Local Fishers and Japan’s Tsunami

Chile’s Fisheries Development Model

Ocean Conference 5-9 June 2017

WTO Negotiations on Fisheries Subsidies

Implementing the SSF Guidelines

Meeting the Sustainable Development Goals

Fisheries, Communities, Livelihoods
Shimp peeling by the Barra del Colorado community, Costa Rica
Photo by CoopeSoliDar R.L, 2016
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“Packing up nets”
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**Small in Scale, Large in Scope**

**The forthcoming Ocean Conference should focus on the Sustainable Development Goals targets to ensure access to marine resources and markets for small-scale fishers**

During the preparatory meeting for the Ocean Conference in February 2017 at the UN Headquarters, New York, it was observed that the Conference, to be held during 5–9 June 2017, will be the first UN conference to shed light on the importance of oceans and seas for sustainable development.

Under the 2030 Agenda for Sustainable Development that began its execution on 1 January 2016, the Ocean Conference is to identify ways and means to support the implementation of Sustainable Development Goal (SDG) 14, namely, to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Probably, it is a harbinger of conferences to come on other SDGs.

From a small-scale fisheries perspective, the SDG targets include providing access for small-scale artisanal fishers to marine resources and markets (14 b). Based on the 2014 Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (the SSF Guidelines)—negotiated under the auspices of the Food and Agriculture Organization of the United Nations (FAO)—this should mean adopting measures, at least, to: (i) restore access for small-scale artisanal fishers and communities to marine-fishery resources and land that they have lost; (ii) establish preferential access to land and fishery resources for fishing, post-harvest and dwelling; (iii) ensure equitable access to land and fishery resources not to be wiped out by competing uses of coastal zones; (iv) provide access to judicial mechanisms to resolve disputes over tenure rights to land and the adjacent sea; (v) provide access to local, national, regional and international markets and trade information so that small-scale fisheries products are well recognized in the market place; and (vi) ensure capacity development to benefit from trade.

FAO is the custodian agency for SDG target 14 b and we would encourage it to develop indicators that are conceptually clear, with established methodology and standards, to assist Member States to generate information towards supplying reliable and timely data for systematic follow-up and progress reviews in relation to target 14 b at the international level. Mapping out coverage of designated artisanal fishing zones in relation to marine waters under national jurisdiction, for example, can be a robust indicator of how access for small-scale artisanal fishers to marine-fishery resources is currently protected under national and subnational legislation.

It is worth emphasizing that in terms of dependence on marine living resources for life and livelihood, small-scale artisanal fishers and their communities are the most significant stakeholders of the coast and ocean space. The Call for Action outcome document of this Conference should recognize this aspect. National fishworker organizations, in particular, should influence their country delegations to uphold this facet.

While identifying ways and means to support the implementation of SDG 14, guidance should be drawn from international human-rights standards contained in, and principles derived from, the Universal Declaration of Human Rights and related human-rights instruments. Building on successful partnerships and stimulating innovative new partnerships to advance the implementation of SDG 14 should uphold consultative and participatory processes, and ensure transparency, accountability and social responsibility to integrate and balance the economic, social and environmental pillars of sustainable development. There should also be sufficient recognition of indigenous and local knowledge in planning, decisionmaking and implementation, as well as gender-sensitive interventions in governance and conservation, as one delegation pointed out in the preparatory meeting.

Issues of interest to small-scale fishing communities are, in fact, spread over targets related to several other SDGs (see www.icsf.net). The Call for Action should, therefore, not get compartmentalized, but should recognize that the SDGs are integrated and indivisible.

We hope the Ocean Conference and its follow-up processes would lead to bringing about conditions that can enhance the contribution of small-scale fisheries to food security and poverty eradication, and pave the way to secure the socioeconomic well-being of fishing communities, particularly women, indigenous peoples and the vulnerable and marginalized sections of these communities.
At 14:46 local time on 11 March 2011 the collision of the North American and the Pacific tectonic plates resulted in the most powerful earthquake (9.0-9.1 Mw) in the history of Japan. The epicentre was about 70 km from the Oshika peninsula and left behind its wake more than 19,000 casualties, 7,000 people missing or injured and significant damage throughout the Japanese northeastern coast. The Oshika peninsula, where oyster, seaweed farming and fishing are the main economic activities, suffered extensive damages from the tsunami. Communities had to bear irreparable losses, and surviving fishers lost their boats, their farming and fishing gear, and all related coastal infrastructure (that is, wharfs, ice houses, fully-equipped processing plants, vehicles, other machinery, etc.).

Moreover, fishers told us about ecological impacts that soon became evident, such as changes in the abundances of species. From our review of the literature, though, it remains unclear if these changes resulted from a reduction of fishing effort in the area closest to Fukushima and the nuclear plant or from a change in the structure of the benthos in the region.

Six years after the tsunami, fishing activities have almost entirely been restored. This essay briefly describes how fishers reacted to these unprecedented sets of challenges, and the role they played in restarting Oshika’s local rural economies, while the national government’s reconstruction efforts were mostly focused in more urbanized areas. Our essay is based on our own interviews with fishers in the region during February 2017.

Fishing and sea farming in the Oshika peninsula before the tsunami

The Oshika peninsula is located within the Miyagi prefecture, one of the 47 prefectures of Japan, and has an extension of about 20 km of coastline, comprised of small bays dominated by rocky or sandy bottom environments. Rivers flow to the ocean from forests with an elevation of up to 500 m, providing nutrient-rich waters to coastal inlets, making them excellent sites for fishing and aquaculture activities like oyster and seaweed farming.

Communities are generally isolated from one another, and local festivals and other events are considered important opportunities for the creation and reaffirmation of community social ties in the region. About 30 fishing communities and a total of 3,000 people were estimated to live in the peninsula and all of the full-time fishers were originally organized in eight independent fisheries co-operative associations (FCAs). By 2007, however, seven FCAs had consolidated into one large prefectural FCA. The consolidation of small fishing co-operatives into larger ones has been taking place throughout Japan since the first consolidation law was enacted in 1967, driven by the needs of smaller co-operatives to gain more market power or attain financial stability.
among other reasons. For instance, during a field trip we made in 2013 to visit FCAs in the Boso peninsula, a co-operative president mentioned the main reason his co-operative decided to consolidate was due to the debt acquired after the purchase of a large vessel for mackerel fishing and the disappointing catches that resulted from this investment in the subsequent years.

Since the 1940s, farming of oyster (Crassostrea gigas) and wakame algae (Undaria pinnatifida) have been the major source of income for local households and co-operatives in the western coast of the peninsula. Nationally, this region is one of the most important production areas for oysters, and the production cycle typically takes two years, while wakame can be harvested after six months. Oyster spat collection starts in July-August and growth to market size takes about 24 months, with harvesting typically starting in October and lasting until May. Women and other members of the community at the co-operative-owned facility shell and pack the raw oysters for marketing by the co-operative. The production cycle of wakame algae starts at roughly the same time as that of oysters, yet harvesting starts as early as December and can last until March. The processing of wakame algae requires boiling the algae, salting it, and packing it. Sporophyl, the reproductive part of wakame, can be marketed raw, however, and in Japanese is called ‘mekabu.’

During the farming off-season (roughly April, May and June), fishers in Oshika have traditionally relied on a variety of fisheries and fishing gear to complement their income. Among the main species of bottom and pelagic fish harvested with gillnets are flounders (Paralichthys olivaceus, Microstomus achne, Tanakius kitaharae, Verasper variegatus), Japanese rockfish (Sebastes spp.), green ling (Hexagrammos otakii), and squilla (Oratosquilla oratoria). Longlines are mainly used for Japanese sea bass (Lateolabrax japonicas), and fish traps for conger eel (Conger myriaster). Sand lance (Ammodytes personatus) are harvested using dip nets. Set nets catch Japanese anchovy (Engraulis japonicas), mackerel (Scomber japonicas), and salmon (Oncorhynchus keta). Flounders are also caught by trawling.

For the most part farming and fishing is organized around kin-based relationships, with the exception of the dip-net and set-net fisheries, which are typically operated by salaried captains and crews not related by kin.

**The post-tsunami reality: The role of fishers in restarting local rural economies**

Fishers immediately knew a strong tsunami was coming upon feeling the strength of the earthquake that spring afternoon in March, and many of them tried to save their boats by motoring offshore. At least half of the fishing fleet was lost, and farming and fish-landing and processing facilities were heavily damaged or completely lost. Fishers living in low-lying areas lost their houses and had to move into schools’ auditoriums and other designated shelters. All oyster and wakame farming production completely came to a halt, making fishers entirely reliant on shelters for housing and food for the first few weeks.
The first post-tsunami income opportunity for fishers came two months later as the Fisheries Bureau was seeking to hire cleaning crews tasked with the disposal of the tons of debris littering the coast and inlets. This activity provided fishers with a modest income (around 12,000 yen per day or around US$100) to support daily living expenses, but allowed fishers to remain in their communities and not migrate to urban areas in search of new jobs. During our 2017 visit, we interviewed fisherwomen at retirement age who had returned to work in oyster-farming activities after leaving to stay with relatives in urban areas; some of them are still debating whether to return and settle permanently back and start all over again. A strong motivation to return, they said, is the dislike of the urban lifestyle and missing the sight of the ocean every day.

While the national government offered to subsidize 90 per cent of the expenses related to the purchase of new farming and fishing gear and generally support re-building efforts, the acquisition of new gear that would allow fishers to start generating income and stay in their communities was significantly delayed because of shortages in nationwide supply of fishing supplies from the unprecedented demand that followed the earthquake.

Fishers recovered some gear like buoys and other farming equipment that washed to shore through the clean-up process and with the help of volunteers who came to help from all over Japan. Other fishers who had salvaged their boats and fishing equipment were eager to get back into operation. Yet they were constrained by the damages to the landing and post-harvesting infrastructure. For instance, many landing sites were inundated during high tide due to the land subsidence effects. In June, three months after the tsunami, fishing boats gradually started operating but were limited to sites where landing was possible during low tide. Catches provided food for families in the area and income from small-scale selling to volunteers that came from other parts of Japan, among other sources. Such activities paid for operating costs to go fishing again and keep a constant cash flow in these isolated areas. For the most part, processing the catch was not feasible, and rebuilding of ports, processing and packaging facilities would have to wait until appropriate landfilling in land-subsided areas could take place.

Throughout the coast, restoration of large-scale ports received the highest priority from the national government, and communities in the Oshika region reliant on smaller-scale ports received relatively less attention. Thus, local self-governance and voluntary activities played a significant role in the re-building effort of landing and processing infrastructure in Oshika. For instance, in the port of the Onagawa community, considered one of the central ports of the Miyagi prefecture for the landing of the set-net fishing fleet, the local fisheries co-operative and buyers associations, the municipal government, and the local engineering companies organized together to build temporary cold containers to appropriately store the catch. In the smaller port areas in Oshika peninsula, the fishing co-operative transported ice from urban areas, enabling landing and market auctions to take place in their own communities and generate local employment.

In Japan, where local brands and their reputations are one of the most important forms of branding and niche-marketing, restoring local production and linkages between producers, marketing middlemen, and retailers as soon as possible was paramount so as not to lose nationwide consumers to other brands. Limited fisheries production in Oshika provided fishers, marketers, and co-operative staff with time and minimal income to remain on site and organize the restoration of farming activities, the main source of income in the area. In some communities,
the lack of oyster farming equipment and infrastructure forced fishers to shift their operation to the farming of wakame. It also made sense to focus on wakame, given its shorter production cycle (and thus quicker return on investment), and particularly on the production of its sporophyll or mekabu, a part of the wakame algae that is edible and requires less infrastructure to process and market. Wakame production has a starting date in early fall, which allowed fishers time to get ready. Volunteers from urban areas throughout Japan played a key role in assisting communities to re-start their wakame aquaculture activities through salvaging rope, buoys and other materials needed for farming, seeding the culture and building temporary storage houses on the beach. Finally, a private philanthropic entrepreneur set up a small office to co-ordinate the matching of volunteers to work with fishers. These arrangements allowed fishers to re-start wakame production quickly with minimal capital.

The tsunami also forced fishers to modify the way they harvested and marketed their oysters for the fresh de-shelled market. Without appropriate facilities to de-shell and package fresh oysters, they had lost access to that market. On top of that, fishers noted that, perhaps because of changes in ecological conditions, oyster seeds grew faster than anticipated, yet the reconstruction of their oyster processing facilities would still take two years to be completed. Fishers needed to adapt to the new post-tsunami reality. This was the case of the Makinohama community, where one of the fishers decided to contact the FCA in Hokkaido, in the northern-most region of Japan. After collective discussions, Makinohama fishers decided in May 2012 to ship their oysters live, before reaching market size, to farms in Hokkaido. In this manner, they could sell their oyster without shelling and packing. Oysters in estuaries of Hokkaido grow faster and bigger, and Hokkaido oysters are a recognized regional brand, usually fetching high market prices.

Fishers from Makinohama also continue selling their products directly to consumers in urban areas through the network of volunteers that came to help. This was another channel that allowed fishers to sell live oysters without shelling or packaging. Live oysters in shells have a much smaller market compared to de-shelled fresh oysters for their increased transportation costs and the extra effort for the consumer to de-shell them for eating or cooking. Selling through the network of volunteers was a new way to access niche markets in urban areas.

**Fishers as agents of local resilience in rural coastal communities**

Altogether, the fishers’ ability to engage in a number of different economic activities allowed them to provide food and a minimal income stream, while the assistance from the central government was deployed, letting them remain in the region while slowly re-building their communities and fishing activities. Fishers in Makinohama told us they estimated that by 2014 oyster production had recovered to the same levels before the tsunami. In addition, new forms of production had been established and continue to this date, like the relationship with the Hokkaido FCA. Wakame production continues to be an important economic activity, and some species like flounder have become more abundant. Communities like Omotehama, where small-scale fisheries recovered quickly, have attracted a younger generation of fishers, perhaps for its robustness and sustainable income. While some important challenges remain to be addressed in the future, the example of the Oshika peninsula helps reaffirm the tenacity, resilience and impressive adaptive capacity of the fisherfolk. The role they can play in restarting or maintaining rural coastal economies after catastrophic events like the tsunami of 2011 informs their importance and value as part of a modern vibrant civic society in these areas.

For more

[link.springer.com/chapter/10.1007%2F978-3-319-13878-7_7](link.springer.com/chapter/10.1007%2F978-3-319-13878-7_7)

**Disaster Extent Map Overview—Japan, Oshika Peninsula—Earthquake/Tsunami**

[link.springer.com/article/10.1007%2F978-3-319-13878-7_7](link.springer.com/article/10.1007%2F978-3-319-13878-7_7)

**Rising to the Challenge of Reconstructing the Coastal Fisheries Environment After the Massive Tsunami: The National “Tohoku Ecosystem-Associated Marine Sciences (TEAMS)” Project**


**Impacts of the 2011 mega-earthquake and tsunami on abalone Haliotis discus hannai and sea urchin Strongylocentrotus nudus populations at Oshika Peninsula, Miyagi, Japan**
Chilled Out

Chile’s fisheries development model, which follows a neoliberal paradigm, is in danger of triggering a political, environmental and social crisis

Chile borders the southeast Pacific Ocean, one of the five most productive marine areas in the world. The country has 4,200 km of open coastline and 30,000 km of sheltered coastline, consisting of several islands clusters and the Patagonian fjords, next to the subAntarctic region. In addition to this, Chile’s territorial seas and exclusive economic zone cover 3.6 mn sq km, five times the size of the country’s mainland.

All along this diverse coastline, there are 455 communities where 91,632 small-scale fishermen and women (77 per cent men and 23 per cent women) live and work, engaged in fisheries, aquaculture and seaweed harvesting, and shellfish gathering, with a total production of 1.5 mn tonnes per year.

Chile is the world’s eighth largest fishing nation, with total landings reaching 3.8 mn tonnes per year. Of these, 1.2 mn come from industrial fisheries, 1.5 mn from small-scale fisheries, and 872,000 tonnes from aquaculture.

This South American country is the second largest fishmeal producer, after Peru; the first largest exporter of seaweed for human consumption; the largest producer of farmed trout; and the second largest producer of farmed salmon, after Norway.

Farmed salmonidae (introduced species of carnivorous fish) represent Chile’s second largest export, with a production of 895,000 tonnes worth US$4.361 bn in 2014.

An experimental ground for savage neoliberal policies in the southeast Pacific Ocean

In the last 40 years, Chile has been an experimental ground for neoliberal policies. Eighty-three per cent of the national economy relies on exports of natural resources with low added value, the result of implementing the extraction-export system imposed by the military dictatorship since 1973. Subsequent democratic governments helped deepen and refine this destructive, undemocratic model.

Privatization, sea grabbing and corruption stifle small-scale fisheries

Over four decades, both the military junta and subsequent democratic governments failed in their attempts to privatize small-scale fisheries, due to the strong and cohesive opposition displayed by artisanal fishermen, coastal communities, indigenous peoples and civil society organizations from 1985 to 2012.

In 1998, after a series of failed privatization attempts, Eduardo Frei’s Christian Democrat government divided the National Confederation of Small-scale Fishermen (Confederación Nacional de Pescadores Artesanales de Chile, CONAPACH) by creating a parallel organization, the Confederation of Small-scale Fishermen (Confederación de Pescadores Artesanales de Chile, CONFEPACH) that supports free-market policies and agreements with industrial fisheries.

Division in the Movement

The division of the small-scale fisheries movement led to a partial
privatization of the sector for 10 years by setting up a system of individual, non-transferable fishing quotas, based on “maximum catch limit per vessel owner” (LMCA).

Before the end of the LMCA system, political and business elites, together with CONAPACH and CONFEPACH, entered into a corrupt political agreement under the guise of an “advisory board”, created in 2011, which supported the Parliament to pass a fisheries privatization law that entered into force in 2013. In the framework of this agreement, small-scale vessel owners received, in return, fishing quotas worth US$34mn, transferred from the industrial sector.

At the present time, the National Office of Economic Crimes has pressed charges of bribery, defrauding of the State, and illegal political funding against 17 fishing companies, two transnational corporations, four associations of fishing companies and 16 members of the Parliament. All of them, including a former small-scale fisheries leader, are currently facing trial in Court.

**Chile’s neoliberal fisheries and aquaculture system’s theoretical framework**

The privatization process of coastal areas (in 2010) and fisheries (in 2013) is underpinned by a strategic agenda promoted by international financial institutions and multilateral organizations, aimed at imposing Chile’s neoliberal fisheries and aquaculture systems as the model for the future, especially for small-scale fisheries in Latin America and the Caribbean.

The main characteristics of this orthodox model are:

- a) removal of the absolute, exclusive and inalienable control of the State over all water resources under its jurisdiction, and of its exclusive competence to grant property rights, access rights and use rights to national fishery resources;

- b) transfer of the competence to grant property rights, access rights and use rights to national ecosystems, biodiversity and water resources to market forces;

- c) full economic liberalization of fisheries and aquaculture in order to facilitate international and national investments in maritime and coastal territories, inland waters and natural resources, in order to direct production towards meeting international market needs;

- d) transformation of biodiversity and natural resources into fully tradeable financial assets and, therefore, subject to stock market speculation and economic concentration;

- e) full marketability of fishing licences, individual fishing quotas and aquaculture concessions, further facilitating economic concentration and transnationalization of national fisheries and aquaculture;

- f) absolute legal certainty ensured for property rights in fisheries and aquaculture through national laws or international free-trade agreements, pre-empting expropriation attempts from the State or recovery by civil society;

- g) phasing out of the “small-scale fishermen” professional category and removal of traditional income-distribution modalities and collective and customary rights. The ultimate goal is to eradicate small-scale fishermen as independent producers and turn them into cheap seasonal labour (as they only work a few months in a year).
Fisheries privatization's main impact

a) Constitutional rights infringement

Fisheries Law No. 20,657 is the most contested and least legitimate piece of legislation approved in Chile since the end of the military dictatorship in 1990, as it enshrines abuse from political and business elites, and infringes the constitutional principles of economic freedom and non-discrimination, by granting exclusive property rights (a monopoly) over fishing resources to seven big families.

b) Imposition of a fishing system based on a speculative rentier economy

Setting up a system of individual and fully marketable fishing quotas and licences, valid for a period of 20 years and automatically renewed, is the cornerstone of the Fisheries Law.

Fishing licences, individual catch quotas and aquaculture concessions were granted free of charge, in perpetuity and for exclusive use, to a small group of industrial companies. This meant that industrial fisheries companies gained “historical rights” recognition. Incidentally, the law also established restricted and highly precise tendering mechanisms to allocate small fractions of the fishing quotas to specific industrial fisheries.

All this represents a move towards “speculative fisheries”, by putting some distance between the physical reality of aquatic resources and their marketability, turning resources into intangible assets that may be traded in national and international markets, financial systems and stockmarkets.

The application of this neoliberal logic has led to the emergence of a group of small-scale vessel owners operating on a “rentier” basis, selling or leasing their fishing quotas to other small-scale fishermen, industrial fleets and/or processing plants.

c) Overexploitation and collapse

Since the entry into force of Law 20,657 in Chile, fisheries in a status of “collapse”—“overexploitation” has increased from 48 per cent in 2012 to 72 per cent in 2015.

d) Illegal and non-selective fishing increase

As a direct consequence of privatization processes denying right of access to fish to indigenous peoples and to 90 per cent of small-scale fishermen, illegal catches currently exceed legal quotas by 300 per cent and are worth US$30mn a year.

On the other hand, trawling operations have intensified, as trawlers can legally enter the five-mile area intended to protect biodiversity and small-scale fishing.

e) Racism and infringement of international treaties

In 2011 and 2012, Chile’s government and Parliament refused to obtain the mandatory, prior and informed consent from the indigenous peoples potentially affected by the fisheries privatization law, as required by the International Labour Organization (ILO) Convention No. 169, ratified by Chile in 2010.

Law 20,657 denied property, access and use rights to fishery resources to indigenous peoples, taking them out of the picture. It seems paradoxical that Chile has recognized “historical rights” to companies that started operating in its waters 30 or 50 years ago, while denying those very same rights to native communities that have been living in the eastern south Pacific region for 6,000 or 10,000 years.

f) Loss of fishing rights for 90 per cent of small-scale fishermen

Bona fide small-scale fishermen—that is, 90 per cent of all artisanal fishermen—were also denied their rights to access, and use of, fishery resources.

g) Fisheries privatization and food sovereignty

Historically, 90 per cent of artisanal fishing production was destined to domestic consumption. Since privatization started, it has shifted towards export and processing in industrial plants for fishmeal or fresh, frozen, smoked and canned products.

Currently, 35 per cent of the catch goes to direct human consumption, mostly exported to third countries. The remaining 65 per cent is processed into fishmeal and fish oil.
Only 3 per cent of total fish catches are currently destined to domestic markets. This explains the low fish consumption levels in Chile. Chileans obtain only 7 per cent of their total protein intake from fish, with an average consumption of 6.9 kg of fish per capita per year. This level of consumption is well below world average figures (19.7 kg) and the minimum recommended by the World Health Organization (12 kg).

At the same time, 49 per cent of the country's population is overweight or obese and Chile is the sixth country in the world and the first in Latin America for child obesity.

People's resistance against abuse and corruption in political and business circles
After the adoption of Law 20,657, a civil-society campaign was launched, asking for its repeal and the cancellation of all compensation to fishing business clans—an unprecedented initiative in the political and legislative history of the country.

The campaign is led by a broad coalition of regional social movements, small-scale fishing associations, organized civil society, students and indigenous peoples, who have held days of public protests in eight regions of the country and in the capital, gathering 300,000 signatures in support of the initiative.

In January 2016, the campaign, with the support of 93 per cent of all citizens, managed to introduce a bill in Parliament to overturn the previous fisheries and aquaculture law.

This will be a long struggle against the abuse and corruption of the political, bureaucratic and business elites, and the first steps in the process will be establishing a new balance of power for democratic forces and setting up a Citizens' Assembly that will prepare a new democratic Constitution for the people.

For more
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The Political Economy of the Chilean Nearshore Fisheries Reform
pnas.org/content/107/39/16794.full.pdf
Navigating transformations in governance of Chilean marine coastal resources
maritimestudiesjournal.springeropen.com/ articles/10.1186/2212-9790-12-3
Crises in the South African abalone and Chilean loco fisheries: shared challenges and prospects
A landmark Ocean Conference will be held in New York from 5 to 9 June 2017 to address measures for supporting the implementation of Sustainable Development Goal 14 (SDG14): conserve and sustainably use the oceans, seas and marine resources for sustainable development. Back in September 2015, the Prime Minister of Fiji, H.E. J.V. Bainimarama, warned, in his statement at the UN General Assembly (UNGA), of the decline in oceans’ health, as evidenced by dying coral, marine pollution, damaged coastal ecosystems, declining fish stocks and ocean acidification, and proposed to convene the Triennial UN Conferences on Oceans and Seas. In September 2016, H.E. Peter Thomson, President of the 71st Session of UNGA and Ambassador of Fiji to the UN in New York termed the Ocean Conference as the game-changer to ensure oceans’ well-being. SDG14 addresses a wide range of issues related to oceans, namely, (14.1) marine pollution; (14.2) marine and coastal ecosystems; (14.3) ocean acidification; (14.4) overfishing; (14.5) coastal and marine area conservation; (14.6) fishery subsidies; (14.7) small island developing states; (14.a) science and research; (14.b) artisanal fishers; and (14.c) conservation and sustainable use of oceans and their resources. The expected outcome of the Ocean Conference was specified by the General Assembly Resolution 70/30 providing that the Conference shall adopt a “Call for Action”, co-chairs’ summaries, and a list of voluntary commitments.

**Ocean health and well-being**

The implementation of SDG14 is expected to reduce anthropogenic negative impacts on oceans and achieve better data of biophysical indicators. At the same time, SDG14 implementation must bring about socioeconomic benefits to island and coastal states and communities as referred to in 14.7 and 14.b. A co-relation of global ocean and coastal systems and human well-being has been increasingly underlined in recent years. Oceans and coastal systems enhance human health and well-being that can be harmed by the alteration of such systems. The Blue Ribbon Panel, established as an advisory body for the Global Partnership for Oceans spearheaded by the World Bank, identified five principles in aligning ocean health and human well-being: (i) sustainable livelihoods, social equity, and food security; (ii) a healthy ocean; (iii) effective governance systems; (iv) long-term viability; and (v) capacity building and innovation.

**SIDS and HDI**

How have small island developing states (SIDS) performed in terms of the Human Development Index (HDI)? The average HDI of 2015 is 0.72 for the Caribbean SIDS, followed by the Pacific (0.64), the Indian Ocean (0.63) and West Africa (0.5), as shown in Fig.1. The index improvement rate (obtained by dividing the index of 2015 by the one of 2005) is the highest.
for the Indian Ocean and West Africa (1.1), followed by the Pacific (1.05) and the Caribbean (1.04). The box for Indian Ocean stretches most in Fig.1; the gap is the greatest for the Indian Ocean, followed by West Africa, the Pacific and the Caribbean (standard deviation is 0.13 for the Indian Ocean, 0.11 for West Africa, 0.10 for the Pacific and 0.08 for the Caribbean.) A variance is noted among regions and within the region in terms of HDI for SIDS.

Strategies for Pacific SIDS
SIDS rely on their terrestrial and marine resources for their livelihood and development. Fishery is one of the key sectors for many Pacific SIDS. The Republic of Marshall Islands has boosted its fishery production by over 200 times for the recent 25 years (Table 1). On the contrary, the Republic of Palau has reduced its fish catch by 16 per cent for the last 25 years and by 29 per cent for the last 15 years. Palau has been driving measures to expand marine protected areas, as exemplified by the legislation that President Tommy Remengesau signed in December 2015 to designate 80 per cent of its ocean as protected areas and keep away extractive activities including fishing and mining. The latest figures show that Kiribati protects 20 per cent of its ocean and the Republic of Marshall Islands protects 0.2 per cent. Palau recorded about 140,000 inbound tourists, exceeding the Federated States of Micronesia (35,000), Marshall Islands (5,400) and Kiribati (3,900) in 2014. There is a trade-off between the protected areas and the fishery sector (Fig.2) and SIDS need to explore the measures that fit their respective conditions and capitalize on their potentials in achieving SDGs.

Protected areas and sustainable livelihood—case study of RMI
The Republic of Marshall Islands (RMI) followed suit by adopting the legislation called “Protected Area Network Act” in September 2015. The legislation laid down specific provisions on a PAN office, a Technical Advisory Committee, the Local Resource Committee, a management plan, the PAN Fund, and enforcement. The RMI Environment Protection Authority conducted, with the support of the Sasakawa Peace Foundation Pacific Island Nations Fund, a pilot study of coastal and marine resource conservation and sustainable use in RMI. The questionnaire survey (n=71) was conducted in five communities in the area of Majuro, a capital of RMI just a year after the PAN Act was adopted. The provisional outcome of the survey was presented at the 2nd General Meeting of the Islands and Oceans Net (IO Net), organized by the Ocean Policy Research Institute of the Sasakawa Peace Foundation in Tokyo, in December 2016. Half of the community members responded that they do not know the PAN Act and only 12 per cent responded they know it well or partially. For the implementation of the PAN Act, local people positively responded to the ideas of farming, craft making, tourism and other alternative income-generating activities. On the other hand, they are split over whether they will continue or reduce fishing. Local people underlined, as a success factor for PAN Act implementation,
political will; (ii) community leadership; (iii) financial support; (iv) technical assistance; (v) financial assistance by international partners; (vi) scientific information; (vii) training; and (viii) public awareness.

Island and coastal community empowerment—the case of Japan

Japan is an archipelago that consists of 6,852 islands. Inhabited islands are administered by one of 47 prefectures. It is worth examining how people in Japanese island and coastal communities are doing in the pursuit of sustainable development. Yet, it is an arduous task to select suitable indicators for this purpose. The Happiness Index is one of the attempts to measure human well-being. The World Happiness Report ranks 155 countries based on their Happiness Index. Japan was ranked at 51st in the 2017 report. None of the SIDS in the Pacific is ranked in the report. It is worth noting that the report also indicates the changes in happiness over the last 10 years. Japan had negative change (-0.447), meaning that the happiness level declined over the past 10 years.

There is a similar attempt made in Japan to analyze happiness across prefectures. The Japan Research Institute examines the happiness level and ranks 47 prefectures based on 65 indicators. I have developed a fishery production index by dividing fishery production (mn JPY) by the prefecture’s total economic production (bn JPY). Then I plotted each prefecture against the horizontal axis of the fishery production index and the vertical axis of happiness ranking. The higher the fishery production index is, the greater the prefecture relies on fishery for economic activities. The small ranking numbers indicate that the happiness level is high and the large numbers indicate that the prefecture is poorly rated on the Happiness Index. A moderate co-relation was observed (r=0.42, p<0.05). The prefectures ranked for the top nine had a 4.28 fishery production index, followed by the group of top 10-19 (4.77), the group of top 20-29 (8.31) and the group of top 30-35 (12.12). However, when I looked at the top nine of the happiness ranking list, the average fishery production index is 5.57, much higher than the group of the top 1–19. The substantive proportion of fishery production in the prefectural economy neither guarantees higher happiness nor undermines the happiness level.

Island and coastal land- and seascapes expose us to vulnerability while, at the same time, provide us with resources and opportunities for achieving sustainable development. There is no one-fit-for-all solutions. Yet, there can be lessons learned to share among us. Concerted actions across the countries and the world will instigate our ingenuity to pursue innovation in developing policies, promoting collective actions, applying technology, mobilizing funds, and developing partnership towards achieving sustainable development. The Ocean Conference of 2017 will provide us a historic opportunity and it is up to us to better utilize this opportunity for promoting ocean health and human well-being in the context of supporting the implementation of SDG14.
This obituary is by Michel Richard
(michel@mfu-upm.com), the MFU’s
organizer/representative since October 2002
and a close colleague of Christian since 2005
In 2012 the Committee on World Food Security adopted the Voluntary Guidelines on the Governance of Tenure. As a follow-up, the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries were adopted by the member states of the Food and Agriculture Organization of the United Nations (FAO). Implementation of these Guidelines are at the core of Sustainable Development Goal (SDG) 14.2.

The Guidelines define tenure as “systems that define and regulate how people, communities and others gain access to natural resources, whether through formal law or informal arrangements. The rules of tenure determine who can use which resources, for how long, and under what conditions. They may be based on written policies and laws, as well as on unwritten customs and practices”. The Guidelines emphasize that they are voluntary, global in scope and with a focus on the needs of developing countries; they are to be understood in the context of food security and poverty eradication.

In this article, I will present a case from the west coast of Sweden, where food security and poverty issues are not part of the context. The case puts into evidence that securing tenure is also relevant for the small-scale fisheries in a high-income and modern society. The case is about prawn fishermen who have witnessed periods of incursion of offshore fisheries in their ‘home waters’, scaling up the units for management of fisheries and the establishment of a national marine conservation park.

The features of the area and the fisheries
In Northern Bohuslän, close to Norway, there is an archipelago with a deep-sea fjord, known as the Norwegian Trench. The area is considered an important habitat for shellfish, and is shown to have the highest diversity of marine species in Sweden.

Trawling for prawn (Pandalus borealis) in the area began over more than a century ago, in 1902. Approximately 20 vessels of the size 10-20 m operate in the area and do deep-sea trawling for prawns in the Trench. Even when, in another context, the size of the vessels could be understood as too large to be referred as ‘small-scale’, the modality of the fisheries, the operative rules in place and their permanence in what the fishermen refer to as ‘home waters’ give this fishery a small-scale character.

Safe biological limits
The prawns enter the area in their early larvae phases and remain thereafter confined to the area during their adult phase. The status of the prawn is within the safe biological limits and the landings from the area have been rather stable (about 200 tons per year). The Trench stretches 70 km along the Swedish coast and continues into Norwegian waters and towards the North Sea. It is a long submarine corridor with...
irregular depth and width, and with short lateral branches. Working these waters requires local situational knowledge. The behaviour of the prawns and the characteristics of the trench have been used as boundaries by the fishermen to design voluntary access rules to avoid conflicts due to physical interference between the trawlers.

Securing tenure in the context of an expanding offshore fisheries
Protocols from fishermen’s meetings and circular letters from the 1950s provide information on the adoption of closed areas, fishing stops, fishing hours, night trawling prohibition, minimum landing size and price regulations. The temporary exclusion of Swedish fishermen from Norwegian territorial waters in the 1950s, the collapse of the Atlanto-Scandian herring in the 1960s and, finally, the establishment of the exclusive economic zone (EEZ) regime in the late 1970s, and the modernisation of the fleets by means of subsidies were all events that introduced more industrial and offshore fisheries into the ‘home waters’ of the small-scale fishermen. The prawn fishermen confronted temporary conflicts, and the erosion of the local rules was followed by inequitable sharing of resources and difficulties to compete in the market.

All these factors gave rise to the design of output and input regulations and rules, with distributive effects in the prawn fisheries. Output regulations are rules to limit the harvest, while input regulations are rules to limit investment in gear, time and men on board. The prawn fishermen agreed on a ration system, that is, a system consisting of individual weekly non-transferable quotas for a maximum of four fishermen on board, and three fishing days per week. Trawling during nights and Sundays has not been permitted. The size of the quota is adapted through the year and varies with the size of the total allowable catch (TAC) agreed on. In the 1960s, the prawn fishermen agreed on limiting the size of the trawls in the area, specifying both their physical dimensions and number of meshes as well as the minimum landing size (MLS). According to the fishermen, the introduction of this smaller trawl was related to the limited resources available locally and to the increasing number of larger trawlers operating in the area, which drastically affected the catch of other fishermen trawling in their wake.

The prawn fishermen’s ways to secure tenure had a clear exclusion and distributive effect because, together with the rules limiting the number of fishing days and the night trawling prohibition, they render negative the benefit-cost ratio for potential non-local users. Local rules, in general, were not supported by the Fishermen’s Association that supported open access to all waters and resources under robust generic rules.

The Koster-Vederö Archipelago and the Norwegian Trench. The area is considered an important habitat for shellfish, and has the highest diversity of marine species.
**Inability to secure tenure from large fisheries management units**

Over time, the State has taken a more predominant role in fisheries management, which culminated in the entrance of Sweden in the European Union and the implementation of the Common Fisheries Policy (CFP). In the 1980s, to account for the mobility of fish stocks and allow for flexibility of fishing, the Swedish system made use of relatively large units of management and a semi-open access system under generic rules, as preferred by the Fishermen's Association.

While the prawn fishermen view the prawns in the Trench as a local stock, the scientists and the Associations talked about one stock in the North Sea and the unit for defining quotas. This way of defining output boundaries, based on the principle of “one stock, one TAC, one common Swedish quota for all prawn fishermen” forced the fishermen to share quotas with the modern fleet on an equal, non-equity basis.

In this context, most local voluntary rules were no longer legitimized by the Fishermen's Associations and it was very difficult for the prawn fishermen to get their management system to work. The fishing strategies were based on a ‘hit-and-run’ approach, and the annual prawn quota was rapidly exhausted. Such a strategy was not suitable to maintain a stable market and income throughout the year. A loss of trust between the prawn fishermen and the Fishermen's Association, the scientists and the authorities was the inevitable result.

These tendencies are neither new nor specific to Sweden, and many authors have identified them as tendencies that progressively led to the marginalization of the local coastal fishermen in Europe.

**Securing tenure in the context of nature conservation**

The establishment of a marine research centre in the area was followed by reef building of cold water corals and sponges in the Trench. Reports published by the Swedish Environmental Protection Agency in the 1990s identified the archipelago of Koster-Väderö and the Norwegian Trench as one of the prioritised sites selected for the establishment of a marine national park. The prawn fishermen saw the national park as the end of 100 years of prawn fisheries and all their local management efforts.

In 1995 a group of local prawn fishermen was invited by the scientists from the research centre and a nature conservation NGO to discuss the need to protect the corals in the Trench. Following this meeting, the local fishermen created an informal group to discuss how to proceed with the new threat. During this period, the fishermen requested help from the Association, and tried traditional protest methods such as demonstrations on the streets, engaging local politicians and sending letters to the King.

A long process of negotiations, led by the County Board Administration and involving the scientists, the municipality and the national fisheries authorities, then began. The negotiations were successful and in 2001 a number of hotspots where trawling is forbidden were identified. Moreover, the fishermen gained legal support for the exclusion of harmful technology and larger trawlers from the area. This process of negotiation was the first step to legitimate the prawn fishermen's tenure system and their local rules.

With that in place, all the preparations for the first Swedish marine national park started. At the same time, overfishing was seen as a problem, and the debate about the marginalization of the small-scale fisheries raged in Europe.
The Swedish government was seeking for future work with co-management of coastal fisheries, and a national co-management initiative was established. The prawn fishermen were selected for one of the projects. The Koster-Väderö co-management initiative had a steering committee involving representatives from fisheries and local authorities, local scientists, the prawn fishermen and recreational fishermen, and NGOs. The steering committee was supported by a project assistant.

In the beginning, the local opposition to the national park was strong all along the coast. Nobody in the area was prepared to put at risk, and lose, the local prawn fisheries which is central to the economy of the area. The co-management initiative took steps to make sure that the park will not exclude the local fishermen. Among the activities carried out were:

- the development of a common vision on the purposes and objectives of the work
- the dissemination of knowledge to the public about the biology of the area and its importance for the local fisheries
- education for all fishermen operating in the area, to be combined with an ‘environmental licence’, carried out in collaboration with the research centre and educators
- a training package for politicians, civil servants and managers on fishing technology and the practice of fisheries in the area, carried out by the local fishermen in collaboration with an educator, and guest houses and restaurants
- continuous development of gear to maximize economic returns and reduce the impacts on the environment, in collaboration with fishermen, technicians and scientists
- development of a self-control system of documentation on board, in collaboration with the fishermen and coastguards, and supervised by consultants
- labelling of local marine products, in collaboration with the fishermen, local business people and marketing specialists
- a continuous evaluation of the effects of the banning of trawling in the hotspots, in collaboration with the fishermen, scientists and the authorities
- fundraising for projects, in collaboration with the project assistant, national authorities, the local government and the EU fisheries fund

During one year of work, nine representatives of the professional fishermen participated in 45 meetings. The work was intensive, with the fishermen organized in teams of four to six, and the wishes expressed were many.

As a part of the process, the directors of fisheries and the environment national authorities signed a letter which supported the co-management initiative to discuss and prepare recommendations on the management of fisheries in the future national park. Moreover, in 2007 a study was commissioned on how the park could be organized and managed to ensure local participation and sustainable use. In September 2009 the Kosterhavets Marine National Park opened and the co-management initiative and the prawn fishermen are represented in the steering board of the park.

The prawn fishermen’s efforts to secure tenure gave good results. They have also won an environmental award. In retrospective, the case has many elements and guiding principles that are central to the SSF Guidelines. Even when the Guidelines “are to be understood in the context of food security and poverty eradication”, they are highly relevant to the implementation of SDG 14.2 worldwide.

The prawns are boiled in seawater on board, which gives the product a salty taste.

For more

fao.org/docrep/016/i2801e/i2801e.pdf
Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security
igssf.icsf.net/en/page/1069-SSF%20Guidelines%20Translation.html
SSF Guidelines: Translation
Growth Blues

Coastal degradation, socioeconomic inequality and the rise of purse-seine fishing in India pose a set of problems that often end in a zero-sum game for fisher groups.

The Millennium Ecosystem Assessment (2005) provides testimony to the degradation of the world’s natural environment. In the lush, deltaic landscape of the Netherlands, such degradation is not immediately evident, but figures on the immense loss of biodiversity taking place in the country testify to its occurrence. Thus, according to the Natural Capital Index, the Netherlands now boasts only 18 per cent of its original biodiversity, down from 30 per cent in 1950 and 55 per cent in 1900. The same is probably true for India. As far as 25 years ago, the environmental historians M Gadgil and R Guha argued in This Fissured Land—An Ecological History of India that “the country is living on borrowed time. It is eating, at an accelerating rate, into the capital stock of its renewable resources of soil, water, plant and animal life”.

What is true for countries as a whole, is also true for coastal regions and for the resources on which capture fishers depend. The Millennium Ecosystem Assessment (Ecosystems and Human Well-being: Synthesis, 2005) makes the following assessment of global fisheries: “Over much of the world, the biomass of fish targeted in fisheries […] has been reduced by 90 per cent relative to levels prior to the onset of industrial fishing.” The North Sea, which is one of the richest natural fishing grounds of the world, upon which fishers in the Netherlands rely, is emerging from a deep crisis. Major fish stocks that have been overfished for decades, are recovering slowly after very severe measures were taken. But this same marine region is suffering from land- and sea-based pollution, habitat destruction, and a variety of new economic activities gathered under the label of ‘Blue Growth’. Fishermen themselves are becoming a threatened species.

Like the North Sea, the Indian coast has become a prime region for developmental activity, as is testified by the increasing number of ports and industrial areas. Marine pollution is a growing concern. Although the scientific evidence is still limited, the damming of rivers and cutting of mangroves are affecting the quality of inshore waters and spawning areas. Intense fishing activity is significantly reducing catches, and there is thus reason to believe that, certainly in inshore and offshore waters, overfishing is taking place. Government agencies in India are slowly acknowledging that inshore waters may be overcrowded and overfished, and that the scope for increasing catches in these regions is slim. In such waters, fishing seems to have largely become a zero-sum game: the gains of one fisher, or group of fishers, come at the expense of the catches/incomes of others. There are few new niches to exploit, and competition within existing niches has become more severe.

Inequality

So how does this relate to socioeconomic inequality? The first Blue Revolution instigated by Indian governments from the late 1950s
resulted in the establishment of a modern fishery sector, next to a large, small-scale fishery. This modern fishery was based on trawling, and the assumption was that this fishery would complement the small-scale fisheries, which possessed limited geographical range, by exploiting new, offshore grounds. Instead, all over India, the trawl fishery has been in severe competition with small-scale fisheries. This resulted—with a peak in the 1970s and 1980s—in violent conflicts between the two sub-sectors and in the establishment of a national fisher movement and organizations like the National Fishworkers' Forum.

My colleague Derek Johnson and I have argued, for the states of Gujarat and Tamil Nadu, that the Blue Revolution has enlarged socioeconomic inequalities in the marine fisheries sector of India, separating a richer class of trawler owners from trawl workers as well as from the mass of small-scale fishers working along the coasts. The evidence: trawlers now bring in three-quarters of total fish catches, leaving only one-quarter for the small-scale fisheries—and this while the fishing grounds on which trawlers operate can easily be covered by small-scale fishers. It is no surprise that small-scale fishers are angry about trawling.

Scientists now recognize that trawling is in itself also contributing to environmental deterioration, through habitat destruction and indiscriminate bycatches. As one fisher in Tamil Nadu explained: “Trawling ploughs the sea bottom, levels it, leaving nothing. Trawlers take even the smallest fish!” With this new knowledge, there is reason, in hindsight, to question the choices made by Indian policymakers at the start of the Blue Revolution. If environmental and socioeconomic aspects are taken along, was it actually the best choice? It is interesting in this regard to note that Sri Lanka had a different developmental trajectory, choosing not to introduce trawling but rather to intensify other fishing methods. The different choices made by government authorities in India and Sri Lanka are now contributing to the Palk Bay fishing conflict, to which I shall return in a moment.

Socioeconomic inequality in fisheries is, therefore, not a direct result of environmental degradation, but an offshoot of the choices made in the fisheries development effort. This same development effort, however, has contributed, in important measure, to further degradation of the marine environment, and to reaching, and overreaching, the maximum sustainable yield (MSY). Just as in other parts of the world, like the
North Sea, there seems to be an imperative in India not only for conserving, but for restoration of, the marine habitat, and thereby for a rejuvenation of its fisheries.

Trawl fishers in India often resemble the ‘roving bandits’ described by Berkes et al. in their 2006 paper, Globalisation, Roving Bandits and Marine Resources (2006), as well as the ‘biosphere people’ of Gadgil and Guha. Not depending on any particular fishing grounds, trawl fishers move from one area to another, displacing local, small-scale fishers and causing them hardship. We have documented this process within Tamil Nadu (where big riots occurred in 1979 in Madras), as well as between Chennai trawl fishers and Andhra fishers. The latest manifestation of this same process can be seen in the Palk Bay, whereby Tamil Nadu trawl fishers are making extensive use of northern Sri Lankan fishing grounds and preventing local small-scale fishers from recovering their livelihoods. The benefits accruing to one party result in losses for the other.

The purse-seine fisheries I have been studying lately along the Coromandel coast of Tamil Nadu illustrate some of the trends and dilemmas mentioned above. Purse-seine fisher ‘companies’ target the migratory schools of small and large pelagics that seasonally travel up and down the Indian coast and have always also sustained the small-scale fisheries. Purse-seining is highly disputed, for two reasons: (i) fishers fear the absolute depletion of fish stocks, as these gears are so efficient; and (ii) fishers say that purse-seining results in some fishers gaining all, leaving nothing for others. For these reasons, purse-seining is prohibited by a large number of informal fisher panchayats in Tamil Nadu.

What makes the case of purse-seining different from that of trawling, however, is that it is largely carried out by collectives of small-scale, village-based fishers. The members of these ‘companies’ pool capital and labour and are thereby able to compete with the trawling operations of harbour elites. Trawl owners dislike the purse-seining groups for a variety of reasons: (a) they compete with trawlers for the same schools of fish; (b) they compete for labour, which prefers to go purse-seining because the earnings are better; and (c) purse-seining catches cause fish prices to go down.

To recapitulate: purse-seining is taking place in a marine environment that is suffering from environmental degradation, and is pursued by small-scale fishers who see an unusual possibility here of making decent incomes. At the same time, some see purse-seining as contributing to further deterioration. In addition, not all small-scale fishers have the opportunity (money/labour) to participate in purse-seine fishing; in addition, many fisher panchayats have prohibited the use of purse-seines in their waters. The fisher panchayats are, however, seriously divided, with some in favour of purse-seines while others are against. Social struggle is, therefore, going on within the fisheries sector itself.

What does the government have to say about this matter? In response to fisher agitations, the government of Tamil Nadu prohibited the use of purse-seines in 2000, but does nothing to prevent them being used.

Environmental NGOs
This ambivalent attitude has contributed, for example, to the strange instance of the anchoring of a large fleet of purse-seine boats, for example, in Cuddalore town, which are not at all registered but go fishing nonetheless. Environmental NGOs have identified the problems of purse-seining in India and are...
concerned, as one of their members said, that “purse-seining signals a race to the bottom.” Scientists of the Central Marine Fisheries Research Institute (CMFRI) are investigating the state of the large schools of oil sardine that travel the Indian coast. They do not seem to have reached consensus on whether there is something to worry about.

I am convinced that the social struggles taking place in the coastal realm of India deserve more of our attention, not only for academic reasons, but for societal ones too. I view the crisis occurring in fisheries as part of an otherwise stagnating agricultural economy, and a problem of employment and social mobility. Fishers, even the better-educated ones of the newest generation, will not join the information technology sector, nor will they find ready employment in other professional fields. They are largely stuck in fishing.

The environmental problems of the coast are diminishing the size of their ecological niche, and defining their continuing position at the bottom of the larger Indian socioeconomic pyramid. At the same time, they are struggling for a piece of the pie that is generated within fisheries. This struggle is being exacerbated by institutional fragmentation, indecisiveness, and uncertainties of knowledge.

Fisheries is only one of the livelihood opportunities practised along the Indian coasts, albeit an important one. We, as social scientists, have a role to play in resolving the struggles that occur, if only to bring to the public attention that: social struggles over livelihoods and natural resources continue, also along the coast; these struggles take place over a diminishing ecospace, positing stronger against weaker social parties; unequal access and opportunity are core features of such struggles, and revolve around conceptions of ‘fairness’; ‘technological change’ is a factor contributing to diminishing ecospace as well as to unequal opportunity, and restrictions on technology are urgently required; and the government needs to collaborate with user groups to define long-term coastal management plans that include reference to precautionary ecological principles as well as to the importance of livelihoods and sustenance of poorer citizens.

A concerted effort in facilitating an understanding of social dynamics in India’s coastal zone is of tremendous importance. Social justice is one of the aspects deserving attention.

For more

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Fishing is Life

Without fishing, Alaska’s coastal residents would have no way to sustain their families and their communities

I have fished off Alaska for over 30 years, first as a deckhand and then as a vessel owner/operator. The boat I now fish in with my family is 40 feet long, with diesel power, hydraulics for hauling our hook-and-line gear, and a cabin with a diesel stove to warm us after a day working on deck. We fish for halibut and sablefish with benthic longline gear, setting ‘strings’ that are one to three miles in length in depths ranging from 40 fathoms to 600 fathoms, depending on whether we are targeting halibut or sablefish. We also troll (another hook-and-line gear) for king and coho salmon, delivering the highest quality salmon available. We ‘clean’ our fish at sea, then pack the fish in ice or a slush of ice and seawater. We are at sea during our fishing trips for three to seven days, but are sometimes gone from our home port for weeks at a time.

Before I had a family, I fished eight to ten months of the year, working my way up the coast from Sitka, Alaska, my hometown, to the Bering Sea. We fished for five days, then delivered our fish into the closest community, refuelled and re-provisioned, then headed back out fishing. We saw miles of wild coastline and explored remote islands and bays. When we delivered fish into small communities, we met people and shared stories. Each community had a unique character formed by their isolation, but they all shared a culture of fishing. Without fishing, Alaska’s coastal residents would have no way to sustain their families and their communities. Fishing is life.

Our boys first went fishing with us when they were each around six months old. They were not much help in those days (!), but have become able deckhands in more recent years. They are now 13 and 15 years old. Our youngest loves everything about fish—catching them, studying them, and keeping them in an aquarium; our oldest mostly likes driving the boat and navigating. When our boys were young, we home-schooled them so we could fish during the fall and spring. Once they reached 10 and 12 years of age, my spouse and I decided they should be in regular school. We now fish four months each year, leaving the boys behind for a few trips in the spring or fall but also sometimes taking them out of school for a fishing trip. Our youngest is very opposed to missing any fishing, but the oldest is not always sorry to stay behind. He may be the shore-support person for our fishing business in the future!

Wild, beautiful

The Gulf of Alaska is a wild, beautiful place, alive with whales, porpoise, dolphins, fish and seabirds of all kinds. The shore is lined with snowcapped mountains rising thousands of feet above sea level, and glaciers calving icebergs into the ocean. We are fortunate to have clean water, healthy forests and productive fisheries, a combination I never take for granted. Our home port of Sitka is on an island, and it is the only community of any size on the entire 100-mile island. The only access to

This article is by Linda Behnken (alfa.staff@gmail.com), a commercial fisher and Director of the Alaska Longline Fishermen’s Association (ALFA) and also a US Commissioner to the International Pacific Halibut Commission.
Sitka is by boat or plane—there is no bridge or road access.

When I started fishing, the halibut and sablefish fisheries were managed with short and infrequent openings. No matter what the weather, we all went fishing because we all knew we might not get another chance for months. Fishing was exciting but dangerous, and many lives were lost. In 1995, after a long and bitter battle, an individual fishing quota system was implemented that allocates a share of the catch to people with a history in the fisheries. People who did not receive an initial allocation have to buy shares if they want to enter the fishery. The fishing season is now open for eight months each year, allowing fishermen to time their trips to take place in good weather. This has addressed safety and resource issues, but has dramatically changed the cost of entry and the social fabric of the fishing community.

I am deeply involved in fisheries management at the local, state and federal level. I am the director of the Alaska Longline Fishermen’s Association (ALFA) and a US Commissioner to the International Pacific Halibut Commission. I work to engage fishermen and scientists in collaborative research, helping small-scale fishermen develop tools to address resource challenges and be more successful at catching fish. I have worked with ALFA’s membership to map habitat, identify areas of high bycatch, deter sperm whales from taking fish off longline gear, develop electronic monitoring of catch, and improve fuel efficiency on small boats. I also engage small-boat fishermen in the management process, making sure their important voice is heard by decisionmakers. Most recently, we have launched an initiative to help young people gain access to local fisheries by providing a deckhand apprentice programme, business mentoring and skill-building education, and innovative financing to support the purchase of fishing permits.

I am passionate about protecting the culture of small-scale fishing and the health of the world’s oceans. I want my boys to have the same opportunity that I have had to make a living from the sea, to fish with their families and to know the satisfaction of catching and delivering a load of high-quality seafood. The work is hard at times, but with hard work comes success, and I believe fishing will help them build a strong work ethic for life. They are also developing a strong conservation ethic and an appreciation for the culture of small-boat fishing, and that is just as important to the future of our planet.

I enjoyed the ICSF workshop on the Small-scale Fisheries Guidelines (SSF Guidelines) and was impressed by the insight and knowledge delivered. It seems essential to build a network of small-scale fishers and fisheries, and to aggregate the influence of this important sector. Small-scale fishers have a critical role to play in conservation, social equity and rural development. I look forward to working with ICSF to achieve shared goals and dreams.
A Potential Bright Spot

The WTO negotiations on fisheries subsidies can help conservation and sustainable exploitation efforts as well as ensure the well-being of fishing communities around the world.

After an extended period of relative inactivity, the World Trade Organization (WTO) has revitalized negotiations on a number of trade issues, notably, on the reform on fisheries subsidies. Several proposals have recently been tabled. (The latest WTO submissions on fisheries subsidies came from the European Union; Rwanda, on behalf of the African, Caribbean and the Pacific (ACP) group; Peru, Argentina, Colombia, Costa Rica, Panama, and Uruguay; Benin, on behalf of the Least Developed Countries (LDCs) group; Japan and New Zealand with Iceland and Pakistan. Note that there is also a parallel plurilateral discussion on a ‘fisheries subsidies agreement’ by 11 WTO members, chaired by Canada and participated in by Argentina, Chile, Brazil, Norway, Peru, Uruguay, New Zealand and the United States.)

These have been discussed intensively within the WTO and in other forums. The aim is to help develop a meaningful outcome at the upcoming 11th WTO Ministerial in Buenos Aires, Argentina, in December 2017. The revitalized discussions are largely driven by the WTO’s desire to contribute to the implementation of the 2030 UN Agenda for Sustainable Development and, specifically, the Ocean Target 14.6, which calls for the elimination of harmful fisheries subsidies in the WTO, taking into account the special needs of developing and least developing countries. (SDG 14.6: “By 2020 prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiations.”)

One of the main challenges is how ‘subsistence’ and ‘artisanal’ fisheries in developing countries should receive special treatment under new WTO rules. Key questions raised at the WTO talks include (a) what should be considered to be subsistence, artisanal and small-scale fishing, and (b) whether, and how, subsidies to such activities should be treated in eventual WTO rules.

There is no universal definition of what is meant by small-scale fisheries. Beyond the definitions based on size and gross tonnage, the usage of the terms vary widely from country to country. What is small in one country is considered large in another country. Nonetheless, subsistence or near-subsistence-level fishing has been a matter of special concern from the outset of WTO negotiations and the need for special rules for fishing communities at the lowest end of the development scale appears to be broadly agreed upon.

Special consideration

A number of developing countries believe that special consideration should be expanded to include subsidies to commercial fishing far above subsistence levels of development. This stems from the...
legitimate desire of many developing countries to make appropriate public investments in their fisheries sectors and take fuller advantage of their own fisheries resources. Nonetheless, this ‘right to develop’ should not mean a carte blanche exemption for all types of fisheries in developing countries. Although only a small fraction of fisheries subsidies goes to small-scale fisheries, and large-scale fisheries receive a higher proportion of capacity-enhancing subsidies, subsistence or artisanal fisheries are far from immune to overfishing or depletion or inappropriate harms of subsidies.

Recent discussions on ‘special differential treatment’ at the WTO reveal concerns over the potential cumulative impact of subsistence, artisanal and small-scale fishing, and some members argue that the rules should include safeguards to prevent or remedy resource depletion that could result from the cumulative effect of such subsidized activities (Personal communications with select WTO negotiators, March 2016.)

WWF–UNEP propose some basic sustainability criteria such as assessing fish stocks and fleet capacity before allowing subsidies in any fisheries. The WTO can draw on the assessment and management standards and implementation experience of FAO and other global and regional fisheries management bodies. Given the relative lack of capacity to manage fisheries in many developing countries, some adjustments could be made for artisanal fisheries in terms of flexibilities in the WTO fisheries subsidies disciplines. Possible examples could include: (a) transitional periods to implement stock assessments whereby informal non-quantitative assessments that are transparent and based on best-available science could be accepted; (b) ‘qualitative’ fleet capacity assessments vis-à-vis quantitative benchmarks for non-artisanal fisheries; and (c) transition periods to implement vessel registry, licensing and catch-documentation schemes, by allowing relaxed criteria if the local inshore character of fleet is maintained, and phase in requirement of catch documentation for fisheries moving towards export orientation. Such adjustments should include technical assistance and capacity-building commitments to LDCs to enable rudimentary fisheries management.

Be that as it may, the scope and content of the special and differential treatment will depend on what will be agreed in terms of binding prohibitions. This article assumes that the most harmful capacity- and effort-enhancing subsidies will be banned as called for by the UN SDG 14.6 and consistent with the WTO Ministerial agreement in Hong Kong. The fisheries subsidies talks remain a potential bright spot on the WTO horizon. The unusual opportunity for the WTO to make a real difference to the conservation and sustainable exploitation of a vital natural resource and to the well-being of fishing communities around the world has brought energy to the fisheries subsidies talks from the start. Now, with the UN Oceans Conference in June 2017 and the 11th WTO Ministerial conference in December 2017, the true willingness of WTO Members to play a constructive role in securing healthy oceans and sustainable trade will be revealed.

For more
wto.org/english/tratop_e/ruleseng_e/fish_e/fish_e.htm
WTO fisheries subsidies negotiations
unctad.org/en/pages/MeetingDetails.aspx?meetingid=1299
UNCTAD, FAO and UNEP ‘Oceans Forum on trade-related aspects of Sustainable Development Goal 14’
ICTSD E15 initiative event on ‘Advancing SDG 14.6 through fisheries subsidies disciplines’
wto.org/english/forums_e/ngo_e/posp72_www_e.pdf
Small Boats, Big Problems. Gland, Switzerland

Moroccan fishermen carrying freshly caught tuna to a refrigerated truck for export. The fisheries subsidies talks remain a potential bright spot on the WTO horizon.
The United Nations and the governments that are part of it surprised us positively with a new initiative named the Global Sustainable Development Goals (SDGs). These Goals, observed in a comprehensive way, responds to what civil society also believes integrates the environmental, social and economic elements that allow us, as a planet, to move towards sustainability.

However, when we analyze these goals and how countries should develop an implementation strategy to comply with them, all the historical doubts from the civil society re-emerge. That is to say, we feel that unless these SDGs are implemented in an integrated way, very little will be achieved towards the necessary change that must emerge from a planet in crisis, and of a development model that is clearly inequitable.

Perhaps the point of this observation is that so far, and in spite of the integrality that is being sought by the SDGs, it is not clear what are the concrete actions that will guarantee the implementation of this necessary holistic view.

The SDG objectives have left out neither our oceans nor our seas, which is clearly a positive sign. In an integrated way, very little will be achieved towards the necessary change that must emerge from a planet in crisis, and of a development model that is clearly inequitable.

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The Objective 14—hereinafter referred to as Life Below Water—concerns the conservation and sustainable use of the oceans, seas and marine resources for sustainable development. The Life Below Water objective presents 10 targets that, if well implemented, should demonstrate significant progress in achieving the sustainability of these valuable marine ecosystems.

A quick view of the targets and indicators of this objective, however, reveals that some critical issues are only referred to on the surface or are absent from this goal—for example, small-scale fisheries (with the exception of its mention once in terms of market and resources access for the subsector), marine governance, land tenure, the integration of traditional knowledge and scientific knowledge, among others.

The targets of this objective (see Box 1) seem to focus on issues of global importance, such as pollution, the effects of acidification of the oceans, fisheries exploitation, and illegal fishing, among others.

All of the above, no doubt, represent topics for urgent attention but they are far from being fully representative of the issues needed to be discussed at the local level and that affect more than 300 mn people in the world who live from the resources of the sea and are mainly small-scale fishers who ensure food security along the whole fish value chains at the country level.

Work by CSOs
It is the Goal 14b—the one that responds to the work done by civil society organizations of small-scale fisheries and governments oriented to serve a population highly
marginalized and little attended—that is dedicated to small-scale fisheries. Small-scale fisheries is mentioned as follows in one of the targets: “to facilitate the access for small-scale artisanal fishers to marine resources and markets”.

This target is the only one that opens up a space to incorporate social issues in the implementation of Objective 14; it leaves at least a space to reflect on the need to learn more on this topic, and especially pick on years of experience in working with the coastal marine populations and their needs.

We might think that Goal 14b allows us to incorporate the need to implement, at all levels, the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication, endorsed by the meeting of the Committee on Fisheries (COFI) of the Food and Agriculture Organization of the United Nations (FAO), in Rome in June 2014. These Guidelines speak clearly and firmly about the need for a marine conservation based on the human rights of the poorest sections of our coasts: indigenous peoples, women not involved in the value chain of small-scale fisheries, fishermen and non-formal youth and migrants, and Afro-descendants, among others.

It is evident that Goal 14 cannot be achieved without being integrated into other goals, namely, 5, 8, 12 and 17, among others. In order to move towards the integrated approached proposed necessarily means the integration of the efforts of civil society and governments.

The oceans cover three-quarters of the surface of our planet, contain 97 per cent of the earth’s water and represent 99 per cent of the space of life on the planet in volume. The oceans are also the largest source of protein in the world, with more than 3 bn people depending on them as their primary source of life (UNDP, Costa Rica, 2017).

During this year, and as a result of the priority that the UN has given to the implementation of the SDGs, the whole world will be participating at the high-level conference for the implementation of Objective 14 in New York (5 to 9 June 2017). Certainly, this gathering will be a tremendous opportunity to promote and strengthen the initiatives that countries are developing to comply with this objective and the ones related to it. It will also be a good opportunity to reflect on the issues of high importance that have not yet been included in the most recent version of the final agreement of the conference (see Box 2).
BOX 2: OUR OCEAN, OUR FUTURE: CALL FOR ACTION (Revised Draft 7th of April, 2017)

I. We, the Heads of State and Government and high-level representatives, meeting at the first United Nations Conference to Support the Implementation of Sustainable Development Goal 14 of the 2030 Agenda, with the full participation of civil society and other relevant stakeholders, affirm our strong commitment to conserve and sustainably use our oceans, seas and marine resources for sustainable development.

2. We are mobilised by a strong conviction that our ocean is critical to our shared future and common humanity in all its diversity. As responsible stakeholders, we are determined to act decisively and urgently, convinced that our collective action will make a meaningful difference to our people, to our planet, and to our prosperity.

3. We recognise that our ocean covers three-quarters of our planet, connects our populations and markets, and forms an important part of our heritage and culture. It supplies half the oxygen we breathe, absorbs a third of the carbon dioxide we produce, and plays a vital role in the water cycle. It contributes to sustainable development and sustainable ocean-based economies, as well as to poverty eradication, food security and nutrition, and livelihoods.

4. We are particularly alarmed by the adverse impacts of climate change on the ocean, including the rise in ocean temperatures, ocean acidification, deoxygenation, and sea-level rise. We acknowledge the need to address the adverse impacts that impair the crucial role of the ocean as climate regulator, carbon sink, source of marine biodiversity, and as key provider of food and nutrition, ecosystem services, maritime trade and transportation, and as an engine for sustainable economic development and growth.

5. We are committed to halting and reversing the decline in the health and productivity of our ocean and to protecting and restoring its resilience. We recognise that the well-being of present and future generations is inextricably linked to the health and productivity of our ocean.

6. We reaffirm our commitment to achieve the targets of Goal 14 within the timelines. We also affirm our commitment to continue to take action beyond those dates, taking into account different national realities, capacities and levels of development and respecting national policies and priorities.

7. We underline the integrated and indivisible character of all Sustainable Development Goals under the 2030 Agenda, as well as the interlinkages and synergies between them.

8. We stress the need for an integrated, interdisciplinary and cross-sectoral approach as well as enhanced cooperation, coordination, and policy coherence, at all levels. We emphasise the critical importance of effective partnerships enabling collective action, to reverse the decline in the health of our ocean and its ecosystems, and to protect and restore their resilience and productivity. We reaffirm our commitment to the implementation of Goal 14 with the full participation of all relevant stakeholders.

9. We underline the need to integrate Goal 14 into national development plans and strategies, and to promote national ownership and leadership and success in the implementation of Goal 14 by involving all stakeholders, including local authorities and communities, indigenous peoples, women and youth, as well as business and industry.

10. We recognise the crucial role of women in the conservation and sustainable use of oceans, seas and marine resources for sustainable development.

11. We stress the importance of enhancing understanding of the health and role of our ocean, including through assessments on the state of the ocean, science and traditional knowledge, as well as the need to further increase marine scientific research to inform and support decision-making, and to promote knowledge hubs and networks to enhance the sharing of scientific data, and best practices.

12. We emphasise that our actions to implement Goal 14 should be in accordance with, reinforce and not duplicate or undermine, existing legal instruments, arrangements, processes, mechanisms, or entities. We affirm the need to be consistent with international law, as reflected in the UN Convention on the Law of the Sea which provides the legal framework for all the activities in the oceans and seas.

13. We recognise that the conservation and sustainable use of the ocean and its resources require the necessary means of implementation in line with the 2030 Agenda, Addis Ababa Action Agenda and other relevant outcomes, including the enhanced capacity building and the transfer of knowledge and environmentally-sound marine technology to developing countries on mutually agreed terms.

14. We call on all stakeholders to work in concert to conserve and sustainably use the oceans, seas, and marine resources for sustainable development by taking, inter alia, the following actions on an urgent basis, including by building on existing institutions and partnerships:

   (a) Approach the implementation of Goal 14 in an integrated and coordinated way and promote policies and actions that take into account the critical interlinkages among the targets of Goal 14, the potential synergies between Goal 14 and the other goals, particularly those with ocean-related targets, as well as other processes that support the implementation of Goal 14.

   (b) Strengthen cooperation, policy coherence and coordination amongst institutions at all levels, including between and amongst international organisations, regional organisations, arrangements and programmes, as well as national and local authorities.

   (c) Promote effective multi-stakeholder partnerships, including public-private partnerships, by enhancing engagement of governments with global and regional bodies and programmes, the scientific community, the private sector, donor community, non-governmental organisations, community groups, academic institutions, and other relevant actors.
The implementation of Objective 14, at least from the point of view of the central American region, could be better achieved through the application of the SSF Guidelines, and ensuring that UN Members mention the importance of transforming the SSF Guidelines into binding instruments to address the priority issues that we know beset the people of the sea and its coasts.

There is an urgent need to ensure that the zero draft, later to become the end agreement, will be clear and strong in mentioning the need to support communities of small-scale fisheries to participate in, and take responsibility towards, the integrated management of fisheries and coastal areas, and that all these efforts will be recognized and that the access rights of these communities will be protected, alongside other human rights.

It is necessary to strengthen the language and the proposals for the implementation of Objective 14 towards a human-rights-based approach to the conservation of the seas and oceans. Issues such as land tenure in the coastal areas, gender considerations and indigenous cosmo-vision, the generation of knowledge that integrates the scientific with the traditional, and also the need to strengthen the institutional framework to generate capabilities that allow an integrated and transdisciplinary vision of how to address the issues of the oceans, will have to be necessarily addressed.

It is clear that the preservation of the sea and the sustainable use of its resources will not be possible without a strengthening the community governance models of marine conservation, based on the respect and recognition of the rights of fishing communities, and their knowledge and cultural identity.

The challenge now is, firstly, to include the appropriate language, to listen to the lessons learned so far from the work that manages to “leave no one behind”, also in the conservation of the sea, and, secondly, implement a vision that considers not only the marine environment but also respect for the human rights and well-being of the people of the sea.

For more

oceanconference.un.org/about
Our oceans, our future: partnering for the implementation of Sustainable Development Goal 14 sustainabledevelopment.un.org/content/documents/14666sideeventsOceans.pdf
Joining forces for sustainable small-scale fisheries through a human rights-based approach to ocean conservation sustainabledevelopment.un.org/sdg14 Triptico informativo sobre Los Objetivos del Desarrollo Sostenible. Costa Rica
Sustainable development, and more specifically, human development, within fisheries is intrinsically linked to local fishing communities. The 2012 UN Conference on Sustainable Development explicitly recognized the important contribution that small-scale fisheries (SSF) can make to sustainable development. According to the Food and Agriculture Organization of the United Nations (FAO), small-scale fisheries provide work to 90 per cent of the people employed in capture fisheries. Women account for approximately 50 per cent of the workforce in small-scale fisheries, particularly in the areas of processing and trade.

There is, however, no unambiguous way to define the small-scale fisheries subsector. The term small-scale fisheries often functions as an umbrella to address all types of fisheries other than large-scale fisheries. When taking a closer look, the subsector can be described by a list of characteristics, as it has been concluded that a single definition will not do justice to the complexity of the subsector and its differences per country or region. The difficulty of defining small-scale fisheries can make any reference to this subsector within legal fisheries instruments complicated.

The relevance of including small-scale fisheries in fisheries legislation and instruments cannot be overemphasized, even if the issue is rather complicated.

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The relevance of fisheries for sustainable (human) development is unambiguous; millions of people, the majority of whom live in developing coastal states, depend on fisheries for their food security and livelihood. Moreover, development and poverty eradication in fishing communities have a strong spill-over effect on aspects of the development process such as education and gender. In light of its potential contribution to human development, this article explores the position of the SSF in legal fisheries instruments.

The position of small-scale fisheries in fisheries instruments: due consideration to local fishing communities in developing countries

This section analyses the extent to which the SSF subsector is reflected in fisheries instruments. Although there are various angles through which fisheries instruments can refer to this subsector, this section will focus on the references to, or inclusion of, the SSF subsector arising from the general obligation for states to have due consideration to local fishing communities in developing countries.

Whilst the majority of the references to the needs and interests of local fishing communities relate to the objective of conservation of marine resources, specific reference is also made to SSF. The 1995 UN Fish Stocks Agreement (UNFSA) Convention requires that, when adopting conservation measures, “States shall take into account the interests of artisanal and subsistence fishers”. (In this context, Article 5(i) needs to be read in combination with Article 3(3) of the agreement that formulates that “States shall give due consideration to the respective capacities of developing States to apply articles 5,
6 and 7 within areas under national jurisdiction and their need for assistance as provided for in this Agreement”. In giving effect to this requirement, UNFSA underlines the need to avoid adverse impacts “on, and ensure access to, fisheries by, subsistence, small-scale and artisanal fishers and women fish workers, as well as indigenous people in developing States, particularly small island developing States”. The 1992 Convention on Biological Diversity emphasises the need to support local populations in order to combat environmental degradation. (Article 10(d) of the 1992 Convention on Biological Diversity emphasises that “States shall support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced”).

The “needs of coastal fishing communities which are dependent mainly on fishing for the stocks” or the “needs of coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources” are, moreover, taken into account when determining the nature and extent of participatory rights attributed to new members of (sub)regional fisheries organizations (Article 11(d) and (e) of UNFSA). Without specific reference to developing countries, the UNFSA requires that states, while implementing the precautionary principle, take into account “socioeconomic conditions” (Article 3(1) of the agreement broadens the scope of the agreement by formulating that Article 6 also applies to areas under national jurisdiction.)

Reference to the interests of local fishing communities is made in several of the conventions underlying Regional Fisheries Organizations, mainly referring to the need to take account of their interests in the management and conservation of regulated fish stocks. Reference to the contribution of the small-scale fisheries subsector in economic development and food security is made in the 2002 Agreement establishing the Caribbean Regional...
Fisheries Mechanism, which emphasizes the need to provide “due recognition to the contribution of small-scale and industrial fisheries to employment, income and food security, nationally and regionally”. The Western and Central Pacific Fisheries Commission (WCPFC) recognizes the special requirements of developing states in the duty to co-operate in conservation and management measures. In that case, account shall be taken of:

(a) the vulnerability of developing States Parties, in particular small island developing States, which are dependent on the exploitation of marine living resources, including for meeting the nutritional requirements of their populations or parts thereof;
(b) the need to avoid adverse impacts on, and ensure access to, fisheries by subsistence, small-scale and artisanal fishers and fishworkers, as well as indigenous people in developing States Parties, particularly small island developing States Parties.

However, in general, any further explanation of what constitutes local fishing is lacking. The 2001 South African Development Community Protocol on Fisheries defines small-scale commercial fisheries as “fisheries that generate profits and earn income large enough to meet the basic needs of life, employ staff or operate as profit-sharing collective enterprises”. The majority of the provisions referring to the small-scale fisheries subsector is, however, not specified, with legal instruments only tending to emphasize, in a general way, the need to take account of the interest and needs of small-scale, traditional, or artisanal fisheries. For example, the 1992 Cancun Declaration on Responsible Fishing formulates that “States should take measures to ensure respect for the interest of small-scale artisanal and indigenous fishers”. Likewise, the 1995 Kyoto Declaration underlines the “important economic and social role of subsistence, artisanal and commercial fisheries” who “seek to provide an environment in which they can make an optimum contribution to economic and social welfare”.

According to 1995 FAO Code of Conduct for Responsible Fisheries (CCRF), “due recognition should be given ... to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fishery resources for their livelihood”. It requires that conservation and management measures provide, inter alia, that “the interests of fishers, including those engaged in subsistence, small-scale and artisanal fisheries, are taken into account”. (According to Article 8.11.3, the same is required on when it regards coastal area management plans dealing with management systems for artificial reefs or fish aggregation devices.) Specifying measures that should be taken by states to minimize problems such as discards or catch of non-targeted species, may include the establishment of “areas and zones reserved for selected fisheries, particularly artisanal fisheries”.

The CCRF emphasizes the need to establish an appropriate legal and institutional framework, which is considered to be a starting point for the achievement and integrated use of marine resources...
special focus on ‘smallholders and women’. Both instruments aim at actively involving local communities in decision-making processes, monitoring, and the evaluation of development programmes. The formulation of such a framework is expressed in progressive terms in the 1999 International Plan of Action for the Management of Fishing Capacity, which holds that:

“States should reduce and progressively eliminate all factors, including subsidies and economic incentives and other factors which contribute, directly or indirectly, to the build-up of excessive fishing capacity, thereby undermining the sustainability of marine living resources, giving due regard to the needs of artisanal fisheries.”

Reference to local fishing communities is also linked to their livelihood, which is highly dependent on fishing activities. The CCRF requires international organizations dealing with fish trade and export production to not neglect the interests and needs of “people for whom the fish is critical to their health and well-being and for whom other comparable sources of food are not readily available or affordable”. It, moreover, emphasizes the relevance of livelihoods when it concerns the use, conservation and management of fisheries resources. In the decision-making process in these fields, due consideration should be given “to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fisheries resources for their livelihood”. (According to Article 9.1.4 of the Code, states should ensure that “the livelihoods of local communities, and their access to fishing grounds, are not negatively affected by aquaculture developments”.) An exceptional position is attributed to small-scale or subsistence fisheries in the UNGA’s resolution on large-scale pelagic drift-net fishing; it excludes small-scale drift-net fishing that is traditionally conducted in coastal waters, especially by developing countries “which provides an important contribution to their subsistence and economic development”.

Moreover, provisions on the small-scale fisheries subsector stress the need for further research in this field. As far as it concerns the impact of small-scale fisheries on fish stocks, the 2003 Strategy for Improving Information on Status and Trends of Capture Fisheries asserts that international organizations “should recognize that many small-scale fisheries and multi-species fisheries, particularly in developing countries, are not well monitored and awareness needs to be raised on the importance of monitoring these fisheries”. The CCRF urges states to “investigate and document traditional fisheries knowledge and technologies, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development”.

**The right to food**

Fisheries instruments often speak the language of ‘environment’. The use of the concept of food security—a concept that has its roots in the environmental, as well as the developmental, pillar of sustainable development—increasingly stands out as an important principle that provides a recourse to address the small-scale fisheries subsector in fisheries instruments.

It is mainly the non-legally binding instruments that link food security to small-scale fisheries. For example, the 1995 Kyoto Declaration recognizes “the significant role which marine fisheries, inland fisheries and aquaculture play in providing food security for the world, both through food supplies and through economic and social well-being”. Specific reference is made...
to the important role of small-scale and artisanal fisheries in CCRF:

“States should appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction.”

A link between local communities and a specific type of resource relevant for their livelihood can be found in the 1999 International Plan of Action for the Conservation and Management of Sharks. Its guiding principles on nutritional and socioeconomic considerations acknowledge sharks as a traditional and important source of food, employment, and/or income for local fishing communities, which provide a continued source of food. Local communities are, moreover, addressed by the 1995 Kyoto Declaration, which requires that trade in fish and fishery products should promote food security, but it should not “adversely impact the nutritional rights and needs of people for whom fish and fishery products are critical to their health and well-being”. The CCRF also prioritizes the nutritional needs of local communities.

The 1999 Rome Declaration on the Implementation of the CCRF emphasizes that “the achievement of the sustainable management of both capture fisheries and aquaculture was of great importance for world food security…and the well-being and livelihoods of individuals and families involved in fisheries”. Fisheries instruments that primarily deal with the conservation of living resources often refer to the negative or adverse effects on food security due to the likes of excessive fishing capacity or illegal, unreported, and unregulated (IUU) fishing. (The introduction to the 2001 IPOA–IUU formulates that “IUU fishing undermines efforts to conserve and manage fish stocks in all capture fisheries….This situation leads to the loss of both short and long-term social and economic opportunities and to negative effects on food security”, whereas para. 1 of the 1999 IPOA–Management of Fishing capacity states, “Excessive fishing capacity is a problem that, among others, contributes substantially to overfishing, the degradation of marine fisheries resources, the decline of food production potential, and significant economic waste.”)

Just as states are accorded the primary responsibility for development and poverty eradication, the responsibility to attain food security resides predominately with individual governments. The 1996 Rome Declaration on World Food Security derives from that responsibility the need to adopt policies that establish infrastructure for achieving food security. Its Plan of Action elaborates on sound environmental policies in which food-related investment can fulfil its potential. It encourages developing countries to “reverse their neglect of investment in agriculture and rural development and mobilize sufficient investment resources to support sustainable food security”. However, achieving food security is not solely the responsibility of governments of individual states; the international community is also tasked with providing financial and technical assistance. For example, the Plan of Action of the World Food Summit formulates that:

“the international community has a key role to play in supporting the adoption of appropriate national policies and, where necessary and appropriate, in providing technical and financial assistance to assist developing countries and countries with economies in transition, in fostering food security.”

Observations
Local fishing communities are considered an important element of sustainable development in international fisheries law. However, fisheries instruments do not define this subsector and barely specify the general references that are made. In contrast to academic literature and international organizations, which
make use of a comprehensive list of characteristics, fisheries instruments do not specify the meaning or definition of the subsector referred to. Due to this lack of a definition, a “random” use of terms such as subsistence, artisanal, traditional, local, indigenous, or small-scale fisheries occurs. With the use of such diverse terms, it is not always clear whether the instruments address a specifically defined group or use different references for the whole group of what they consider to be a generic term for “poor fishermen”. This lack of clarity and demarcation could negatively affect the application of measures as it risks omitting the most vulnerable or difficult groups.

A significant amount of the references made regarding the obligation to take into consideration the interests and needs of the small-scale fisheries subsector within developing countries, is provided through negative formulations: States should avoid adverse impacts on local fisheries. While the majority of the fisheries instruments refer to the small-scale fisheries subsector, they generally fail to specify their interests and needs. Emphasis is often on the economic or conservational needs of coastal fishing communities. Non-legally binding instruments also frame the interests and needs from a human-development perspective, including the concept of livelihood or the development of coastal communities and their fishing.

Overall, the lack of significant reference to the small-scale fisheries subsector in fisheries instruments undermines the crucial role that they can play in human development. There is a lacuna between their (potential) significant impact on poverty eradication and the development process, on the one hand, and their current—minimal—role in the legal discourse, on the other.

The human-rights discourse plays an important role in providing (legal) content to human development. The eradication of poverty, in general and in the context small-scale fisheries subsector, is considered a central aspect in dialogue surrounding the issue of human rights. Strengthening of the human-rights discourse, an existing and developed legal discourse, could lead to a better integration of human development in fisheries law; its use could, moreover, improve the link between the 'human' and 'resource' focus in fisheries law.

The way forward
Although consensus exists in relation to significance of food security, explicit linkage between fisheries and food security and poverty eradication is often minimal. In an era where these themes are prioritized by the international community, regulation of fisheries could be expected to be based on a human-development approach as much as upon a resource-centred approach. While the resource dimension aims at continuously providing fish as food for present and future generations, additional emphasis could be placed on human development in relation to the use of resources in order to expand the amount of limited options currently available for people who live in poverty and depend on fisheries. From that perspective, the concept of food security can provide a bridge between the human-development and resource-centred approaches.

In 2012, the Special Rapporteur to the UN General Assembly on the right to food, confirmed that the small-scale fisheries subsector is “an extremely important, albeit undervalued, source of livelihood, providing employment and income to millions of people, including women, in the post-harvest subsector.” It provided that as the small-scale fisheries subsector has a limited role in the fisheries instrument, issues that affect this subsector could be addressed through “policy responses grounded in the right to adequate food” while guided by human rights obligations of the States.” The report concludes that States should comply with their duties to respect, protect and fulfil the right to food in the fisheries sector, “by moving towards sustainable resource use while ensuring that the rights and livelihoods of small-scale
fishers and coastal communities are respected and that the food security of all groups depending on fish is improved”.

The Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (2014) have the potential to be used as a means of reducing the current gap between human development and resource-centred approaches. The Guidelines, developed to complement CCRF, are considered to represent “a global consensus on principles and guidance for small-scale fisheries governance and development”. They aim to provide complementary guidance with respect to small-scale fisheries in support of the overall principles and provisions of the Code. The Guidelines should be “interpreted and applied consistently with existing rights and obligations under national and international law and with due regard to voluntary commitments under applicable regional and international instruments”. The added value of the Guidelines is their potential to inspire new and/or supplementary legislative and regulatory provisions. More concretely, they are “directed at those involved in the subsector, and intend to guide and encourage governments, fishing communities and other stakeholders to work together and ensure secure and sustainable fisheries for the benefit of small-scale fishing communities and society at large”.

This could not only lead to a more comprehensive inclusion of the SSF subsector in fisheries instruments—acknowledging its significant role in achieving sustainable human development—but also result in a shift away from the inclusion of SSF in a passive (avoiding negative impact) manner, towards a more active reference throughout relevant instruments. In order to provide guidance in this context, the FAO Guidelines cover a broad spectrum of factors relating to SSF to be included in fisheries instruments. In addition to providing key guiding principles, the Guidelines specify ways to contribute to responsible governance of tenure and sustainable resource governance. They provide a comprehensive picture of the SSF subsector and their spill-over effect to development. Aspects that affect the SSF include regulations affecting social development, employment and decent work. Fisheries instruments could, moreover, recognize and address the role that the SSF post-harvest subsector plays in the value chain of fisheries.

The remarkable lack of reference to the participation of women in fisheries, despite their significant participation in the SSF subsector, is also addressed by the Guidelines, which urge fisheries instruments to acknowledge and address the role of women in the subsector. In addition to content-wise issues to be addressed with fisheries instruments, importance is also attributed to enabling the implementation of such measures.

For more

sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf
United Nations Conference on Sustainable Development, Rio +20, Future We Want—Outcome Document, para 52
fao.org/fishery/code/en
Code of conduct for responsible fisheries SSF guidelines at FAO
A Strong, Cohesive Voice

The implementation of the SSF Guidelines in Brazil will need to be nested in local and territorial realities, with the participation of fishers and their communities as the main agents of change.

Small-scale fisheries in Brazil are responsible for the livelihoods of over 1.7 mn people, accounting for more than 55 per cent of the total capture-fishery production, which, in 2011, corresponded to 553,670 tonne (gross figures from the now extinct Ministry of Fisheries and Aquaculture). In addition to food security, the history and culture of these people have significantly contributed to important aspects of the Brazilian coasts, lakes and rivers, spanning a rich variety of tropical and subtropical ecosystems.

However, since 2007, fisheries statistics in Brazil have been facing continuous setbacks among other important reversals in fisheries policies such as closed season insurance and muddled implementation of conservation policies for endangered fish species. Social movements' leaders involved in fisheries management and marine biodiversity conservation policies, therefore, have too often the feeling of living in a battlefield.

March 2017 will be remembered by the small-scale fisheries subsector's shout of despair, when over 200 small-scale fisheries organizations signed an Open Letter against one of the most recent backlashes to the hopes for a human rights-based approach to fisheries at the state level: the transference of mandate over fisheries policies to the Ministry of Industry, International Commerce and Services. More worryingly, these organizations claim that since 2015 cuts in public investments for social purposes towards fisheries have significantly affected local economies in several communities. There is also a general lack of specific government programmes for health treatment and prevention of occupational diseases affecting fishworkers, as well as lack of access to documentation and information for the remaining social-security programmes. Furthermore, the country's regional fisheries-management forums—often waved by the government as success flags of participation, transparency and fisheries governance decentralization—are still mostly failing to operate in minimal conditions to show any signs of serious transition towards fisheries sustainability.

Unfortunately, this arena is still characterized by the volatility of state commitments; the recurrent reshuffling of governmental structures and interlocutors disabling serious and rational progress in policy implementation; and the dominance of vested corporate interests and corruption scandals deeply rooted in the traditional political parties taking over fisheries-management mandates.

Confrontation

Overall, we are very sorry for having to admit that the state of affairs remains one of unfortunate confrontation, with fisherfolks continuously struggling for very basic levels of participation and transparency. The feelings are of governmental paralysis and inertia when it comes to safeguarding the

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...the state of affairs remains one of unfortunate confrontation, with fisherfolks continuously struggling for very basic levels of participation and transparency.
rights of access and the sustainability of traditional artisanal fisheries territories, always having to start over and over again when it comes to public-policy building and dialogue with government.

Due to constant problems faced by the activity (for example, poor political organization, overexploitation of resources, conflicts between artisanal, industrial, game fishing and industrial aquaculture, piracy, poor labour conditions, and so on) many families are leaving the subsector and/or are becoming increasingly more reliant on non-extractive economic practices. The importance of small-scale fisheries is not just to preserve an economic activity, but to preserve a portion of the cultural and environmental heritage present in each corner of Brazil. And, while pressed to reinvent itself and adapt, traditional fishing identities are still suffocated by flawed socio-political structures for trying to represent such a wonderful culture on the grounds of Brazilian state bureaucracies. The small-scale fishing institutional framework and the civil society fishing organizations—or other types of autonomous organizations—are still politically fragile at a national level and, unfortunately, still frequently suffering from political misrepresentation at strategic policy-building debates.

The recognition of the unequal power relationships, between value-chain stakeholders and those vulnerable and marginalized groups, may require special support to enhance fisherfolks’ associations to participate in decision-making processes. There are key elements to be considered: how to move forward to improve small-scale fisheries governance and sustainability, and how to foster the implementation of international legal instruments while supporting the evolution of fishers’ own socio-political institutions.

This sentiment inspired the formation of a ‘network of networks’ of small-scale fisheries stewards, including fisher leaders, researchers and extensionists in 2013 (the Artisanal Fishing Web—TeiaPesca) to jointly help improve inter-network technical-political organization, communication and learning. The artisanal fishing web was born at the same time of the process of construction of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication—the SSF Guidelines—in which Brazil is often considered one of the three countries that contributed the most to its approval after over a decade of discussions held at the Food and Agriculture Organization of the United Nations (FAO) and bottom-up consultations in member countries. Ever since then, TeiaPesca has got involved to provide an opportunity tantamount to internalize the contents and issues of the SSF Guidelines.

The launch of the SSF Guidelines by Member countries in 2014 is not the endpoint of the historical collaborative process that building them turned out to be. Enforcement by Member countries now embrace the challenges of implementing the SSF Guidelines and how to use them to help regulate national policies and strategies for small-scale fisheries at national, regional and local levels. Without a clear recipe in hand, a major initiative towards the implementation of the SSF Guidelines was launched in Brasilia in June 2016. The five-day event, entitled “National Seminar on Capacity Building for the Implementation of the SSF Guidelines”, was sponsored by the International Collective in Support of Fishworkers (ICSF) and the UN International Fund for Agricultural Development (IFAD), with contributions from the Too Big to Ignore initiative (TBTI) and other local funds. The seminar brought together over 40 fishermen and
women, community leaders, representatives from civil society organizations (CSOs), researchers and other SSF change agents alike, with the goal of promoting awareness and building capacities among stakeholders for the implementation of the SSF Guidelines in the country.

During the week, a preliminary version of the main outcome document was presented at a public event to stakeholders from both the government and the private sector, including representatives of FAO, federal attorneys, and government agents. Among the participants, were the ambassador of Costa Rica, NGOs and potential funders. The document is entitled “Vital Fisheries: Setting pathways for the implementation of International Guidelines for Small-scale Fisheries in Brazil” and includes a national strategy envisioned for each of the ten major themes of the SSF Guidelines. The Vital Fisheries report became a key policy instrument to help reform the complex legal and institutional framework of artisanal fisheries. A Working Group formed by small-scale fishers’ representatives and technical supporters within TeiaPesca has been working for the implementation of the SSF Guidelines through co-design of a suite of ideas to raise the profile of SSF in the country.

This group met at the University of São Paulo (Research Centre on Human Population and Wetlands) in April 2017 to design a work plan on how to disseminate the SSF Guidelines to fishing communities, including the methods, strategies and capacity building needed to facilitate a widespread learning process. Hopefully, the outcomes of this strategy will integrate fishing communities, Brazilian society and the government agencies into a nationally distributed and bottom-up agenda of knowledge exchange and policy-building interactions.

In addition to the SSF Guidelines, the UN and Members states are now also reflecting about the implementation of the Sustainable Development Goals (SDG), particularly SDG-14 that deals with Life Below Water. Given the general close link between ocean health and the vitality of small-scale fishing

<table>
<thead>
<tr>
<th>SDG 14 targets vs SSF VG</th>
<th>1 - International instruments</th>
<th>2A - Governance of tenure</th>
<th>2B - Resource Management</th>
<th>3 - Social development</th>
<th>4 - Value Chains</th>
<th>5 - Gender Equality</th>
<th>6 - Disasters &amp; Climate</th>
<th>7 - Policy Coherence</th>
<th>8 - Information &amp; Research</th>
<th>9 - Capacity development</th>
<th>10 - Implementation &amp; Monitoring</th>
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<tbody>
<tr>
<td>14.1 Pollution</td>
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<td>14.2 Marine Biodiversity</td>
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<td>14.3 Ocean Acidification</td>
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<td>14.4 Fisheries Management</td>
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<td>14.5 MPAs &amp; MSPs</td>
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<td>14.6 Fisheries Subsidies</td>
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<td>14.7 Developing &amp; Island States</td>
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<td>X</td>
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<td>14.a Ocean Science</td>
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<td>14.b SSFs' Economies</td>
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<td>14.c High-Seas</td>
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Small-scale fisheries are often the first to observe and/or directly bear the consequences of such large-scale environmental changes on the availability and health of fish stocks.

Fisheries report, highlighting that the synergistic field of action somehow encompasses all SDG-14 targets. Small-scale fisheries are one of the most important players in this new multi-level policy arena.

Amongst other activities, the upcoming United Nations Ocean Conference (New York, June 2017) will comprise seven Partnership Dialogues (PD), in parallel with eight plenary meetings, with the objective of setting recommendations to support the implementation of SDG-14. Below, we take Table I exercise forward by outlining an example of how a SDG-14 implementation narrative may interrelate with the implementation of SSF Guidelines in Brazil, and in what ways they relate to the upcoming PD 1-7:

PD1 SDG-14.1: Various types of land-based (for example, domestic waste, sewage, plastic) and sea-based (ghost nets, small oil spills) marine pollution degrade the productivity of marine ecosystems and thus influence the availability of seafood.

PD2 SDG-14.2 and SDG-14.5: Brazilian fishers must be regarded as central players in the management, protection, conservation and restoration of marine and coastal ecosystems. It has passed the time to abandon the top-down designation of marine reserves, and the sectorial and technocratic planning approaches that favours ocean grabbing by private interests of big industry (energy, mining, aquaculture, transport). Brazilian fishers have their own agenda towards the sustainability of fishing territories, such as the ongoing national campaign for a new public policy to safeguard the formal recognition and designation of traditional fishing territories. Such ideas and their proponents must be urgently taken on-board in the early developmental stages of a national Marine Spatial Plan, an ongoing inter-ministerial ocean policy-building process led by the Brazilian Navy. Area-based approaches for marine conservation and Blue Growth must not reproduce the old-fashioned planning style; but there is a risk this is exactly what may happen under the current government and the corporate rationality dominating the Brazilian national legislative chambers.

PD3 SDG-14.3: Despite the sense of urgency flagged by some environmental and scientific circles, the minimization and address of ocean acidification remains a wicked problem, which is still not addressed by Brazilian public policies, especially when considering their co-ordination with, and practical engagement of, fishers across the huge Brazilian coastline. Small-scale fishers are often the first to observe and/or directly bear the consequences of such large-scale environmental changes on the availability and health of fish stocks. Sea-level rise and the intensification and increased frequency of extreme events (temperatures, winds, waves and tides) directly affect their infrastructure and workplace, summing up with the impacts of the displacement of fishing households from the shoreline already driven by urban, mass tourism, aquaculture and other powerful societal sectorial developments.

To counteract unsustainable developmental trends, large-scale collaborative and transdisciplinary initiatives need incentives from all sectors, to allow for adaptations in traditional/local ecological knowledge and livelihoods to emerge from the bottom up, as well as to help scientists and policymakers...
understand and co-design more sensitive transformative sustainability pathways and processes at multiple levels. It is not at all fair that small-scale fishers bear the costs of the largely carbon-intensive lifestyles of global citizens living away from the sea.

PD4 SDG-14.4 and SDG-14.6: Making fisheries sustainable will require not only the recognition of traditional fishing territories (theme 2A) and seriously improving fisheries management (2B) but also actions that support social development through employment and decent work (theme 3), with consistent transformations on value chains, post-harvest and trade mechanisms and infrastructures (theme 4). It is critical to eliminate existing subsidies for industrial fisheries that remain in conflict with fisheries sustainability goals and the very existence of SSFs, and streamlining such policies to more rational and science-informed socioeconomic monitoring approaches (themes 2B, 3, 4 and 8).

PD5 SDG-14.7 and SDG-14.b: In addition, the increase of economic benefits to SSFs through access to marine resources and markets requires a range of actions that clearly interrelates with the above. Some examples include: responsible governance of fishing territories (theme 2A); acknowledging and empowering women’s key role in all levels of the fish chain (theme 5); sustainable business development like community-based tourism enterprises (theme 4); education for empowerment and community development (theme 3); legislation adjustments; and support for technical adaptations in fish chains to improve homogeneity in quality, safety and handling practices, transport and packaging, to cope with strict sanitary and phytosanitary measures (theme 4).

PD6 SDG-14.a: The implementation of the SSF Guidelines will also be largely reliant on more collaborative and transdisciplinary science, research and technology capacities. The quality of information, research and communication we collectively promote (theme 8), capacity development (theme 9) and renewed support for implementation and monitoring progress (theme 10) should advance with ever more participation and direct contribution of local ecological knowledge. Therefore, given the strong

Forty participants attended the National Seminar on Capacity-building for the Implementation of the SSF Guidelines, Centro Cultural de Brasilia, 13-17 June 2016. The small-scale fishing institutional framework is still politically fragile at a national level
relationship between the condition of fisheries and the ocean's health, it is inevitable that the implementation of SDG-14 in Brazil will not overall succeed if fisheries-related data streams continue to be non-existent or collected in fragmented ways; or through insisting in single-species data-intensive stock assessment approaches that usually rely solely on the contribution of data experts such as scientists and technicians, amongst other external actors.

PD7 SDG-14c: Finally, actions to streamline Brazilian ocean and fisheries governance with international law are paramount. In particular, we may refer to the fundamental and urgent need of the Brazilian Congress to ratify key international agreements (theme 1), such as the International Labour Organization (ILO) Work in Fishing Convention (C.188) and the 2016 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, amongst others.

We would be delighted to announce any sign of consistent political commitment towards the narrative outlined above, but we cannot yet dare to enter the realm of an optimistic discourse. Given the present political crises in Brazil, the corruption allegations in the fishery sector, and given that small-scale fisheries largely depend on public policies to improve their livelihoods, the SSF Guidelines implementation process will need to be nested in local and territorial realities, with the participation of fishers and their communities as the main agents of change. Moreover, there is a shared perception amongst TeiaPesca members that the internalization of the SSF Guidelines in the country will need to rely on a bottom-up approach that is (somewhat) independent from the government. However, there is a remaining challenge for fishers in Brazil, which is to unify the different movements in order to come together as a strong and cohesive voice when negotiating with the government. Also needed is dialogue with global fisher forums like the World Forum of Fish Harvesters & Fish Workers (WFF) and the World Forum of Fisher Peoples (WFFP) to be part of the international fishery policies within the FAO and other UN agencies like the United Nations Environment Programme (UNEP), ILO and others.

Small-scale fishers should be regarded as sustainability stewards and champions, pursuing means to reduce their own ecological footprint while inspiring other citizens to care for the ocean. As global citizens and stewards of ocean health, we are all responsible to help fulfil the expectations raised above and thus turn an holistic, human-rights-based moral perspective to social, environmental science and policy actions of the new standard practice for a sustainable Blue Economy.

Therefore, we look forward to learn about the evolution of an integrated SDG and SSF Guidelines agenda. At least two new policy forums are currently being set to foster the UN sustainable development agenda: a composite government + civil society National Commission for SDGs (eight members each) to monitor implementation and; an autonomous Civil Society Working Group for Agenda 2030, that is preparing a “Shadow Report” to highlight SDG implementation challenges and prospects to be launched in a meeting with UN commissioners in Brasilia and then to be widely publicized on 6 June 2017. 

For more
sites.google.com/site/ssfguidelines/brazil
IGSSF Implementation Google
Site for Brazil Meeting
The Big Picture

Implementation of the Sustainable Development Goals can be guided by the kind of innovative, holistic thinking found in the SSF Guidelines

Around the world, fishing communities and fisher organizations are at the forefront of conserving the ocean and inland waters. There are countless cases of fishing people, and their communities, taking action to ensure fish for the future, and to keep their communities healthy. Sometimes those actions involve some local sacrifice—such as choosing to stop fishing in certain locations where fish spawn or juveniles grow up, or taking the time to clean up a local environment. Sometimes the actions involve protest against those from outside who would damage that environment. And sometimes the action is one of lobbying government for more supportive policies, to sustain local ecosystems and communities.

The motivation behind these conservation efforts often combines the crucial goal of safeguarding local livelihoods with a love of the place, the home and the community, where people live. It is clear that there can be big results coming from small communities; there can be power in people coming together. That needs to be more widely acknowledged by decisionmakers nationally and globally. Fishing communities and organizations are making, and can continue to make, a difference in sustaining local ecosystems and local economies.

I find the efforts of fishing communities and fisher organizations absolutely inspiring. As a researcher, studying and supporting such initiatives has become a big part of my own work. I mention this to give an idea of the perspective I am taking here in discussing Sustainable Development Goal 14 (SDG 14), which is described in its briefest form as being about “Life Below Water” and more fully as “Conserve and sustainably use the oceans, seas and marine resources”.

First, let us focus on the iconic graphic developed by the United Nations and widely used to depict the set of 17 SDG. Each SDG is summed up in just a couple of words, which is understandable given the need to be succinct. For example, the first two SDГ are listed as “No poverty” and “End hunger”, certainly strong aspirational goals. In fact, most of the SDG are similarly expressed—for example, “Quality education” and “Gender equality”. But the wording for three SDG (9, 14 and 15) do not depict a clear goal; what are we aspiring to with SDG 14’s “Life Below Water”? The more substantial “Conserve and sustainably use the oceans, seas and marine resources” is a considerable improvement, but even this has something missing. Who is to benefit from the “conserving” and who is able to make a living from “sustainable use” of the oceans? Is it one large fishing corporation, or millions of small-scale fishers in coastal communities around the world? So neither expression of SDG 14 gets at the core question: What are the human values here?

Fortunately, SDG 14 is not silent on values and issues of equity. The goals are accompanied by targets.

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and here, two particular targets stand out. Target 14.7 states: “By 2030, increase the economic benefits to Small Island Developing States and Least Developed Countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.” Target 14.b is to “provide access for small-scale artisanal fishers to marine resources and markets”. The latter is, importantly, accompanied by a measurable indicator (14.b.1: http://www.oceanactionhub.org/sdg-14-targets-context-and-indicators) to monitor “progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries”. So these aspects of SDG 14 are certainly aiming in a direction to combine both ocean well-being and human well-being, something well worth emphasizing for SDG 14 overall.

Indeed, I had the privilege recently of serving as a moderator of an online discussion within the “Ocean Action Hub” hosted by the United Nations Development Programme (UNDP), with the Governments of Sweden and Fiji, leading up to the UN Ocean Conference in June 2017. The online forum, co-moderated with FAO, UNEP, UNDP and university partners, was on the theme “Ensuring Sustainable Marine and Coastal Ecosystems”. Interestingly, while that theme may have seemed to have a more ecological than a people focus, in fact the interventions in the forum were largely about issues of human well-being and of governance. That reflects the reality, so commonly expressed in the practical actions of fishing communities and fisher organizations, that ecosystem well-being and human well-being are inextricably linked.

Not only do humans rather obviously benefit from healthy ecosystems, at the same time human well-being and sustainable livelihoods create the conditions for effective conservation actions.

That leads to the reality that the 17 SDGs must not be taken one at a time. They are all linked together. There is a risk that some, whether engaged in fisheries and other ocean uses, or in the marine conservation field, may focus excessively on just SDG 14, and not on the essential linkages among the SDGs. Can we really achieve healthy oceans if the world is lacking food security and food sovereignty (SDG 2), decent work (SDG 8) or strong institutions (SDG 16)? Can we be doing the right thing with oceans if we ignore poverty (SDG 1), gender equality (SDG 5) or climate action (SDG 13)? Of course not. There are strong two-way connections between these SDGs and the conservation and sustainable use of fishery and ocean resources. Happily, the wonderful SSF Guidelines recognize these connections clearly, with a ground-breaking integration of fisheries with matters that go beyond the fishery per se—in the surrounding community, social, economic and governance systems. Indeed, I suggest that implementation of SDG14 should be closely informed by the content of the SSF Guidelines—not only for small-scale fisheries, but indeed in terms of the future of fisheries and of oceans more broadly.

That truth—of interactions among the SDGs—is reflected in recent statements by several governments, in preparation for the UN Oceans Conference. That is certainly the case with my own country, Canada—a nation that not long ago developed the dubious distinction of almost thwarting international acceptance of the SSF Guidelines. That record was under the previous national government, which was also well known for cuts to ocean science and management, cancelling the national census, a lack of interest in our indigenous peoples, and opposition to action on climate change. We have now emerged from that ‘dark decade’
and things look relatively good in comparison—although there is still room for improvement.

An important aspect of the good news from Canada lies in the words of politicians, who express support for inclusivity as a society (with accompanying support for immigration and refugees), support for gender equality, and support for forging partnerships within the country and around the world. Many in Canada see these as reflecting core national values. There are concerns, however, when it comes to concrete actions, and the funding needed to make them happen. For example, despite the positive words on partnerships globally, there has been little growth in international development aid.

Here I will focus on the Canadian government’s thinking on fisheries and oceans, as portrayed in statements made at the Preparatory Meeting for the Ocean Conference, held in February 2017 at the UN.

Statement 1: “...we endorse the proposed substantive dialogue on increasing the economic benefits to Small Island Developing States and Least Developed Countries, and addressing the issue of access for small-scale fishers.”

Comment: It is a positive thing to see a national government recognizing “the issue of access for small-scale fishers”. On Canada’s Atlantic coast, small-boat fishers are struggling to have the government properly enforce its own rules designed to ensure long-term access for the small-scale fishery, by avoiding concentration of control in the fishery, something that has already happened on the country’s Pacific coast. If the Canadian government could lead by example, in ensuring “access for small-scale fishers”, that would be a very positive practical development.

Statement 2: “Sustainable fisheries management will be critical in achieving the goals of eradicating poverty and ensuring food security”.  

Comment: This, I would say, is a true statement. Equally true would be the recognition that eradicating poverty and ensuring food security are critical to achieving sustainable fisheries management.

Statement 3: “The declaration should urge States and organizations to make tangible investments in scientific research, scientific co-operation and knowledge sharing to underpin efforts toward multiple targets.”

Comment: The good news is that Canada’s government restored the funding cuts that plagued its fishery science labs over the previous decade, and encouraged scientists to report publicly on their studies. The bad news is that Canada’s Department of Fisheries and Oceans still lacks research staff able to address the human side of fisheries and other ocean uses.

Statement 4: “To achieve the targets under Goal 14, indigenous peoples as well as local knowledge will need to be meaningfully included in planning, decisionmaking, and implementation. This is true of all the targets, and, in particular, target 14.b regarding small-scale artisanal fishing. The Call to Action should reflect this need to consult with and engage local and indigenous people in implementing Goal 14.”

Comment: This is an important statement. It needs to be put in place fully both within Canada and internationally. On the west coast...
of Canada, indigenous and local knowledge, combined with scientific studies, underlie the efforts of the Nuu-chah-nulth indigenous people to develop and implement their own fishery-management measures. Unfortunately, the government has continued to pursue a court case against the Nuu-chah-nulth, seeking to thwart the indigenous Nation’s efforts to self-manage fishery resources.

**Statement 5:** “All work toward achieving the SDGs also requires an understanding of the active role that women play in sustainable development, poverty alleviation and peace building. Addressing these issues effectively requires gender-sensitive interventions, reporting and data requirements, and indicators. Women make up about half of the fishers and fishworkers in small-scale and artisanal fisheries worldwide. Women have an important role to play in the governance and conservation work of protected area management. The Call to Action needs to emphasize that engaging and including women in implementing Goal 14 will be crucial to achieving the suite of targets.”

**Comment:** This is an excellent statement. The Canadian government could usefully note whether it is taking measures itself to engage and include women in implementing SDG 14.

**Statement 6:** “To achieve the goal of conserving and protecting 10 per cent of coastal and marine areas by 2020, we must be flexible in our approach, such as using other effective area-based conservation measures. Recognizing the contribution of other effective area-based conservation measures allows the use of the most appropriate tool in each context to maximize marine biodiversity conservation and foster the buy-in from stakeholders that will be needed for implementation. Internationally, more expert work is needed on the question of what ‘other measures’ means.”

**Comment:** This looks like a somewhat technical statement, but, in fact, underlying it is the important reality, noted earlier in this article, that many local fishing communities and fishery organizations around the world have demonstrated the capability to set aside ocean areas that have good conservation results. These may be done for religious or cultural reasons, or explicitly to protect spawning or juvenile fish. In any case, while not top-down governmental protected areas, they are nevertheless ‘effective area-based conservation measures’. I cannot be certain whether Canada appreciates this interpretation of the words, but there is potential here to empower fishers and fishing communities to determine for themselves when and where area-based conservation should take place in the vicinity of their communities.

In sum, I see the SDGs as a pivotal accomplishment for the planet. Yes, words are cheap, but if implementation of the SDGs can be guided by the kind of innovative, holistic thinking found in the SSF Guidelines, if the good words of governments, such as that of Canada, can be put into practice both at home and abroad, if the synergies between the goals can be embraced, then we can go far. That is the inspiring challenge!
The World We Want to Live In

Empowering coastal indigenous peoples can strengthen artisanal fishers at large through social equity and sustainable development that will result in a wealth of cultures and worldviews.

Across the world’s oceans, some 30 mn coastal indigenous peoples interact with marine ecosystems for food, traditions and, just as importantly, for their continued identity as distinct peoples. From the tropics to temperate and polar climates, indigenous communities share this deep reliance on marine living resources, despite the very different ecological contexts that surround them. These communities often also share historical and continuing forms of marginalization, whether social, political, economic, geographic or cultural. This underlying context is similar to that of many (not necessarily indigenous) artisanal or ‘small-scale’ fisheries around the world. By finding strategies to empower indigenous fishers and communities, therefore, we argue that many solutions may well prove useful for many other fishers around the world.

It is impossible to adequately capture the vast richness of indigenous peoples, and even a single definition of ‘indigenous’ is inappropriate. The most widely used working characteristics (emerging from an United Nations review in the early 1980s) highlight indigenous communities, peoples and nations, as having a unique ethnic identity and historical continuity prior to colonial societies now existing on their ancestral territories. Acknowledging the many ongoing definitional and legal debates and their wider implications, these communities all share links to marine environments, fish, marine mammals and other living organisms that transcend food consumption. Importantly, the traditional knowledge and oral histories of such peoples, though clearly including useful information for what we now term ‘sustainable management’, convey much deeper meanings. These can include practices such as gift exchanges of fish, that are built within the ways in which a distinct group of people recognize their social functions, symbolic structure, and cultural practices. The latter draws from, and contributes to, the symbolisms embedded in fisheries, including food taboos and social construction of seascapes, including the distribution of fishing areas and marine tenure, which again represent much more than resource management.

Given the essential and often un-substitutable role that oceans play for coastal indigenous peoples, these peoples are acutely exposed to, and aware of, the many challenges faced by today’s marine ecosystems. Overfishing by national and international fishing fleets—including both industrial and artisanal operations—are a main driver of resource declines, and may involve destructive illegal fishing practices that impact habitats.

Unchecked development
Before fish abundance decreases outright, the sheer number of competing fishers itself erodes individual catch, available food, and economic profits. Unchecked coastal development, led by growing

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populations and expanding coastal tourism and industry, can impact important habitats such as mangroves, marshes and reefs, and appropriate coastlines and marine areas that were traditionally used by fishing communities.

These main proximate pressures—overfishing, overcapacity and ocean grabbing—are occurring under the looming spectre of global climate change, which will have drastic impacts on natural systems, and growing economic and social inequity, that threaten to erode democratic systems and increase conflict. Ultimately, climate change will act on marine ecosystems, but social and political instruments must be used to protect the vulnerable sectors of the world’s coastal populations, including indigenous peoples. This follows from the fact that in the absence of good governance, protecting and recovering ecosystems may not result in improved human security and well-being.

Coastal indigenous peoples—and, arguably, artisanal fishers in general—are often conferred ambiguous faculties in the international discourse on ocean and sustainable policies, particularly those related to climate change. Intergovernmental reports highlight the fact that politically and economically vulnerable populations will be disproportionately affected by climate change due to limited access to resources and because of exposure to social and natural hazards, including abject poverty, labour abuses and natural disasters. Yet, they are simultaneously praised as resilient because of their close connections to nature, including potentially holding cultural heritage and knowledge that can help them recognize and adapt to environmental changes. This apparent disconnect is probably due to the way we discuss environmental issues separately from political and social ones.

In the context of fisheries, the recognition of vulnerability and identification of resilience in coastal communities is not contradictory, but is possible because direct dependence on natural resources means that these communities exist at the crux between the two conceptual components of a social-ecological system.

**Climate change**

Thus, even while these communities and peoples may be highly ecologically resilient (though this is also under threat due to the projected drastic effects of global climate change), there is much work and support required to overcome continuing challenges from the human dimensions of the system (for example, social, political, economic).
Social or natural stress undermines the ability of self-sustainability, making national and international recognition and protection policies vital for these populations.

There are many strategies and policies to confront such challenges to the security and identity of indigenous and artisanal fishers. Given the scope and scale of shared challenges, some policies must necessarily involve international co-operation. However, much can also be achieved through regional and local initiatives whose successes (and failures) can inform communities facing similar issues.

A first point to remember is that indigenous fisheries (and communities) may be marginalized, but that does not mean they are small. A recent global estimate of seafood consumption by coastal indigenous peoples compiled information for over 1,900 communities and 600 unique groups. Their global annual seafood consumption totalled over 2 mn tonnes, with much higher per capita consumptions than non-indigenous populations (including those living on the same coasts). The mapping of the locations of these communities has enabled ongoing work to connect coastal indigenous peoples around the world through the trans-oceanic migrations of a wide array of species—including sea turtles, whales, fish and birds—that are shared by indigenous communities many thousands of kilometres apart. The findings and messages from such global analyses must be combined with local knowledge and objectives, but their strength lies in empowering local and regional initiatives by raising discussions and awareness of local issues around the world.

Raising recognition of the global nature of indigenous and artisanal fishers, and the challenges they face, can further facilitate the direct exchange of ideas and experiences between communities. Examples of indigenous ‘resurgence’—efforts for the assertion of rights over traditional resources and self-determination—are increasing around the world. These efforts are somewhat facilitated when there are existing precedents recognizing the legal rights of an indigenous people, but the key factor remains indigenous community-led initiatives that rally around local goals and leaders to achieve specific objectives.

The re-embracing of the value of indigenous knowledge and traditions—including for resource management but also deeper social functions—is central to these initiatives, and this framework of action could be highly useful for non-indigenous but closely knit artisanal fishing communities that face many of the same challenges. Governments can play a highly useful role here by officially and legally recognizing such initiatives, explicitly supporting women and children, and listening to local ideas regarding potential investments in necessary services and alternative livelihoods. As noted above, the wide sharing of these local experiences among communities facing similar issues can help design ever more successful initiatives that avoid or address past pitfalls.

An increasingly important policy framework at international and national scales is the concept of the Blue Economy, which emerged from the UN Rio +20 Conference...
A global estimate of seafood consumption by coastal Indigenous peoples


Coastal Indigenous Peoples database:
More than 1900 communities identified & 600 ethnic groups.

Coastal Indigenous people’s consumption of seafood per year

2.1 million metric tonnes

Importance of seafood to coastal Indigenous people

Fish consumption in kg per person per year:
- Eastern Asia: 144 kg
- Middle Africa: 164 kg
- Southern Africa: 145 kg
- Global average: 19 kg per capita

Coastal Indigenous peoples:

Design by Lindsay Lafreniere
as the marine counterpart of the Green Economy, aiming to design sustainable development strategies that support and integrate environmental sustainability. Needless to say, this would be highly beneficial to artisanal and indigenous fishing communities. Nevertheless, the Blue Economy discourse itself is symbolic of the dual nature of ‘sustainability’ initiatives. One discussion highlights the need for, and benefits of, environmental sustainability and social equity in existing and future ocean-based industries, particularly noting the necessity of rebuilding strategies for overexploited marine resources, and the importance of empowering traditional fishing communities. The other discussion recognizes these concerns, yet primarily anticipates an inevitable (and desirable) industrialization of every aspect of oceanic resources as a major driver of future economic growth, and thus calls for a proactive push for legal access rights and privatization schemes to promote that this development be done in a sustainable manner. Both arguments have merit, but the key message here is that we must be aware that under these types of policy frameworks, benefits for indigenous peoples and artisanal fishers will not come automatically, and must be actively integrated into conceptual and operational policy designs.

Policy and research such as that highlighted here follow a growing trend that recognizes the global nature of today’s many social and environmental challenges. And while the objectives of such studies and initiatives may be nominally straightforward, the implications of the results for indigenous peoples are much more important than large numbers. For example, in the case of seafood consumption estimates, the significance of seafood for indigenous groups is construed within the social and cultural context in which each group treats their fish. When fish are part of a ceremonial event, consumption does not just support their diet but creates ties between families and individuals. These relationships are not reflected in a number—useful though it can be for policy—and they cannot be reduced to the simple ways in which we often consider the significance of fish and fisheries, and yet the process of arriving at these types of numbers is a start that can lead to growing global connections and co-operation. Perhaps more than ever, it is vital to recognize and support the work of the many communities and researchers around the world who face and tackle these issues. Even when objectives seem local or unrelated, the sum of this wealth of knowledge can be worth even more than its parts.

Recognizing and addressing the needs of coastal indigenous peoples at a global scale is only a small step towards mainstreaming their issues into wider research and international policies, which would benefit coastal communities at large. As discussed here, these issues include the recognition of the global scale of coastal indigenous peoples and fisheries, and their connections across oceans, the resurgence of indigenous rights and self-determination, and the implications of international policy that can be highly useful if properly leveraged. These and many similar themes represent a break with the way we traditionally managed resources and considered our relationship to nature. An instructive way to think about this is by contrasting ‘food security’, that is, the ability to access adequate nutrition, with ‘food sovereignty’, which also means having a choice over what you eat. Policies and research for the sustainability of indigenous and artisanal fishers, in addition to considering how we will adapt to survive the challenges ahead, should also consider what kind of world we want to live in. Social equity is the key to start, but to achieve true sustainable development we must think beyond fisheries and resource management to create a space where a wealth of cultures and worldviews can thrive.
India notifies National Policy on Marine Fisheries

India has officially issued a Gazette Notification on the National Policy on Marine Fisheries, 2017 (NPMF, 2017). In a Notification, dated 1 May 2017, the Department of Animal Husbandry, Dairying and Fisheries of the Ministry of Agriculture and Farmers Welfare states that the overarching goal of the NPMF, 2017 is to ensure the health and ecological integrity of the marine living resources of India’s Exclusive Economic Zone (EEZ) through sustainable harvests for the benefit of present and future generations of the nation.

The Notification recognizes that the FAO’s Code of Conduct for Responsible Fisheries (CCRF or the Code) is today the most significant of the non-binding agreements in the global fisheries sector. The Government will ensure that the Code and its Principles are well integrated in all its activities that relate to the marine fisheries sector, says the Notification.

It also calls attention to the Voluntary Guidelines on Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) whose objectives are expected to be achieved through the promotion of a human-rights-based approach by empowering small-scale fishing communities.

The Government will make all efforts to implement the provisions of the SSF Guidelines, keeping in view the complexities and divisions within the small-scale sector, particularly those involved in sustenance fishing, the Notification states.

The overall strategy of the NPMF, 2017 is based on seven pillars, namely, sustainable development, socioeconomic upliftment of fishers, the principle of subsidiarity, partnership, inter-generational equity, gender justice and the precautionary approach.

These seven pillars will guide the actions of various stakeholders in meeting the Vision and Mission set for the marine fisheries sector of the country. While fishers will be at the core of this Policy, actions will also be guided by the ‘Public Trust Doctrine’, the Notification states.

The full text of the Notification is available at: https://indianlegal.lcf.net/en/indian-legal-instruments.html?fisheries=1

Climate Change

Africa feeling the heat of climate change

Researchers are still trying to learn why the population of African penguins has dropped precipitously over the last 15 years—some estimates say by 90 per cent—but most agree that climate change is a major factor in the decline of this iconic African species.

There may be additional forces at work, including pollution, overfishing, predators and disease, but warming currents on both sides of the continent are driving the huge shoals of sardines and anchovies on which the penguins dine farther south toward cooler waters.

Small-scale artisanal fishing and tourism are critical economic pillars for communities along Africa’s 30,500-km coastline. Many of these are grappling with the effects of climate change, including rising sea levels, warming waters and increasing ocean acidification, which have led to greater coastal erosion that has damaged infrastructure in West Africa.

A warming Indian Ocean has damaged coral reefs that are essential for tourism, fishing, and the protection of the shoreline.

African countries will be participating in the Ocean Conference to be held this year in New York from 5-9 June, which is aimed at promoting the implementation of Sustainable Development Goal 14 (Life below Water).

The goal calls for action to address a range of ocean issues, including protecting marine biodiversity, reducing overfishing and addressing ocean acidification and marine pollution.

—by Dan Shepard, AfricaRenewal/UN

Making Fisheries Sustainable

The concept paper for the partnership dialogue 4, prepared in response to the UN General Assembly (UNGA) resolution 70/303 on making fisheries sustainable, is covering SDG targets 14.4 and 14.6. The concept paper for this partnership dialogue is based on inputs received from Member States, the UN system and other stakeholders. Given the word limit for the concept paper, not all inputs have been included in their entirety, but they can be accessed under: https://oceancommission.un.org/documents.

More than 3 bn people rely on fish for an important source of animal protein, and 300 mn people rely on marine fisheries for their livelihoods. In developing and developing countries alike, the consumption of fish is increasing both per capita and in absolute terms.

Total capture production in marine waters was 81.5 mn tonnes in 2014, a slight increase on the previous two years, with 13 out of the 25 major fishing countries increasing their catches by more than 100,000 tonnes, compared with 2013. According to the FAO analysis of assessed commercial fish stocks, the share of fish stocks within biologically sustainable levels decreased from 90 per cent in 1974 to 69 per cent in 2013. Overfishing, including discards, destructive fishing practices, and “ghost fishing” —killing fish with discarded or lost equipment—leads to a loss of US$80 bn annually in potential revenue.

Illegal, unreported and unregulated (IUU) fishing, a severe stress on global fisheries, is responsible for roughly 11 to 26 mn tonnes of fish catches and US$10–22 bn in revenue. Although emphasis is often put on IUU fishing activities occurring in areas under national jurisdiction, IUU fishing on the high seas is a serious concern.

Aquaculture production, a rapidly growing sector, currently provides half of the fish products covered in global statistics and in this regard, States and regions should be encouraged to have effective governance and regulatory arrangements in support of sustainable development.

Fish and fisheries are important to livelihoods and food security and nutrition. It is estimated that fish accounts for 17 per cent animal protein and 6.7 per cent of all protein consumed globally. Many millions of people around the world find a source of income and livelihood in the fisheries and aquaculture sector. Estimates indicate that 56.6 mn people were engaged in the primary sector of capture fisheries and aquaculture. In 2014, small-scale fisheries provided work to 90 per cent of the people employed in capture fisheries.

While the overall trend in the sustainability of fisheries is overwhelmingly negative, some progress has been made with regard to the sustainability of some stocks, particularly through effective regulation and monitoring. A number of actions are being taken to improve the sustainability of stocks, including through increasing understanding of resources and the ecosystems they inhabit, strengthening institutions responsible for the management of fisheries, improving regulatory regimes, increasing compliance, and addressing economic and social factors which contribute to overfishing. Increasing attention is also being paid to improving the overall health and resilience of marine ecosystems to maintain and improve their yield in the face of increasing anthropogenic stressors.

Significant progress has been made in the identification of vulnerable marine ecosystem (VME) indicator species, and in the development of conservation and management measures (CMMs) to protect these ecosystems, including those of bottom fisheries and deep-sea fish stocks. The measures include thresholds levels for VME indicator species, move-on rules and temporary or permanent closures, closed areas (including those with vulnerable ecosystems), restrictions on vessel types and time spent fishing, restrictions on legal mesh sizes and the size of fish that can be caught, restrictions on bycatch, catch and effort reporting, gear restrictions, measures for exploratory fisheries, precautionary catch limits, and prohibitions on directed fishing.

RFMO/As and States are co-operating on marine scientific research and data collection and capacity-building activities for developing States. Subsidies and other types of support measures to the fishing industry are granted for a variety of purposes. In many cases, they are not directed at increasing fishing capacity or effort as such. They can, if properly designed, support crew safety; support processing by local populations; enable value addition; facilitate the establishment of fish-stocks management systems; finance less harmful fishing methods; and promote the adoption of more sustainable technologies and, therefore, provide for the restoration and rehabilitation of ecosystems. On the other hand, many fisheries subsidies actively contribute to overcapacity and depletion of fish stocks, and subsidies can be damaging and trade-distorting, even in effectively managed fisheries.

Subsidies that encourage overcapacity and overfishing result in losses for States, and those losses are often borne by communities dependent on fishery resources for their livelihood and food security and by taxpayers.

Subsidies may benefit industrial fleets or even, in some cases, illegal activities. Subsidies that contribute to the depletion of coastal fisheries cause fishing fleets and enterprises to look further and fish deeper beyond the territorial sea. Consequently, subsidized capacity and effort may be diverted to new species and areas, which can perpetuate some of the aforementioned problems. It would be important to achieve a successful outcome at the WTO’s Ministerial meeting in December 2017, so that the WTO can positively contribute to the 2030 Agenda by meeting the 2020 deadline set in target 14.6. In doing so, the development and livelihood needs of developing countries, Least Developed Countries (LDCs) and SIDS need to be taken into consideration. It is also important to encourage the implementation of fisheries-subsidies provisions in other trade agreements, including at the regional and bilateral level, in a manner that contributes to SDG 14.6. As such, a need persists to build coherence and structured dialogue between the trade community, the environmental communities and the fisheries-management communities.

National governments, when undertaking internal reforms, should be encouraged to consider SDG 14.6, regardless of whether there is advancement at the multilateral level. Existing fisheries subsidies could be redirected to support fisheries management, and educate communities, among other beneficial effects.

In addition to global and national action, in line with the ecosystem approach, sub-regional and regional co-operation is an absolute necessity for sustainable management of fisheries and effective implementation of the relevant SDGs targets.

Strengthening the effectiveness of reporting, monitoring and surveillance of fisheries subsidies at global, regional and national levels could be an important underpinning to fisheries-subsidies negotiations and reform. Capacity building and the provision of technical assistance plays an important role in the implementation and realization of SDGs targets 14.4 and 14.6, including, in this instance, in the regulation of trade in fisheries.

Publications

http://www.fao.org/3/a-i6880e.pdf

The technical workshop “Social protection to foster sustainable management of natural resources and reduce poverty in fisheries-dependent communities” gathered 29 participants to discuss available evidence and make recommendations for the work programme of the Fisheries and Aquaculture Department in relation to social protection and poverty reduction in fisheries-dependent communities.

https://openknowledge.worldbank.org/bitstream/handle/10986/24056/9781464809194.pdf?sequence=8&isAllowed=y

This report makes a very clear case for the need for reform. It does not analyze policies, financing, or the socioeconomic impacts of embarking on such reform.

http://www.greenpeace.org/seasia/PageFiles/745330/Turn-The-Tide.pdf

Turn the Tide outlines Greenpeace Southeast Asia’s investigations into IUU fishing, trafficking and other rights abuses—including fatalities resulting from neglect — aboard Thai distant-water fishing vessels operating in the Indian Ocean.


Concept paper for the Partnership dialogue 5, prepared in response to the UNGA resolution 70/303, on increasing economic benefits to SIDS and LDCs and providing access for small-scale artisanal fishers to marine resources and markets, in covering SDG targets 14.7 and 14.b.

Videos

Women in Small-scale Fisheries in Tanzania: Challenges and Opportunities
https://www.youtube.com/watch?v=RWtV5hIMw0Y

This video case study explores the challenges that women involved in fisheries activities face on a day-to-day basis in Tanzania.

Role and Place of Women in Fisheries Value Chain: Case of Dagaa Fishery in the Lake Victoria
https://www.youtube.com/watch?v=U1WJomd9NA

The video explores the role and place of women along the fisheries value chain.

Earth Summit

The United Nations Conference on the Environment and Development ended with declarations and agreements which did not meet the expectations generated during the preparatory process. Political compromise was the mechanism most often used by participant diplomats, while the proposals put forward by academic centres and social movements were, for the most part, postponed for a more propitious occasion. That occasion will surely be found in those areas of struggle where action is still necessary, given that the poor continue to become ever poorer, oceans continue to be contaminated, gasses saturate the atmosphere, and species are led to extinction, while the future of humanity on this planet-ship Earth is uncertain.

The fishworkers of the world have, however, gained a degree of recognition in Chapter 17 of Agenda 21 and the door is open for the struggle of their organizations in each country to achieve the application of the agreements signed in the 1992 Rio Conference. Those accords require that fish workers be respected in terms of their own cultures, that there be exclusive fishing zones, special credit mechanisms and technology transfer, representation in decision-making organisms, respect for and participation of women in fishing activities and fishworker organizations.

ICSF continues its struggle for those rights in diverse areas of the world, specially in meetings of fishing crews in Latin America, in Task Force activities in defense of Philippine Distant Water Vessel crews in the Taiwanese fleets, in the search for the causes of the diseases which attack the fresh water fish cultivated in Asia, and in the creation of communication networks among French, Irish and British fish workers. The European Economic Community continues to open new fishing zones through so-called “second generation” treaties, notably that established with Argentina in 1992, which will have significant impact both in Europe and the countries of the South, specially in Latin America and Africa.

Both Peruvian and Mexican artisan fishworkers have made progress toward new forms of organization and are seeking ways to become truly independent in their decisions. A new artisan fish worker union has been formed in Madagascar, while their fellows in Senegal have made progress along similar lines.

—from Editorial in SAMUDRA Report No. 7, February 1993
Although I can see him still—
The freckled man who goes
To a gray place on a hill
In gray Connemara clothes
At dawn to cast his flies—
It’s long since I began
To call up to the eyes
This wise and simple man.
All day I’d looked in the face
What I had hoped it would be
To write for my own race
And the reality:
The living men that I hate,
The dead man that I loved,
The craven man in his seat,
The insolent unreproved—
And no knave brought to book
Who has won a drunken cheer—
The witty man and his joke
Aimed at the commonest ear,
The clever man who cries

The catch cries of the clown,
The beating down of the wise
And great Art beaten down.

Maybe a twelve-month since
Suddenly I began,
In scorn of this audience,
Imagining a man,
And his sun-freckled face
And gray Connemara cloth,
Climbing up to a place
Where stone is dark with froth,
And the down turn of his wrist
When the flies drop in the stream—
A man who does not exist,
A man who is but a dream;
And cried, “Before I am old
I shall have written him one
Poem maybe as cold
And passionate as the dawn.”

— William Butler Yeats