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Why fish? Using entry-strategies to inform governance of the small-scale sector: A case-study in the Bijagós Archipelago (West Africa)

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ABSTRACT

Should rural commercial small-scale fishing opportunities be closed to minimise effort and safeguard marine resources or open to offer livelihood support? In the Bijagós Archipelago (Guinea-Bissau) investigating employment pathways indicates that the sector is encouraging a diversity of institutions to flourish, reaffirming our understanding of the critical 'safety-net' function small-scale fishing affords. Results support the need to examine developing country smaller-scale fisheries in terms of wider social opportunities and not purely in terms of their own limitations.

1. Introduction

1.1. Small-scale Fisheries (SSF): A working definition

Seventy-five per cent of marine fish are landed following small-scale operations, which proliferate in developing countries where monitoring is limited [74,67,38,20,9:4,51,71,78,14,30,37,13,81]. As a result, our understanding of small-scale fishing (SSF) is largely incomplete, with data scarce, inaccessible or difficult to interpret [29]. Fishing activities classified as small-scale are heterogeneous in terms of culture, technology, target fishing grounds and catch groups [17]. Operations typically involve small gears with concomitantly limited operating ability such that SSF is commonly considered a low-capital investment [73:10]. In reality however, the sector is constantly developing as new technologies are introduced [79,35]. Here 'SSF' denotes commercial activities inside the near-shore marine environment, using multiple gear-types but with an upper limit of 40 horse power, on motorised engine capacity.

1.2. The importance of SSF

West Africa exemplifies one region in which access to fish is critical, providing a buffer against nutrient deficiency and malnutrition [68,70,66]. Security is threatened however, as growing international demands towards this Eastern Central Atlantic (ECA) 'fish basket' increase rates of industrial harvesting, exportation and illegal activity [4,16,1]. Consequentially, fish consumption per capita in West Africa has stagnated since 1970 which, coupled with high population growth presents an enormous challenge for fisheries policy [16,56,84].

Globally, it is suggested that rates of occupational entry into fishing are exceeding human population growth [90]. However, West Africa's trends remain largely an enigma in comparison to our understanding of East African and Asian circumstances [80,6,41,60]. Regional migration coast-wards along the ECA seaboard is commonly attributed to the poor infrastructure which characterises Guinea-Conakry's interior; while ease of entry on the littoral plains is associated with open-access fishing grounds and low agricultural profits (Solie, 2006; cited in [77]). In Senegal, coastal agriculturalists have also been observed taking-up short-term fishing work, to escape seasonal unemployment [28,43]. In general however, it is argued that we know very little about new arrivals to SSF in the West African region, compared with our understanding of those cultures historically engaged in fisheries-related occupations [17,57,72].

1.3. Challenges facing SSF

To some, any growth in SSF effort is ultimately detrimental to fisheries resources and only 'wealth' based management approaches, prioritising constant catch-levels, stocks for

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future-use and area-closures with restricted fishing, can address these concerns [48,58,79,69,35,59]. To others, access to SSF is seen as critical and the provision of food, employment and income-generation an essential-pillar upon which the unemployed and unfortunate depend [8,65,64,17,71,15]. 'Welfare' advocates therefore view access to fishing as key and the successful development of fisheries governance as dependent upon social inclusion [63,65,20,36,62,17,15,19,13,77,18].

1.4. Objectives and aims

By investigating livelihood pathways of entry into SSF this study aims to inform our understanding of an appropriate governance trajectory for this study-region. The resulting qualitative analysis therefore focusses upon the question of why individuals do fish and aims to present a holistic overview of commercial SSF participants.

2. Materials and methods

2.1. Study area

Findings are presented from a single case-study where researcher involvement was constant for twenty-four months and the advantages of such longer-term fieldwork acknowledged [50]. Cabuno beach (Uno Island Fig. 1) has been permanently occupied, as a SSF camp settlement by regional West-African in-migrant workers since 2003. The national SSF sector of Guinea-Bissau (located between Senegal to the north and west and Guinea-Conakry to the south and east) lacks coherent data and Cabuno camp was therefore purposively chosen, on account of transport, to bridge this knowledge-gap [53,91,2]. To contrast, the 34,000 indigenous Bijagós Islanders (including approximately 3000 on Uno) focus upon subsistence rice cultivation, grounded by the unique religious and cultural institutions of their age-structured society and a struggling staple dietary production system [87,55,10]. The investigation here presented is but one component of a wider cross-cultural livelihood investigation [44].

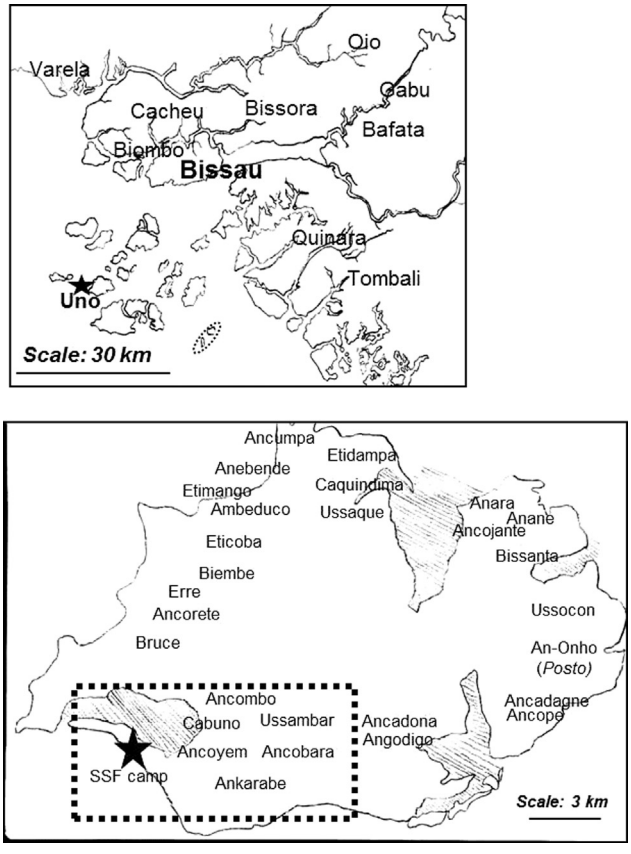

Fig. 1. (Top) Major towns inside Guinea-Bissau and location of Uno Island inside the Bijagós Archipelago; (Below) Major villages on Uno and (insert) the SSF fishing camp in Cabuno Sector (Cabuno Camp).

2.2. Qualitative semi-structured life-history method

Case-studies facilitate in-depth understanding of phenomena as they occur within a relatively natural setting [24]. Taking part enables knowledge accumulation not only through informants' verbal statements but through all aspects of day-to-day lives as they naturally unfold [21]. Semi-structured life-history interviews were used in Cabuno; to examine how individual beliefs, needs, aspirations and circumstances have influenced individual entry into commercial SSF [76,54,83]. This biographical approach offers a means of studying wider topics [82]. Life histories are considered particularly useful where information is scarce or conceptualisation limited; as they provide a rich source of contextually situated (historical, social, economic and cultural) knowledge, while exploring the complexities of individual realities [45,26]. Face-to-face interviewing also grants freedom to respondents, encouraging confidence and minimising the gap between interviewee and researcher [92,86].

Between 2009 and 2010 the Cabuno camp was home to a vibrant fishing population, which peaked in size during the dry (November–April) season. Camp residents were reliant upon fishing for part or all of their income. Three main fisheries operated; fine-mesh monofilament netting for bonga-shad, long-lining demersal catfish and gill-netting mid-water croakers. All catch was first traded inside the camp either from fishers to fish processors (responsible for sun-drying, smoking or salting) or directly to traders, who personally processed the catch or else employed others to do so. Exportation then occurred to various mainland ports and landing stations, located between Dakar and Lagos.

In total fifty-nine semi-structured life-history interviews were collected from the Cabuno camp, purposively sampled across male fishers ($n=31$) and fish-traders ($n=18$ males; $n=10$ females). No female fishers were encountered in this study area and the distinction between fisher and trader groups was made clear; *those with sufficient funds to buy fish (traders) did not struggle with work at sea (fishers)*. Participants were involved on the basis of recommendations and through snowball sampling [34]. A research assistant (RA) was employed, a trusted camp member capable of multi-lingual interviewing (in various Krioles, Mandingo, Soussou and Temne). Before commencing, informal discussions and trials were held with this RA to discern an appropriate method. Several key events (including Independence wars, civil wars and political milestones) were identified covering the history of Uno Island, Guinea-Bissau and across the wider region. These were used as bench-marks or prompts in the time-frame of each history. Trial-interviews enabled a three-question interview structure to develop; the first of which detailed core respondent attributes (*name, household membership, gender, year of birth/age, ethnicity, nationality, birth place, education status, religion and working position as 'fisher' or 'trader'*). Section two focussed upon occupational experience prior to entry into fishing; Section three, upon experiences inside the SSF sector. All interviews typically lasted one hour, often over multiple sessions depending upon respondent availability. Follow-up meetings were then held. These provided opportunities to read through; discuss and translate each interview manuscript.

3. Thematic analysis

3.1. A systematic analytical process

A systematic, thematic analysis of the interview texts has since been undertaken to discover, interpret and report patterns or clusters of meaning [31]. A substantive approach has encouraged emergence of ideas from the interview material with the transcripts providing a window into the social world of SSF participants [82: 272]. The analytical process commences with (translation) transcription and familiarisation (Table 1). This is followed by an initial indexing of key-features inside the text which reflect the status (the fit) of data-labels [82: 277]. Key themes are then sought among the data-labels, representative of '*conceptually similar responses or opinions*' [52]. Finally, these themes are developed into typologies or heuristic categories [45] recurrent across the qualitative material.

3.2. Labelling entry-strategies into commercial SSF

(i) *Transcript Type:* Interview transcripts are labelled to indicate respondent occupational experiences inside or prior to commercial SSF (Table 2). Some interviews indicate a total absence of non-fishing occupational experience and these responses are indexed as Type A. Other texts reveal that SSF have worked extensively in non-fishing employment; these are indexed as Type B.

(ii) *Types of Work:* Positions taken up at entry into commercial SSF are categorised as fisher, fish-processor and fish-trader. Former employment activities (found in Type B transcripts) are diverse and categorised into primary, secondary and tertiary sector occupations, following Bryceson [33].

(iii) *Place Names:* Places, including locations of fishing and non-fishing employment, are ultimately classified as either inside (at *home*) or outside (*away* from) a respondents' natal (birth) country.

(iv) *Year of Work:* Individual dates and years are grouped into decadal time-intervals. The earliest histories begin in the 1960s.

(v) *Contact:* Some describe contacts into commercial SSF as *kin* or family. Others emphasise that entry involved the advice and guidance of non-familial friends or strangers.

(vi) *Reasons for Joining Fishing:* Explanations behind decisions to enter commercial SSF have been categorised into 'push' and 'pull' factors. 'Push' factors include entry to avoid social obligations or to escape social-political conflicts, poverty or environmental degradation. These are motives linked to stress-response, crisis management and risk aversion. 'Pull' factors are linked with perceived or expected benefits to SSF, such as financial returns, better prices, stronger markets, cheaper input costs; strategies which incorporate multiple livelihood activities or specialisations such as improved technologies [12]. In the wider literature, push factors are generally considered negative and pull factors positive [32].

4. Results

4.1. Core attributes of SSF camp respondents

The respondents in Cabuno camp originate from eight West African states (Guinea-Bissau, Guinea-Conakry, Ghana, Liberia, Mali, Nigeria, Sierra Leone, Senegal) and are affiliated with seventeen ethnic groups (Baga, Biafara, Bijago, Bullom, Enugu, Fante, Felupe, Fula, Loko, Mandingo, Ollof, Sere, Sherbro, Songwe, Sousou, Temne and Sylla). Their birth places are commonly near-coastal, but also include the highlands of Guinea-Conakry and the Timbuktu desert. All are Muslim, with one exception. Most fishers

Table 1
Process of thematic analysis.

Process	Description	Outcome
1. *Familiarisation*	Transcription, reading, re-reading and noting down initial ideas	Broad understanding of personal histories for those involved in commercial SSF
2. *Indexing*	Labelling features of the data in a systematic manner, collating data relevant to each subject-heading	Labelling characteristics of entry into commercial SSF
3. *Identifying key themes*	Collating codes into potential themes; gathering all data relevant to each theme and generating a thematic map of the analysis	Developing characteristics of entry into commercial SSF
4. *Typological classification and differentiation*	Refining the specifics of each theme; generating clear names and definitions for different typologies	Identifying specific factors determining entry into commercial SSF

Table 2
Key features (data labels) identified during initial indexing of transcripts.

Transcript	Indexing method	Derived data labels
Type A: Individual with employment experience in fishing	A.1. Type of fishing activity	*Fisher/processor/trader*
	A.2. Place of fishing work	*Home or away*
	A.3. Year of fishing work	*Decade*
	A.4. Contact into fishing work	*Kin or non-kin*
	A.5. Reason for joining fishing work	*Push or pull*
Type B. Individual with employment experience in non-fishing and fishing activity	B.1. Type of non-fishing activity	*Primary/secondary/tertiary*
	B.2. Place of non-fishing work	*Home or away*
	B.3. Year of non-fishing work	*Decade*
	B.4. Contact into non-fishing work	*Kin or non-kin*
	B.5. Reason for leaving non-fishing work	*Push or pull*
	B.6. Subsequent type of fishing activity	*Fisher/processor/trader*
	B.7. Place of fishing work	*Home or away*
	B.8. Year of entry into fishing work	*Decade*
	B.9. Contact into fishing work	*Kin or non-kin*
	B.10. Reason for joining fishing work	*Push or pull*

recount previous attendance at a State-run school; most traders recall Arabic (Koranic) taught classes only.

4.2. From labels to key themes: understanding entry into SSF

From the six main data labels (transcript type, work at entry into fishing, place and timing of entry, contact and reason for entry) emerge three key themes, around which the life history texts are ultimately framed.

4.2.1. Background: occupational diversity prior to entry

Individuals describe entry into commercial SSF from a diversity of occupational backgrounds. Various jobs are described in the interviews associated with the primary (*farming, herding, foresting, hunting, mining*), secondary (*construction work*) and tertiary or service-sectors (*boat and taxi transport operations; carpentry, car washing, dish washing, mechanics, non-fish trade; airport baggage handling, photography, tailoring, traditional medicine shamanism and welding*). Only one individual makes reference to industrial-scale employment as providing an entry into SSF and most employment pathways commence within non-fishing occupations.

4.2.2. Entry mechanisms: the push and pull factors

Many interviews recount 'falling' or being pushed into fishing on account of poor familial health, death or bad-luck. For most however, episodes of post-colonial political disturbance, civil unrest and violence caused severe livelihood disruption to choices and opportunities. References are made to the onset of fighting in Liberia (1989), in Sierra-Leone (1992) and in Guinea-Bissau (1998–1999) and descriptions of *road-blocks, road closures* and *transport restrictions* are common within the interviews. Respondents describe being *trapped, immobile* and *cut-off* from *friends, family-members and assets.* Causes are attributed to *the army* and *rebel fighters,* in a *struggle for power* over natural and human resources. Resulting from these episodes of violence are recounts of *workshop, office and hotel closures; lootings from stores, supermarkets and dwellings, burnings of cars (taxis) and houses.* The histories are awash with reference to *terror, social upheaval and insecurities.* Most histories result in substantial geographical *relocations* both inside (at home) and away from natal birth countries; followed by occupational relocations into SSF.

Others describe feeling enticed (voluntarily) to join SSF on account of perceived high financial rewards. To these individuals, perceptions of SSF were such that any efforts *to see, to try or to find* would, it was assumed be highly rewarded. One former cattle herder explains his ambition. *"I'd started to see those people coming from the sea* he explains. *'They'd been fishing and they had money, lots of it'".* For these respondents, financial expectations upon entering SSF have been carefully weighed against numerous alternatives including salaries received through army-membership and profits gleaned from diamond-mining. Unfortunately, many also quickly face a lack of transparency in association with fishery-related profits. A former carpenter describes being coaxed into fishing in Kamsar port (Guinea-Conakry). *'What he* (a Sierra Leonean boat captain) *didn't tell me was that he was returning to confront a debt of 150,000 CFA (£300). I was with other people from Cabuno. They later told me that if they had known I was to pay the debt of that man; they would never have advised me to leave Kamsar'.*

4.2.3. Growth of entry in the Bijagós Archipelago

Some interviewees have engaged in SSF before leaving their natal birth countries. This phenomenon is more common among those who joined early (during the 1980s and 1990s) and who largely lack non-fishing occupational experience. One trader, born in Port Loko (Sierra Leone) describes leaving school aged thirteen to travel and sell fresh-fish on ice between Koidu-Sefadu and Freetown with his Aunt. His cousin meanwhile had travelled to Virginia and his elder brother was sending out fish and vegetables to African communities in the United-States. As war broke-out, the trader crossed into Boffa (Guinea-Conakry) and started smoke-processing fresh bonga. His elder sister "*made introductions up country*" such that before long he was sending smoked fish 600 km into the highlands, around Gegedou and Kindia."*Fish was cheap then*" he explains "*and money had value*; *you could build 3–4 baskets* (each holding a tonne) *for 500,000 Franc Guinée (£100). Today you need 5 million* (£1000)". Other individuals describe traversing multiple national borders prior to entering commercial SSF. Born in Enugu State, Nigeria (in 1980) one recent trader-entrant recounts travelling overland to Conakry City while selling jewellery and other hair-attachments in the road. Two years later, he reached Bissau City on the advice of his brother. There he was introduced to a Nigerian from Eno State who described handsome profits in buying smoked catfish from a Bijagós-Island SSF camp and shipping this back to Lagos. Regional entry-points into SSF therefore appear to have shifted through time (Fig. 2) with the Bijagós archipelago becoming more significant in recent years. This is explained from two perspectives. Fishers describe industrial-scale activity dominating many mainland ports (Conakry City, Freetown and Kamsar) such that operations for small-scale vessels are increasingly difficult. Traders describe how fish availability inside the mainland urban wholesale arena has declined on account of this industrial activity and exportation. As a result, new entrant traders (lacking any clientele) are advised to commence negotiations within rural isolated fishing camps, securing fish directly from fishers, processors and other traders.

4.3. Typology and differentiation of entry-strategies into commercial SSF

(i) Early starters
Three typologies of entrants into commercial SSF emerge from this qualitative analysis (Table 3). 'Early starters' are those for whom a first recorded post-school (or post childhood) activity has involved catching, processing or trading in fish. Some admit joining fishing operations aged just 10–12 years. These entrants therefore lack any occupational experience outside of the fishing sector. Most started working '*at home*' or else inside their natal (birth) country in association with familial or *kin* contacts; very few had traversed a national border prior to entry. Many also describe incidents of violent conflict as influencing migratory decisions after joining the SSF sector.

(ii) Late starters (push)
In contrast, many more respondents describe having joined commercial SSF later in life, after having acquired substantial occupational experience outside of fishing. These are separated into two groups differentiated by 'push' and 'pull' factors. Members of the *'late starter (push)'* group typically entered SSF due to a circumstance of conflict (between 1980 and 1990). These individuals describe being pushed (involuntarily) into fishing from tertiary sector occupations as regional violence erupted and social security situations worsened. These individuals typically joined SSF before undertaking a border crossing (at home) by congregating in fishing camps along the coastal plain. Like the 'early starter' group, the 'late starter (push)' entrants have therefore accumulated considerable fishing experience outside of the Bijagós region.

(iii) Late starters (pull)
In contrast, members of the '*late starter (pull)*' group show a tendency to have joined more recently (since the year 2000). For these individuals, reference to conflict and political violence is minimal and instead, motivations for entering

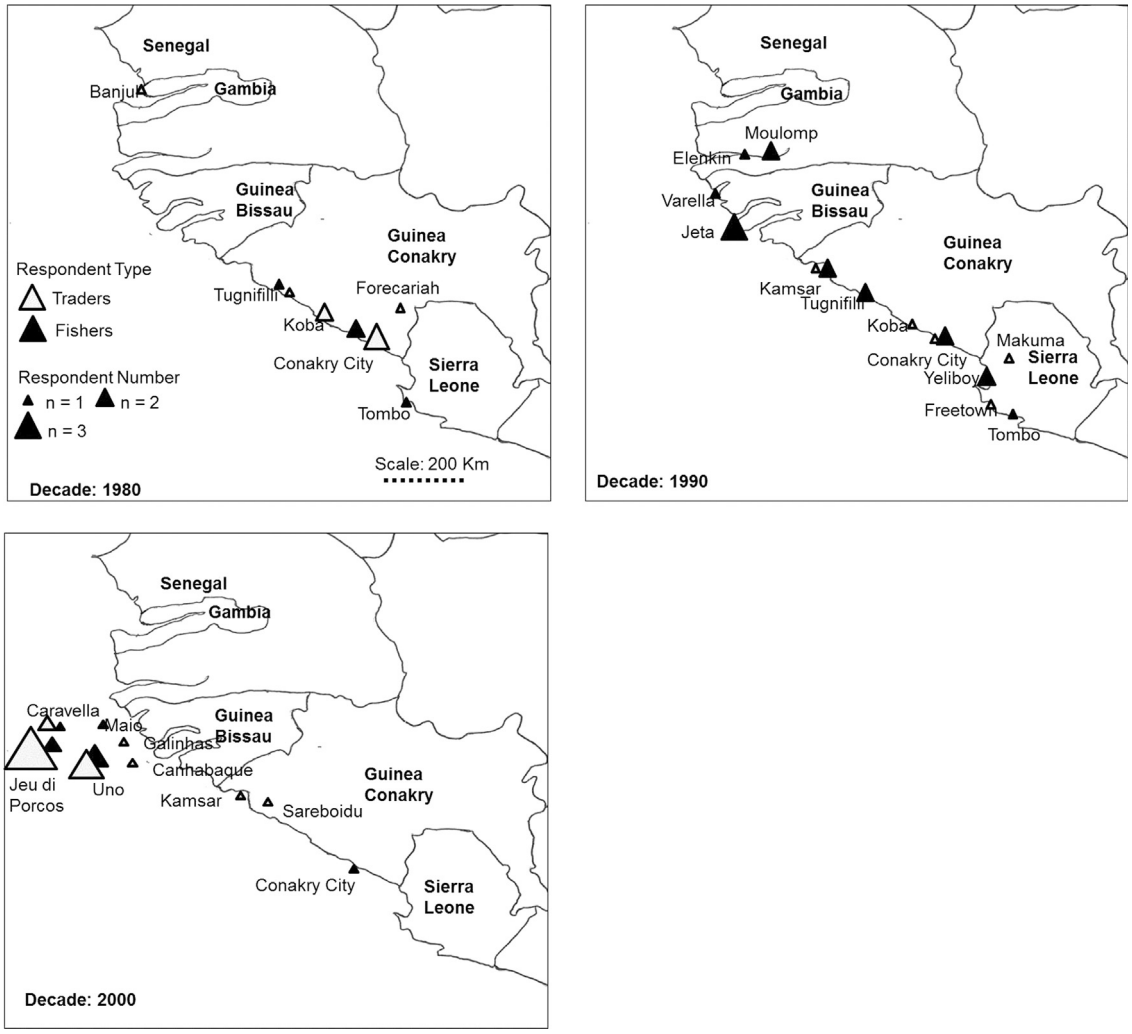

Fig. 2. West-African entry-points into commercial SSF during the 1980s, 1990s and 2000s.

Table 3
Emergent thematic framework depicting entry into commercial SSF in West Africa.

Key themes			Entry typology
1. Occupational background	2. Entry mechanism	3. Attributes of entry point	
Non-fishing occupational diversity (low)	Pulled (enticed)	Inside of natal birth country	Early starter *Little non-fisheries livelihood experience; pull is familial; young age at entry; experience in SSF is extensive and regional*
Non-fishing occupational diversity (high)	Pulled (enticed)	Outside of natal birth country	Late starter (push) *Extensive non-fishing livelihood experience; push is political conflict or misfortune; older age at entry; experience in SSF extensive and regional*
Non-fishing occupational diversity (high)	Pushed (involuntarily)	Inside of natal birth country	Late starter (pull) *Extensive non-fisheries livelihood experience; pull is financial; older age at entry; experience in SSF is least and localised (Bijagós)*

commercial SSF are of a financial nature. Most have been lured out of the primary sector (from farming, horticulture and forestry activities) incentivised by the profits which may be gleaned from SSF. In contrast to the other groups, these individuals have joined commercial SSF outside of their natal (birth) countries after crossing multiple national borders. Most describe learning to fish inside the Bijagós area. As a result members of the 'late starter (pull)' group are typically older and less experienced in fishing.

5. Discussion

Before turning to the wider objective of this paper, three major shortfalls are identified. Firstly, while the life-history interview technique can provide detailed contextual information, this study could not account for personal differences in accuracies or time perception. Triangulation of histories was largely impossible given the multitude of places from which respondents originated. Finally, due to logistic and time constraints the sample size of

respondents is admittedly rather small. With these caveats now in mind, this discussion returns to the main analytical aim of the paper.

5.1. Why do individual's fish?

This study offers a unique insight into the strategies characterising entry into the commercial marine SSF sector of West Africa. The information gathered illustrates that sector-workers (fishers and traders) originate from numerous circumstances, locations and backgrounds; their history material revealing a diversity of motivations behind adoption of SSF as an occupation. In-depth qualitative thematic analysis does suggest however that entrants' may conform to one of three key typologies.

Many 'early starters' entered the fishing sector following its regional popularisation during severe droughts of the 1970s [39,25]. These individuals therefore harbour a wealth of knowledge; having commonly been involved in and navigated many decades inside the SSF sector. They provide insight not only into the cultural significance of access to fish; but also life-style adaptations required to migrate, catch, process, trade and transport SSF produce. Prevalence of this group suggests that fishing as a way of life, continues to retain at the very least a cultural (as well as social and financial) significance.

'Late starters' are also prevalent among the SSF on Uno Island; a finding commensurate with other studies [40]. That many originate from inland towns and villages supports previous works detailing the attractive employment and living opportunities idealised at the coastal fringe [89,32]. For some, SSF has provided a shield against numerous political conflicts and disturbances in the West Africa region. In 1989 for example, Upper-Guinea experienced dramatic population in-migration following the onset of fighting in Liberia [27]. By 1995, the total estimated refugee population in Guinea alone was over 500,000, and despite a series of cease-fires and peace agreements, the prospects for repatriation remained bleak. Cabuno camp indeed highlights the difficulty in distinguishing between 'migrant fisher' and 'political refugee who happens to fish'. This challenge remains central, given that various re-current political crises in this region today render moving off the Bijagós Archipelago a formidable proposition. For many 'Late Starter (push)' entrants SSF has provided a 'last-resort' option [49]. However, these workers also harbour multiple-skills, entrepreneurship and adaptable employment experience. Findings from Cabuno camp therefore question the use of the term 'unskilled' in describing those for whom fishing is a 'last resort'.

Other 'late starters' to SSF describe a new monetary appeal. This is not altogether surprising given that unemployment in the region is rife [42]. Some fish catch groups provide cheap protein supplies; others are subject to significant growth in global demand and value [16,61]. That former diamond miners are now fishing illustrates this fact [6]. For these 'Late Starter (pull)' members, entry emerges as a calculated decision not based upon circumstances of threat in the midst of conflict, but personal interpretations of financial gain. As exemplified elsewhere, it is therefore not only the immediate influence of war, but also the resounding effects of economies recovering after war and available alternative employment options which can influence movements into fishing [64].

5.2. The challenges facing SSF management in the Bijagós Archipelago

At the juncture between wealth and welfare approaches to SSF management, 'hard choices' still linger [11,14]. Empirical evidence from Cabuno contributes to this debate by indicating that attempts to capture any 'inherent wealth' [90] will most likely gloss-over broader fisheries management problems inside the Bijagós region. This is explained in terms of three main factors. Firstly, over several successive decades of region-wide post-colonial conflict and political upheaval, SSF has presented a critical opportunity (a safety-net or alternative labour opportunity) to trained and displaced workers from West African tertiary (service) industries [14]. Furthermore, access to SSF has lessened the burden of poverty for these workers and their dependents [46]. These life-histories of Cabuno camp residents, which illustrate extensive geographic, temporal and occupational mobility in addition to region-wide fishing experience, do not therefore support the notion that simple access-restrictions to the 'unskilled' will solve wider fisheries problems in this locale [85]. Secondly, with little regional growth or development in non-fishing opportunities having taken place during this post-colonial period, the SSF sector has become increasingly synonymous with income-generation and is therefore likely to expand further. This study illustrates a recent movement of non-fishers (miners, salaried workers and non-fish traders) into fishing, following reports of high profits. The case of Cabuno does therefore support a need to invest in and develop alternative opportunities outside of fishing; prior to developing restrictions over 'who is or is not' allowed to fish [64]. Finally, with considerable industrial-scale fishing occurring all along the mainland coast, the importance of the Bijagós Islands as a regional 'entry-point' into SSF and a location where prosperous SSF activities are still possible, has increased through time. This generates a very specific fisheries management problem. Prices for boat-ownership certificates and fishing licence documents are considerably higher in Guinea-Bissau (and the Bijagós archipelago) for non-nationals (in-migrant) when compared to national (or local) citizens [47]. In ecological terms therefore, fish-stocks, biodiversity and ecosystem integrity may be threatened by uncontrolled SSF activity in this region; but in economic terms, the presence of these 'foreign' commercial SSF is highly prized. Unfortunately, with Guinea-Bissau's reputation for corruption, political violence, poor governance and weak institutional capacity, it seems highly unlikely that any resource-rent captured from SSF, in pursuit of a 'wealth-based' management strategy can or will be appropriately redistributed [14].

6. Conclusion

With severe political, climatic and economic uncertainties facing this West African region any prospects for non-fisheries development programmes appear bleak. With this in mind, an alternative governance trajectory might instead reflect upon the labour-intensiveness of SSF; developing effective strategies which focus upon poverty alleviation for example by improving *healthcare, insurance, education, infrastructure, access to land, microcredit, communication and political free-will; while reducing susceptibility to accidents and HIV or AIDs-related illnesses* within SSF communities [88,7,5,75]. While it is acknowledged that welfare approaches to fisheries management are not without fault; findings from this region suggest that any pursuit of wealth-based measures could be hugely catastrophic for those whose livelihoods depend upon SSF [14]. To conclude, West Africa's resources have for many years been misappropriated with resounding severe consequences incurred by millions [22,3,23]. It is here argued that investing in misguided access-restrictions under the guise of wealth-based management would be akin to renewing this cycle.

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