Towards the Implementation of Voluntary Guidelines for

Securing Sustainable Small-scale Fisheries

in the Context of Food Security and Poverty Eradication (SSF Guidelines)

CONTENT

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COVER PHOTO: Oil collectors in the Indian Sundarbans. Photo: Arati Kumar Rao/ICSF
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SECTION 1: INTRODUCTION

The recent adoption of Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty (the SSF Guidelines), brought much-needed attention to the important role of the small-scale fishing subsector (SSF) in alleviating poverty and ensuring food and nutritional security. SSF is responsible for over half of the global fisheries catch. In developing countries, two thirds of its landings go towards meeting the nutritional needs of local populations. The subsector employs about 110 million people, which is 90 per cent of the global population in capture fisheries and nearly half of those who work in the subsector are women. Despite the number of people it employs and the number of lives it sustains, the economic and social importance of the SSF value chain is vastly under-appreciated and undervalued, particularly in a globalised context where economic growth is valued above all other development parameters. Typically, particularly in developing countries, SSF communities tend to be poor and marginalised.

The nature of work in SSF is diverse and complex. It may be occasional or seasonal, part-time or full-time, self-employed or salaried. A range of activities organised around pre-harvest, harvest and post-harvest work, performed by both men and women, make up the SSF value chain. These activities boost local economies and often kick-start growth in other economic sectors as well. SSF not only provides a social safety net, or what has been described as "a livelihood of last resort" (World Bank, FAO & World Fish, 2012:4) by offering survival options to the indigent. It is also a dynamic subsector, supporting the seasonal migration of many fishers pursuing diversified livelihood options.

Fishing communities, fishers and fish workers in SSF depend directly on access to fishery resources and land. Security of land tenure is therefore a critical component of livelihood security in the SSF subsector. The absence of access and land tenure would necessarily jeopardise fish harvesting, processing and marketing. Equally important for livelihood security in SSF is the health of the coastal, marine and inland aquatic ecosystems which support the fishery and marine resource base. Today, both land tenure and aquatic biodiversity are under considerable threat. Centralised fisheries' management regimes, large-scale fishing operations and rapid technological developments have led to an over-exploitation of resources and habitat loss. Coastal and waterfront areas are hotly contested spaces over which powerful industries such as tourism, real estate, infrastructure development, aquaculture, energy, mining and other forms of industry rush to stake a claim. As a result, SSF communities, already among the poorest and socially most disadvantaged, face even greater levels of marginalisation and economic insecurity.

After decades of neglect, the SSF subsector is finally gaining international attention as a result of the development of SSF Guidelines, which were endorsed by the FAO Committee on Fisheries in June 2014.

The primary objectives of the SSF Guidelines are to: "enhance the contribution of small-scale fisheries (SSF) to *global food security* and nutrition and to support the progressive realisation of the *right to adequate food*", "contribute to the development of SSF communities and *poverty eradication*",

KIARA.

A fisher protestor outside the Constitutional Court of Indonesia.

"achieve the *sustainable utilisation*, prudent and responsible management, and conservation of fisheries resources", "promote the contribution of SSF to an economically, socially and *environmentally sustainable future*", "provide *guidance that could be considered by state and stakeholders*", and "enhance public awareness and promote the advancement of knowledge on the *culture, role, contribution and potential of SSF, considering ancestral and traditional knowledge*" (emphases added).

Some aspects of the Guidelines are noteworthy. First, there is a strong recognition of, and emphasis on, the fisheries sector contributing to food security i.e. to a more equitable distribution of fish resources. Second, there is an acknowledgement of poverty in the sector and the need for fisheries to be a means for poverty eradication, a goal antithetical to the continuing, unregulated exploitation of the sector. Third, there is recognition that the SSF subsector has to promote sustainability of fish resources and the environment. Fourth, the Guidelines are not mandatory, but seek to guide decision making by the state and other stakeholders. Fifth, the Guidelines also seek to recognise the potential contribution to society of traditional knowledge embedded in SSF. These are strong statements of objectives, which while not explicitly opposing the industrial mode in fisheries, highlight a set of values which are contrary to capitalist values.

The foregoing elements also inform the present paper, which draws on certain studies and reports commissioned by the International Collective in Support of Fishworkers (ICSF) to prepare the reader for various stakeholders to understand the relevance and applicability of the SSF Guidelines in the context of a fast- changing environment – both for small-scale fishing communities and the world they deal with.

The report is structured under five sections:

1. Introduction
2. Small-scale fishing communities today
3. Contestation of the fisheries space, and struggles to resist/adapt
4. Impact of external forces, specifically the environment and climate change
5. Conclusions and key lessons learnt

Any meaningful discussion of SSF today must include an understanding of its social and political development. In order to understand where small-scale fishing communities stand today, who their stakeholders are and how political forces of the past have shaped their present context, it is vitally important to understand the history of these communities. Following the Introduction in Section 1, a case study-based contextual analysis of social relations in the implementation of the SSF Guidelines in South Africa is presented in Section 2. This is an illustrative example of how history shapes the SSF community, indicating that the strategies for the way forward must be informed by historical understanding. This section also discusses traditional fishing communities and their knowledge base from different parts of the world, exploring how traditional practices are used by communities in both internal governance and external engagement with fishing technology and a changing fishing environment and what the role and status of women is within SSF.

Section 3 discusses the impact of external forces and the struggles to resist and/or adapt which are part of most of the studies under consideration. The capacity-building workshops on the SSF Guidelines in Maharashtra, organised by the ICSF during early 2016, outline several aspects of this. The

issue of tenure rights and user rights came up repeatedly in these workshops, as did the issue of how the government engages with these rights. The workshops raised the questions of urbanisation and urban pressures from builders, industry and government regulation. If the impact of development is a significant factor affecting SSF communities, equally so is the impact of conservation and fisheries management. Four case studies from Central America highlight issues of rights of fishing communities related to marine conservation resources and fisheries management practices. In addition, the overarching impact of climate change on SSF practices and possibilities, is discussed with examples from four Indian fishing states.

The possibility of external intervention measures, explored in several of the studies under consideration, is also discussed in Section 3. State intervention through organisations such as Matsyafed (acronym for the Kerala State Cooperative Federation for Fisheries Development Ltd) in Kerala, India, is analysed. Struggles such as the legal fight before the National Green Tribunal, where SSF took on large public sector enterprises in India, are illustrative of the possibilities of joint and informed resistance. The possibility of cooperative development for post-harvest is discussed. The roles of the state and of community organisations are also analysed.

Section 4 considers the impact of external influences (environmental and climate change-related effects) on the SSF subsector, and illustrates how these impacts have introduced further uncertainties in the fisheries information base, not least to the lives, livelihoods, futures and prospects of SSF fishers.

The final section attempts to set out some of the important learning for the community and community organisations, for the state, regulatory bodies and other stakeholders.

Coopersolidar R.L ICSF

Women from the Garifuna communities of Honduras participating in the boat competition as part of the Sea Festival.

SECTION 2:
SMALL-SCALE FISHING COMMUNITIES TODAY

The fisheries sector worldwide has changed substantially over the past decades. Mechanised fishing and changes in technology related to fishing equipment have led to a revolution in fishing practice. This in turn, impacted the traditional small-scale fishing subsector. The SSF subsector, particularly in developing countries, was forced to face up to the changes in multiple ways. Fishers campaigned and led militant struggles against the destructive impact of industrial fishing on their coasts and on their livelihood. They were forced to adapt. To adopt fishing practices closer to industrial fishing they were restricted to ever-shrinking fishing territories by quotas as in parts of Latin America, by marine protection initiatives in many countries, or sometimes as in the case of South Africa, by both. Often they were even forced to migrate out of fishing. Globalised trade also changed traditional forms of post-harvest activities, in turn impacting the lives of large numbers of women in the SSF subsector. In this context, old definitions of what constitutes SSF should perhaps have to be revisited. This exercise of analysing what constitutes SSF in the present situation is important, not only from the need to understand the fishing sector, but also in order to re-define demands from the state and to reorganise links, alliances and strategies for SSF.

Alain Le Sann ICSF

Fishermen on the Nile, Egypt.

WHAT IS SSF?

At the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries (VGSSF) workshop at Trivandrum, Kerala, India, held on the 9 June 2015, the trade union leader V.V. Saseendhran of the Centre of Indian Trade Unions (CITU) remarked: "There is no definition of SSF. We need clarity on this matter" (Protsahan, 2016a: 15). This is a significant point that merits discussion. It is especially relevant in the SSF context of the state of Kerala where a competitive increase in boat and net sizes have made it possible for some members of the traditional fishing community to own boats of a capacity of 400 HP and more. What then defines SSF in these circumstances? Is it the mode of ownership and control of fishing resources and the pattern of sharing in the fish catch? Is it the sustainability of fishing practice? Is it the markets the fishers cater for? Is it the antecedents of the owners of fishing capital? These questions are vital in understanding the small-scale fishing community today. They are essential to the understanding of the needs of the community, their common demands and the campaign and struggle strategies to be adopted to achieve these demands.

The question of what the fishing community is today is first and foremost linked to its history. This is important to understand and analyse, while determining the commonalities and differences which categorise SSF within and across regions. It must also be one of the primary building blocks in creating the knowledge base which is so often lacking, much to the detriment of fishing communities.

The development of the fishing sector in post-apartheid South Africa is a good example of the need to understand history. The following case study is based on the Samudra Monograph published by the ICSF titled: "Social relations and dynamics shaping the implementation of the Voluntary Guidelines on Small-scale Fisheries (SSF Guidelines) in South Africa" by Jackie Sunde, which describes the formation of the SSF in the country, within a historic context (Sunde, 2016). This case study is described in some detail as it might offer a useful template for similar exercises elsewhere.

CASE STUDY 1: HISTORY OF SSF IN SOUTH AFRICA

Unequal power relations within society in South Africa shape the location of SSF fishers within the political economy of fisheries. Power asymmetries, based on racial, class, gender and historical rural-urban divides, experienced as such by different groups of SSF fishers and their communities, determine the way in which the SSF Guidelines have been interpreted and continue to be implemented, whether in the context of food security or poverty eradication, in South Africa today.

The policy of racial bias and segregation under colonial rule and apartheid in South Africa had its strong influence in the way fisheries developed in the country. The state introduced regulations and policies which restricted local fishers and their customary rights, while favouring the growth of white, industrial fisheries in the western coastal belt. At the same time, the coastal region in the east, historically neglected under colonialism, became the target after the country's democratic transition, of government support for "conservation" measures. This was achieved through the creation of marine protected areas (MPAS) and the development of the marine science industry, which further restricted what little access the traditional fishers had to these coasts. The direct result was the underdevelopment of traditional SSF in the country.

Serge Raemaekers ICSF

A South African lobster fisherman.

These developments had several effects on the fisheries sector. First, the development of MPAs and marine science on the eastern coasts and its close collaboration with industrial fisheries led to the valorisation of a form of "modern" scientific knowledge, while devaluing local traditions and knowledge. Second, with the development of industrial fishing in the western and northern Cape provinces, women in pre- and post-harvesting activities were displaced from their traditional employment. They became seasonal workers in the industrial processing and packing plants. With the abolition of apartheid, the fisheries sector in South Africa became more integrated into the global fisheries market. This meant that much of the fish was exported as fresh fish to northern markets, leading to the decline of fish processing. This in turn, meant that women were once again seeking new employment opportunities.

With the abolition of apartheid, the new government established the Fisheries Policy Development Committee with the specific objective of revising the discriminatory Sea Fisheries Act of 1988. The establishment of the South African Artisanal Fishers Association gave voice to the traditional fisheries sector. However, the industrial fishing companies were able to argue against radical reforms and substantive redistribution of access to resources, claiming that this would threaten the economic stability of the industrial sector, thereby placing the employment of thousands of coloured and black workers at risk.

The Marine Living Resources Act (MLRA) was adopted in 1998. However, the marginalisation of small-scale fishers continued under the MLRA. The Act failed to address the impact of apartheid on customary fishing rights. Instead there was active co-option of those excluded, including emerging black elites and educated classes, into industrial fisheries. The government issued a Gazette in 2000 with no consultation, which introduced new zoning and regulation in several of South Africa's MPAs. All this led to increasing frustration among small-scale fishers. They approached the Masifundise Development Trust to support them in their struggle to challenge the persisting discrimination under the new laws. The links with Masifundise, the World Forum of Fisher Peoples (WFFP) and ICSF helped the fishers to understand global fisheries issues, most notably the way in which the marine commons worldwide were being privatised through neo-liberal policy mechanisms.

In 2005, the fishers, supported by Masifundise and Artisanal Fishers' Association, and with the legal assistance of the Legal Resources Centre, launched court action in both the High Court and the Equality Court, arguing that the newly introduced Long Term Policy for the fisheries sector was discriminatory and violated their human rights. Masifundise and Coastal Links used the opportunity provided by the case to launch an advocacy and awareness campaign, entitled 'Fishers' rights = human rights'. The Court ordered the development of a new SSF policy. However, the lack of government response despite the Court Order highlights the lack of political will to redistribute resources to SSF.

Today one of the primary challenges facing the SSF subsector in South Africa is the lack of reliable data and information about this subsector. This paucity of data is itself a consequence of the historical marginalisation of the subsector. It in turn, makes it difficult for SSF to demonstrate to policy makers that it has the potential to contribute towards food security, poverty eradication and to play a relatively important role in terms of redistributive and multiplier effects across local communities, as compared to the commercial sector. We should recall here how collaboration between capitalist fisheries and the marine scientific establishment led to devaluation and destruction of traditional knowledge. The situation makes it difficult for SSF to challenge state policies which continue to back industrial fisheries.

While the most notable piece of legislation in the context of the Guidelines and the SSF Policy is the MLRA of 1998, as amended in Act 5 of 2014, there are three critical stakeholders left out of specific legislative ambit: indigenous people, migrant workers, and inland SSF. The influence of politics is the biggest challenge to the SSF subsector in South Africa. In the words of Jackie Sunde, the author of the study: "The racist and class-based legacy of colonialism and apartheid coupled with the dominant neo-liberal approach of the current government are the underlying forces that are shaping the approach to governance. This neo-liberal power is expressed through a range of policy mechanisms and power relations such as prioritising of the commercial rights holder and cronyism and corruption influencing the transfer of quotas" (Sunde, 2016:67).

Two lessons assume a broader significance for the SSF subsector in understanding the experience of South Africa. First, historically determined relations of race and class do not disappear with political independence and formal equality. Differences of race (or ethnicity or caste) and class persist and continue to influence social and economic processes. Second, the neo-liberal ideology which pervades the globe leads to strong links between industry and government. Government policy, even when it seeks to correct economic and social injustices, often ends up allowing the privileged

to gain advantage. Sections of the "elite" from the disadvantaged communities often become the collaborators to facilitate the status quo. These are important lessons for community organisations.

We have other examples from fishing communities in different parts of the world that underscore the vital importance of developing a historical understanding of the SSF subsector. For instance, the history of development of industrial fishing in Kerala has led to an SSF subsector which is progressively opting for more and more mechanisation (Protsahan, 2016b). In other parts of India, contrasting patterns of historical development of the SSF subsector have led to divergent responses to changes in the subsector, with the SSF on the country's eastern coast moving towards greater diversification out of fisheries, including jobs outside the fishing sector, and the SSF on the western coast adopting a strategy of greater investments into fishing to enable fishing farther out to sea. (Salagrama, 2012) To take yet another example, in Indonesia, since independence in 1945, the fisheries policy was developed in three phases of government regime, the 'Old Order' from 1945 to 1966; the 'New Order' from 1966 to 1998; and 'Reformation' from 1998 to date. The three regimes operated under different "styles and colours of ideology", which produced legislation with different form, content and degree of regulation (ICSF & KNTI, 2016:10).

TRADITIONAL PRACTICES WITHIN SSF

One major issue which would merit analysis is the importance today of traditional structures and practices within SSF. Do they remain relevant in the context of the inroads made by capitalism and trade into almost every corner of SSF? How would they inform the debate around SSF, in the context of sustainability of the subsector, and of the activity of fishing itself? These are important questions for the SSF community to address and for other stakeholders including policy makers to understand. To quote Prof. Agus Sardjono from Indonesia; "traditional knowledge is defined as knowledge that is owned or controlled and used by a community, society, or certain ethnic group that is hereditary and *continues to evolve according to the changing environment*" (icsf & knti, 2016:7; emphasis added). For knowledge to be relevant therefore, it is critical that it remains in live use and evolves in the course of interaction with the environment.

In Indonesia, recognition of the rights of indigenous peoples, traditional communities and local wisdom, is part of regulation in the sustainable management of coastal areas and small islands. Recognition and respect for the unity of customary law communities and their traditional rights is done by waiving the requirement of obtaining licences for location and management of the use of space and coastal resources in small islands in the territory of these communities. In contrast, local fishing communities are still required to obtain location and management licences. Utilisation of coastal and small island resources for daily needs of local communities is required to be facilitated by central government and local governments. We see from this example from Indonesia, that the fishing community is itself further subdivided into "indigenous people" and other local fishing communities for the allocation of privileges (ICSF & KNTI, 2016). This contrasts with the sentiments of representatives expressed at the VGSSF workshop at Mumbai on the 20 February 2016, when the need for unity among fishing communities was stressed and accordingly the need to see small-scale fishing as an occupation-based, not a caste-based category, with demands from the government for reservation and benefits on those lines (ICSF, 2016b).

Tradition continues to play an important role in managing community relations in traditional SSF. There are many instances of community practices being used to settle disputes and maintain harmony. In Lakshadweep in India, the community evolved a set of strongly maintained and deeply respected practices and customs which continue to keep the social fabric intact. The unwritten code implemented by the chief, the Amin, was understood and passed on from one generation to the other. The Laws of Inheritance relating to the land is one of the most long-lasting, where the Amin is authorised to punish any defaulter (Anitha S, undated). In Maharashtra, SSF references at the VGSSF workshop in Mumbai on the 20 February 2016 described how even today their villages follow traditional fishing practises adopted by their forefathers, which are unwritten but maintained as part of traditional mores. They have their own decision-making process at village level and or at community level in different villages. In the case of a conflict, whether at sea, land or fishers' homes, resolution is sought at village or community level. Police and courts are seen as last resort, to be avoided (ICSF, 2016b).

In Aceh province in Indonesia, marine customary law applies to SSF in fisheries affairs and Mukim customary law applies as residents of a '*mukim*' (community). In a *mukim*, a Sea Commander is a customary community leader. The position of Sea Commander is legally recognised by the government of Aceh, but not included in the government's structure. Law No. 11/ 2006 of the Government of Aceh states that the function of the Sea Commander is to maintain the safety of fishermen in the sea. There are two fundamental rules in the fishermen's social lives in Aceh. The first is Sea Prohibition, a day when the fishermen are not allowed to go to sea. Second, they have to follow the Marine Customary Law which consists of social custom, environmental preservation, and sea festivity. The two important rules under the Marine Customary Law are; first, when there is damage to a ship/boat or fishing equipment at sea, a flag is raised asking for help (SOS) and boats nearby immediately come over to provide assistance; second, if there is a fisherman drowned at sea, all the boats search for the body for at least one full day and carry the corpse back to the mainland. In the Mentawai islands of Indonesia where ICSF commissioned a study of local traditional knowledge, most activities of the local tribe involve rituals and local wisdom reflecting the practice of sustainable fisheries. However, today their practices are increasingly threatened by exploitative modern culture. Destructive fishing practices such as bombs, potassium, and destructive fishing equipment are being used by some of the tribe, in turn threatening sustainability of marine resources (ICSF & KNTI, 2016).

Women have played an important role in communities in maintaining traditional rituals and practices. In Nicaragua among the Rama and Kriol community, women are assigned the role of preserving and transmitting customs and rituals. However, with the impact of modernity, these practices are also being brought under pressure. In Honduras, among the Garifuna people, there was reported concern at cultural identity loss and pregnancies among very young women and minors (14-17 years), which were associated with the lack of employment opportunities for youth, accelerating the vulnerability of this subsector to drugs and prostitution (CoopeSoliDar R.L, 2016).

In Indonesia's Aceh region, local culture has rules for locating fishing grounds for reef fish. However, modern technology such as sonar equipment has made these practices mostly redundant (ICSF & KNTI, 2016). In Tanjungbalai in Indonesia, there is a saying "*Tak Kelaut Torang Bulan",* which means "fishermen do not do any fishing activity during the full moon." In a month, traditional fishermen go fishing twice for eight days. They do not fish during the full moon period. Fishermen use

a simple boat with a sail and fishing net. So when sailing, they depend heavily on the sea current. During a full moon the current is not strong enough. The technology is thus suited for sustainable fishing. However, a large-scale fisheries sector trawler is not dependent on ocean currents and continues fishing throughout the month (ICSF & KNTI, 2016). The economics of fishing are weighted against this form of traditional, sustainable fishing.

One example of local wisdom of the Acehnese is called "*Keuneunong*" or "*Keunong*", which means "adapting to the seasons and the weather for the purpose of farming, sail for trade, and fishermen" (ICSF & KNTI, 2016: 61). The accuracy of the *Keuneunong* method is claimed to be 83 percent and local wisdom considers it the second most accurate method for weather forecast after meteorological analysis. The *Keuneunong* Almanac can be the basis of analysis for early warning of extreme weather situations. However, with climate change, the practice of weather forecasting using the *Keuneunong* method would have to be modified. The reliability placed on these traditional methods with the spread of modern weather forecast systems would also decline (ICSF & KNTI, 2016).

In the Trichur region in central Kerala, expert fishermen were valued for their traditional knowledge and skill for underwater shoal detection by noticing the bubble coming up to the sea surface and turbidity due to the movement of shoal underneath. Echo sounders as a fish finder introduced recently in the crafts, enable shoal detection underwater to be done without needing expert traditional knowledge (Protsahan, 2016b).

Little is done to integrate traditional knowledge in either policy or practice. In Nicaragua, among the Rama and Kriol, knowledge of shark fishing has traditionally been limited to only five families. Turtle fishing and use is associated with customary policies based on sustainability and culture in the fisheries. These traditional knowledge bases do not influence modern fishing practices. In Panama, the fishers of the Cays of Ngöbe Bugle fish for lobster in their territory only during a certain time period, as there is a natural ban on fishing lobsters during windy or rainy seasons, which are considered as non-fishing days. This knowledge has no relevance in the adoption of a regional Caribbean lobster policy (CoopeSoliDar R.L, 2016).

In certain circumstances however, traditional knowledge continues to have relevance in fishing practices. In the Sunderbans in India, the moon's phases, its waxing and waning as counted through lunar days (*tithi* in Bengali and Sanskrit), determines the strength of the tide which in turn determines the size of the harvest. The water level in the river depends hugely on tidal variation. During the ebb the smaller creeks are almost totally depleted. This huge water level variation plays a major role in the use of certain nets, particularly the *chawrpata* and *khalpata*. The fisher who seeks to access strong tidal action keeps track of the *tithi*. The tides also represent danger. When the tide rises, the river flows at a level higher than the embankment-protected land, threatening floods. No wonder people in the Sundarbans fear the combination of a cyclone and a spring tide. Understanding tidal action is also important for much of inland transportation. The main means of transport across most areas of the Sunderbans, particularly in the more southern islands, is across the water. Yet due to increasing siltation, the watercourses, particularly the shallower ones, are often not navigable during ebb tide (Chacraverti, 2014). Traditional knowledge of tidal action is therefore vital to much of life and livelihood in the area.

As seen previously, the impact of modernity is often detrimental to the continued use of traditional knowledge and practices. The impact can often be violent, as in the case of the effect on young women of the Garifuna people of the Honduras. Modern technology also often makes traditional knowledge redundant. At the same time the concentration of knowledge within traditional communities, as with shark fishing knowledge being restricted to only five families among the Rama tribe of Nicaragua, also means that such knowledge rarely gets codified or made available, leading to the early demise of these practices. Traditional knowledge does not get the chance of entering the public domain under these circumstances and it becomes much more difficult to make the counter-argument for retaining good traditional practices against destructive modern technology.

LIVELIHOOD WITHIN SSF

The changes in SSF brought about by various external influences have also substantially changed patterns of livelihood. The subsector which largely survived on fishing, as self-employed fishers and post-harvest workers, has seen large diversification of activities. As already mentioned, fishers on the eastern coast of India responded to changes in the fisheries sector with diversification outside of fisheries. These included salaried work in sectors outside fisheries and even as fishing crew for fishers on the western coast (Salagrama, 2012). The self-employed nature of SSF has also changed with the entry of wage relations. Ownership pattern changed from community-owned to cooperative and self-owned and often high investment fishing. In Kerala expenditure in one ring-seine unit could be as high as Rs.1 crore (USD 160, 000), with crew size of around 40. Most of the crew would be paid employees, paid either a fixed salary or a share of the fish catch. (Protsahan, 2016b).

Tourism is a big threat forcing fishers out of their traditional livelihood. Many coastal communities from Central America described how, despite laws protecting their territorial rights, land was being sold on the coasts to large developers. In Honduras, the Garifuna people described how they were being edged out by "Reality Shows" (CoopeSoliDar R.L, 2016). In the Sindhudurga district in Maharashtra in India many coastal fishing families looked to tourism as a second source of income, with the youth drawn to this occupation. Much of this tourism was unregulated. The connivance of the local community in unregulated tourism would also weaken their demands for regulation in other areas of fishing (ICSF, 2016a).

The impact of changing fishing practices is also evident in the post-harvest sectors, and particularly in fish trading. In Kerala and Maharashtra, large-scale and harbour-based fishing has made the scale of operations larger, bringing large traders and men into fish trade. The competition often puts women at a disadvantage. However, in places such as Trivandrum in Kerala, fish vending continues to be lucrative. Even educated women who have tried their hand at other occupations such as tailoring, tutoring children, small-scale food processing and small businesses, have often found that fish vending is more lucrative (Nayak, 2016). Tradition can also play its part in sustaining post-harvest activities. In Navagaon in Maharashtra, all fish processing activities take place on community land whose unofficial ownership and conflict management lies with the traditional village level governance body, the *panchayat*. This land is divided among fishing families, passed down to the daughters-in-law of the house. The drying areas may be rented out to others for drying their fish but not sold since nobody owns the land. Women have to invest in maintenance of

fish-drying land and their own labour. Customary rights over fishing grounds and land is fiercely maintained by fishing community (Peke, 2016a).

However, local communities are becoming increasingly alienated from fishing. Many women speak of educating their children to equip them to live outside the fishing sector. The lure of a different lifestyle for the youth and their alienation from the tradition and activity of traditional SSF is articulated by many in the community. The demands of livelihood and a declining SSF subsector makes the pressure to venture out very strong.

Box 1: Manik and his family

Even a couple of years back, Manik Gayen (name changed) had travelled no further than the creeks in the Arbesi and Khatuajhuri forest blocks and the River Raimangal that flow through the Shamsherganga region of the Sundarbans in India's eastern coastal state of West Bengal. During the last year, his geography widened explosively. He and his wife travelled to Tamil Nadu. They stayed there for six months and worked as contract labourers in a "lohar karkhana" (iron factory). He thinks he might have to do so again. This is in spite of the fact that Manik fished while his wife and sister collected crabs. They also had a small field where they grew vegetables. Their family is no exception in the Shamshergangar area (Chacraverti, 2014).

Migration today among fish workers is not limited by national boundaries. Fish workers often offer themselves for employment on fishing vessels in other countries. In many such instances there are no laws protecting the rights of these migrant workers. There are reports of workers from Myanmar and Cambodia made to work on Thai fishing fleets under conditions of bondage. Many fishers from Kanyakumari on the Indian coast, as also from Bangladesh and Sri Lanka, seek employment in the Gulf Cooperation Council (GCC) countries with the hope of earning substantially more than in their own villages. The employment comes under the *kafala* system, a system also covering migrant domestic workers in the GCC, which offers no labour rights to employees. Many human rights organisations have likened the system to a modern form of slavery i.e. abuses to workers include non-payment of salaries and dues, excessive workloads and even physical and sexual abuse (Narendran, 2016).

SECTION 3: CONTESTATION OF THE FISHERIES SPACE AND STRUGGLES TO RESIST/ADAPT

The traditional space of the SSF subsector, its coasts and rivers, are all contested by various new interests in a globalised economy. From a traditional activity, fishing has become an industry. Industrial fishing with its roots in the developed industrial north, has spread over the last decades to the south. Industry has spread its tentacles into both harvest and post-harvest occupations. There are other commercial interests which also impact the SSF subsector and compete for domination of the coast and seas. These include the incursion of industries using the seas as resource for their inputs, as dump for their waste; and real estate interests.

THE CHALLENGE OF INDUSTRIAL FISHING

The most significant challenge to SSF in the global south in the last half century has been competition from industrial fishing. The advent of industrial fishing, with large mechanised boats, changed the very language and grammar of fishing. Traditional and environmentally sustainable fishing practices, regulated by limitations on the ability of small crafts to fish in different seasons and different weather conditions, were totally upset by these large boats with mechanised power capable of navigating the seas in any season and the capacity to spend months at sea on a single voyage. Industrial fishing backed by global trade determined what was to be fished and in what quantities.

The response from small-scale fishers was at two levels. At one level, they organised and resisted the power of industrial fishing to take over their seas and fishing areas. Militant struggles by organisations such as the National Fish Workers Forum in India and the Masifundise Development Trust in South Africa and campaigns by international coalitions of organisations of fishers and fish workers such as the WFF and the WFFP, took up the issue of regulation of fishing at the national, regional and international levels with considerable success. Progressive legislation was announced which sought to assure user rights to SSF. However, regulation around these legislations remained weak.

At another level, the response was to "follow the leaders" in modernising the capacity within SSF to compete with industrial fishing. The strategy in terms of technology was not different from the directions shown by industrial fishing, with larger boat sizes, more powerful engines, and larger and more invasive fishing equipment. In terms of ownership of assets, there were experiments in cooperatives and other forms of joint ownership, very often with shares in fish catch replacing a fixed salary for those who worked on the boats. This strategy was also often undertaken with support from the government, through loans and subsidies, in order to co-opt the small-scale fishing subsector into following the lead of industrial fishing. In a neo-liberal era the objectives of economic growth and globalised trade were seen as sacrosanct by most government bodies. The following example of development in fisheries in Kerala since the mid-fifties, which is drawn from

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Fish landing centre at Ivory Coast.

two studies (Protsahan, 2016b; Cruz, 2016) commissioned by ICSF in Kerala, provides a good illustration of this process.

CASE STUDY 2: DEVELOPMENT OF FISHERIES IN KERALA

Prior to the eighties most fishing in Kerala was small-scale and took place with non-motorised boats. The entire coast of Kerala was classified into three zones based on fishing craft which prevailed in each zone: the catamaran zone in the southern coastal region (Kollamkode to Sakthikulnagara); plank-built zone in the central region (Neendakara to Thrissur); and dugout -canoe zone in the northern region (Malappuram to Kasargod). This changed with the advent of industrial fishing and introduction of mechanised fishing through an Indo-Norwegian project in the fifties.

The impact of industrial fishing on the SSF subsector was immediate. Since the inception of mechanisation the fish production share of traditional fishers was reduced from 0.4 million MT in 1970 to

Woman fish vendor in Zanzibar.

Sara Fričklin

0.15 million MT in 1980. The traditional fishers responded by organising under the banner of the KSMTF, the acronym for the Kerala Independent Fish Worker's Trade Union. A series of agitations through the eighties all over Kerala, which spread to other coastal communities across the country, forced the government to act both at the national level and in the state. In Kerala, the primary approach of the government to neutralise the fish workers' agitation was through welfare measures. "*In the context of the anti-trawler agitations, what the Government was trying to do was to push technological change and big welfare spending for the fishing community to neutralize the movement.*" (John Kurien quoted in Cruz, 2016: 4) It was also in this context that the government set up the Matsyafed as a state level apex federation of primary fisheries cooperatives to channel institutional funding to SSF.

The introduction of mechanised fishing into SSF had two major impacts. It led first to a substantial increase in investment and size. For instance, over Rs.1 crore was invested in 2013 for a ring-seine unit, the Guru-dhakshina in Nattika fishing village in Thrissur district. The craft was made of steel and propelled by a high speed China-made IBM. It operated with a crew size of around 40. The increased size and bulk of the craft, net and catch necessitated a harbour for safe landing. The harbour-dependent fishing added other requirements to mobilize larger crew from remote fishing villages to the harbours. A bus became necessary to transport the crew from one place to another, adding further investment to the capital cost of the fishing unit. This size of investment also meant that not all fishers could make the choice to opt for this form of fishing.

Second, the financial burden also led to huge debts and changes in ownership patterns. Institutional funding for the large fishing craft was normally available only to the extent of around 15 percent of the total cost. The remaining investment had to be drawn from many intermediaries, such as the Gulf remittance, merchants and money lenders. The indebtedness was often capitalised by the merchant-money lender nexus. In Thrissur district there were reportedly around 60 large IBM powered crafts in the region, of which about 20 were owned by money lenders and 40 by fishermen groups.

In order to sustain this new form of fishing, the traditional fishers have been progressively forced to adopt mechanisation in their ring-seine fishing without considering customary conservatory mode of equipment design and fishing practices. The increased competition for scarce fish stock has also meant more disputes between groups of fishers needing outside mediation. Customary practices of community resolution of disputes are no longer effective in these situations. There is increasing recourse to courts and the state machinery. The fabric of the traditional community becomes frayed in the process (Protsahan, 2016b; Cruz, 2016).

Two issues stand out from the above discussion. First, government intervention is normally the product of dominant ideological positions and is influenced by the interests of those in power. A political understanding from a historical perspective becomes important and necessary in this context. Second, peoples' organisations cannot always change the course of history. The militant agitation through the eighties against mechanised fishing could not prevent the ultimate co-option by the state to induce progressive mechanisation within the SSF subsector. In this context a sound political understanding of the situation would be essential to help organisations carry forward and sustain lengthy struggles, striking the best compromises as and when necessary.

The changing situation also calls into question the character of the SSF subsector. For instance, can a mechanised boat whose ownership gets transferred to money lenders still be characterised as being part of the SSF subsector? In this case, can ownership alone be used to differentiate between which mechanised boat is part of the SSF and which is not?

ENCROACHMENT AND TENURE RIGHTS

Another major challenge to SSF has been from the gradual encroachment of the shores and river banks by construction, linked to urbanisation, housing and tourism. This brought to the forefront the issue of tenure. While most community practices within fishing territory emphasised use rights sanctified by customary practices, modern law only recognised the exclusive nature of individual property and land records. Governments, under pressure in various countries, did enact laws which were meant to protect the coasts from the depredation of private property rights, including rampant construction. However, these were at best weak regulatory measures, rarely enforced.

In India, the Coastal Regulation Zone (CRZ) Notification of 1991 was a piece of landmark legislation, enacted in the wake of the Environment Protection Act 1986 and under pressure from organisations of fishers. The CRZ Notification had critical provisions restricting use of the coastal areas for purposes other than traditional fishing. However, the Notification came under pressure from tourism and construction lobbies and the first amendment was made diluting the guidelines for tourism as early as 1994. Repeated subsequent amendments have considerably watered down the original regulatory provisions. This has been further amended and a new notification brought out in 2011. Furthermore, there have been very few successful attempts to take violations of CRZ to the courts.

In Costa Rica, the indigenous people have been displaced from their coasts, where in the past they obtained their two main commodities for consumption and trade - salt and fish. According to the Council of Elders of the Ngöbe Bugle-people, concrete detail on the land granted by the Costa Rican State as compensation to the displaced indigenous people was still unknown. The access rights of indigenous people to the coasts were further aggravated by the state initiatives promoting the creation of marine protected areas (MPAs). The Garifuna community in Honduras has ancestral rights over natural resources. Today however, there is a strong dispute over land due to pressure from the tourism sector for land. The Garifuna people also find access to fishing territory restricted by the establishment of a marine protected area. The MPAs in the area are co-managed by two non-government organisations; the Cayos Cochinos Foundation and the Foundation Nombre de Dios (CoopeSoliDar, 2016).

In Nicaragua, the recognition of the marine and continental territory of the Rama people was the product of a very strong international and human rights fight. The government recognised the title of their traditional land and sea territory in 2009. Currently however, the right of the people over their traditional land has been called to question by the adoption of Law 840 (Special Law for the Development of Infrastructure and Nicaraguan Transportation pertaining to the Canal, Free Trade Zones and associated infrastructure). This law has been specially enacted to legalise concession granted by the Nicaraguan government to the private sector Enterprise Hong Kong Nicaragua Development (HKND) (CoopeSoliDar, 2016).

Box 2: Coastal land and tenure rights of fishing communities in Raigad district: a legal triumph

The public sector Oil and Natural Gas Commission (ONGC) acquired land in Uran tehsil along the coast in Raigad near Mumbai in 1970. They laid pipelines in 1978 which were not properly covered, resulting in sedimentation of mud and blockages of tide water. This inadvertently shrank the fishing areas available to the surrounding fishing villages (Kolis). Subsequently the public sector Jawaharlal Nehru Port Trust (JNPT) along with the City Industrial Development Corporation (CIDCO) started construction in the area, reclaiming land by closing smaller creeks at Bepada and Sonarikhari, thus resulting in further blockages. Moreover, the direction of the port was such that it obstructed tide times and levels drastically.

Paramparik Macchimar Bacho Kruti Samittee (Committee for safeguarding traditional fishers) approached the National Green Tribunal (NGT) seeking relief for the affected villages from destruction of their livelihoods and damage to coastal ecology. The application sought either livelihood opportunities in the form of fish ponds for the affected 1630 traditional fisher families, or equivalent monetary compensation.

NGT in its landmark judgement ruled compensation to fishing families of the affected villages. The ruling said: "In our opinion, there is potent threat of environmental damage caused due to expansion of the Port activities of JNPT and development activities of CIDCO. The spillage of oil by faulty maintenance of the pipeline also has contributed to loss of environment and ecology. This matter therefore, requires grant of interim relief. We are of the view that by way of interim-measure JNPT shall deposit an amount of Rs.20 Crores and ONGC shall deposit amount of Rs.10 Crores, with the Collector, Raigad, within period of four (4) weeks hereafter." It also gave directions to authorities for ecological restoration of place.

The landmark NGT judgement recognises customary rights of fishers and livelihood loss caused by projects. This judgement can be used by fishers in other districts currently engulfed by different projects like ONGC in Satpati, RCF in Thal, ISPAT in Dharamtar Khadi (Peke, 2016a).

The SSF workshops held by ICSF in Maharashtra, India in January-February 2016, repeatedly brought up the issue of tenure. Many group presentations discussed the tenure rights (7/12 extracts in the name of fishers as per the Maharashtra government resolution of 4/2/1983). They discussed how the CRZ Notification was tweaked to accommodate industry demands, but fishers' homes, though protected under the Notification, could be demolished with one government order. In this context, the need was voiced for villagers to prepare the ground work for resisting CRZ violations. Participants discussed how villagers should obtain a CRZ map for their villages, and study under what CRZ zone the survey numbers for their villages came. The legal victory of fishing communities in Raigad before the NGT (See Box 2) was held up as an important step in the direction of gaining rights for SSF against industry. Villagers explained how property developers sought to take over the land of fishing villages in and around Mumbai city. Villagers were offered the carrot of a share in the "development" and now villagers understood that the development rights sanctioned as

Floor Space Index (FSI) meant profits only to the builders. The case of redevelopment of Mahim Koliwadi in Mumbai city was cited, where the government body, the MHADA, in its original plans showed the whole of 15 acres of the *koliwadi* as part of the resettlement plan for the fishers, with provision for fish drying, cold storage, ice factories, boat parking, net mending, auction hall etc. However, when the reconstruction was completed, only around 7 acres was reserved for resettlement and the remaining land was made over to the private builder, Raheja Group, the public sector ONGC and to house the Police colony. There was no space in the developed *koliwadi* for fish drying, boat parking, auction hall, etc. (ICSF, 2016a; ICSF, 2016b; ICSF, 2016c).

IMPACT OF 'DEVELOPMENT' ON FACILITIES

Government response to pressures for developing facilities is to take on improvement programmes through their city development agencies. The lack of consultation with stakeholders and political pressures often means that the development measures instead leave the target groups worse off. In Kerala the Chamakkada market, the largest in Kollam district, used to house over 100 fish vendors. After the municipal corporation took it over for development it housed only 28 vendors. Toilet facilities remained closed since the time it was reconstructed. There was no electricity connection or waste disposal system. The women of the SEWA union collectively pressured the authorities to renew the Kumarichanda market in Trivandrum district. But after the renewal took place the male fish vendors occupied the space and kept the women out (Nayak, 2016). We see here that when the boundaries for struggle are the demand for property development, very often the organisation finds results very different from what it hoped for. This is particularly the case with women, when they find "development" only serves to alienate their rights. The ability to take on a more long-term role is probably the only way forward, especially where the struggle is by women who find themselves normally at the bottom of the bargaining hierarchy. This is very well brought out by the following case of two different koliwadis (fish markets) in Mumbai in India, taken from a study by Shuddhawati Peke (Peke, 2016b).

CASE STUDY 3: TALE OF TWO KOLIWADIS IN MAHARASHTRA, INDIA

Peerbhoy Mandai

The Peerbhoy Mandai in Dhobi Talao, named after Adamji Peerbhoy the first sheriff of Mumbai, India, is situated in one of the old areas of the city. In addition to fish, the market also sells vegetables and meat. The market was developed by the MHADA a few years ago and is now under supervision of the state run Bombay Municipal Council (BMC). The market has a vendors' association dominated by men. Only two women are members but they stopped coming to the market and no effort has been made to replace them.

According to the market inspector's records, there were 43 licensed women fish vendors and 95 other vendors. The women claim that prior to "development" there were 195 women in the market vending fish. Today, only 35 fish vendors come regularly to the market. Among the 35 regular fish vendors only 25 had licences, with 18 licence holders having stopped coming. Women who did not have licences sat on the edge of the market where there was no roof or occupied the spaces left vacant by the absent licence holders.

Sara Fröcklin

Fish landing on south coast of India.

Parwati Tandel had been coming to the market for five decades but remained un-licensed. Some years ago she had moved to her village to take care of her ailing husband. Six years later when she returned to the city and to the market, she found that the rules had changed and she did not have a licence. This was despite her having been a regular fish-vendor for many years and had proof of occupancy of the fish market (passes were issued in the 1950s). She now occupied the reserved spot of one of the licensed women who stopped selling fish.

Marol market

Marol is a weekly market where traders from all over Maharashtra and retail customers from nearby areas of Mumbai come to purchase dry fish. The fish vendors are women, while the Gujarati traders and others from the rest of Maharashtra are usually men. According to Rajashree Bhanji, the chairperson of the Marol Bazar Koli Mahila Mase Vikreta Sanstha (MBKMMVS): "*The market is 150 years old, making it one of the oldest in the city suburbs. It was there when women used bullock carts to bring their produce to the market. After Independence, BMC took over the market, developing and redeveloping it a few times*" (Peke, 2013: 24).

In the 1960s BMC constructed a market with a central pillar detailing the market's history. Arranged around this pillar were simple rectangular blocks of cement for vendors to carry out their trade from. In 1991, for inexplicable reasons, BMC demolished the market structure. There was no redevelopment for 11 years with women vendors having to ply their trade in the open amidst rubble and garbage.

Through the many *mahila mandal*s (women's groups), the women organised themselves and held *morchas* (marches) and *dharnas* (sit-ins) against BMC. They registered MBKMMVS in 2005. Under continued pressure from the women vendor's organisation, BMC redeveloped the market. MBKMMVS has since been proactive in taking matters into their own hands to improve facilities in the market place.

The retail market functioned from Friday afternoon to late night (around 11:30 p.m.) and again from Saturday early morning to about 9:30 p.m. Retailers were generally small-scale women fish vendors. MBKMMVS contributed to the smooth functioning of the market by appointing two men as security guards to mind the unsold fish stock of its members. The women retailers in 2013 paid Rs 20 (USD 0.29) as a sitting fee to MBKMMVS.

The wholesale market functioned on Wednesdays and Fridays attracting traders and vendors from not just the Mumbai region, but also from other districts in the state and even from Gujarat. Wholesale sellers and processors paid a fee to MBKMMVS, the rate fixed per basket of fish. In 2013 it was Rs 20 (USD 0.29) to Rs 30 (USD 0.44) per basket. Trucks and traders coming from Gujarat and elsewhere had to pay Rs 300 (USD 4.43) to Rs 500 (USD 5.91) per truck load.

MBKMMVS plays an important role in providing facilities in the market, a role that BMC failed to play. It has also been instrumental in providing security. The women said that earlier the market was the hangout of drunkards. This changed when lights were installed and security was provided. MBKMMVS also provided an office space where women who come from far away could rest and refresh themselves. It also provided clean restrooms for the women and hired two women to maintain these facilities. There were separate restrooms for men, also maintained by the organisation.

Beatrice Gorez

Fish catches being landed by fishermen in Nnouadhibou harbour.

Other improvements made by MBKMMVS were lights in the vicinity of the market and ensuring that the water tank was cleaned twice a year and properly maintained (Peke, 2013).

The contrasting accounts of the two fish markets, one maintained by the public sector BMC and the other a self-maintained organisation of the fish vendors, highlights the role that organised effort can play in forcing good regulation and proper running of resources. It is important to note that the MBKMMVS collected a fee from its membership, and charged for services of use of the market place. This made the organisation accountable to its membership. This probably made the market place self-reliant, not needing subsidy from the BMC, and thus helped in maintaining independence from state interference. Finally, the MBKMMVS as a self-managed organisation of fish vendors, would also have brought a sense of ownership to the users of Marol Market, absent in the case of the Peerbhoy Mandai.

THE USE OF THE 'LICENCE' AND EXCLUSIONS

Government regulation in the form of licences for activities has been demanded by SSF in various circumstances to check the encroachment from industrial fishers and to attempt to maintain some control over their fishing rights. Legislation such as the CRZ in India is in a broad sense an example of such licensing measures. However, the SSF community often finds itself on the receiving end of these forms of exclusions. Various forms of 'quota' systems, devised ostensibly for the benefit of the SSF, are often turned on their head and used to keep out the traditional fishers. As mentioned earlier, the experience in the case of the CRZ Notification has often been that while it can be tweaked to accommodate industry demands, fishers' homes though protected under the Notification, can be demolished with one government order.

In Central America (including the Republics of Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama) artisanal fishermen use their traditional knowledge, also called ecological knowledge, to develop their productive activity effectively and efficiently. They have been

Shraddhawati Peke ICSF

Climate change threatens Koilwadas cuff parade. Mumbai India.

practicing this form of livelihood for generations. Yet many of the fishermen in the Central American region have been left out of institutional formality. Most artisanal fishermen in the region practice their fishing activity in an informal way; they have no formal licences, and therefore become "illegal" fishers. They remain at high risk of being caught by the authorities (CoopeSoliDar, 2016). A traditional form of livelihood sanctified by generations of customary practice is rendered illegal by a modern form of government which only recognises property rights.

In South Africa, social relations within SSF are impacted in complex ways by the dynamics surrounding the illegal catching and sale of marine resources. They divide traditional communities resulting in increased conflict, reduced social cohesion, reduced legitimacy of local leaders, trade in drugs, corruption of law enforcement officials and a general decline in all-round accountability. A distinctive pattern of poverty and debt-bondage existed in the SSF subsector for many decades. With no access to credit or financial services and with high levels of unemployment, fishing communities in the Western and Northern Cape were historically trapped in paternalistic relations of dependency on middlemen and the larger fishing companies. These relations were institutionalised through the use of a loan system known as 'a voorskot' or 'early payment' (Sunde, 2016).

We see here that the lack of a unique identity and formal control over their work areas (the relationship with "common" property) often works against the interest of the traditional fishers. They are caught between the need to demand exclusive rights and the danger of giving up free access in a system which is being increasingly absorbed within a capitalist mode of production. In this context we come back to the original question; what constitutes SSF? There might be the need to approach this question once again in the present context in order to better define the identity and rights – both tenure and use rights – of the small-scale fisher.

SECTION 4: THE ENVIRONMENT, CLIMATE CHANGE AND IMPACT ON FISHERIES

The previous sections touched on some of the aspects of environmental change that impact fisheries. The evidence clearly illustrates that with the advance of environmental damage, intensity of effects of climate change also increases. The shores and beaches are among the most vulnerable regions in facing climate change impacts.

There is evidence from across the globe of environmental degradation and climate change already wreaking havoc. For instance, the intensity of the impact of tsunami of 2004 on the coasts of Kerala, Tamil Nadu, Andhra Pradesh and Orissa was much greater because of the destruction of mangroves and unchecked coastal construction. In Honduras, among the Garifuna peoples of Cuyamel Barra and Barra Montagua, three communities have disappeared due to flooding. All homes in these communities (now located differently from how they were traditionally) were located on the outskirts of the keys. In the Ngöbe villages CayoCayo de Agua and Tigre in Panama, the fishers reported increasing strength of tides. They also described how a recent project to promote algae cultivation as an economic activity failed which they attributed to rise in sea temperature. However, they had not observed any impact of climate change on their fishing activities. The indigenous Rama population of Nicaragua found climate had an important impact on their way of life, as it determined marine turtle migration and also the timing for their trips to the coast to produce salt. However, apart from the experiential evidences around them, there was very little information on climate change among these fishing communities (CoopeSoliDar, 2016).

The United Nations Framework Convention on Climate Change (UNFCCC) defines it as "a change of climate which is attributed directly or indirectly to human activity which alters the composition of the global atmosphere and which is, in addition to natural climate variability, observed over comparable time periods". While the definition is a good starting point to discuss climate change, there are specific difficulties when we try to understand it from an SSF perspective. Climate change needs to be understood as adding a new dimension to the crisis already faced in the fisheries sector. Fishers therefore do not immediately appreciate the impact in terms of accelerating the terms of an existing crisis. The contributing factors are generally a mix of local processes and global causes. Differentiating between different causal elements is often not easy. Therefore, getting fishers to appreciate the increased gravity of the situation when they are already struggling to cope with the various impacts of environmental deterioration becomes a challenge.

A major limitation in the current engagement with climate change and its impacts on fishing communities is that it is based mainly on technical studies. The perceptions and proposals of fishing communities themselves receive scant attention. In the Indian context, though the coast and coastal fishing communities are widely regarded as among the most impacted by climate change, there is no specific focus in the National Action Plan on Climate Change (NAPCC) on the coastal ecosystem

Sahabat Alam ICSF

Malaysia's aquaculture industry has destroyed coastal areas and adversely affected the ecosystem.

or on coastal communities. None of the eight missions set up under the NAPCC relate specifically to the coast. There has been no effort to consult with coastal communities to seek their views on the perceived impact of climate change and the sort of responses that are needed. Formal village level Panchayati Raj institutions are rarely reported to have any role to play in fisheries or in matters related to climate change. Traditional community-based governance bodies such as the *koli samaj* in Maharashtra and *karayogam* in Kerala also have very limited involvement in fisheries management and climate change issues (Salagrama, 2012).

In this context, exchange of information and knowledge of climate change causes and impacts on SSF communities is a critical component for any rational attempt to address the problem. This is so that fishers can appreciate local practices which contribute to climate change and seek to change these practices; they can understand external causes and impacts and campaign to limit these impacts. This is also so that the fishers have some agency over their own future.

The following are highlights from a study on climate change and traditional fishing communities in four states in India. The study addresses some important ways in which climate can impact livelihood options in the SSF subsector.

CASE-STUDY 4: CLIMATE CHANGE AND SSF IN INDIA

The study on "Climate Change and Fisheries: Perspectives from Small-scale Fishing Communities in India on Measures to Protect Life and Livelihood" (Salagrama, 2012), was conducted in selected locations in four States of India (Maharashtra and Kerala on the west coast, and West Bengal and Andhra Pradesh on the east coast). It sought to assess perceptions of fishing communities about the impact of climate change on their lives and livelihoods and their knowledge and practices of relevance to climate change preparedness.

Some of the key study findings, related either directly or indirectly to climate change, are reported below.

Sea level rise: The SSF community in the four states did not perceive that sea level rise as was an

issue affecting them. However, the Central Marine Fisheries Research Institute (CMFRI) in Maharashtra indicates that some 75 coastal villages are vulnerable to inundation due to a projected 1mm rise in sea level, expected to happen over 20-50 years.

Sea-surface temperature: In Maharashtra and Andhra Pradesh, the communities reported sea temperatures having increased both on the surface and even more on the sea bed. This was attributed to intensive drilling, industrial discharges (especially the atomic power plant discharges in Maharashtra), chemical effluents and urban wastes. There were resultant changes in fish catch composition. The small-scale gillnet fishers of Andhra Pradesh reported that the depth of the surface gillnets, which was four fathoms in the 1980s, has now gone up to nine fathoms.

Sea-surface salinity: In all four states there was a perception that freshwater inflows into the sea had declined considerably. In Andhra Pradesh, the sinking of bore wells for aquaculture in the 1990s was seen as the cause for increased salinity of the groundwater table. In West Bengal, the construction of the Farakka Barrage and resultant increased upstream use of freshwater had reduced freshwater flows to the coast. With weakened upstream flows, the seawater intrusion became stronger and for longer duration into the creeks and rivers. This affected the local ecological and biological conditions.

Wind patterns: The most critical change for fishing activities was the uncertainties in the direction of wind flows. The decrease in wind velocities impacted upon the currents, upwelling processes, fish movements, navigation and fishing effort. Fishers around Mumbai attributed wind pattern changes to construction of high rise buildings.

A creek fisherman in Tonle Sap Lake in Cambodia .

Sumana Narayanan, ICSF

Seasonality and seasonal patterns: Changing seasonal patterns affected overall fish availability. There was reported decline in catches of important seasonal fish species. For instance, in Andhra Pradesh, a reduction in intensity and duration of the southeast and east-southeast day winds during summer affected the arrival of small pelagic shoals. Unseasonal events impacted on the breeding and migratory patterns of fish, especially in the Sundarbans in West Bengal and in the Coringa mangroves of Andhra Pradesh.

Rainfall: Sudden and intense downpours had catastrophic effects on fish-drying operations in Maharashtra and Andhra Pradesh, wiping out the business investments of many fisher-women. Intensive downpours also lead to flushing large quantities of land pollutants, particularly near industrial areas, into the sea leading to mass kills of near-shore fish.

Natural disasters: For the fishers in Andhra Pradesh and Kerala, the tsunami of 2004 was a major indicator of climate change. Fishers also reported transformation of cyclones from seasonal occurrences to irregular happenings. Thus, for instance in Andhra Pradesh, three years of only minor cyclones was followed in 2010 by as many as four cyclone threats. There was inadequate preparedness of the coastal communities and government agencies to deal with these changing circumstances.

Tidal action: Coastal construction and silting of river mouths reportedly led to a decline in tidal action. This in turn had consequences on backwaters and tidal pools, changing fish breeding patterns. The construction of the Thanneermukkam barrage in Kerala stopped tidal influx into Vembanad Lake for months when the shutters were down. Prawns and other fish which used to reach the lake for breeding consequently disappeared. Reduced interaction between the backwaters and the sea resulted in changes in the local ecosystem.

Shoreline changes: Erosion reportedly affected 23 percent of the shoreline along the Indian mainland and was a major threat to many fishing communities. A major impact was that the shoreline no longer sloped gently into the sea. The abrupt shoreline drop caused waves to be more intense and damaging when they hit the shoreline. Erosion and siltation also went hand in hand. The neighbourhood of the areas affected by erosion faced problems of siltation. One major cause of shoreline erosion was government intervention to build sea-walls, particularly in Maharashtra and Kerala. (See also Box 3)

The immediate consequences of these climate change factors are decline of fish sources and other coastal resources, such as mangroves and the sea beaches. This in turn leads SSF communities to seek adaptations to their traditional livelihood measures. In the present case study, fishers in Maharashtra and Kerala, having recourse to government loans and subsidy, sought to use larger motorised boats with high investment and went out into the sea to fish, while in Andhra Pradesh and West Bengal many fishers moved out of their traditional fishing livelihood becoming wage labourers in fishery and non-fishery occupations. Women were forced into other activities such as agriculture and construction. There was increased migration in search of work. Traditional knowledge and practices lost much of their relevance in the face of these changes (Salagrama, 2012).

Box 3: Walling the sea – impact on the environment

Since the early sixties, the Government of Kerala emphasised creation of infrastructure facilities such as fishing harbours, fish landing centres and fisheries roads on the coasts of Kerala. Today it is estimated that currently 63 percent of its coastline is tampered with engineering structures such as seawalls and groynes. Over the last four decades, these fishery harbours and landing centres with their breakwaters constructed along the coast, tampered with the rhythms of nature resulting in increased erosion at one part of the coast and accretion on another. Rapid changes of the shoreline with loss of property and other coastal assets set in motion a series of further action from the government to construct seawalls and groynes. These structures were built reportedly to protect the coast from erosion.

This government action had long standing negative impact on centuries of fine-tuned skills and methods of shore-based fishing activities. When beaches vanish, dependence on fishery harbours becomes inevitable and the demands for fishery harbours arise everywhere. At the same time the move to mechanised fishing with larger boats also leads to harbours becoming a requirement. Breakwater constructions become an inevitable necessity at the harbour entrance. Construction of breakwaters triggers erosion on one side and accretion on another. This leads to popular demand for seawalls to protect the surrounding communities' dwelling units and property, even if it is a temporary relief. The fact that a harbour accommodates safe berthing of fishing boats attracts fishers to demand for more harbours in their respective areas. Loss of beach also impacts certain type of fisheries and they in turn migrate into adopting destructive forms of fishing methods. The result is a spiralling vicious circle.

The action of the Kerala government in attempting to wall the coastline in hindsight could appear to be a task of monumental folly. A study by the National Centre for Earth Science Studies had reported in 1987 that 360 km out of the total 448 km of Kerala's coastline was vulnerable to erosion. A status paper on 'Shoreline state assessment for Kerala' by the National Centre for Sustainable Coastal Management of the Ministry of Environment and Forests, Government of India said that the addition of groynes to seawalls only started erosion elsewhere. The Kerala government however remains wedded to its approach of damming the shores with seawalls and groynes. It relied only on the technical advice of organisations like the Central Water and Power Research Station, Pune to continue with its incremental damming of the shores, ignoring the contrary views of several other studies (Nandakumar & Vijayan, 2016).

We see here how very often governments when they embark on a certain course of action, seek only advice that sustains that momentum. The Kerala government had committed from the nineteen fifties to a strategy of increasing productivity of its fishing sector through reliance on technology and mechanisation of boats. Harbours and seawalls were inevitable corollaries of this action.

However, it would be easy to take the view that the course has to be necessarily reversed. As we have seen, the SSF subsector in Kerala has also bought into the government-introduced agenda of mechanisation of fishing. However, as T. Peter of the National Fishworkers Forum (NFF), India pointed out at the SSF workshop organised by ICSF in Trivandrum, India on the 9 June 2015, not to have seawalls was "a political decision" (Protsahan, 2016a). Surely, it would not be an easy political decision for any government to take.

Don Trino from Cabuya, Costa Rica, bringing home his daily catch.

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SECTION 5:
CONCLUSIONS AND KEY LESSONS LEARNT

These previous discussions based on studies of SSF from different parts of the globe bring up several issues for consideration as well as lessons to be derived from these considerations. These lessons can be of relevance to community organisations, trade unions and in supporting NGOs. They would be useful for policy makers within the government to consider while debating issues of SSF and their rights.

The overarching political and economic context for SSF is the global prevalence of a neo-liberal agenda. This knits together concerns of trade and "development" and informs the attitude of government programmes and policies towards SSF. In this situation, it becomes of paramount importance to understand the relative strength of various stakeholders contesting with SSF for marine space. The strategies for struggle and campaign often cannot be driven by a binary "all or nothing" agenda, but will have to provide the space for negotiation and reasonable compromise.

We should also take into account here that the SSF Guidelines, while global in scope, are voluntary. They address all stakeholders concerned with fisheries, including state agencies, academic bodies and NGOs, the private sector including industrial fishers and other marine capitalist interests. The Guidelines acknowledge that there can be no standard definition of SSF. In this context, it is up to the SSF subsector and its organisations to define the way in which local-level regulations and legislation can be used along with the Guidelines to define the rights of fishers to pursue their livelihood.

One important lesson is the significance of a historical analysis without which the SSF subsector and the various forces it has to engage with cannot be meaningfully understood. How do past structures and relations in society continue to influence the present? Can we benefit from understanding the historical development of the SSF subsector in identifying stakeholders, choosing partners to ally with and developing strategies for campaign and struggle? The history of past struggles can inform the pragmatic decisions to be made which would best benefit the subsector and its interests; historical learning from one region and situation might even be useful to understand the situation in another regional context.

The mainstream "development" agenda often works to the disadvantage of fishers, dispossessing community members of their existing rights. We have seen a number of instances of the city development corporations undertaking market development which ends up displacing many women fish vendors. In the case of the Chamakkada fish market in the Kollam district in Kerala, after the municipal corporation took it up for development, the number of vendors housed reduced from 100 to only 28. In Mahim *koliwadi* (fish market) in Mumbai, after development by the Mumbai development authority (MHADA), the area of the *koliwadi* shrank from 15 acres to 7 acres and pro-

evident that the community has to be vigilant in dealing with development organisations, whether those in the public sector or private agencies, to ensure that community rights as available before the development programme are fully protected. However, as in the case of the Mahim Koliwadi, even though the development plans made explicit provision for the common spaces for fish drying, boat parking etc., these did not materialise in the final developed property. There is a need for constant vigil, not just at the initial stages, but at every stage of the development process, as brought out very well in the case study 3.

The role of tradition in safeguarding user rights in the "commons" is very important in the context of resisting the encroachment of development on livelihood rights. This encroachment takes many forms; the enclosure of marine territory as Marine Parks, the use of "quotas" to restrict access, the draconian use of government provisions under the guise of development to take over the "commons", ignoring the customary rights of generations of fishers. The difficulty often faced is that customary rights do not always have the sanction of law and even when they are sanctioned by law, they are easily set aside in favour of individual property rights. The issue then becomes whether it would be more expedient for community members to use the more universally recognised provisions of private property rights to protect their livelihood. However, there are important drawbacks to this recourse. The interests of individual members of a community may not always be in consonance with community interests. How can these members then be prevented from exercising their option to sell their rights to outsiders? Furthermore, a community is not always a perfect democracy and all members do not have the same power. This can lead to rights becoming concentrated when community rights give way to individual property rights.

Tradition continues to play an important role in governance within many SSF communities. Community members appreciate the importance of internal dispute resolution mechanisms which save community members from expensive engagements with external state regulatory mechanisms. However, tradition has its limitations. It has to keep pace with changes within SSF. It has to acknowledge that women in SSF today have much more direct engagement with economic sustenance of the community. Their more direct involvement within the traditional community structures, including in leadership roles, can only strengthen and democratise these structures. The aspirations of the youth and their co-option by the capitalist mode of work and livelihood can only be challenged if tradition has alternatives that would talk to the younger generation. To paraphrase Prof. Agus Sardjono from Indonesia, quoted earlier in this report, traditional will only be meaningful and survive if it "continues to evolve according to the changing environment".

Technology has in many situations made traditional knowledge and practice redundant. However, while discussing traditional knowledge it is also important to acknowledge the concentration of traditional knowledge and the power derived from this knowledge within traditional communities. The absence of codification of traditional knowledge, especially in fields such as traditional healing, brings up the real danger of such knowledge either dying out, or of capitalist interests acquiring and commoditising knowledge and further restricting their use through restrictions of intellectual property.

The absence of an evolving discussion and live engagement with tradition also makes it difficult to use this knowledge effectively to challenge holy cows of the "scientific" establishment. We see from

the experiences of South Africa and India that there are close links between scientific and industrial interests. We also see that these links give legitimacy to destructive forms of development in many sectors, including the marine sector. In a situation where traditional knowledge remains restricted and often undemocratic in its use, it cannot be used to effectively challenge "science" on issues like sustainability and growth paradigms.

Industrial fishing is reconfiguring SSF at an accelerated pace and one of the direct consequences of this is the active displacement of women in pre and post-harvesting activities from their traditional employment. In the case of South Africa, women in SSF went through a double displacement. First they were forced into seasonal work in industrial processing and packing plants, and second, they were forced to seek new employment opportunities as a consequence of South Africa's integration into the global fisheries market and a decline in fish processing. It is necessary that the alienation women face from their traditional modes of work as a consequence of the growth of industrial fishing is factored into strategic and developmental planning in the fisheries.

The direct challenge to SSF is from industrial fishing. However, today there are multiple forces contesting for use of marine resources. These range from oil exploration, to nuclear plants requiring heat sinks, to tourism and urban development. These various stakeholders represent powerful business interests and have the backing of state power that looks at growth only in terms of GDP and the economy. They are able to influence state power through various forms of crony relationships. In this situation, the SSF subsector faces a huge challenge in retaining its relevance and strength to struggle and safeguard its spaces. This is a challenge that is relevant not only to the SSF subsector, but to society at large, as the final results of this engagement will impact extensively the environment and climate change.

Climate change is a critical challenge in today's context. There is indication that fishers are aware of the impacts of climate change, in terms of changing weather conditions, changes in the patterns of the sea, changes on the coasts, etc. However,, they may not be able to differentiate between the normal change patterns and the potential for increased frequency and intensity of changes under the present scenario of climate change as predicted by science. Therefore, the level of engagement of the fishers who would be among the forefront of those affected by climate change might not be as acute as if they were more fully aware and convinced of the impact. This is an area where fishers and fish worker organisations could be more engaged with the movements around climate justice.

This context would once again bring us back to the fundamental question; what constitutes the SSF subsector today? There surely cannot be a unique definition of SSF which would encompass as varied forms of coastal activities as mechanised fishing on the western coasts of India and wage labour, including migrating to work outside the SSF subsector in India's eastern coastal belt. However, there would still be the need to understand the present reality of the SSF subsector. What are the commonalities? What are the overarching demands? How is the subsector evolving in different regions? This understanding is important for trade unions and community organisations to be able to forge strategies, demands and alliances. This would be important for NGOs to be able to dovetail campaigns with the strategies of community organisations. This interrogation of the changing face of the SSF subsector has to be a constant effort if there is to be a continuing and organic engagement between the SSF community and support organisations.

REFERENCES

Anitha S (undated), Where Tradition is a way of life: Traditional Knowledge in the U.T of Lakshadweep, India; Draft for Comments; International Collective in Support of Fishworkers (ICSF); Chennai; India

Chacraverti, S (2014); The Sundarbans Fishers: Coping in an Overly Stressed Mangrove Estuary; Samudra Monograph; International Collective in Support of Fishworkers (ICSF); Chennai; India

CoopeSoliDar R.L (2016); Small-scale fishing in Central American indigenous people: Governance, tenure and sustainable management of marine resources;

Cruz, T (2016); Organizational Arrangements in the Fisheries of Kerala: A Case study of Kerala State Cooperative Federation for Fisheries Development Ltd (Matsyafed); Draft Report for Comments; India Study: Contextualization of SSF Guidelines; International Collective in Support of Fishworkers (ICSF); Chennai; India

ICSF & KNTI (2016); Traditional Knowledge of Fishermen in Indonesia; Draft Report for Comments; International Collective in Support of Fishworkers (ICSF); Chennai; India

ICSF (2016a); Capacity building workshop on Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication for Raigad and Ratnagiri districts; 21st January 2016; 10 am–5.00 pm; Workshop Report

ICSF (2016b); Capacity building workshop on Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication for Mumbai and Raigad districts 20th February 2016;10 am–5.00 pm; Workshop Report

ICSF (2016c); Capacity building workshop on Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication for Palghar and Thane districts; 4th January 2016; 10 am–5.00 pm; Workshop Report

Nayak, N (2016); Changes in the labour roles of women in the small-scale fishery in Kerala; Draft Report for Comments; India Study: Contextualization of SSF Guidelines; International Collective in Support of Fishworkers (ICSF); Chennai; India

Nandakumar, D & Vijayan, A.J (2016); Seawalls, Groynes and Breakwaters: Their impacts on the Kerala's beaches and small-scale fisheries; Draft Report for Comments; India Study: Contextualization of SSF Guidelines; International Collective in Support of Fishworkers (ICSF); Chennai; India

Narendran, V (2016); A Study on Migration of Fishers from Kanyakumari to the Co-operation Council for the Arab States of the Gulf (GCC); International Collective in Support of Fishworkers (ICSF); Chennai; India

Panipilla, R & Marirajan T (2014); A Participatory Study of the Traditional Knowledge of Fishing Communities in the Gulf of Mannar, India - The communities of Chinnapalam and Bharathi Nagar; Samudra Monograph; International Collective in Support of Fishworkers (ICSF); Chennai; India

Peke, S (2013); Women Fish Vendors in Mumbai: A Study Report; Samudra Monograph; International Collective in Support of Fishworkers (ICSF); Chennai; India

Peke, S (2016a); Dry fish trade practises in Village of Raigad, Maharashtra: A Case study; Draft Report for Comments; International Collective in Support of Fishworkers (ICSF); Chennai; India

Peke, S (2016b); Tenure rights and fishing communities in Maharashtra; International Collective in Support of Fishworkers (ICSF); Chennai; India

Protsahan, (2016a); Re-Configuring the Small-Scale Fishery of Kerala State: An initiative to revive the discussions on the relevance of the small-scale fishery and the challenges it currently faces in Kerala State; Draft Report for Comments; India Study: Contextualization of SSF Guidelines; International Collective in Support of Fishworkers (ICSF); Chennai; India

Protsahan, (2016b); Pros and Cons of High Catch Fishing in Traditional Fisheries since 90's: Village Level Cases of South, Central and North Kerala; Draft Report for Comments; India Study: Contextualization of SSF Guidelines; International Collective in Support of Fishworkers (ICSF); Chennai; India

Salagrama, V. (2012); Climate Change and Fisheries: Perspectives from Small-scale Fishing Communities in India on Measures to Protect Life and Livelihood; Samudra Monograph; International Collective in Support of Fishworkers (ICSF); Chennai; India

Sunde, J (2016); Social relations and dynamics shaping the implementation of the Voluntary Guidelines on Small-scale Fisheries (SSF Guidelines) in South Africa; Samudra Monograph; International Collective in Support of Fishworkers (ICSF); Chennai; India

World Bank, FAO & World Fish (2012); Hidden Harvest: The Global Contribution of Capture Fisheries; Report No. 66469-GLB; The World Bank; Washington