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Bluefin Tuna Fishery Policy in Malta: The plight of artisanal fishermen caught in the capitalist net

Abstract

The bluefin tuna fishery has undergone a major shift in Malta, moving from an open access artisanal nature to a privatised and industrialized activity dominated by the purse seining fleet and the BFT ranching industry. The shift has been exacerbated by the national implementation of an individual transferable quota system, which has enabled the concertation of quotas into fewer hands. The main objective of this article is to understand how privatisation has evolved within the sector and the way the Maltese artisanal fishermen are experiencing the shift. This study takes an exploratory mixed-method approach to quantitatively and qualitatively understand how policy underpinnings interplay with the sustainability dimension of the small-scale fishing sector. Results show that the transition of the bluefin tuna fishery from artisanal to industrial has generated a legitimacy crisis over fishing rights, decreased profitability amongst most of the artisanal fleet, and led to a series of socio-ecological impacts on the artisanal fisheries system at large. It is concluded that the neo-liberal trajectories of industrialization have directly undermined the continued sustainability of artisanal fishing communities.

1. Introduction and Background

Artisanal fishing communities represent a long-standing tradition of fishermen engaged in low-capital enterprises that have persisted through various cycles of economic and social change through the recent decades[1]. However, artisanal sectors are generally known to exhibit high vulnerability from unpredictable ecological, social, political and economic fluctuations due to their low-capital base [2]. Furthermore when changes or disturbances arise from exogenous forces, such as policy frameworks that are developed and imposed upon traditional systems of governance and knowledge, this can quickly erode the stability and resilience of small-scale fishing communities , especially if the changes are not synchronized to the realities of the context in which they are implemented [3]. The dismantling of small-scale fishing communities has been registered in various countries worldwide e.g. North America [3], Iceland [4], Australia[5] and Canada [6], and despite their geographical differences, these cases appear to share a similar economic and political backdrop of neo-liberalism that catalysed the communities' demise.

34 Generally, these studies show how the push towards the neo-liberal privatisation of fisheries
35 resources has triggered the enclosure of the commons with the consequence that small-scale
36 fishing operations become outcompeted by large-scale fishing industries. Through
37 privatisation, the latter become empowered to over-accumulate resources and profits, and
38 simultaneously dispossess indigenous rights' holders from their livelihoods [7]. This process
39 of 'accumulation by dispossession', as conceptualized by Harvey, is a transition underpinned
40 by the capitalistic ideology and buttressed by State and/or equivalent authoritative power which
41 play a significant role 'in both backing and promoting' the trajectory of resource aggregation
42 through the crafting of neo-liberal policies [7]. By drawing on the theoretical underpinnings of
43 neoliberalism in fisheries management, this article provides an in-depth understanding of how
44 shifts in the fisheries' policy fundamentals in Malta have triggered a major change that has
45 made it more difficult for the Maltese artisanal fishing sector to survive. The special focus of
46 this research falls on the management of the BFT fishery, one of the most lucrative fishing
47 activities but also the most regulated in the Mediterranean region.

48

49 The BFT fishery in Malta has existed since the 1700s [8] and official landing records of catches
50 have been compiled since the 1920s [9]. Initially BFT was fished by an artisanal trap system
51 (tunnara) and successively, from the 1960s, by artisanal-long-lines which are hook-and-line
52 methods baited with mackerel suited to target pelagic species. Some artisanal fishers use
53 specific long-line gear to target BFT, and others harvest tuna as by-catch from swordfish long-
54 lines [10]. Overall, their individual catches differed on the basis of skill and effort applied to
55 the fishery. The cumulative Maltese artisanal BFT catch fluctuated across the decades but there
56 was a drastic increase in the 1990s (Figure 1) as a response to new export opportunities in
57 lucrative foreign markets, such as Japan, that enticed greater participation by artisanal
58 fishermen [9].

59

60 As of 2001, fishermen started experiencing decreasing catches, possibly due to the
61 overexploitation of the species across the Mediterranean waters [11]. Due to its scarcity, the
62 competition for the species became intense, and many Maltese fishermen became involved in
63 '*tuna wars*' with foreign companies that used purse seine industrial methods, which not only
64 caught large numbers of fish, but also allegedly disturbed the artisanal long-line activities [12].
65 Following this prolonged period of conflict the national Minister for Fisheries in 2001 had
66 publicly urged the Maltese fishermen to "equip themselves like their [foreign] competitors"
67 [13]. Later, around 2005, the government issued permits for the start-up of the purse seine fleet

68 which is an industrial type of fishing that uses large nets to catch large numbers of BFT species.
69 This gear, which was first introduced with the emerging expansion of the tuna ranching sector,
70 is considered the most suitable technology for capturing, corralling, and growing out large
71 stocks of wild tuna [11].

72

73

74

(Figure 1 here)

75

76

77 This industry, which supplies tuna to the global sushi and sashimi markets has been growing
78 since it began in 2001 and currently there is a total fattening capacity of 12,300 tonnes [14],
79 generating about €500 million in sales over the past 6 years [15]. The Maltese tuna ranching
80 ranks second after Italy in terms of EU tuna production capacity [16], and as a profitable
81 business across the Mediterranean, the expansion of tuna ranching has been supported by
82 several governments across the basin [17,18]. However, this growth, which led to a higher
83 fishing effort on wild tuna, has been a main driver that led to an alarming rate of BFT
84 overfishing over the past decades [19]. The co-existence of industrial and artisanal fleets in the
85 Mediterranean had contributed to the decline of the bluefin tuna species [20], and international
86 efforts have been ongoing to reverse this situation in the Mediterranean and elsewhere [21].

87

88 A global plan to improve the health of the stock by 2022 was introduced in 2007 by the
89 International Commission for the Conservation of Atlantic Tunas (ICCAT) [22]. As part of this
90 plan, a system of total allowable catches (TACs) across countries was enacted to regulate the
91 fishing activity of Atlantic and Mediterranean BFT. TACs allocations have been decreasing
92 every year until 2013 in an attempt to control catches, reduce overfishing, and eventually limit
93 capacity. These regional efforts have improved the recovery rate of the BFT, and without
94 undermining the stability of the stocks, it was agreed at the ICCAT meeting in 2014 that TACs
95 were to be increased by 20% each year, until the new stock assessment in 2016 [23].

96

97 Malta as an EU Member State is signatory to the BFT conservation efforts and subject to the
98 policies including quota restrictions and increments that are annually recommended at the
99 ICCAT level and successively transposed as EU Council Regulation(s) that bind EU member
100 states. As part of the agreement, Malta is requested to annually devise a national management

101 plan to align the fishing capacity to the BFT fishing opportunities agreed and assigned during
102 the European Council meetings. This obligation and the local measures that have accompanied
103 it, have brought a drastic change in the Maltese fishing management portfolio of the BFT
104 fishery. For example, the Maltese Government with the consent of the fishermen's co-
105 operatives agreed to: a) reduce the BFT fleet capacity by 25%; b) introduce a national system
106 of Individual Transferable Quotas (ITQs) based on historical records; and c) create the BFT
107 recreational segment as a new category of fishing activity that is allocated approximately 1-2%
108 of the national TAC.

109

110 These regulatory changes, which are embedded in neoliberal ideology, have synergistically
111 reshaped the fundamental organisation of both the BFT fishery and the artisanal sector as a
112 whole. The Government's management plan frames these changes as the 'backbone of the
113 *Maltese Fisheries conservation actions*' which are aimed to 'facilitate the recovery of BFT
114 stocks to create sustainable economic conditions for the continued operation of the BFT fishing
115 fleet.' [24]. This article draws on this statement as the point of departure for a critical assessment
116 of the impacts of the policy measures enacted under the BFT management plan, with a special
117 focus on the traditional artisanal fishing community.

118

119 The impacts that the Maltese artisanal fleet has experienced through the changes in the BFT
120 fishery have not been studied to date. While much work has been done on the politics of the
121 bluefin tuna ranching sector in Malta and the Mediterranean e.g. [17,25,26], the position of the
122 artisanal fishermen of Malta within the fast moving policy infrastructure for bluefin tuna in the
123 EU remains somewhat obscure. Bluefin tuna has always been considered as one of the main
124 profitable fisheries for the Maltese fishermen [27], hence understanding the impact of the
125 changes brought onto the fishing communities by the BFT management framework is
126 extremely important to a broader assessment of the sustainability of this sector as a whole. In
127 this regard, the research aims to answer these following questions:

- 128 1. Understand how the implementation of policy and market drivers have altered the
129 dynamic of the artisanal fishery
- 130 2. How these changes have been experienced by the artisanal fishermen themselves

131

132 **2. Methods**

133 This section presents a methodological approach that allows us to explain a complex story
134 using a synchronised interpretation of policy changes, fisheries data and qualitative interview-
135 based data with fishermen themselves. Important themes or issues are identified and described
136 before giving way to a general discussion and conclusions. This case study is based on
137 extensive fieldwork carried out between May 2014 and August 2015 in two main fishing
138 villages, namely Marsaxlokk and Mgarr (Gozo). These villages host two long-established
139 Maltese fishing communities that in many ways are representative of the social, economic and
140 cultural fabric of the Maltese artisanal fishing sector [27], and thus provide the appropriate
141 context for the exploration of the research questions.

142

143 The exploratory nature of the study calls for data collection methods that enable an in-depth
144 understanding of the artisanal fishermen's perspectives and experiences. The main data
145 collection system used for this research involved participant observation in the main fishing
146 villages. A series of in-depth interviews were conducted with fishermen, their family members,
147 and other individuals within the community. The use of gatekeepers was essential to access
148 different networks of fishermen through purposeful snowballing. As has been reported in
149 similar research [e.g. 21], 'happenstance encounters' in informal settings also provided very
150 rich and wide-ranging data from various informants. Ethical considerations, in line with the
151 guidelines of the American Anthropological Association (AAA), were taken into account
152 throughout the data collection process.

153

154 The primary data was complemented with other sources including online forums, media
155 articles, and formal national statements such as BFT management plans, Ministry's public
156 statements and other statistical information. The open-ended comparative techniques used to
157 triangulate the data assured that the findings were consistent, valid and reliable. After each
158 successive collection, the data sets were qualitatively analysed and coded to elicit the major
159 issues that were then categorized into relevant themes, upon which the narrative was ultimately
160 based. Direct excerpts gauged through interviews and participatory observations are
161 incorporated within the narrative to illustrate major factors that have been provoked by the
162 fishermen themselves.

163

164 **3) Results**

165 **3.1) BFT Conservation through Privatisation: The legitimization of the purse seiner**

166 In this section, the article presents the role of government policy in establishing and supporting
167 the industrialization of the bluefin tuna sector by empowering the operations of the PS fleet at
168 the expense of the artisanal fleet. The beginning of the industrialization process can be traced
169 to the licensing of the first purse seine in 2005 which overhauled long-established national
170 legislation (L.N. 205/34) that had restricted the licensing of such vessels on the basis of
171 sustainability and to prevent monopolization of fishing effort. Since then its operations have
172 been legitimized through a purse-seine-pilot-study in 2007, and subsequently accelerated
173 through the major leasing framework that followed the introduction of the Individual
174 Transferable Quotas (ITQs) in 2009. Since the purse seine did not have a historical record of
175 catch due to its relatively late entry to the BFT fleet, it was not assigned a specific ITQ, hence,
176 its participation could only be institutionally legitimized through the transferability of ITQs
177 from artisanal fishermen (with catch records) to purse seine operators.

178

179 The ITQ scheme, enacted in 2009, recognized and authorized only around 20% of the full-time
180 fleet (82 vessels) and 0.6% of the part-time fleet (4 vessels) as BFT rights' holders (see [29]).
181 The rest of the vessel owners were thus excluded from quota on the basis that they did not have
182 official records of BFT catches declared at the central fish market. Although some of these
183 fishermen used other lawful markets to sell their tuna, the government's data collection
184 exercise to establish the ITQs allocation system did not fully account for these catches¹.
185 According to one fisherman "before we used to sell a lot of tuna through hands [fisherman-to-
186 consumer] and did *not take it to the fish market*", while another fisherman stated that the
187 problem of non-BFT-declaration was also linked to tax evasion "and so when it came to the
188 *actual figures, their quotas was relatively low.*" As illustrated in Figure 2, the allocation system
189 of the BFT categorized the fleet into large-ITQ-holders, medium-ITQ holders, small-ITQ-
190 holders and non-quota holders. In 2010 over 50% of quota was held by 16% of fishermen and
191 over the past 5 years, the ownership of ITQs ownership has become even more concentrated
192 (Figure 2).

193

194 Most of this concentration reflects the investment made by the purse seine industry which has
195 been purchasing ITQs of the smaller and least wealthy ITQ holders. These companies now
196 possess the quota and the fishing permits of very many artisanal fishermen, and since 2014
197 have enjoyed the annual TAC increments that have been assigned on each artisanal permit by

¹ This could potentially mean that the baseline used to establish Malta's TAC has not been calculated accurately.

198 the government. The accumulation of fishing rights and windfall gains of TAC increments is
199 favouring those few enterprises that own multiple permits, whereas fishermen with no permits
200 or with small/medium quotas are unable to acquire quota since the prices of fishing permits
201 and quota are escalating to unaffordable ranges.

202

203

204 (Figure 2 here)

205

206

207

208

209 This approach of accumulation is enhanced by other pro-industrial policies that have reduced
210 the number of active artisanal vessels. These include the permanent de-commissioning of 18
211 artisanal vessels from the BFT fleet register that were demolished under the European Fisheries
212 Fund scheme, and the fishing authorization scheme that has, in the past 5 years, prioritized
213 artisanal long-liners with large quotas and the purse seining fleet to operate as active fishing
214 vessels. In its management plan for BFT fishing capacity over the period 2010-2013 the
215 government reported that “*Malta will not allow those vessels that have a quota less than 200kg*
216 *to actively fish for BFT- however they may transfer their quota to another vessel which already*
217 *has quota.*” [30,31]. This scheme, which is embedded in the neo-liberal ideology of allocating
218 TAC in the most efficient manner, has derailed the ability of small-quota holders to actively
219 engage in the fishery and catch their quotas.

220

221 Since 2010, the average number of artisanal vessels that were authorized to operate was less
222 than half of the permit-holders ($n \approx 28$). Unlike the active counterpart who are authorized to
223 catch their quotas and sell them to through the lucrative export market, the small-ITQ holders
224 have been compelled to lease out their fishing rights to the larger, more ‘efficient’,
225 predominantly purse seine, lessees. This policy left small ITQ holders considerably worse off.
226 A fisherman explained that between 2010 and 2014, the prices attached to the leased-ITQs i.e.
227 €5 to €6 were less than the reported export price of between €9 and €10, and for this reason
228 many small-ITQ holders would have preferred to catch rather than lease their ITQs.

229

230 Although these ‘non-operational’ tuna fishermen could have caught their shares as by-catch
231 with other fisheries, this option is less financially rewarding as by-caught tuna is not destined
232 for the more lucrative export market. Also there are conditions on declaring tuna as by-catch

233 which essentially rule out this option for many fishermen as explained by one fisherman,
234 “quota can only be caught as by-catch, and to declare a tuna, you ought to catch 20 heads of
235 swordfish. Now, for a fisherman to catch 20 heads of swordfish he has to be very lucky, so the
236 policy is there to dishearten the fishermen from catching his small quota as by-catch and
237 instead *lease it to the fish farm.*”

238

239 **3.2) Tuna ranching is transforming the fishing economy of Malta: Accumulation by** 240 **dispossession**

241 The tuna ranching industry is owned by only 5 companies [32], 2 of which are foreign investors.
242 Between 2009 and 2013 one of the companies, as reported in the Malta’s Aquaculture Strategy
243 [32], was registered in the name of an ex-representative of a fishery co-operative. This
244 company, which also owned a purse seine license, was the first to engage in the purse seining
245 of the national TAC through the pilot study and successively started leasing ITQs from the
246 fishermen through the leasing framework. This in turn initiated the process of ‘accumulation
247 by dispossession’ of the artisanal sector quota, and now most of the national TAC is the
248 property of the tuna ranching industry (Figure 1).

249

250 The fattening of the national TAC was only possible through the increase in ITQ ownership
251 through the permanent purchase of artisanal permits, and by policy developments surrounding
252 the fishing capacity clauses of the national management plan that forces small-quota owners
253 into becoming leasers. Also, by offering the opportunity to some of the larger ITQ holders (who
254 own larger iron vessels) to earn income from towing tuna cages equivalent to approximately
255 €1200 daily for 2 months a year, tuna ranchers were able to secure the lease of these
256 fishermen’s ITQs as well. This shows that the tuna ranching sector has become the real owner
257 of the national BFT and as illustrated in Figure 3, its controls are predominant in most of the
258 transactions of the BFT fishery.

259

260

261 (Figure 3 here)

262

263

264

265 Along with being the main owner and lessee of the national TAC, the tuna ranching sector also
266 controls access to the lucrative foreign BFT markets. These connections are allowing the tuna

267 ranchers to exploit prices to their advantage with for example, active long-liners who must
268 export their BFT via the tuna ranchers. For this reason, the ranching industry has a monopoly
269 over the price of both the lease and the export market, and it is therefore in a powerful position
270 to maximise profits and/or act strategically at the expense of the artisanal fishing fleet. For
271 example, by reducing the difference between the leased-ITQ price (€6 to €8 in 2015) and the
272 export price of ITQ caught tuna (at around €9 to €10 in 2015), the tuna ranchers have been able
273 to attract the majority of independent Maltese ITQ holders to lease their ITQ directly to them.
274 Consequently the number of active long-liners fishing their ITQs decreased by 71% between
275 2014 and 2015.

276
277 Maltese long-liners have also been discouraged from retaining their rights to fish for tuna ITQ
278 because of what they perceive as *'intimidating'* control procedures that are enforced by the
279 government as part of the EU recovery plan. For example, they get regular at-sea-inspections
280 and are requested to fill-in a number of documentation, which they perceive as a heavy
281 bureaucratic burden on their fishing operations, which has made them anxious and under
282 pressure. After narrating a bitter experience that he encountered with enforcement procedures
283 at sea, an active long-liner said "...these days I am always afraid – and my fear only ends when
284 I get back home – not when I tie up the boat but when I am in my house".

285
286 While the surveillance on the active long-liners is implemented as an explicit measure to ensure
287 that the quota limits are observed, it is safe to assume that these procedures are an 'implicit'
288 way of disheartening them from actively engaging in the fishery, and to encourage them to
289 instead lease their ITQs to tuna ranching operators. Taken together all these measures have
290 synergistically caused a major reduction in the number of operational fishermen amongst the
291 artisanal fleet and the recruitment of locals who were, prior to privatisation, employed as extra
292 deckhands for the BFT season between April and July. As a result of the neo-liberal processes
293 that has given a new shape to the BFT fishery and restricted most of the fleet from fishing this
294 resource, one can notice a spill-over of the artisanal sector onto other fishing systems which
295 are of an open access nature.

296 297 **3.3) Artisanal Livelihood Struggles: Spill-over effects onto other fishing systems**

298 The reforms of the bluefin tuna fishery and the concomitant marginalization of non-permit
299 holders, and the domination of the tuna ranching industry, also has major repercussions for
300 other fisheries systems which lack the same monitoring and management of the bluefin tuna

301 system. As fishermen explained, fishing activity during what was before the BFT season, has
302 now transferred to other fisheries, mainly trammel netting and gill netting, targeting demersal
303 and small pelagic species respectively. For example, official statistics show that between 2007
304 and 2012 the days at sea (fishing effort) on trammel nets has increased by 4,500% while gillnets
305 have increased by 870% (Figure 4). Fishermen have described this as a spill-over directly
306 related to decreased profitability endured by non-permit BFT holders who had to diversify into
307 other fishing systems, and by fishermen who have chosen to lease out their ITQs rather than
308 fish them.

309

310 (Figure 4 here)

311

312

313 For the most deprived, this displacement is a way of compensating for the loss of tuna fishing
314 and other livelihood pressures, but for a smaller number of fishers with large ITQs, leasing has
315 been lucrative, and allowed them to gain income from leasing their quota, and maximise their
316 profits by deploying their vessels in the trammel net and gill net fisheries. Whereas non-permit
317 holders and small-ITQ holders deploy a maximum of 12-15 trammel nets per day, the large
318 ITQ holders who have become economically empowered through ITQ-acquisition are
319 engaging in very intensive fishing, deploying between 50-70 nets per day by employing extra
320 hands who are often immigrant labourers. As explained by a fisherman, “the bigger boats [are]
321 carrying 50 to 70 pieces of nets and working round the clock, thanks to imported cheap
322 *labour.*” (Fisherman in Malta Today newspaper [33]).

323

324 These open access fish populations, which are also fished by other fleet segments including
325 industrial trawling and recreational fishing, may now be in a state of overexploitation. A
326 fisherman, who has been experiencing decreased yields stated that “... before 2010, we used
327 to catch 20, 30 kilos of fish in one trip. This year (2015), we went three times with the trammel
328 nets and we caught around 6-7 kilos in all the three trips. *It is not worth it.*” Hence those who
329 have already experienced falling incomes due to the BFT industrialization process are now also
330 having to confront the results of intensified fishing on the stocks remaining open to them. As
331 one fisherman highlighted “the past was more viable in terms of catches and now the expenses
332 *have increased, so the future isn't welcoming.*” These fishermen perceive of their future as
333 bleak and some have resorted to the recreational bluefin tuna fishing segment to make ends
334 meet.

335 **3.4) The Rise of the Recreational Bluefin Tuna Sector**

336 Recreational bluefin tuna fishing was introduced in 2011 and has been implemented in line
337 with the EU regulations² after intensive pressure by the recreational lobby (Interview with
338 Malta Fish Forum). The recreational fishery is open to those who own a recreational vessel
339 and authorises the catch of BFT that is annually assigned from the national TAC. A seasonal
340 permit is issued for each vessel. Participants are requested to present it during patrols and
341 catches' registrations. Since the fishery is a recreational one, the catches cannot be
342 commercialised [34], however, they can be given to charity. Artisanal fishermen who have
343 been excluded or marginalized from the commercial segment of the bluefin tuna fishery
344 perceive themselves as the ones in charity and have opted to benefit from this scheme.

345

346 For many fishermen disadvantaged by the policy shifts and pro-efficiency drift of the Maltese
347 government to favour tuna ranching, their only choice has been to register as a recreational
348 fishermen and engage in BFT fishing activities permitted under this category. The ability to
349 benefit from a recreational permit and informally sell recreational TAC BFT at the meagre
350 prize of €1- €2/kilo was a strategy that fishermen have been forced to adopt. The fishermen,
351 however are not benefitting much as commercial sales are not allowed and they are easily
352 exploited by middle men who can take advantage of the system. As a fisherman explained
353 *"...the fishermen end up with the cheapest price for this tuna, when and if, they find potential*
354 *buyers. The middle man tells you that he has the same level of risk as you do and so he wants*
355 *the cheapest price. We sell a tuna of 50 kilos for €100 and then they sell it for around €10/kilo*
356 *– making around €1000."*

357

358 The risk fishermen undertake to engage in this activity is significant and they are becoming
359 more vulnerable since they are now subject to enforcement which is accompanied by financial
360 penalties and criminalization procedures. In the past years, a number of fishermen have been
361 taken to court as they have exceeded the one-tuna-per-trip catch, and their case was presented
362 as a 'criminal practice' (e.g. [35,36]). This demonstrates that fishermen are not only becoming
363 disempowered by a system that creates financial vulnerabilities, but are also running the risk
364 of criminal punishment for relatively small misdemeanours.

365

² (EC 302/2009 (Art. 12 & 13)).

366 **3.5) Divide and Conquer - The role of the Fishermen's Cooperatives in the demise of the** 367 **Artisanal Sector**

368 The crisis that the majority of the artisanal fleet is undergoing has not resulted from a series of
369 unintended miscalculations, but from decision-making that has enjoyed the support of
370 fishermen's representatives back in 2010. The transition into privatisation and industrialization
371 was only possible because it had the official approval of politically-connected representatives
372 within the Fisheries Co-operative who allegedly used their legitimate power to benefit from
373 the investment opportunities of tuna ranching. Many fishermen highlighted that they were
374 unaware of the decisions that were being agreed on their behalf behind closed doors and
375 perceive the institutional process to be high-handed and lacking transparency. A retired
376 fisherman stated that "...when the company which belonged to the co-operative representatives
377 had been awarded the pilot project for the purse seiner in 2007, we [the fishermen] *weren't*
378 *informed, let alone consulted*". Co-operative representatives also fully supported the
379 establishment of the new BFT ranching facilities back in 2005, stating that "...the proposed
380 project would be of benefit to fishermen", and that, "*if approved, it would be "the best*
381 *Christmas present for fishermen*" [37]. However, this research suggests this has not been the
382 case and the share of economic benefits that have accrued through the industrialization of the
383 national TAC have been very unequal and arguably not consistent with the operating principles
384 of a 'co-operative' structure. Tuna ranching, which was presented by the Cooperatives as a new
385 niche for Maltese fishermen, benefits only around 5% of the full-time artisanal fishing fleet.
386 These include co-operative members who accrued profits through the ranch ownership and
387 15% of the ITQ holders who have diversified into cage towage during the purse seine season.
388 Although there are opportunities to work as labourers at the tuna ranching installations for
389 those fishermen excluded from the BFT fishery directly, this has not been an attractive option
390 for most as "*low-paid jobs do not provide the same income and job satisfaction as much as the*
391 *BFT fishing activity.*"

392

393 It seems clear that the new arrangements of the BFT fishery have created new power relations,
394 with most of the artisanal fishermen becoming disempowered by a tokenistic co-operative
395 system that has facilitated their demise in the name of economic efficiency. Most fishermen
396 criticize the system as capitalistic, and argue that they (the authorities) are rude, since they
397 insinuate that there needs to be protection of the fish stocks – when the reality is that the tuna
398 fishing has become commercialized, and [most] Maltese fishermen, due to their artisanal
399 *nature, have remained out of the loop*". Although fishermen seem to be conscious of their

400 situation, they perceive themselves as the ‘small fish’ who are unable to change their destiny.
401 In a fisherman’s words: *“I understand that the small fish never ate the big fish, and thus we*
402 *are not going to be able to overturn the situation of the purse seiner.”*

403

404 Attempts to reverse this trajectory have so far proved to be futile since fishermen are too
405 fragmented and feel impotent to challenge the industry which determines their livelihood
406 pathways. As explained by a fisherman: *“...we tried to raise awareness amongst the fishermen*
407 *but those without quotas don’t like us because we have quota and they don’t. So we could do*
408 *nothing together..... I ended up trying to challenge the situation with another 4 fishermen but*
409 *with time I realized it is useless. In fact I realized that I have to shut my mouth because these*
410 *large companies have become the commanding regime in Malta. I depend on them whether I*
411 *like it or not because they export my fish”.*

412

413 The economic power of the tuna ranching industry and the concomitant individualistic pursuits
414 of the co-operative representatives, which have been invisibly taking place within the ambit of
415 the liberal market transactions, are suffocating the artisanal segment and deteriorating the
416 political capital of the Fishermen’s Co-operative as a united force. Fishermen, who now
417 identify one another as a ‘large-ITQ, ‘small-ITQ’ or ‘non-ITQ’ holder are no longer the
418 cohesive group that has stood up for the Maltese fishermen’s rights. The same fishermen that
419 in 2001 battled against foreign companies who affected their fishing rights [12], are now (in
420 2015), more prone to struggle amongst each other, for example on who ought to benefit from
421 the TAC increment, rather than to regain their power within a system of capitalistic monopoly.

422

423 Fishermen have basically succumbed to the powerful forces of industrialists who allegedly
424 have the inside track to senior politicians³. Through these processes, artisanal fishermen have
425 become sufficiently fragmented and disempowered to an extent that they are unable to engage
426 in collective and political action to bring about the much yearned change to revert the decline
427 of the artisanal sector. Although promises for a better future in the bluefin tuna fishery have
428 been assured by the Labour party during the election campaign election a couple of years ago,
429 the fishermen has publicly claimed in a local newspaper that the government *‘broke pre-*
430 *electoral promise’*, and *‘at the end of the line we are no better off...’*[38].

³ Paul Watson, the Sea Shepherd spokesperson, has instigated that the tuna industry is bribing Maltese politicians. See more: <http://www.maltatoday.com.mt/news/national/16289/tuna-industry-bribing-maltese-politicians-says-sea-shepherd-founder-20120223#.VOyk3vnF9V0>

431 **4) Discussion**

432 The implementation of ITQs has been used in many countries e.g. New Zealand [39]; Iceland
433 [40]; and Spain [41], however their benefit as fisheries management tools is highly debated.
434 They are praised by biologists for deterring the race to fish and by economists for improving
435 the aggregate economic performance through profit generation [42], and simultaneously
436 criticized by social scientists for perpetrating social inequity, injustice and deprivation [43,6].
437 This research show how the majority of the artisanal sector in Malta is enduring symptoms of
438 dispossession, fragmentation, disempowerment and marginalization which have resulted
439 directly from the BFT policy trajectories. It seems that the Government's BFT management
440 plan has been a significant driver of change which is perpetrating the vulnerability of the
441 artisanal fishermen and simultaneously enabling the expansion of the tuna ranching sector
442 through the industrialization of the fishery.

443

444 Like other Mediterranean countries, the BFT fishery in Malta has moved from a localised
445 artisanal livelihood into '*a massive gold rush inspired by global capitalism*' [44] led by
446 powerful ranching investors [20]. In such policy-supported transitions, the knowledge, skills
447 and hard work of fishermen have been replaced with a limited set of entrepreneurial
448 opportunities available only to those with access to significant capital [43]. Without specific
449 and local provisions specifically for the artisanal fleet, decline and ultimate extinction of unique
450 socio-ecological systems are almost inevitable. In Spain the Government has established an
451 alternative course for the artisanal fleet by implementing measures that ensure equitable ITQ
452 distribution by accounting for historical activity and socio-economic dependency on the
453 fishery, and restricting the concentration of rights by companies [45]. In stark contrast the
454 policy of Malta has enabled the unhindered shift toward a highly capitalist system based around
455 and entirely dependent on the hegemony of the international tuna ranching industry.

456

457 It can be argued that the development of the ITQ framework which has marginalized non-
458 record-keepers and triggered systemic socio-ecological problems, demonstrate that the main
459 aim of ITQs was in essence to serve the agenda of the industrial elites rather than to improve
460 the BFT stocks for the long-term benefit or indeed survival of the artisanal fleet. In other
461 words, ITQs, as a privatisation mechanism, was used as a tool to legitimize the 'accumulation
462 by dispossession' [7] process that empowered the industrial fleet at the expense of the artisanal
463 sector.

464

465 The embedded nature of the ITQ system within the paradigm of economic efficiency
466 concomitant with the industrialised world, which enables the consolidation of property rights
467 by the powerful few, seems to obscure the major predicaments that are related to social equity
468 and sustainable livelihoods [46,47]. The fact that the BFT stock has recovered, but most of the
469 Maltese artisanal fishermen are still experiencing an overall decreased profitability confirms
470 that the political urge to cater for the sustainability of resources has only been to support the
471 tuna ranching sector which brings ‘good foreign currency to Malta’ [48] and attain a BFT
472 compliance certificate from the EU [see 42]. The resilience of the artisanal fishing communities
473 does not classify in either of these priorities, and the needs of the sector remains only a concern
474 highlighted in rhetorical government’s public displays such as Ministerial speeches calling for
475 the protection and sustainability of small-scale fishermen [50].

476

477 The pledge of the government to safeguard the small-scale fisheries and coastal communities
478 in the adoption of the new EU common fisheries policy [51] seems to have been contradicted
479 by neoliberal policy mechanisms of ITQs that suffocate the upward mobility of the artisanal
480 fleet. In reality, fishermen are not equipped to protect themselves against the policy shocks and
481 market forces brought about by industrialization. Instead, they have become oppressed by a
482 system that has dispossessed them and disempowered them by creating policy instruments that
483 discriminate, fragment and disunite. The ‘divide-to-rule’ [52] strategy is inhibiting them from
484 speaking with a common voice against the national and local structures that are gradually
485 facilitating their disappearance. In Spain artisanal fishermen have been empowered in a local
486 decision-making frameworks and by the adoption of co-management agencies such as inshore
487 fisheries groups which uphold and protect collective decision-making in the distribution of
488 BFT quotas [45]. In Malta, in contrast, fishers have become ‘powerless spectators’ [53] with
489 no hope of changing their situation within the BFT fishery.

490

491 **5) Conclusion**

492 In the past decade the artisanal BFT fishery in Malta has become intermeshed with the
493 globalizing effects of policy-making and subject to the exogenous forces of the transnational
494 BFT market. The evolving nature of the BFT sector illustrates a shift from what was once an
495 artisanal fishery to what has become an agro-food industry of BFT ranching shaped by market
496 forces in the name of economic efficiency. The introduction of the ITQs and fishing capacity
497 restrictions, as conservation tools to protect BFT, have synergistically created new power
498 relations that dispossessed most of the artisanal sector and orchestrated the expansion of the

499 tuna ranching industry. Through a descriptive analysis of these systemic developments, this
500 study presents a showcase of how capitalistic processes of privatisation lead to resource
501 appropriation that trigger major social inequities, and as a consequence, indigenous people face
502 ‘a forceful expulsion’ from the resources upon which they depend. [7].

503

504 The policy changes that have facilitated the industrialization of the fishery were the beginning
505 of the end for the artisanal fishermen, since consecutive BFT decision-making has been
506 consistently focused on the principles of economic efficiency that have suffocated the
507 regeneration of the artisanal sector. The rationalization of the sector has triggered a legitimacy
508 crisis over BFT fishing rights, and implicitly forced most of the artisanal fishermen to diversify
509 their fishing activity onto other unmanaged, possibly overexploited, fishing systems.
510 Cumulatively, these processes are generating a deep socio-ecological crisis which would
511 appear to be beneath the radar of the Maltese government. As a result, the prospects in fishing
512 have become bleak at multiple levels, and artisanal fishers are gradually abandoning the
513 commercial fishing sector for they sense that the tide has turned against them.

514

515 The artisanal sector is likely to keep diminishing if it does not get sufficient and imminent
516 political attention. The duty to safeguard the needs of fishers through proper governance
517 principles currently exists only as rhetoric in institutional texts such as Ministerial speeches
518 and the Co-operative Act which stipulates that the ‘*co-operatives work for the sustainable*
519 *development of their communities through policies approved by their members*’[54]. Some of
520 the fisher’s representatives, who have been elected in power by the artisanal fishers themselves,
521 have been subjugating the voice of the artisanal sector and suppressing their resilience.

522

523 Simultaneously, the close-knit arrangements between the fishing elites and the government
524 have abandoned the needs of the smaller fishermen since their priorities, which they claim are
525 aligned to the sustainable recovery of the BFT species, lie in the expanding BFT ranching
526 sector and not on the continuity of the artisanal fishing communities. The transition into
527 ranching has been highly welcomed and incentivised by the national government and although
528 this transition is lauded as a tool of ‘diversification’ for fishers, in reality, it is a policy that is
529 serving the elitists’ interests, and simultaneously obliterating the artisanal sector.

530

531 Finally, this study recommends that fisheries management needs to be re-examined by
532 recognising and adopting the social and cultural pillars of sustainable development as well as

533 the environmental and economic pillars. The current top-down protection of resources is too
534 reductionist and narrowly set on capitalistic rationality, and is likely to create socio-ecological
535 misfits that will in turn create problems of a wider nature. One obvious and tangible measure
536 would be to allocate ITQs more equitably to allow the artisanal sector to regain a more healthy
537 position and limit the transferability of the ITQs to avoid the concentration of rights into the
538 hands of the powerful few.

539

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546

547

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