary Colonel in September 1916, White took charge of the 224th and subsequently became Director of Timber Operations for Great Britain, giving him control over all CFC work in the British Isles.²¹⁹

The Director of Timber Operations in France, Brigadier-General John Burton White, D.S.O, was born in the province of Quebec, not far from Gatineau just on the French Canadian side of the Ottawa river. He was educated in public and high schools and then at Ottawa Business College, before going into the lumber business. By 1914 he had been manager of three lumber companies, director of a pulp and paper company, and had been the Director of the Canadian Forestry Association.²²⁰ John White, like Gerald White, also had military experience before joining the CFC, having been a Major in the Duke of York's Royal Canadian Hussars. However, he left Canada as a Major in the 224th Forestry Battalion on 16 April 1916, before returning on the 16 July to raise and command the 242nd Forestry Battalion with the rank of Lieutenant-Colonel. On 14 June 1917 he was appointed Director of Timber Operations (France), giving him control of all CFC operations directly feeding the Western Front.²²¹ He also returned as commander of the CFC efforts in Scotland in the Second World War.²²²

Another important position was that of Chief of Technical Staff, given to Lieutenant-Colonel David Bishop Campbell (MBE), the one 'non-Canadian-born'

²¹⁹ Bird and Davies, *The Canadian Forestry Corps*, pp. 16, 35.

²²⁰ *Ibid.*, p. 16.

²²¹ *Ibid.*, pp. 16-17; See *London Gazette*, 'Dep. Dir. Of Timber Operations', 20 April 1917, p. 3760 for J.B. White's promotion from Lt. Colonel to Colonel (Temporary) from 1 April 1917.

²²² Kim Beattie, 'Canadian Lumberjacks Cut Scottish Pine to Save Shipping in Battle of Atlantic', *Edmonton Journal*, 13 September 1941, as quoted in Robert Briggs and Jude Mitchell, 'Canadian Forestry Corps' <http://www.freepages.genealogy.rootsweb.ancestry.com/~jmitchell/cfc6.html>, n.p. [non-academic article on Second World War CFC work mainly in Scotland that uses some 1940s Canadian newspaper articles as primary sources].

senior officer covered here, as he was from Scotland. He was first educated in Glasgow but then at 'Technical College, Portland, Oregon' from where he was employed in the lumber manufacturing business, residing in Vancouver for fourteen years. In 1908, however, he established a private mill architect and engineering business 'dealing exclusively with Saw Mill and Wood Working plant, and designing new machinery of various types'.²²³ These included labour-saving devices for handling lumber once in the mills, shingle machines and machines to prepare shingle timber; a 'great many of which' were still in use in British Columbia in the post-war years.²²⁴ Bishop enlisted in the 224th in March 1916, heading to England in May, steadily rising through the ranks and becoming Lieutenant-Colonel in December 1917.

Therefore, those officers who would grow to have overall command of the CFC had held very high level positions in engineering or transport companies, as well as often in politics, suggesting that they were well-suited for such overarching roles between the HLOs, high level military commanders, politicians and the forestry companies. Furthermore, the three officers with most direct 'hands-on' responsibility for overseeing the Corps' work and equipment, White, White and Bishop, all had had high level experience in the lumber industry and two of them had some previous militia experience. All of their honours received in the New Year's Honours Lists towards or just after the end of the war, were for their wartime forestry work.²²⁵

Officers of such specialized units within the RE were obtained either by transferring existing officers from other branches, if they had the correct qualifications or experience, or commissioning suitable civilians of less than forty-five years of age with appropriate engineering backgrounds. These recruits would be given temporary

²²³ Bird and Davies, *The Canadian Forestry Corps*, p. 17.

²²⁴ Ibid.

²²⁵ Ibid.

commissions as lieutenants or captains, and sent to France to be trained in the duties of the directorate they would come under, alongside any military training considered necessary.²²⁶ The officer in charge of the first recognised Canadian lumber cutting unit in France was Lt. Harold Hellmuth, a thirty-three year old civil engineer from Toronto who was placed in charge of a detachment of thirty-five ‘skilled’ workers from 101 Remount Squadron in September 1915, cutting their first trees on 3 October 1915 near Rouen.²²⁷ By December 1916 the types of men the Canadian General Officer Commanding Canadian Forces in Britain was looking to transfer from existing Canadian Army units in reserve bases in Britain into the CFC included officers with ‘Actual experience in lumbering operations in its various branches, logging, manufacturing, shipping, grading, etc., also experience in the handling of men in construction work’.²²⁸ Furthermore Major A.B.R. Kenny, CO of 126th Company CFC, had by 1918 nearly 15 years military experience with the Canadian Militia and CEF, including as a recruiting officer in Ontario. However, he had also had seventeen years of experience as a ‘lumberman’ in Eastern Canada, and qualities attributed to him by Sergeant Porter of the YMCA included his ability to lead and handle the men as well as his industrial and military experiences.²²⁹ Such recruitment of suitably experienced officers from the forestry industry would continue in the Second World War CFC.²³⁰

It was a similar picture in the Newfoundland Forestry Corps where due to the recruitment procedures men in the companies were often led by foremen and managers

²²⁶ Addison, *Work of the Royal Engineers*, pp. 51-52, 55.

²²⁷ Broznitsky, *Russians in the CEF*, n.p.

²²⁸ Major-General Sir R. E. W Turner, V.C. General Officer Commanding Canadian Forces in Great Britain, ‘Routine Orders of 8th December 1916’, as quoted in Bird and Davies, *The Canadian Forestry Corps*, (1919), p. 8.

²²⁹ Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.

²³⁰ Briggs and Mitchell, ‘Canadian Forestry Corps’, n.p.

they were used to.²³¹ Major Sullivan led the Corps, and each company was commanded by a captain and two subalterns. If not from Newfoundland industries, then officers came from those Royal Newfoundland Regiment officers no longer fit for frontline service.²³²

NCOs in the CFC and Newfoundland Forestry Corps were often experienced, a sergeant generally being equivalent to a bush foreman, although an experienced foreman could make commissioned officer.²³³ With regards to NCOs and men invited to transfer to the CFC from combat units stationed in Britain in December 1916, those requested were those with any experience as ‘mill hands, logging foremen, sawyers, filers, saw hammers, engineers, firemen, and all other branches of the Lumber Trade, felling, transport, manufacture and shipping of finished timber’.²³⁴ Similarly the Royal Engineers felt that supplies of tradesmen for their specialist units, as forestry workers would have been, were sufficient up until the beginning of 1917 as volunteers with particular skills preferred to enlist in the RE. From then on, however, protection from conscription for many skilled workmen, including some in forestry roles, led to some shortages. However, if of correct age and medically fit they could still be conscripted but their professional trade body could try to get them sent to a relevant RE unit. Furthermore, whilst shortages felt by the RE included blacksmiths, carpenters, and

²³¹ TNA/BT/71/1/13676, telegrams Colonial Office to Governor of Newfoundland, 2 April 1917; Governor of Newfoundland to the Secretary of State for the Colonies, 15 April 1917 and other correspondences; W.E. Davidson, (Governor), ‘To The Men of Newfoundland’, *Evening Standard*, 7 April 1917, as reproduced in Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

²³² TNA/BT/71/1/13676, telegram Colonial Office to Governor of Newfoundland, 2 April 1917.

²³³ *Ibid.*, also various correspondence including memo from Beeton to Murray, 5 June 1917; Special Correspondent, ‘Yeomen of the Axe, Canadian Lumbermen at Windsor, Forestry is Fine Art’, *The Times*, 10 July 1916, p. 5; TNA/BT/71/21, Bird, Appendix 1, pp. 3-4; W.E. Davidson, (Governor), ‘To The Men of Newfoundland’, *Evening Standard* 7 April 1917, as reproduced in Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p; TNA/CAB/23/40/6, Minutes of Imperial War Cabinet Meeting 6, 30 March 1917, p. 4; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 162.

²³⁴ Major-General Sir R. E. W Turner, V.C. General Officer Commanding Canadian Forces in Great Britain, ‘Routine Orders of 8th December 1916’, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 8.

bricklayers, the forestry professions were not mentioned. The RE were happy to move specialists and other tradesmen as required.²³⁵ When the Directorate of Forestry (GHQ) was being established, in March to April 1917, and the Royal Engineer Forestry Companies were expanding from five to eleven companies, it had been recognised in London that appropriate skills were important, so Royal Engineer Forestry Companies were given skilled NCOs as well as other ranks and attachments.²³⁶

Whilst, as seen above, the WFS could not at this time call on many females experienced in forestry or engineering, the voluntary organisations it largely evolved from initially looked to increase the employment of educated women, especially teachers and students. Although they did later widen their scope to include clerks, shop assistants and domestic servants, higher roles remained largely class-based, as was probably the case in the other forestry units where educated men, already high-up in industry, tended to fill senior roles.²³⁷ The Women's Army Auxiliary Corps was organised 'along army lines' and overseen by the War Office, but had 'controllers' or 'administrators' rather than officers, and these were still chosen from the upper classes who largely supervised the welfare of Corps members. Grades were closely linked to social class, the majority of members being working class or lower-middle class and primarily with domestic, clerical or industrial work experience, unlike members of the Voluntary Aid Detachments many of whom came from the middle and upper classes.²³⁸ Similarly the 1942 Women's Timber Corps is said to have attracted from

²³⁵ Addison, *Work of the Royal Engineers*, p. 59.

²³⁶ Pritchard, *History of the Corps of Royal Engineers*, pp. 565-6.

²³⁷ Dewey, *British Agriculture*, p. 54.

²³⁸ Noakes, *Women in the British Army*, pp. 68-9, 72, 77, 78.

all levels of society, from university graduates, ballet dancers and sales assistants to Hebridean fish workers.²³⁹

It is clear, therefore, that where available appropriately experienced skilled men were placed in the forestry effort in leading positions, from commanding officers to NCOs. Where this was not possible in the WFS, a structure adopted by other women's services was utilised, one based on class and therefore tiered according to levels of education.

Structuring the units.

With regards to the units' places within the command or management structures of the empire's efforts, the WFS and New England Sawmill Unit as strictly civilian units were slightly different in that they were not so firmly placed within the military structure. However, it can also be seen that they were essentially often overseen by the same HLOs in terms of high level directions, such as requirements and where put to work, especially, as seen in chapter 2, as the forestry effort became more centralised. Furthermore, although not necessarily all military organisations, some aspects of military-style structures naturally suited the operational set up of forestry units. In this respect some similarities can be seen across all of the units. It is easy to see that at times they were all considered as similar to a specialist arm of the engineering or supply arms of the military, even if raised, contracted, funded and managed as civilian units. It will also be seen that their specialism, and recognition of its urgency at the beginning of 1916, led to a degree of flexibility in structuring individual units, based on experience in their civilian operations and the geographical spaces they were working in.

²³⁹ Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', pp. 106-7.

As described earlier, within the overall military hierarchy forestry began in the pre-war military supply and engineering structures, yet the forestry effort soon grew sufficiently, as with many other specialities, to require separation within the massively expanding British Army. Also as seen in chapter 2, up to the end of 1915 the French Forestry Authorities supplied the RE Directorate of Works with much of their timber needs. However, from then onwards they also began allocating areas from which the RE could arrange cutting and transport themselves, all under control of the RE Directorate of Works whose Forestry Branch had formed in the autumn of 1915.²⁴⁰ However, these units transferred from the RE Directorate of Works to the Directorate of Forestry (GHQ) at the beginning of May 1917, as the CFC units working in France had in March 1917, themselves often simply expanding existing Royal Engineer Forestry Company operations as they arrived.²⁴¹

In France the CFC worked separately, as did those cutting and converting trees ‘in the immediate vicinity of the zone of military operations’, until March 1917 when the Directorate of Forestry took overall control of all forestry matters on the Western Front. Essentially, this simply led to CFC staff liaising with the Directorate of Forestry (GHQ) in terms of requirements, as opposed to HLOs in London.²⁴² In May 1917 it was stated in the House of Commons that the CFC in France were ‘under the Commander-in-chief’ who indicated the ‘location of forestry operations and the sizes and types of timber required’, essentially meaning they were under the control of the Directorate of Forestry (GHQ). Nevertheless, the operations themselves were ‘entirely

²⁴⁰ De Santis, ‘Royal Engineer Labour Battalions’, p. 185; Pritchard, *History of the Corps of Royal Engineers*, pp. 165-6, 559; Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34; TNA/BT/71/21, Bird, pp. 3, 30, 39; Hodicq, *Exploitation of Timber by the British Army in Northern France*, n.p; Maclean, *Farming and Forestry on the Western Front*, p. 97.

²⁴¹ *Ibid.*, p. 96; Pritchard, *History of the Corps of Royal Engineers*, pp. 38-42, 165-6, 559; Bird and Davies, *The Canadian Forestry Corps*, pp. 10, 34, 44; TNA/BT/71/21, Bird, p. 39; Addison, *Work of the Royal Engineers*, pp. 61-71, especially 62, 64-5, 68-69.

²⁴² Hansard, House of Commons Sitting 10 October 1916, col. 7

conducted' by the CFC under the direction of their own 'Canadian Forestry Staff'.²⁴³ However, it can also be seen that the REs were ultimately responsible for the Directorate of Forestry (GHQ). They were therefore ultimately responsible for the Forestry Control Unit for each Army area as well as the Forestry Group and individual forestry units on the lines of communications.²⁴⁴ So command of operations in France remained under a specialist new body, but within the Royal Engineers' structure.

The Newfoundland Forestry Corps, WFS and New England Sawmill Units, working as they did only in Britain, came under the direction of the Directorate of Timber Supplies (War Office) then Timber Supply Department (Board of Trade), although as with other forestry units the companies worked directly under the control of their own officers, NCOs or Controllers.²⁴⁵ With regards to the Newfoundland Forestry Corps, Beeton, who had been instrumental in their establishment, was attached to the governing HLOs to represent their interests in arrangements made with the Newfoundland Government, and was allowed direct communication with Newfoundland's governor.²⁴⁶ He would subsequently become the liaison between the British authorities and the Newfoundland foresters, being referred to as the 'Officer in Charge of the Newfoundland Forestry Corps'. He addressed questions directly with the British and Newfoundland authorities, such as those relating to record-keeping or pay, but refused any remuneration for himself. He was not given a rank, as those

²⁴³ *Ibid.*, 8 May 1917, as stated by Mr. Forster (Cons).

²⁴⁴ Addison *Work of the Royal Engineers*, pp. 61-71, especially 62, 64-5, 68-69; Pritchard, *History of the Corps of Royal Engineers*, pp. 38-42.

²⁴⁵ TNA/BT/71/1/13676, various correspondence including telegrams Colonial Office to Governor of Newfoundland, 2 April 1917 and the Governor of Newfoundland to the Secretary of State for the Colonies, 15 April 1917; W.E. Davidson, (Governor), 'To The Men of Newfoundland', *Evening Standard* 7 April 1917, as reproduced in Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p.

²⁴⁶ TNA/CAB/23/2, Minutes of a Meeting of the War Cabinet (no.85), 2 March 1917, point 12; TNA/BT/71/1/13676, memo Directorate of Timber Supplies (War Office) to Adjutant-General 25 May 1917, letter Controller Timber Supplies (Board of Trade) to Adjutant-General, 1 June 1917.

actually in the Corps were, but by November 1918 his title was Chief Administrative Officer for the forestry corps.²⁴⁷ Beeton based himself near the HLOs in London.

The New England Sawmill Units also maintained close liaison with the Board of Trade where they were based, around Ardgay in Ross-shire (now Sutherland).²⁴⁸ Seven of the mills worked in timber on the extensive Balnagown estate of Sir Charles Ross, inventor of the infamous Ross rifle, and three mills on Andrew Carnegie's nearby Skibo estate.²⁴⁹ However, there were also Board of Trade employees stationed in Ardgay to liaise with the units, and as winter 1917/18 approached the Board of Trade office and New England Sawmill Unit hospital and veterinary services moved into the 'roomy' Ardgay House. However, at times these American teams might also have worked at sites at least as far west as Strathcarron, some sixty miles due west of Inverness, and in early 1918 they transferred to a camp at the 800 acre Drummond Hill forest, 25 miles east of Dunkeld, where they worked until January 1919 when

²⁴⁷ Ibid., memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917 and future correspondence.

²⁴⁸ TNA/BT 71/2/13713, letter Director of Military Sea Transport to Controller Timber Supplies (Board of Trade), 16 June 1917, memo Directorate of Timber Supplies (War Office) to Assistant Director Timber Supplies (TS3), 26 May 1917; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 159; SLMSC, *Records of the Massachusetts Committee on Public Safety*, meeting of 5 June 1917 and letter from Cecil Spring Rice (British Ambassador in Washington) to James J Phelan (Massachusetts Committee on Public Safety Saw Mill Units) attached to notes of meeting of 27 July 1917; No Author, 'The New England Sawmill Units in Scotland' in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.

²⁴⁹ Ibid.; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p.160.

operations began closing.²⁵⁰ Initially they produced timber for France, but later all of their output was taken by war industries in Britain.²⁵¹

Therefore the position of forestry units within the command structure appears to have been straightforward. This is even true for the CFC whose fellow Canadians in the CEF, especially in Britain, would have often found themselves confused about their command structure. There were numerous commanders competing against each other for influence and control whilst often having unclear and overlapping responsibilities. Cook calls this a ‘Byzantine administrative structure’ largely with Hughes at the centre of the chaos until his resignation in November 1916, following which there was gradual clarification under the Minister for Overseas Military Forces Canada and his ministry.²⁵² Although it took some time to correct all the confusion as it would for any organisation ‘established in the panic of war and only a few months old’, further centralisation of Canadian HLOs to administer all Canadian Forces overseas did occur.²⁵³ The CFC were certainly not considered part of the Canadian Corps of fighting men as engineer, signalling, Canadian Army Service Corps, and field

²⁵⁰ TNA/BT/71/4/77699, see correspondence between Duke of Atholl, Beeton of the Newfoundland Forestry Corps, Controller Timber Supplies and Assistant Controller of Timber Supplies (Scotland) between December 1918 and January 1919; TNA/BT/71/1/13676, memo Beeton to Murray, 5 June 1917, ‘Report of logging operations at Craigvinean’, Lieut. Cole, Dunkeld, 11 August 1917; Nicholson, *Canadian Expeditionary Force*, p. 507; Higgins (revised), *Newfoundland and Labrador in the First World War*, n.p. TNA, ‘Keepers Gallery; Newfoundland’, n.p.; [Note – it is hard to tell if sources mean near the town of Strathcarron, or in the Strath (broad mountain valley) of the River Carron. This river runs from the Kyle of Sutherland 1 mile north of Ardgay westwards, eventually ending at the town of Strathcarron (sixty miles by current roads) due west from Inverness, where the river joins Loch Carron]; No Author, ‘New England lumbermen did twice the work at half the cost’, n.p.

²⁵¹ No Author, ‘The New England Sawmill Units in Scotland’ in Simmons and Davies, (eds.), *Twentieth Engineers, France*, n.p.

²⁵² Wallach, *Uneasy Coalition*, p. 128; Cook, *At the Sharp End*, pp. 4, 36; Cook, *Shock Troops*, pp. 17-18, 36, 40-54; Nicholson, *Canadian Expeditionary Force*, pp. 201-212, 224-228 (quotes on p.205); Swettenham, *To Seize the Victory*, passim, for instance, pp. 41-7, 49, 51, 56, 57, 124-144, 147, p.253, fn 40, quotes p.124,130; Perley Papers, vol.7, p.198, Perley to Borden 27 Nov 1916, as quoted in Swettenham, *To Seize the Victory*, pp. 142, 254 fn 92.

²⁵³ Cook, *Shock Troops*, p. 46; Nicholson, *Canadian Expeditionary Force*, pp. 210, 354-55; Swettenham, *To Seize the Victory*, pp. 136-138, 142-4.

ambulance units were by November 1918.²⁵⁴ However, forestry units and their hospitals were often recognised as part of the miscellaneous ‘Canadian Units’ or Canadian forces ‘Outside the Corps’, in France or Britain by 1918, that made up this CEF.²⁵⁵

However, as stated above, this early confusion, followed by gradually increased centralisation, clarity and Dominion-based control and leadership did not affect the efforts to command and control Canada’s forestry units. Their establishment due to British requests, coupled with the nature of their work behind the lines, in locations where the sites being worked decided on the unit structure, made overall command easier to apportion and unit structures smaller and more fluid and based on the working structure which the experienced lumbermen in the units were used to. For a short time the Canadian units were initially administered by branch F.W.5 of the Fortifications and Works Directorate at the War Office, yet the Home Grown Timber Committee, Directorate of Timber Supplies (War Office) and finally Timber Supply Department (Board of Trade) naturally took on the organisation and allocation of their work, as each HLO became responsible for the effort. As such much of the above confusion experienced by other CEF formations was avoided.²⁵⁶ Indeed the initial Canadian forestry HQ was established for a short time at the offices of the Home Grown Timber Committee, from whom they ‘received great assistance’ early in their work.²⁵⁷

In non-forestry matters the CFC received their orders from the General Officer Commanding Canadian Forces. For matters of discipline, from May 1917, CFC units came under the General Officer Commanding in the military district in which they

²⁵⁴ Nicholson, *Canadian Expeditionary Force*, pp. 499, 545.

²⁵⁵ *Ibid.*, pp. 499-500, 544.

²⁵⁶ Pritchard, *History of the Corps of Royal Engineers*, pp. 77-78; Hansard, House of Commons Sitting 10 October 1916, col. 7.

²⁵⁷ Bird and Davies, *The Canadian Forestry Corps*, pp. 7, 10; Hansard, House of Commons Written Answers 24 October 1917, col. 861.

were employed.²⁵⁸ Where they worked and what type of timber they were to produce was determined by the current managing HLO, often in conjunction with CFC officers. However, it was always the intention that in regards to forestry matters the Canadian forestry units would work under the direct command of one expert Canadian officer, and this came to be McDougall throughout the war.²⁵⁹

Allocation of work to forestry units, as well as contractors, could be confused in the earlier stages of the war, but once centralisation under the War Office or Board of Trade had occurred the route for timber requests seem much clearer. For instance in terms of an order best carried out by the CFC, the current managing body (War Office then Board of Trade) asked Corps HQ in London for a certain amount and type of wood in certain sizes. Depending on where McDougall's staff considered the request could best be fulfilled, this filtered through the structure outlined above (and see structure graph below). For instance, Base Depot in England or HQ in Paris-Plage, passed orders or part orders to a Group or District HQ, who in turn passed them down to the most appropriate companies, who cut, milled and shipped as best they could.²⁶⁰

With regards to finding the most efficient structure for forestry units, in the vast majority of cases smaller appeared better, although this would depend on the size and geography of the land being utilised. Although in terms of the CFC, overall control and management was maintained through a strict hierarchical structure that developed under the HLOs. The structure below McDougall as CO and his staff included national HQs, base depots, districts in the UK and groups then districts in France. However, the Canadians quickly realised that the original battalion structure should be changed

²⁵⁸ Hansard, House of Commons Sitting 8 May 1917, Mr Forster (Cons).

²⁵⁹ Ibid., 10 October 1916, col.7.

²⁶⁰ LAC.RG9-III-D-3.Vol/box:5018.File:765. War diaries - No. 54 District, Canadian Forestry Corps 1917/04/10-1919/05/23, 125 Company January to February 1918; Bird and Davies, *The Canadian Forestry Corps*, pp. 21-22.

to smaller units. These were essentially companies that could be sent from Canada as recruited in smaller numbers and locally managed under company or detachment strengths in the forests depending on how the specific location could best be utilised. Similarly the establishments of each of the even smaller ‘units’ from New England depended on the local conditions.²⁶¹

However, to understand a successful structure and how this came about in discussions amongst the HLOs and the main forestry force, the CFC provide the majority of examples. Colonel McDougall’s June 1916 report on the possibilities in France, based on his four-day trip to the timber-cutting operations already being carried out by Royal Engineer Forestry Companies directly for specific armies, not only recommended the high level organisation and agreements discussed in the previous chapters, but also smaller units. The battalions then being raised in Canada, McDougall believed, should be sent to France in units of 150 to 200 men composed of the necessary numbers of each type of skilled personnel and fully equipped. Essentially a complete forestry operation in one company providing flexibility in terms of administration, and was also more practical, given the often isolated work created by locating and using suitable forests, meaning a degree of ‘decentralisation’ was efficient. Following the 29 September 1916 British mission to France to discuss the use of Canadian forestry units, McDougall further recommended to the Canadian Adjutant-General that, as a Directorate of Forestry was being formed at GHQ, it would be sensible to form an all-encompassing body that any forestry units arriving from Canada could be easily absorbed into, and that this should be designated the Canadian Forestry Corps (CFC). This was put into effect by Hughes, officially embodied, and

²⁶¹ Lyman, *The Story of the Massachusetts Committee on Public Safety*, p.160; No Author, ‘New England lumbermen did twice the work at half the cost’, n.p; BT 71/2/13713, telegram Storrow to Wiley, 17 April 1917.

initial actions taken during November 1916. The existing battalions were officially broken up into companies, which together formed the corps, and this structure continued in both the UK and France until the CFC was disbanded.²⁶² Men could now be sent to England in small units where McDougall would build up a reserve and form into skilled companies to be sent where needed. Between May and September 1917 the belief was that this would amount to two companies a week, which would all be sent to France to bring the number up to the desired total of fifty-six companies.²⁶³

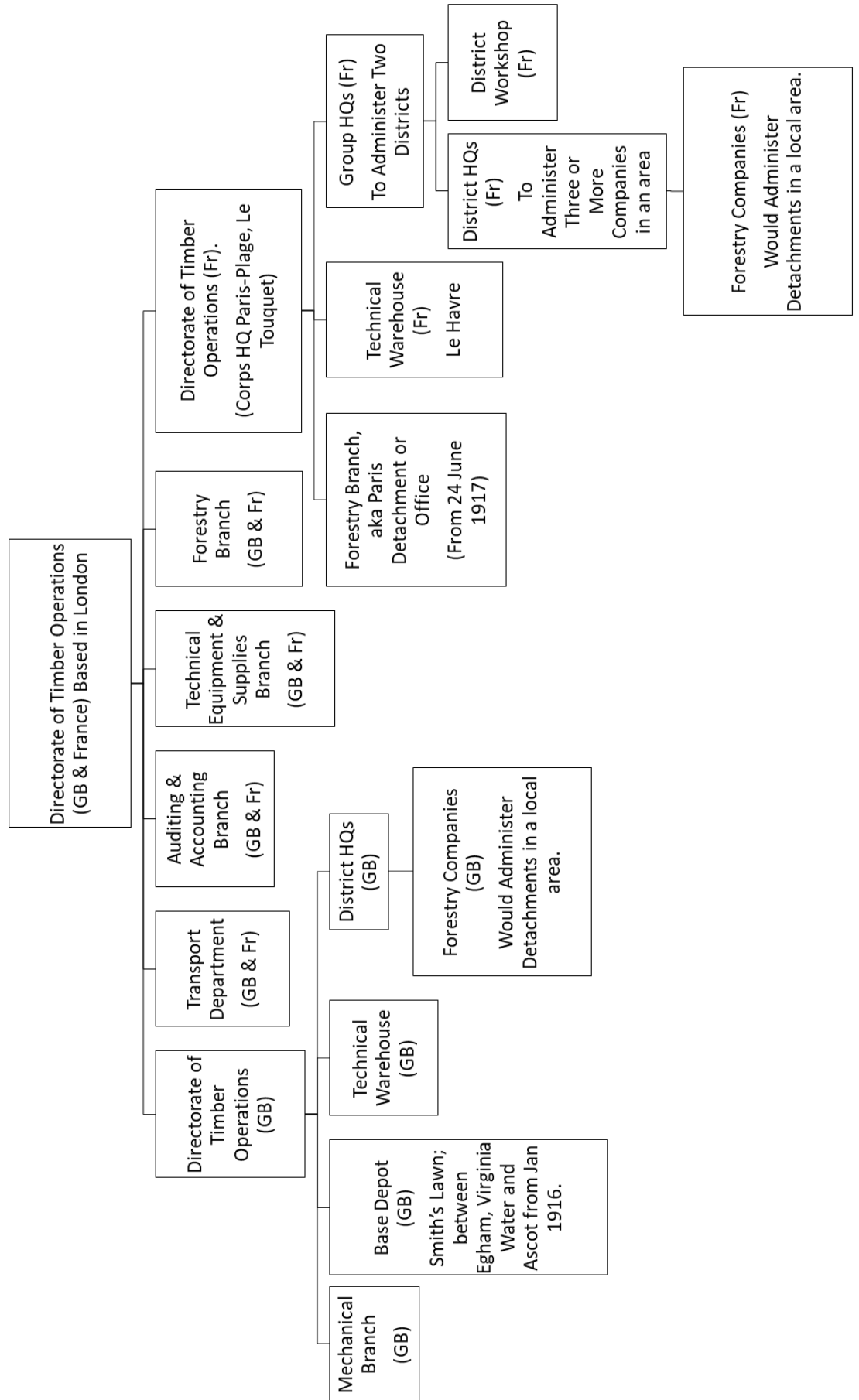
An overall structure for the CFC, mainly in Britain, was agreed by the War Office in January 1917, based on experiences of the previous months of forestry work. Between late 1916 and mid-1917 a structure was also agreed for French operations, all of which was superseded, or ratified, by an order in December 1917.²⁶⁴ This would represent the structure of the Canadian elements of the forestry effort to the end of the war. It allowed for the Directorate of Timber Operations for Britain and France under McDougall, plus an Audit and Accounting Department, a Forestry Branch, Technical Equipment and Supplies Branch, Transport Department and a Base Depot in Britain. There were then Technical Warehouses, District HQs, and companies in Britain and France, with an additional Mechanical Branch in Britain and Forestry Branch, District Workshops, and Group HQs in France. The following structural chart will clarify:²⁶⁵

²⁶² Nicholson, *Canadian Expeditionary Force*, p. 499; Bird and Davies, *The Canadian Forestry Corps*, pp. 9, 10, 18, 34.

²⁶³ TNA/CAB/21/80, 'Report, Lovat to Curzon', 15 May 1917, p. 2.

²⁶⁴ Bird and Davies, *The Canadian Forestry Corps*, pp. 9, 36, 38.

²⁶⁵ *Ibid.*, and numerous organisation Charts/Diagrams seen at TNA and LAC.



McDougall commanded the Canadian foresters in both Britain and France mainly from the CFC offices in London but also from their HQ at Paris-Plage, Le Touquet. However, a Paris Office, also known at times as the Paris Detachment or the Forestry Branch, was established on 24 June 1917. Initially this office was established for administrative work such as compiling statistics and translating contracts. However, given its central location its usefulness was quickly recognised and its duties expanded. It became a connecting hub between CFC HQ at Paris-Plage and the Group HQs that controlled the CFC companies all over France. Meetings between McDougall and his Group or District Commanders, or conferences between interested parties, took place here. From August 1917 the ordering of small parts of machinery and equipment, generally urgently needed to complete or repair an installation, which had been carried out by the Directorate of Forestry (GHQ) was also taken on by the office, reducing the number of links in the supply chain.²⁶⁶

As operations expanded in Britain, and then France, it was necessary to establish District and eventually in France also Group structures to aid the administrative work. There were, in both countries, attempts to keep CFC men in a particular 'district', the main reason seemingly being ease of establishment administration, but also reducing transport of troops and allowing men to get to know the area they were working in and the local authorities. There was a lot of administrative effort put in to keeping track of where CFC men were as individuals. There were fairly frequent nominal rolls created at different unit levels and sent upwards in the chain-of-command, but there was also a great deal of correspondence created if queries arose regarding an individual's whereabouts or status. Details were often requested about an individual or small

²⁶⁶ Bird and Davies, *The Canadian Forestry Corps*, pp. 38-9.
Page 326 of 386

group of foresters in regard to transfers between units, physical location if in a small detachment, hospital stays, travel arrangements including if they had returned to Canada, and temporary or permanent changes in rank or the job specification they were most recently fulfilling for their unit.²⁶⁷

Eventually there were six districts established in Britain, and a brief chronological review shows the geographical areas that were considered most important to the forestry effort, as well as how their operations naturally spread-out as more timber was required.²⁶⁸ On 15 May 1916, No.51 District was established with its HQ at Edinburgh, its HQ later moving to Nairn and then Inverness. By the end of the war it was in charge of operations from just below Inverness northwards. On 6 November 1916, No.52 District HQ was established at Carlisle in Cumberland and would cover southern Scotland down to the English Midlands. On the same date, No.53 District was set-up and based in London to oversee London, the East Midlands, Suffolk and Norfolk and the southeast of England. In November 1917 its HQ moved to Egham, Surrey. The next district established was No.54 District with an HQ in Southampton in August 1917. It covered the West Midlands, Wales, South West England and Southern England, including the Isle of Wight. In November 1917 the amount of work being carried out in Scotland led to No.55 District being established, with an HQ in Stirling. This split Scotland in two, and whilst No.51 took Inverness areas and northwards, No.55 took on operations in central and some of southern Scotland, not covered by No.52. The final 'District' was established on 16 August 1918, as No.56, yet rather than a geographical area this HQ, at East Sheen in Surrey, was tasked with managing those companies now solely constructing airfields.

²⁶⁷ Ibid., pp. 22-23; LAC RG9 III-B-1, Vol. 2593 different Nominal Roll information files on a selection of units.

²⁶⁸ Bird and Davies, *The Canadian Forestry Corps*, p. 23.

The British district HQs typically consisted of between three and six officers, twenty-nine other ranks, and five Canadian Army Service Corps other ranks to manage the operations in their designated areas. Each was ideally commanded by a Colonel with a Major as second-in-command, captains or honorary captains as Adjutant, Quartermaster, Transport Officer and a Lieutenant serving as a Messing Officer.

Growth of CFC operations was quick in France, with new district and Group HQs being established in suitable areas as companies arrived or were taken under the CFC's control. By the end of May 1917 there were twenty-two companies in France, operating under either the Central Group HQ (Districts 1 & 2) at Conches-en-Ouche in the Eure department of central Normandy or District Six which had been formed at Gerardmer, in the Vosges. In June and July sixteen more companies arrived and two new district HQs were established at Alençon (No.1 District) and Orleans (No.4 District). In August eight more companies arrived and District No.9 HQ was established at Albert to administer the companies working solely for the British Armies in the 'Armies Group'. District No.5 HQ was formed at La Joux in the Jura, and District No.12 at Fature in the Gironde. In September three further companies arrived, and No.2 District HQ was established at Conches.²⁶⁹

October 1917 was a month that saw an additional increase in numbers of lumbermen working in France as well as some further centralisation of control of the efforts in French forests under the CFC. Six more companies were sent from England to France and two Canadian units that had been working there since June 1916, as Nos. 1 and 2 'Forest Parties' under GHQ, were taken over by the CFC and renamed Nos. 1 and 2 Forestry Companies. Furthermore, a unit that had been known as the Noyon Detachment was re-organised and reclassified as the Eclaron Detachment and

²⁶⁹ Bird and Davies, *The Canadian Forestry Corps*, p. 36.

tasked with working directly for the French Armies. The Eclaron Detachment then became No.10 District, as part of the Armies Group, in February 1918, before the Marne Group was established in early June 1918, with its HQ in the Paris offices, to administer No.10 District and the newer No.11 District. No.11 District, like District No.56 in Britain, consisted of roving companies constructing aerodromes for the RAF.²⁷⁰ In November 1917 the Jura Group was formed to control Districts 5 and 6. In February 1918 the Bordeaux Group, with their HQ in the city, was formed to administer No.12 District, whose operations had been growing in the Maritime Pine forests of the Gironde and Landes regions in southwest France. District No.12 HQ were relocated from Bordeaux to Factice, where it had already established Quartermaster Stores, Motor Transport Park and Technical Warehouse.²⁷¹

This brief chronological run through of the establishment and structural changes in CFC administrative operations illustrates the rapidity with which companies were rushed to where they were needed but also how their managing structures were altered so as to most efficiently handle rapidly expanding operations.

At the bottom of this administrative structure, however, came the companies at work in the forests and woodlands. The initial suggestion by the British Government in early 1916 was that a Canadian Forestry Battalion would consist of 700 fellers, 450 sawyers and assistant sawyers, 250 carters and hauliers, and 100 enginemen.²⁷² This gave a total of 1,500 men, compared to 1,000 to 1,200 in a Canadian infantry battalion at that time. As noted earlier, Canadian forestry units were officially structured in this battalion system until the end of November 1916, yet it was soon after initial arrivals

²⁷⁰ Ibid., pp. 36-7, 44-45.

²⁷¹ Ibid., pp. 37, 40-46, see these pages for more precise details of dates/places of establishment and moves of Group and District HQs, and some individual companies.

²⁷² Telegram of 6 March 1916, colonial Secretary to Governor-General of Canada, as quoted in Bird and Davies, *The Canadian Forestry Corps*, p. 5.

began landing in England that a system of allocating them as independent companies was put in place. This shows a degree of decentralisation in terms of units on the ground allowed by those managing them, as would have happened in the forests of Canada for efficient production.

Forestry Companies and detachments would generally be smaller than those in the fighting arms, but were still able to be self-sufficient in their roles when working in conjunction with larger units, in company, district or group areas. Each company could run one or more operations close together in a specific area by splitting into detachments.²⁷³ It must again be stressed that, due to the differing nature of each operation, exact numbers in a company could vary due to timings and the specific location being worked. An advance party, arriving before the main body of the unit, could be as small as four Officers and thirty-two other ranks. However, this would quickly increase in the following weeks.²⁷⁴ A company's strength would then rise and fall slightly as officers or other ranks joined or were struck off from the unit's establishment, like any other military unit. Records of such comings and goings were the main content of many CFC company war diaries. For example 125 CFC Company, who worked at Woburn Sands, Bucks, had an advance party of four officers and thirty-two other ranks who arrived in the area on 18 August 1917 and began felling three days later. By the end of August its strength had increased to one hundred and twelve other ranks.²⁷⁵ During September the strength was increased by one officer and eighty other ranks, but the following month one officer was struck off and eleven other ranks added. On the 1 November the strength was therefore six officers and 181 other ranks,

²⁷³ Bird and Davies, *The Canadian Forestry Corps*, pp. 9, 18.

²⁷⁴ LAC.RG9-III-D-3.Vol/box:5018.File:765. War diaries - No. 54 District, Canadian Forestry Corps 1917/04/10-1919/05/23, 125 Company August 1917; Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.

²⁷⁵ LAC.RG9-III-D-3.Vol/box:5018.File:765. War diaries - No. 54 District, Canadian Forestry Corps 1917/04/10-1919/05/23, 125 Company, August 1917.

alongside 105 German POWs. During December, 20 other ranks and a three-ton lorry were added and two horses struck off.²⁷⁶ On the 1 January 1918 the company contained seven officers and 202 other ranks, although losing four officers, three struck off, one joining the 12th Canadian Reserves, and one replacement coming in by the end of February, leaving four officers and 181 other ranks.²⁷⁷ On 9 May 1918, in reaction to the German spring offensives, nine of the company's other ranks transferred to the infantry, and on the 15th four 'Poles' were 'segregated' possibly due to fears over Bolshevism or because they were joining Haller's Polish volunteers, but just over a week later the 125 CFC Company received eighteen replacements, and so the comings and goings continued in this and other forestry units.²⁷⁸

However CFC Companies in Britain generally hovered around 165 to 180 men, plus six officers under a major. The second in command was often a captain and each of the other officers being in charge of a particular element of the operation, such as the mill, transport or attached labour.²⁷⁹ Yet other operations could have up to just over 200 men, or in the early days of the war even around 300 men, although these were gradually reduced to below 200 other ranks.²⁸⁰ Nonetheless, some companies could consist of as few as 100 men, of whom just approximately twenty would be 'skilled woodsmen' centrally based on an estate and running detachments at various sites.²⁸¹

In France numbers in a company were commonly slightly larger, reflecting the easier working environment of the larger, scientifically managed, French forests.

²⁷⁶ Ibid., September to December 31 1917.

²⁷⁷ Ibid., January to February 1918.

²⁷⁸ Ibid., May and June 1918; No Author, 'Polish in Allied Forces of World War One (1914-1918)', <<https://www.geni.com/projects/Polish-in-Allied-Forces-of-World-War-One-1914-1918/48521>>, n.p. [accessed 10 February 2019]; Norman Davies, 'The Poles in Great Britain 1914-1919', *The Slavonic and East European Review*, Vol. 50, No. 118 (Jan., 1972), pp. 63-64, 67-68, 80.

²⁷⁹ Nicholson, *Canadian Expeditionary Force*, p. 499; Bird and Davies, *The Canadian Forestry Corps*, pp.21-23; Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.

²⁸⁰ Bird and Davies, *The Canadian Forestry Corps*, p. 20.

²⁸¹ Gunner, *Canadian Lumber Camp Eartham and Slindon*, p. 2.

Taking an average of companies in the Bordeaux Group, depending on whether fourteen or sixteen were companies in the Group at a particular time, shows that a CFC company existed of between five to seven officers and 178 to 203 other ranks.²⁸² Companies could also be loose structures, and examples exist of companies coming together to run different parts of the same operations, for instance logging a particular area but transporting to a different company's sawmill. Some companies spent all of their time in France logging, whilst others solely worked on sawing, if that was what the area required to achieve maximum output although the majority appear to have carried out both.²⁸³

NCOs would also play important roles at the operations, with sergeants or staff-sergeants often in charge of extremely important facets such as log-scaling, mechanical or horse transport, the engine room or shipping that were needed to keep mills supplied and lumber-yards clear.²⁸⁴ Sometimes NCOs also commanded detachments, when companies were split due to the nature of their current operations. This was regular practice in both Britain and France in logging and aerodrome work, some even establishing their own well-furnished camps.²⁸⁵

It is also noteworthy that the much smaller self-contained sawmill units from New England were often seen as particularly useful in terms of flexibility in the areas they worked, a typical size would be between twenty-nine and thirty-four men. Typically there would be four or five of each of head choppers, second choppers, swampers and teamsters. At the mill would be a foreman, clerk, millwright, sawyer, unloader and

²⁸² Bird and Davies, *The Canadian Forestry Corps*, pp. 40, 44-5.

²⁸³ *Ibid.*, pp.41, 42.

²⁸⁴ Porter, *A Review of Activities with the 126th Company Canadian Forestry Corps*, n.p.

²⁸⁵ *Ibid.*; Bird and Davies, *The Canadian Forestry Corps*, pp. 23, 41, 42, 44.

scaler, roll-on man, take-away man, checker, fireman, slab-and-fuel man, teamster and lumber sticker. With cook, cook's assistant and blacksmith in addition.²⁸⁶

So, although as shown above, structures and establishments within military or support formations at different levels altered as the war progressed and changed in nature, the numbers involved in a particular forestry operation under a particular company would rise and fall depending on the type of work available at the site being operated on, as well as numbers of spare men available from other relatively nearby companies as their operations grew, peaked, decreased and then tidied up and moved on.

As stated above two slightly different structures operated in terms of CFC work in the Army Areas and in terms of aerodrome work. Companies working in the 'Army' or 'War' areas were generally more mobile and spilt into even smaller detachments than those further behind the lines. Such units would work at supplying wood from wherever they could, from recaptured destroyed forests and roadside trees, and salvaging timber from old battlefields now deserted, for instance after the German retreat to the Hindenburg Line.²⁸⁷ In May 1917 it was decided that the six companies then working spread out in Army areas should have a district HQ to administer them. An HQ with technical warehouse and stores were therefore established at Albert, on the Somme. The units carrying out such works were added to either by CFC Companies, such as Nos.1 and 2 mentioned above taken over by the CFC from other forestry work, or in October 1917 by detachments classified as 'Fuel Groups' which were operated mainly using Indian labour but overseen by CFC Officers and NCOs.²⁸⁸

²⁸⁶ Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 160; No Author, 'New England lumbermen did twice the work at half the cost', n.p; BT/71/2/13713, telegram Storrow to Wiley, 17 April 1917.

²⁸⁷ Bird and Davies, *The Canadian Forestry Corps*, pp. 42-44.

²⁸⁸ *Ibid.*, p. 42, 44.

The Noyon Detachment (a group of companies, as mentioned above), transferred between July and September 1917 to the French Army Areas. Some officers, NCOs and even men ending up decorated with the Croix de Guerre, and the unit was highly recommended by General Humbert whilst he was in command of the French 3rd Army.²⁸⁹

Aerodrome work began for the CFC as Major-Gen Trenchard of the RAF urgently requested it through the Air Ministry. Two CFC companies constructed and prepared aerodromes for the RAF at nine sites in France, others being added later. The first two companies were organised in England and arrived in France in early June 1918 and got to work as quickly as possible. To administer the work it was decided to organise a special District and No.11 was formed to control the companies put on airfield construction work in July.²⁹⁰

Some example results.

There were some important effects resulting from the establishment of these units both in terms of the forestry effort and social perceptions of forest uses, which will be detailed more in later works. For instance it would not be until the end of November 1917 that the first of the USA's eventual 18,000 forestry engineers sawed their first boards for the AEF in Europe, showing the usefulness of the actions of the Massachusetts Committee on Public Safety.²⁹¹ Furthermore when the contracts belonging to the men from New England expired on 15 June 1918 some returned to the USA, some enlisted in other branches of the US forces, but 87 enlisted in Scotland or London for the huge US 20th 'Forestry' Engineers, and the mills and equipment and

²⁸⁹ Ibid., p. 45.

²⁹⁰ Ibid, pp. 37, 45.

²⁹¹ No Author, 'The New England Sawmill Units in Scotland' in Simmons and Davies, (eds.), *Twentieth Engineers*, France, n.p.

horses that the New England Sawmill Units had supplied were left in Scotland for use by civilians working for the Board of Trade.²⁹² In terms of women in post-war forestry roles the establishment and use of the WFS illustrated that forestry was another area within which they could make a significant contribution, even if the profession, like many others, maintained most roles and positions as male only. Women coming into a greater number of forestry roles would happen much quicker in the next world war, although they were still considered more suited to lighter aspects of the job and it was once again the threat of submarine blockade that saw them more wholly accepted from March 1942.²⁹³

A final conclusion is that the efforts to organise and equip the CFC in such quick time, followed by their contribution to the war effort once in Europe, should take their rightful place alongside the work of other units of the CEF. As Tim Cook argues, 1914-1918 appears as 'Canada's war of independence' due to its sacrifices and achievements and in 1931 Canada was granted greater autonomy, within the British Commonwealth.²⁹⁴ The CFC should be seen as contributing towards the feelings of pride and increased nationhood, as well as the greater autonomy on the world stage, which Canada took from the war.²⁹⁵

²⁹² Ibid.; No Author, 'James J. Phelan, Lay Trustee', p. 263; TNA/BT/71/21, Bird, Appendix 1, p. 4; Lyman, *The Story of the Massachusetts Committee on Public Safety*, p. 161.

²⁹³ Vickers, 'The Forgotten Army of the Woods: The Women's Timber Corps during the Second World War', pp. 101-2, 104-6, 108, 109-112; also using R. Meiggs, *Home Timber Production, 1939-45* (1949), pp. 194, 307; Petty, 'They Came, they Sawed, they Played Conkers', pp. 41-2, 45; The Forestry Commission, *History of the Forestry Commission*, <<http://www.forestry.gov.uk/forestry/cmon-4uum6r>> [accessed 12/06/13].

²⁹⁴ Cook, *Shock Troops*, pp. 627-30, 640.

²⁹⁵ Swettenham, *To Seize the Victory*, pp. 189, 239; Cook, *At the Sharp End*, pp. 3, 530; Cook, *Shock Troops*, pp. 54, 141, 148, 626-7.

Conclusions

The main points that can be taken from this chapter in terms of the establishment and then management of the forestry effort continue to back other main themes running throughout the thesis. No single review comparing the reasons behind and actions taken to secure the establishment of all of the forestry units exists in the historiography, but this chapter has rectified that. Furthermore it has shown that in terms of numbers employed the CFC were indeed the major unit, but that each of the other forestry units made important contributions to the effort in the numbers employed, the amounts produced and with positive effects on the wider aspects of national and gender history. As with much in terms of the high level war effort, there was no single body who originated all of the possible solutions in terms of where the actual fellers and saw millers would come from. Instead the suggestions came from governments, national and local, on both sides of the Atlantic and the military and volunteer organisations, each being conceived or growing at different times depending on the context of the war. The measures put in place to enact the solutions were also through a variety of bodies. However, all had to take into account manpower concerns, seasonal issues, funding arrangements, relevant people to lead the units, overall position in command structures, and best unit structures.

In these aspects it has been shown that sensible and fast methods were used to establish and grow the units and funding did not prove too much of an obstacle to this. The majority of the originators were happy to raise, equip and some even maintain their forestry units, and British government departments were happy to cover any costs not taken on by the instigators, such as the transport, wages and accommodation of the New England Sawmill Units. Forestry units were also led in their recruitment stages and then officered at all levels by appropriately skilled and experienced personnel, as

was seen in terms of the HLOs above them. These units, unlike some others such as the rest of the CEF in Britain, fitted easily into their command structure, as once the majority had been formed centralisation under HLOs, such as the War Office and Board of Trade, took place. Finally, in a reflection of peacetime forestry operations the units on the ground were allowed to adapt, in terms of unit size and structure, to best suit the environment they were in and the work that needed doing.

Overall this chapter has shown that in respect of the forestry units themselves, the raising and management of these specialist bodies was undertaken with a great deal of logical thought and administrative effort, as was seen in previous chapters concerning the establishment of the HLOs and their methods to secure wood supplies.

Conclusion

The British Empire's efforts to supply wood and timber to industries in the UK and the Allied Armies on the Western Front during the First World War has, since the immediate post-war years, been largely ignored. The conduct and continued fighting of this war was reliant on the supply of adequate amounts of all sorts of resources, as much as on military strategies. In some respects, for instance human resource use or financially, this war can be argued to have been fairly 'total,' but in regards to forestry 'total' is not the most accurate term, as there were standing trees left around the world on 11 November 1918. Nevertheless, it is an apt word to describe much of the effort given by the HLOs, as well as those working in the forests, to obtain this material.

To improve our knowledge and understanding of this vital element in the struggle for victory, the many different facets relating to the efforts will need focusing on. Therefore, many different historical approaches, or areas, will have to be adopted over numerous investigations. Primarily these will involve environmental, political, military, social and cultural aspects. However, to begin tackling this important facet of the war effort, this academic study has focussed on the overarching organisations that established and controlled forestry from national, governmental and senior military perspectives and positions. It is believed that this will provide a footing on which further elements relating to the work and effects of the forestry effort, at all structural levels and in all spatial settings, can be constructed.

The measures put in place to manage forestry supplies were impressive and on the whole as clear and effective as could have been hoped for. This is especially true given the pre-war poor state of UK woodlands, massive UK reliance on imports and concerns over worldwide deforestation. In addition there were the unexpected and unprecedented wartime levels of wood use, with recognisable and troublesome spikes

in late 1914 and from mid-1916 onwards, and the often dismal transport situations during the war. Shifts in the wider conditions in the fighting of the war altered forestry needs and pressures. However, even with occasional confusion and duplication of roles, the high level administration bodies recognised these and then discussed, prioritised and restructured accordingly. Although at times appearing overly bureaucratic, especially the number of committees and subcommittees for different materials, sources, end uses and end users, lessons were learnt and acted upon. The controlling structure was improved upon as the war progressed, with the Timber Supply Department (Board of Trade), Directorate of Forestry (GHQ) and Timber Allocation Subcommittee illustrating the evolutionary end results of this process. This can be seen as a result of a good degree of common sense in terms of the appropriateness of expertise sought out and used, and continuity in this through the myriad of restructurings. This is not something that has always been apparent for other important elements of the British war effort.

Throughout the war, although especially up to the end of 1915, record-keeping of total fellings, production, transport, stocks and use were haphazard. Original hopes of arriving at a set of unequivocal and exact totals for the overall effort, for instance of all the acreage cleared in a particular country, has not been possible. However, it has been shown that the HLOs did achieve much greater levels of self-sufficiency, and on the whole maintained adequate supplies, even as use levels rose. This is especially identifiable from mid to late 1916 as the wider war and political situation led to firmer official measures to address concerns over both immediate and post-war supplies of timber. 1917 and 1918 saw usage continue to grow, imports drop, yet supplies catch up. This was due to the initiatives the HLOs introduced to improve self-sufficiency.

At varying times during the war these included successful measures in controlling stocks, purchasing supplies and increasing State production in Britain and France.

Statutory powers were given either directly or by proxy to the HLOs to control many aspects of this supply challenge. Efforts to collate information on stocks and requirements proved a complicated task due to the numerous bodies, private and public, involved. However, thorough attempts to do so were made and these aided prioritisation of, and allocation towards, more essential purposes through permit systems on selling and buying stocks, economising non-war usage, rationing supplies, controlling prices and looking to alternative materials. Furthermore, although available shipping tonnage was drastically reduced and controlled, purchasing and importing stocks from various Allied or neutral nations remained a vital means of securing additional supplies, especially in the early years of the war.

However, the most important new source obtained by the HLOs was the increased use of home grown timber, both British and French, which clearly resulted from practical needs as use continued to increase but imports were increasingly strangled by the submarine campaign. British woodlands and the better maintained for timber production French forests being harvested by specially formed Canadian Forestry units, were the primary reasons why supplies were maintained. Production from geographical areas nearer to where the supplies were needed dramatically increased. Therefore, establishing forestry units to carry out the work required in the forests as efficiently as possible can be seen as another central method undertaken by the HLOs. The most important of these was clearly the CFC, although smaller yet important contributions were also made at important times by the Royal Engineer Forestry Companies, Newfoundland Forestry Corps, New England Sawmill Units and Women's Forestry Service. With regards to manpower shortages adversely affecting

forestry work there were nowhere near the levels of concerns as were raised amongst agricultural and key industry planners and controllers. However, those in charge of forestry were still often searching for greater numbers of skilled staff, as well as labour to assist in the forests. Some UK forestry roles were eventually protected against conscription, but it was Canada that provided an invaluable source of suitably experienced forestry officers, NCOs and other ranks, as Newfoundland and New England did in smaller quantities. These experienced men were formed into independent units but also at times effectively acted as cadres onto which massive amounts of un-forestry-skilled labour from many different sources could be attached. The calls for more and more lumbermen from Canada further illustrated the importance of wood and timber and how, as 1916 progressed, the importance of securing essential resources was increasingly realised.

The examples given of the organisation undertaken by those individuals or bodies, of varying nationalities or professional positions, onto which responsibility for the recruitment, structuring, equipping, transporting and occasionally maintenance of these new types of units fell, whether military or civilian, also illustrate keenness to help in unexpected directions as well as clear and business-like measures undertaken. Once working in Europe these forestry units adapted relatively easily into civilian and military chains of command, also largely due to the structure managing HLOs established for the effort. They also benefitted from the independent nature of those used to working on self-contained forestry operations in Canada. Ultimately the combination of the controls and measures put in place by the HLOs did work, even producing a surplus stock by the armistice.

In achieving this, environmental concerns could not be of paramount importance given the urgent needs, yet they were not completely ignored. Environmental concerns

were a part of pre-war calls for better scientific forest management, but in wartime priority had to be given to obtaining the necessary levels of vital supplies. The HLOs therefore had little leeway to prioritise good practice and long-term woodland management as the war effort consumed increased levels of wood. However, they were not completely forgotten by all, or always abandoned in favour of maximum production. Concerns were raised by some in the UK, such as Stebbing, but most noticeably by the French Forestry Authorities. They insisted on trying to keep some control over exactly what locations or types of tree were used as increasing amounts of their standing timber was identified for conversion. Although examples of understandable frustrations can be seen at times as the two priorities clashed, a solution was generally found between those tasked with sourcing supplies and those looking to the long-term health of the forests.

As with other wartime resource management exertions, the forestry effort necessarily followed changing contexts in the military and political running of the war. Whilst some aspects of the forestry effort can be seen as generally following the maxim 'business as usual' up to mid-1916, the poor state of pre-war forestry and dramatic increase in uses and usage, especially in mining and hutting timber, in the very early stages of the war resulted in some concerns and war specific measures being taken by managing bodies. However, such measures were not drastic in comparison with what would follow after more widespread recognition of the long-term and increasingly material reliant nature of the war during 1916. Forestry control experienced rapid structural and methodological changes in the latter stages of that year, and that concurs with the common argument that Lloyd George's coalition government and War Cabinet, from December 1916, resulted in closer, more centralised and structured controls.

The post-war sudden and long-lasting alterations to senior level perceptions of the importance of proper forestry and management of this resource in Britain, and to a lesser degree around the empire, was not wholly without precedent. The centralisation of management seen after the war in the establishment of the Forestry Commission had precedents in calls for this before the war and then examples of it increasing during the war with the reorganising of responsibilities between HLOs to improve efficiency as and when recognised as needed. Good pre-war precedents, often resulting from the needs of imperial settings although also never fully fulfilled by 1914, included progress in regards to training professionals. Several management bodies were already sharing high-level staff, and liaising over similar forestry roles, namely the Office of Woods, Boards of Trade, and sections within the Development Commission. In terms of forestry the war was definitely an accelerator of change in woodland management, not the single facilitator. In this respect it marries up with much of what has been concluded regarding other aspects of the war.

Whilst this thesis concentrates largely on administrative and political management aspects, as well as any environmental concerns of those responsible for the overarching establishment and then control of this effort, it has been stated throughout that it is seen as a basis for future works on the area of forestry and how this affected, and was affected by, the war. Some suggestions for these include a detailed study of the geographical, social, professional and personal backgrounds of the forestry unit personnel, the specific forestry methods they utilised, the importance and make-up of labour units attached to them, the many logistical issues they encountered and attempted to overcome. Furthermore, a particularly interesting and important area of research that could utilise this thesis would be to compare exactly

how and to what extent the efforts detailed here did affect those measures introduced to forestry management in the interwar years.

However, it has now been shown that, in terms of the forestry effort to maintain the British Empire's struggle during the war, mighty organisations with clear and sensible administrative and management procedures did indeed grow from tiny, unhealthy, and unorganised pre-war beginnings, or 'acorns'. These various high level bodies were ultimately responsible for ensuring that sufficient supplies of wood were maintained where vitally needed, and through practicable methods they established the means to achieve this.

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Appendices

Common Measurements

F.B.M; 'Foot Board Measure' or 'Board Foot' is a common timber measurement not used so much by the timber industry in Britain, but a standard measure at the time in North America. 1 FBM = 1 foot x 1 foot x 1 inch of rough or sawn timber; as opposed to 1 Cubic Foot = 1 foot x 1 foot x 1 foot (12 x 12 x 12 inches). 1 Foot = 12 inches = 30.48 centimetres

An FBM is therefore equivalent to 0.002360 of a cubic metre; so by way of example 350,000 FBM equals 826 cubic metres of timber.¹

1 'Load' (British) of;

- Hewn softwood timber = 50 cubic feet of standing timber
- Pit Props = 50 cubic feet of standing timber
- Hardwood Timber = 40 cubic feet of standing timber
- Sawn or split wood = 60 cubic feet of standing timber²

1 ton of pulp wood = 100 cubic feet of standing timber³

1 'Standard' (British) = 1 Petrograd standard of sawn timber comprising 165 cubic feet, weighing approximately 3.3 tons of softwoods such as fir'.⁴

¹ Bird and Davies, *The Canadian Forestry Corps*, p. 33; Rodney, p. 8

² Cd.8881, *Reconstruction Committee, Forestry Sub-Committee, Final Report*, p. 33.

³ Ibid.

⁴ CWB, p.7

Hoppus foot – ‘a measure of volume from log to converted timber, accounting for loss. It is an imperial measure, sometimes used in the hardwood trade, and not in the softwood market. A Hoppus foot includes the rounded edges from which the cubic volume has to come. Therefore a Hoppus foot is larger than a cubic foot, i.e. there are fewer Hoppus feet in a cubic meter of timber.

1 m³ = 27.736074 Hoppus feet

1 m³ = 35.31467 Cubic feet

1 H ft. = 0.03605 Cubic meter

A Hoppus girth tape is used for measuring the Hoppus volume of logs, in conjunction with a booklet of Hoppus Tables. The tape is used to measure the girth in the middle of the log, giving the result in quarter girth (QG) inches. The length of the log is then measured in feet. One then turns to the relevant page of girths in the tables and looks down the central column for length in feet. Looking across the row, you then choose according to whether it was an exact QG inch, a quarter, half, or three quarters, to get the right reading'.⁵

Time – Natural Forest Year

According to the 1914 report of the joint forestry branches of the Board of Agriculture and Fisheries and Office of Woods a natural ‘forest year’ in the UK = 1st October to 30th September.

This also coincided with the academic year for which the Board of Agriculture and Fisheries awarded educational grants to various institutions.

⁵ Clive Ellis **Hoppus foot definition**, <http://www.woodland-management.co.uk/hoppusfoot.html>
Page 371 of 386

Controls and Notices

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
NA	A Royal proclamation	Furniture Woods, Hardwoods, Veneers	Imports / Shipping	Prohibiting the importation of hardwoods, furniture woods and 'Veneers, except under licence.
15/2/1916	Statutory Rules Order (S.R.O) 1916 No.77; The Prohibition of Imports (Paper, Tobacco, furniture woods and Stores) Proclamation	Furniture Woods, Hardwoods, Veneers	Imports / Shipping	Prohibited the import of furniture woods, hardwoods and veneers without a licence from the 1 March 1916 onwards
30/3/1916	Statutory Rules Order (S.R.O) 1916 No.196; The Prohibition of Imports (No.6) Proclamation	Beech, birch, elm and oak timber; and furniture, manufactured joinery and other wood manufactures except lacquered wares	Imports / Shipping	Prohibited, as of the 30 March 1916, the import of beech, birch, elm and oak timber; along with furniture, manufactured joinery and other wood manufactures except lacquered wares without a licence.
12/4/1916	Order No.231 of 1916; of 12 April 1916. No.20	NA	Requisition	Empowered the Army Council to take land, trees, buildings and plant; including water supply or 'motive power' and to provide housing for the purpose of 'felling and converting timber'. This was done as the Home Grown Timber Committee (established in November 1915) needed to have compulsory powers to encourage home grown timber production. However at the time these powers had to be 'administered through one of the War Departments'.
29/12/1916	Ministry of Munitions Order of 29 December	Sleepers	Sales & Purchasing	Order (under Defence of the Realm Act regulation 30A) introduced by the Ministry of Munitions requiring permits for the sale of second-hand railway material, which included sleepers.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
10/1/1917	1917, No.5, Order of the 10 January. No.39D	imports	Imports / Shipping	Permits needed from Board of Trade to charter neutral tonnage, or buy goods on terms including freight. Initially this was limited to goods weighing over 1,000 tons but this was removed on 13 March 1917 (so permits needed for any chartering of tonnage or contracts that included freight in them)
4/2/1917	Order (Army Council Under Defence of the Realm Act regulation 4/2/17)	Softwood (Sawn timber) Inc. Sleepers	Requisition	notice of intent to take possession of all stocks of soft sawn timber, planed and un-planed, including sleepers, in the UK
4/2/1917	Order (Army Council Under Defence of the Realm Act regulation 4/2/17)	Softwood (Sawn timber) Inc. Sleepers	Prices	Holders could not sell more than two standards of soft sawn timber, planed and un-planed, including sleepers, in the UK to any one person at any one time, and the price was not to exceed those during the week ending 3/2/1917. Although in point 3 permission was given to fulfil deliveries of existing contracts.
4/2/1917	Order (Army Council Under Defence of the Realm Act regulation 4/2/17)	Softwood (Sawn timber) Inc. Sleepers	Sales & Purchasing	Holders could not sell more than two standards of soft sawn timber, planed and un-planed, including sleepers, in the UK to any one person at any one time, and the price was not to exceed those during the week ending 3/2/1917. Although in point 3 permission was given to fulfil deliveries of existing contracts.
4/2/1917	Order (Army Council Under Defence of the Realm Act regulation 4/2/17)	Softwood (Sawn timber) Inc. Sleepers	Sales & Purchasing (Imports)	essentially a ban on imports as no one allowed to buy, sell or deal in (or offer to buy, sell, deal in) soft sawn timber, planed and un-planed, including sleepers, not already in stock in the UK
4/2/1917	Order (Army Council Under Defence of the Realm Act regulation 4/2/17)	Softwood (Sawn timber) Inc. Sleepers	Sales & Purchasing	From this date needed consent in licence permit form or order from the Army Council, Admiralty or Ministry of Munitions to sell, remove, 'secrete' or deal with sawn softwood timber, planed and un-planed, including sleepers, in the UK other than how directed by the Army Council Order of 5/2/1917 anyone would be guilty under the Defence of the Realm Act regulations.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
23/2/1917	S.R.O 1917, No.183 Prohibition of Import (No.14) Proclamation, 1917	All	Imports / Shipping	Banned, amongst other products, from the 23 February 1917, the importation of wood and timber of all kinds including hewn, sawn, split, planed or dressed, as well as bamboo baskets and basket-ware; EXCEPT with a licence.
2/4/1917	Order (Army Council Under Defence of the Realm Act regulation 2/3/17)	All	Establishing Stocks and Details	all persons engaged in the purchase or sale of timber to furnish such particulars as to their business as may be required by or on behalf of the Director of Timber Supplies'.[1]
14/4/1917	Army Council Order - Imported Soft Wood	Imported Softwoods	Sales & Purchasing (Imports)	Merchants could not; 1. sell in any month an amount of imported softwood exceeding one per cent of the amount of timber they had in stock in the UK on 1 April 1917; 2. sell imported softwood unless satisfied needed for work of national importance, or if the individual sale amounted to more than one standard they received from the buyer a 'Timber Control Form A' (as printed in the London & Edinburgh Gazettes) upon which the buyer had to self-certify that the wood was required for 'a Government contract or for work of National importance (guidelines for what constituted this were set out on Form A) and that the existing stocks in my possession are insufficient to enable me to carry out this work. I further certify that no substitute material is available. The nature of this work is as follows'. False statements were to be punished under the DORA with either a £100 fine or six months in prison
14/4/1917	Army Council Order - Imported Soft Wood	Imported Softwoods	Sales & Purchasing (Imports)	Anyone wanting to buy imported softwood in a quantity greater than one per cent of the merchants stock at 1 April 1917, had to apply to the Directorate of Timber Supplies (War Office) on 'Timber Control Form B' setting out why they urgently needed it for work of national importance (as set out on 'Timber Control Form A'), or if for a government department give details of the department and work on 'Timber Form C' (to be attached to Form B when making the application), and confirming that no substitute materials were available.
14/4/1917	Army Council Order - Imported Soft Wood	Imported Softwoods	Establishing Stocks and Details	Any actual amounts of imported softwood timber provided by the merchant to be kept a note of on the permit

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
24/4/1917	Army Council Order - Packing Cases	Packing Cases	Use/Consumption	Prohibited the manufacture of cases and crates or the use of new cases and crates for packing certain goods. Three schedules were given listing types of goods. Goods in Schedule A could not be packed in new cases or crates and included many objects from 'Athletic Outfits', 'Handkerchiefs (in paper parcels)', to all sorts of cotton, linen and wool items, including underwear (although not silk hose or half hose).
3/5/1917	Army Council Order - Timber	Russian (i.e. Softwoods)	Sales & Purchasing	Any timber that had been purchased in Russia before the 1 January 1917, but that had not yet been shipped to the UK, was to only be sold to the Directorate of Timber (War Office) or his representatives. It also stated that none of this Russian timber could be sold for more than 10% higher than the price at which it was bought.
3/5/1917	Army Council Order - Timber	Russian (i.e. Softwoods)	Prices	Any timber that had been purchased in Russia before the 1 January 1917, but that had not yet been shipped to the UK, was to only be sold to the Directorate of Timber (War Office) or his representatives. It also stated that none of this Russian timber could be sold for more than 10% higher than the price at which it was bought.
7/5/1917	Army Council Order - Imported Softwood Prices	Imported Softwoods	Prices	Prices of imported softwoods limited to those of week ending 31 Jan 1917, stating that 'no person shall sell any imported softwood at prices exceeding those current during the week ending 31st January 1917...'
7/5/1917	Army Council Order - imported Softwood Requisitioning	Imported Softwoods	Requisition	Government requisitioning any stocks of imported softwood over 250 standards in size; the Order itself stating that under the DORA regulation the Army Council 'hereby take possession of all stocks of Imported Softwood of 250 Standards and upwards held by merchants and agents in the United Kingdom at the date hereof'.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
19/5/1917	Army Council Order 'Softwood' Regulating Prices of Imports of softwoods from Norway, Sweden and Denmark	Imported Softwoods From Norway, Sweden and Denmark	Imports / Shipping	Some importation of timber allowed again where shipping space was not needed for food or munitions. Any such available shipping was announced occasionally until all private importation of timber was stopped by the Timber Order 1918 (July).
19/5/1917	Army Council Order 'Softwood' Regulating Prices of Imports of softwoods from Norway, Sweden and Denmark	Imported Softwoods From Norway, Sweden and Denmark	Prices	Imports allowed again by same order (if shipping available) and the Order states that the Army Council now [further to Order of 7 May 1917] deemed 'it desirable that the sale of Soft Wood imported from Norway, Sweden or Denmark after the 15th day of May 1917, should be permitted on certain conditions other than those contained in the said [7 May] Order' in regards to pricing. The rising costs of imports meant that merchants could not sell at the prices allowed by the order of 7 May 1917, which restricted prices to those of week ending 31 January 1917, without making a loss. Therefore this Order also allowed that imports of softwoods after the 15 May 1917 could be sold at the 31 Jan prices, plus an increase of one-third, subject to a limitation of profit of no more than ten per cent.
4/7/1917	The Home Grown Timber Prices (Great Britain) Order, 1917	Certain kinds of HG coniferous timber	Prices	Set a schedule of maximum prices for certain kinds of converted coniferous timber. First attempt to fix prices for home grown timber, and as such only covered quite specific types of timber such as certain sizes of sawn spruce, Scotch fir and Larch. It was introduced as it was felt that maximum prices for sawn timber would stop timber merchants paying too much for their standing or felled wood. However, later home grown timber orders would be more comprehensive. This order also did not apply in Ireland.
4/7/1917	The Home Grown Timber Prices (Great Britain) Order, 1917	All	Establishing Stocks and Details	Required persons to furnish particulars of their timber business when called on to do so by the Controller of Timber Supplies(Board of Trade)

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
4/7/1917	The Standing Timber (United Kingdom) Order, 1917	Standing home grown timber	Sales & Purchasing	Permits now needed to purchase any standing timber, except that bought with land, or in small quantities. Aimed at stopping speculation for profits and purchase of wooded land by people who could not start working it for timber on a satisfactory scale within a short time period. Many loop holes in this Order had to be closed in the Timber Control Order of 1918.
20/7/1917	?	?	Imports / Shipping	Announced a regulation that imports of timber from Canada and the USA could be made in neutral 'sailing' ships; or as 'deck loads' on any vessel under a general licence. The price of such imports was to be based on the same assumption of those for timber from Scandinavia where the 'current' prices were taken to be as those 'ruling in Liverpool Port' rather than the Irish Ports during the last week of January 1917.
22/8/1917	(S.R.O) Statutory Rules and Order, 1917, No.886	All	Prices	When Army Council or Board of Trade 'acquired' timber (standing, felled or converted) they would pay a price determined under Defence of the Realm Act regulation 2B, i.e. if agreement could not be reached the price laid down by the Tribunal set up to consider compensation claims, (Defence of the Realm Losses Commission) allowing reasonable profit but subject to any limit on maximum prices.
24/8/1917	Mahogany and Walnut Order	Mahogany & Walnut	Requisition	Board of Trade requisitioning all stocks of mahogany and walnut that exceeded 5,000 super feet of these woods in particular states (not including veneers). First step was to inform the trade that they had to furnish the Board of Trade with returns of their stock.
3/10/1917	Teak and Lignum Vitae Permit Order	Teak & Lignum Vitae	Sales & Purchasing	Brought in Permits for the sale or purchase of teak logs, planks, boards and decking and any Lignum Vitae, small sales being exempted, in order to ensure supplies for the Admiralty's requirements.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
4/12/1917	Export of Timber (Ireland) Order, 1917	Irish home grown timber	Sales & Purchasing	Administered by the Assistant Controller of the Timber Supply Department (Board of Trade) in Dublin, this Order required permits to be obtained, by applying to him, before any round or sawn Irish home grown timber could be exported to Britain. Its aim was to prevent British and other nationalities' merchants from exploiting Irish timber resources, whilst there was still scope for business in Britain. This order excluded pit-wood.
4/12/1917	Home Grown Timber Prices Order 1917	home grown timber	Prices	Attempted to set a more comprehensive set of maximum prices for all home grown timber, no matter what stage it was at, and to give them for all of the usual trade sizes. If a size was not covered in the Order special prices would be arrived at by the Controller of Timber Supplies (Board of Trade) on a specific case basis acting on expert advice. Price weightings were also allowed in cases of town sawmills and retailers.
15/3/1918	The Timber (Returns) Order 1918	All	Haulage	Required anyone engaged in 'felling, hauling, purchasing or selling timber' to send details of their business to the Controller of Roads and Bridges.
15/3/1918	Timber Haulage Order	NS	Haulage	Timber haulage placed under the control of the Road Control Officers, under the Controller of Roads and Bridges. Road damage was a major concern and hindered production, and this Order therefore enabled the minimisation of congestion and damage to roads as routes and types of vehicles could be prescribed by the officers in liaison with local highway and other authorities.
20/3/1918	The Rattan and Malacca Canes Returns Order, 1918	Palm Cane	Establishing Stocks and Details	Brought these materials under control of the Board of Trade, due to the difficulty the Ministry of Munitions was having in getting hold of them.
20/3/1918	Prohibition of Import (No.23) Proclamation, 1918	Palm Cane	Imports / Shipping	Amongst other things, prohibited the import of Rattan and Malacca Canes, except under licence.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
25/3/1918	The Home Grown Timber Prices Order, 1918	home grown timber	Prices	Similar to 1917 home grown timber Prices Order but the Controller of Timber Supplies(Board of Trade) now 'Certified' specific mills in Port and City locations as being allowed to charge a higher price than 'ordinary' mills in towns or the country. These 'certified' mills were usually those that had been adapted to work on imported timber, but were now having to use home grown timber
25/4/1918	Timber Order 1918	NS	Sales & Purchasing (Imports)	To restrict private purchasing of foreign timber for importing to lay the groundwork for an Order of 16 July 1918, that would centralise purchasing and ration distribution.
27/4/1918	Summary Offences. Order No.496	NA	Powers	In order to facilitate more complete control, this Order empowered the Board of Trade 'to direct that contraventions of orders issued by the Board under 2E or 15C shall be summary offences'.
7/6/1918	Press Notice	Sawn & planed imported soft woods	Rationing Through Permits	Timber Supply Department (Board of Trade) announced in the press that were arranging a rationing scheme and inviting those firms (importers, merchants, retailers, agents, brokers and shippers) whose transactions in imported softwoods averaged over 100 standards per annum during the years 1912-14 to apply to register and be included in the scheme. Deadline for application was June 18th.
26/6/1918	Press Notice	NS	Rationing Through Permits	Controller of Timber Supplies (Board of Trade) announced rationing scheme in the press, giving an explanatory notice of it.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
16/7/1918	The Timber Control Order 1918	Softwoods; Imported (inc. plywood, boxboards and dressed timber)	Sales & Purchasing	<p>1. No person in UK to 'buy, sell, receive, take or make delivery of, or enter into any transaction or negotiation in relation to the sale, purchase or transport of any timber outside the United Kingdom except under and in accordance with the terms of a Permit granted by or on behalf of the Controller' (Controller of Timber Supplies (Board of Trade)) // 2(a&b) and 15. No person to buy, sell or enter into a contract to buy or sell, any timber that had been imported into the UK UNLESS this was in accordance with a Permit they had been granted by the Controller of Timber Supplies(Board of Trade), OR if the purchase was for timber lower in value than £5 in any one week AND a declaration was signed by the purchaser stating value of wood and that was for work of National Importance or 'urgent necessity' This 'Declaration by Purchasers' form was to be kept by the seller for inspection/use by the Controller of Timber Supplies (Board of Trade) as and when required. Furthermore, the person selling wood without a permit as under £5 in value still had to supply details of the value of imported timber sold in each transaction, to the Timber Supply Department (Board of Trade) within a set timeframe, a maximum of 7 days after the last day of the month in which the timber was sold. // Several further exceptions (in regards to selling and purchasing imports or home grown timber) were allowed under this order. They were [15(b)] whereby if the Admiralty or Ministry of Shipping needed timber urgently for the repair of ships, and they themselves provided the seller with Timber Control Form B (as written by the Timber Supply Department (Board of Trade)) then the seller could provide an amount up to five standards of 165cu/feet. The certificate would then be sent to the Controller of Timber Supplies together with a completed Timber Control Form C, essentially a monthly return of the sales they had made under form A (less than £5 in value per week), Form B (supplies less than five standards sold to Admiralty or Ministry of Shipping for urgent repairs) and those that were sold as Timber Supply Department (Board of Trade) permit had been received from the purchaser. Form C kept each type of sale separate as well as Imported/home grown timber and whether wood was sold from National Stock or the suppliers own stock, illustrating the desire of the Department at the Board of Trade to keep a good record of the situation in the country at this time. However, A colliery or other mine owner could purchase manufactured pit-wood (including sawn props, pillar wood, crowns and pit sleepers), and pit-props without need of a permit, although they</p>

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
				<p>would need one to purchase either standing wood or converted timber other than that listed above. // (CWB) Established scheme of centralised purchasing of foreign timber</p>

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
16/7/1918	The Timber Control Order 1918	Softwoods; home grown timber (Not including Timber growing on land being sold)	Sales & Purchasing	<p>6 (a&b). Nobody to sell or enter into contracts to buy any standing or felled home grown timber (of the types in the home grown timber Prices Order 1918, UNLESS purchaser had a permit with specific terms and conditions to be adhered to, from the Controller of Timber Supplies(Board of Trade) // 7. No one to offer by tender any home grown timber (standing or felled) for sale unless under terms of a specific Controller of Timber Supplies permit // 8. No sales of home grown timber (standing or felled) at auctions unless both auctioneer had a permit from the Controller of Timber Supplies; and then whoever won particular lots was also subsequently granted a permit. If they were not granted a permit the Controller of Timber Supplies could give one to another person who bid at the auction and who is willing to pay an equal amount to the highest price that had been bid // 15. Sales of home grown timber, as with imported wood, that did not exceed a value of £5 in any one week did not need a permit, although any person selling wood without a permit as under £5 in value still had to supply details of the value of home grown timber supplied, to the Timber Supply Department (Board of Trade) within 7 days of the end of the month within which the sale was made. // 14. Any sale or purchase of logs or converted timber covered by the descriptions given in Schedules B,C or D of the home grown timber Prices Order 1918 needed to be under the terms of a permit issued by the Controller of Timber Supplies, EXCEPT when a sawmill was purchasing wood in log form to convert for sale; or if a sawmill, merchant or retailer were purchasing logs or timber for resale they did not need a permit AS LONG AS the purchaser gave a certificate that they were only going to convert and/or re-sell the wood. If such a certificate was received the seller could sell the wood // 15. The exceptions listed above in regards to urgent sales for shipping repairs or sales for mining purposes also applied to home grown timber as well as imported, and it was noted in the Order that no permit or certificate would be needed if an estate used wood for the purposes of the owner.</p>

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
16/7/1918	The Timber Control Order 1918	Timber growing on land being sold (excluding hedgerow trees, but including all trees of 'pit-prop size and over'; unless orchard trees)	Sales & Purchasing	10. Anyone selling land (in separate plots or as a whole) upon which more than 10,000 cu/ft. of timber growing on it (not including hedgerows), had to submit all details to the Controller of Timber Supplies(Board of Trade) before completion of sale. This to also include the full name and address of the purchaser, and if the Controller of Timber Supplies did not issue permit permission the timber aspect of the sale would be null and void //11. If land with more than a total of 10,000 cu/ft. on it (as a whole or in parcels) being offered at auction then either the auctioneer of seller had to submit details to the Controller of Timber Supplies including a valuation of the timber based on Schedule A of the home grown timber Prices Order 1918, and again a permit had to be issued to allow the timber to be included in the land sale. Furthermore the purchaser may, if stated by the Controller of Timber Supplies in the permission permit to the seller or auctioneer, also need to obtain a permit before the sale was completed and included the timber elements.
16/7/1918	The Timber Control Order 1918	Softwoods; Imported or HG	Prices	3. 'The Controller may by notice under his hand fix the maximum prices at which any Imported Timber may be sold, and may by a like notice vary such prices from time to time'. // 4. Nobody allowed to buy or sell imported timber at a price higher than the than those fixed by this Order // 4. Stocks of imported softwood already in the UK on the date on the Order could still be sold in accordance with price restrictions in force immediately before this Order; as long as the purchaser had a Permit from the DTS(Board of Trade) // (CWB) Several schedules of maximum prices for imported softwoods were issued under this scheme // 4. Those who held stocks imported from Norway, Sweden or Russia before 15 May 1917 or from Canada or the USA before the 19 July 1917 had to make a return of these stocks to the Controller of Timber Supplies (Board of Trade) who might then authorise them to sell, to a buyer with a Permit, at a particular price fixed by the Controller of Timber Supplies.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
16/7/1918	The Timber Control Order 1918	All	Establishing Stocks and Details	As well as the Form C under the Timber Control Order 1918, whereby sellers had to furnish the Timber Supply Department (Board of Trade) with all of their sales details, the Order also specified that anyone in the 'engaged in the purchase, sale, transport, conversion,, or manufacture of timber of any description shall furnish such particulars as to their business or transactions as may be required from time to time by or on behalf of the Controller'.
NA	Press Release - 'New Timber Order'	Softwood; Imported	Rationing Through Permits	Notice in press that the Board of Trade were preparing way for a rationing scheme for imported softwood by issuing the Timber Control Order, 1918; and that this scheme would begin on the following Monday (22nd July 1918). The 'rationing' scheme for imported softwoods essentially consisting of the schedule of maximum prices (would not apply to existing stocks), Controller of Timber Supplies (Board of Trade) to decide on prices specific stocks imported earlier could be sold at on case by case basis if applications made; Permit system being extended to home grown timber as well, on similar lines to that which had applied to imports for a year already. (See Timber Control Order, 1918)
22/7/1918	Softwood Requisitioning Order, 1918	All sawn and planed softwood (excluding Box Shooks)	Requisition	Board of Trade giving notice that would be taking 'possession...of all descriptions of Sawn and/or Planed Softwood (excluding Box Shooks) arriving in the United Kingdom on and after the 22nd July, 1918'. After the date of this notice (22/7/1918) holders of such stocks were not allowed to enter into any transactions or transfers (such as Bills of Lading) for such timber. Also, holders of any stocks of this type were requested to send all details to the Government Timber Buyers at Salisbury House, E.C.
29/7/1918	The Pitwood Order, 1918	Pitwood	Prices	Pitwood imports had been under special licence since 15 May 1917, and prices had been dealt with by arbitration ('notably the Acland Award as to Home Pitwood supplies for Scotland, 16th June, 1916) and by directions issued by the Coal Controller to collieries in a letter dated 19 December 1917. However, this Order gave more definite legal force to these previous arrangements as power was taken by the Controller of Timber Supplies to vary the maximum prices by Notice. The order was superseded by the Pitwood Order 1919 of the 10 April 1919.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
9/9/1918	Timber Control (Amendment) Order, 1918	All	Rationing Through Permits	A small amendment giving the Controller of Timber Supplies (Board of Trade) power to vary the quantities of timber that could be purchased without a permit, although only a small amendment was felt necessary to aid the working of the rationing/Permit scheme.
26/9/1918	Statutory Rules and Order, 1918. No.1234 - The Fuel Wood Order	Fuelwood	Sales & Purchasing	Gave the terms on which fuelwood could be bought and sold to substitute for coal which was rationed at this time. There was only small amounts of fuelwood available in the locations it was needed for burning at this time due to lack of transport to bring the wood into towns. However, in rural areas a 'considerable quantity' of wood was burnt as fuel.
28/11/1918	The Packing Case and Lapping Board Order	Packing Cases	Rationing Through Permits	Had been in preparation at the signing of the Armistice. Cleared up some details of the permit system in regards to wood for packing cases as there was still a great shortage of such wood as the war ended. However, this Order was short lived and was revoked on 27 December 1918.
5/12/1918	Timber Control (Amendment No.2) Order, 1918	home grown timber	Rationing Through Permits	Permits for home grown timber sales were withdrawn, which left just the home grown timber Prices Order as the only control of UK timber. Revoked Part II (home grown timber) of the Timber Control Order, 1918 and stated that Paras 15 & 16 of Part III of the Timber Control Order, 1918 would no longer apply to home grown timber (and so in terms of home grown timber revoked these as well)
5/12/1918	The Timber Control (Amendment No.2) Order, 1918	Imported Hardwood	Sales & Purchasing	Sales of hardwood, including plywood, in the UK were permitted without control, although purchases for imports of hardwoods were still controlled.
5/12/1918	Timber Control (Amendment) Order 1918.	Imported Softwood	Sales & Purchasing	A notice released on the 5 December allowed for the purchase of up to £100 worth (in any one calendar month) of imported softwood without a permit, as long as it was needed for work of 'national importance or urgent necessity'. Form A still had to be forwarded to the Timber Supply Department (Board of Trade) giving details of all transactions during the month and declaring that was for work of national importance.

Date of Order	Name	Type of Wood (if specified)	What related to?	Specific Details
5/12/1918	The Home Grown Timber Prices (Amendment) Order 1918	Sleepers	Prices	Maximum prices for sleepers were amended, but at this time home grown timber prices in general had to stay under controls.
27/12/1918	The Timber Control (Amendment No.3) Order, 1918	Hardwood	Sales & Purchasing	Ended the need for permits for dealing in hardwoods abroad.
27/12/1918	The Timber Control (Amendment No.3) Order, 1918	Imported Softwoods	Sales & Purchasing	Ended the need for permits for dealing in imported softwoods in this country.
27/12/1918	The Timber Control (Amendment No.3) Order, 1918	Imported Softwoods	Sales & Purchasing	Merchants could once again sell to one another in the UK without the need for a permit, this weakened the rationing arrangements remaining
27/12/1918	The Rattan and Malacca Canes Returns (No.2) Order, 1918	Palm Cane	Sales & Purchasing	Revoked the Order of 20 March 1918; but permits for transactions outside of the UK were maintained until this Order, like many others was revoked on 5 March by a notice under the Articles of Commerce (Relaxation of Restriction) Order 1918.
4/2/1919	Max Prices Notice	Imported Softwoods	Prices	A new schedule of maximum prices for imported softwoods was issued on this day, the same day that the rationing arrangements were also officially brought to an end by notice.
10/4/1919	Pitwood Order 1919	Pitwood	Prices	Fixed new maximum prices for imported and home-grown pit-wood. Notices that had pre-ceded this Order in late January 1919 announcing that Import Licences would now be granted for supplies from Spain, Portugal, Scandinavia, Finland and Newfoundland for imports to certain districts, and giving new maximum prices for these. This Order also allowed for the controls of pit-wood to be transferred from the Timber Supply Department (Board of Trade) to the Mines Department at the Board of Trade. All control of pit-wood ended in the autumn of 1919.