A REVIEW OF FISHERIES SUBSIDIES ISSUES IN THE CONTEXT OF WTO RULES NEGOTIATIONS

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FOREWORD

Fisheries subsidies negotiations at the WTO have been in progress since the launch of the Doha Round in 2001. Capture fishing has seen increasing trends globally and reached 93.4 million tonnes in 2014. Increased marine capture fishing has created situations of over-exploitation of marine fisheries resources leading to environmental concerns. Exploitation of fisheries resources is driven by several factors including the commercial aspect of trade in fisheries as well as on account of being a source of livelihood for millions of fish workers the world over.

Fishery subsidies contribute significantly in providing support to the fishing industry and fish workers. However, the nature of fisheries subsidies and the composition of fish workers or industry receiving benefits of these subsidies differ significantly across major fish producing countries. In the case of LDCs, Small and Vulnerable Economies (SVEs) and developing countries, it is an important public policy instrument to support the low-income, resource-poor fish workers dependent on fisheries as a means of livelihood. For example, India has a coastline of 8,118 kilometres, an Exclusive Economic Zone of 2 million kms. And close to 14 million fish workers depend on fishing activity as a source of livelihood. In the case of several developed economies as well as some developing countries, fisheries subsidies may be supporting large scale commercial fisheries. Disciplining of fisheries subsidies is therefore complex, given the diverse interests of major fish producing nations.

With growing environmental concerns, under the UN Sustainable Development Goals, members have committed to an ambitious target to prohibit certain forms of fisheries subsidies which contribute to over-capacity and over-fishing by 2020; and to eliminate subsidies that contribute to illegal, unreported and unregulated fishing (IUU). However, while negotiating these disciplines at the WTO, special and differential treatment (S&DT) for developing countries and LDCs has to be an integral part. Future negotiations in the WTO should therefore aim to achieve the right balance while framing rules, to discipline subsidies, as well as recognize the circumstances of developing countries and LDCs in complying with international conventions on fisheries management and conservation measures.

This report is therefore very relevant in understanding key aspects of marine capture fisheries, the extent of subsidies being given by major fishing countries, role of fuel subsidies and the significance of S&DT for LDCs and developing countries.

I compliment the Centre for WTO Studies, IIFT for bringing out this second review of fisheries subsidies in the context of WTO Rules negotiations and I hope this report will be found useful by all stakeholders.

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TABLE OF CONTENTS

CHAPTER I: INTRODUCTION

Fisheries subsidies negotiations in the WTO have been in progress since the launch of the Doha Round in 2001. The divide between WTO Members to continue the Doha Round on a host of issues was evident at the Nairobi Ministerial held in December 2015. However, there was a common resolve to negotiate the Doha issues post Nairobi. Fisheries subsidies negotiations, being driven by environmental concerns, will continue to engage WTO Members' attention in the wake of the TPP Agreement and UN SDG Targets. Exploitation of fisheries resources is driven by several factors such as food production, the commercial aspect of trade in fish, and livelihood for millions of fish workers world over. Fisheries subsidies play an important role in providing support to the fishing industry and fish workers. Yet the nature of fisheries subsidies and the beneficiaries of such support differ significantly across major fish producing countries. Disciplining of fisheries subsidies is therefore complex given the diverse interests of major fishery producing nations.

Fish is an important source of food for a major proportion of the world's population. It is an important constituent of the diet of many parts of the world. The burgeoning world population coupled with increasing incomes has spurred an increase in global fisheries production. The Food and Agriculture Organization of the United Nations ("**FAO**"), as part of its mandate, regularly compiles statistics capturing fisheries and aquaculture production, trade and utilization data, and publishes them every year. According to the FAO's latest report on *The State of World Fisheries and Aquaculture*, total production of capture fisheries and aquaculture has increased from 145.9 million tonnes in 2009 to 167.2 million tonnes (provisional estimate) in 2014, reflecting an approximate 15 per cent increase over this period.[1] Of this, the direct human consumption of fish increased from 123.8 million tonnes in 2009 to 146.3 million tonnes in 2014, reflecting an increase of 18% over this period.[2] With a sustained increase in population and incomes, it is expected that the exploitation of global fish stocks to meet various needs will

[1] *State of World Fisheries and Aquaculture*, Food and Agriculture Organization of the United Nations, 2016, available at <www.fao.org/3/a-i5555e.pdf>, at page 4

[2] *ibid*

continue to remain high with aquaculture likely to address growing demands for fish. The table below, extracted from the FAO report, provides a detailed breakdown of these figures:

TABLE 1

WORLD FISHERIES AND AQUACULTURE PRODUCTION AND UTILIZATION

	2009	2010	2011	2012	2013	2014
			(Million tonnes)			
PRODUCTION						
Capture						
Inland	10.5	11.3	11.1	11.6	11.7	11.9
Marine	79.7	77.9	82.6	79.7	81.0	81.5
Total capture	**90.2**	**89.1**	**93.7**	**91.3**	**92.7**	**93.4**
Aquaculture						
Inland	34.3	36.9	38.6	42.0	44.8	47.1
Marine	21.4	22.1	23.2	24.4	25.5	26.7
Total aquaculture	**55.7**	**59.0**	**61.8**	**66.5**	**70.3**	**73.8**
TOTAL	**145.9**	**148.1**	**155.5**	**157.8**	**162.9**	**167.2**
UTILIZATION[1]						
Human consumption	123.8	128.1	130.8	136.9	141.5	146.3
Non-food uses	22.0	20.0	24.7	20.9	21.4	20.9
Population (*billions*)	6.8	6.9	7.0	7.1	7.2	7.3
Per capita food fish supply (*kg*)	18.1	18.5	18.6	19.3	19.7	20.1

Note: Excluding aquatic plants. Totals may not match due to rounding.
[1] Data in this section for 2014 are provisional estimates.

The exploitation of fish stocks brings with it the advantage of valuable employment and economic gain. The fisheries sector is a huge employment generator, assuring the livelihoods of 10-12 percent of the world's population. The FAO notes that employment in this sector has grown at a rate more than the world's population (FAO 2016). The sector is also important for employment of small-scale fishworkers. According to the International Collective in Support of Fishworkers, an international non-governmental organization:[3]

> "*Small-scale fisheries currently employ over 90 per cent of the world's fishers and fishworkers engaged in catching, processing, trading and marketing fish. About half of these are women. Small-scale fisheries contribute about half of global fish catches. When considering catches destined for direct human consumption, the share contributed by this sub-sector increases to two-thirds. Small-scale fishing and related activities often underpin the local economies in coastal, lakeshore, riverine and other riparian communities and constitute an engine, generating work and income in other sectors, through forward and backward linkages. In many instances, fishery activities may be*

[3] *Small-Scale Fisheries: Their Contribution to Food Security, Poverty Alleviation and Sustainability*, International Collective in Support of Fishworkers, available at <http://igssf.icsf.net/en/page/1050-Small-scale%20fisheries.html>

part-time and seasonal in nature, providing an important additional source of food and income in many communities."

Another important aspect of the fisheries sector is that it is a highly traded food commodity in the international market, with more than half of fish exports by value originating in developing countries (FAO 2016).

However, as is typical with every environmental resource, the high demand for fish has led to pressure on the existing global fish stocks; exploitation of fish stocks has resulted into a situation of over-exploitation of stocks of certain species. There are many studies that highlight the unsustainable increase in demand and imbalances in demand-supply of fish and fish products. In its 2004 report on *The State of the World Fisheries and Aquaculture*, the FAO concluded "the global potential for marine capture fisheries had been reached".[4] According to the World Wildlife Fund ("**WWF**"), a leading NGO focused on animal welfare, more than 85 percent of the world's fisheries have been pushed to or beyond their biological limits and are in urgent need of strict management plans to restore them.[5]

The World Bank has also published a report, in 2013, titled *Fish to 2030: Prospects for Fisheries and Aquaculture* containing valuable information on imbalances in regional demand and supply of fish in international trade.[6] The report notes the following:

"*During the last three decades, capture fisheries production increased from 69 million to 93 million tons; during the same time, world aquaculture production increased from 5 million to 63 million tons (FishStat). One important feature of this food-producing sector is that fish is highly traded in international markets. According to the FAO (2012), 38 percent of fish produced in the world was exported in 2010. This implies that there are inherent imbalances in regional supply and regional demand for fish, and international*

[4] *State of the Worlds Fisheries and Aquaculture*, Food and Agriculture Organization of the United Nations, 2004, available at <http://www.fao.org/docrep/007/y5600e/y5600e04.htm#p_1>

[5] Overview, World Wildlife Fund, <http://www.worldwildlife.org/threats/overfishing>

[6] *Fish To 2030: Prospects For Fisheries And Aquaculture*, World Bank, December 2013, Report 83177-GLB, available at <www.fao.org/docrep/019/i3640e/i3640e.pdf>

trade—through price signals in markets—provides a mechanism to resolve such imbalances (Anderson 2003)."

Furthermore, the exploitation of fisheries has worsened due to existence of destructive fish practices; illegal, unreported and unregulated fishing ("**IUU fishing**"); and excessive subsidization to the fisheries sector in many countries. Of these three factors, the issue of excessive subsidization in the fisheries sector is the most problematic as it incentivizes the unsustainable exploitation of fisheries. Many recent research studies show the existence of alarming levels of state sponsored contribution to harmful fisheries subsidies and practices. A High Level Panel of Experts on Food Security and Nutrition was established in 2010 to provide the United Nations' Committee on World Food Security with evidence-based and policy-oriented analysis. It submitted a report titled *Sustainable Fisheries and Aquaculture for Food Security and Nutrition* in 2014[7] which noted that 'many fishery resources are severely depleted yet subsidies, especially fuel subsidies, continue to be provided by many countries'. The problem is exacerbated by the fact that the detailed amounts of these subsidies are not made public by most countries.

Given the vital importance of the issue, the crucial need to restore and maintain fish stocks at sustainable levels has been universally acknowledged. The emphasis on the need to conserve fish stocks has been recognized as one of the United Nations Sustainable Development Goals ("**UNSDG**") which were adopted on 25 September 2015 by the United Nations General Assembly. Sustainable Development Goal 14, which is directly relevant to fisheries and aquaculture and to the sustainable development of the fisheries sector, commits UN Members to: "Conserve and sustainably use the oceans, seas and marine resources for sustainable development". Within the UN SDG, sub-target 6 specifically commits UN Members to:

> *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*

[7] *Sustainable Fisheries and Aquaculture for Food Security and Nutrition*, High Level Panel of Experts on Food Security and Nutrition, HLPE Report 7, June 2014, available at <www.fao.org/3/a-i3844e.pdf>

developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

It is widely accepted that fisheries access rights arrangements coupled with excessive subsidies leads to transfer of fishing capacity from local fishers to large corporations and fishing fleets. This can contribute to overfishing and depletion of fish stocks important for the livelihood of local communities. There are many studies that have explored the relationship between excessive fisheries subsidies and availability of fish stocks. In 1999, the WTO Secretariat published a report on *Trade and Environment* which highlighted the relationship between overfishing and fisheries subsidies. The report clearly stated that "a reduction in trade-distorting fishing subsidies, currently amounting to some $54 billion annually, would reduce overcapitalization in the industry and lessen overfishing".[8]

A technical paper published by the United Nations Environmental Programme ("**UNEP**") titled *Fisheries Subsidies: A Critical Issue for Trade and Sustainable Development at the WTO An Introductory Guide* also clearly illustrates the causal relationship between subsidization and overfishing stating that ill-conceived subsidies to the domestic fishing industries constitute a significant factor in causing overfishing[9]:

> *Although properly designed fisheries subsidies can help achieve responsible fishing practices, economists and fisheries experts widely agree that many fisheries subsidies contribute to overfishing. It is also clear that fisheries subsidies distort competition, mainly to the disadvantage of developing countries.*

However, not all kinds of government support, even if it is a direct subsidy, are considered harmful and many organizations have attempted to classify fisheries subsidies through varied criteria. It is necessary that this premise is examined in light of the magnitude of the over-exploitation of fisheries resources. This is because in relation to IUU fishing or fishing

[8] Håkan Nordström and Scott Vaughan, *Trade and Environment*, Special Studies 4, 1999, World Trade Organization, available at < https://www.wto.org/english/res_e/booksp_e/special_study_4_e.pdf > at page 3

[9] *Fisheries Subsidies: A Critical Issue for Trade and Sustainable Development at the WTO An Introductory Guide*, United Nations Environmental Programme, May 2008, available at <www.unep.ch/etb/areas/pdf/UNEP-ETB Brochure on Fisheries Subsidies_May2008.pdf> at page 2

in areas where stocks are overfished, all kinds of subsidies may be deemed to be harmful and consequentially an urgent need to develop disciplines in this area. However, while framing rules for disciplining the subsidies for IUU fishing activities or for fishing in areas where stocks are overfished, appropriate and effective special and differential treatment ("**S&DT**") for developing countries and LDCs has to be an integral part of these negotiations. The Organization for Economic Co-operation and Development ("**OECD**") notes that generally, and at least in the short term, "the increased profitability resulting from subsidies will result in more effort and larger catches of fish, unless there are controls in place limiting effort or fish catches, or property rights regimes with incentives to limit effort".[10] Therefore, "while all fisheries subsidies are not harmful, experts widely agree that many fisheries subsidies can and do contribute to overfishing". (UNEP 2008) It must be noted that it is the classification of fishing subsidies that would ultimately determine how they are disciplined under international law.

Even before the UNSDG established the above target to prohibit certain fisheries subsidies, Members of the WTO have been discussing the problem of fisheries subsidies for more than 15 years. Mandated by the Ministerial Conferences, first at Doha in 2001, and then again at Hong Kong in 2005, WTO Members have been striving to establish a clear legal framework to regulate fisheries subsidies.

The challenge of addressing fisheries subsidies within the framework of the WTO has been made important by the need to safeguard the interests of developing countries, who account for 54% of total fishery exports value (FAO 2016). Developing countries have several concerns such as the needs of its low-income, resource-poor fish workers, infrastructure, etc that need to be addressed before any disciplines can be imposed on fisheries subsidies within the WTO framework. In the rule making forum at the WTO on fisheries subsidies, which will gain momentum due to the commitments under the UNSDG, the Members will face challenges to balance the interests of

[10] *Financial Support to Fisheries: Implications For Sustainable Development*, Organization for Economic Co-operation and Development, 2006, available at <www.oecd.org/agriculture/agricultural-policies/39322313.pdf> at page 63

traditional fishing communities, small scale fisheries, developing countries concerns, sustainable goals, and fisheries conservation and management measures. This study attempts to provide some information on the key elements of the negotiations that will ensue.

In 2010, the Centre for WTO Studies published a report titled *Implications of Fishery Sector Subsidies: A Review of Issues in Light of WTO Negotiations* authored by Debashis Chakraborty and Animesh Singh.[11] The study examined the relevant issues in fisheries sector with emphasis on the efforts of the international community to frame international rules to discipline fisheries subsidies. It also highlighted the state of global marine capture fisheries, fisheries subsidies being given by some major fisheries producers of the world, fishing under access rights arrangements and its impact on fisheries resources, and negotiations of fisheries subsidies rules in the WTO with special focus on the special & differential treatment of developing countries in these negotiations. The present study largely retains the format of the previous study to present the contemporary issues in the rules negotiations pertaining to fisheries subsidies at WTO. It also highlights the issue of fuel subsidies, which constitutes the largest component of fisheries subsidies worldwide. The study, which is in the nature of an update, provides a broad overview of the recent developments and trends in fisheries subsidies and access rights arrangements of select WTO members.

The chapterisation of this study is as follows. Chapter 2 presents recent statistics on the worldwide availability of fish stocks. Given that the focus of this study is on subsidies to the fisheries sector, Chapter 3 provides a classification of the various subsidies that are being provided. Chapter 4 analyses trends in global fisheries subsidies with a focus on the incidence of harmful subsidies in the recent years. Chapter 5 consists of fisheries subsidies studies on select developed countries and two developing countries. Chapter 6 specifically focuses on fuel subsidies since it accounts for the largest proportion of fisheries subsidies. Fisheries access rights arrangements which have facilitated the exploitation of other

[11] Debashis Chakraborty and Animesh Singh, *Implications of Fishery Sector Subsidies: A Review of Issues in Light of WTO Negotiations*, Centre for WTO Studies: Indian Institute of Foreign Trade, Discussion Paper No. 07/2010, available at <wtocentre.iift.ac.in/discussion_papers/07.pdf> (Hereinafter Chakraborty and Singh, *Implications of Fishery Sector Subsidies*)

countries fish stocks have been discussed in Chapter 7. The final Chapter 8 provides an overview of the state of play of fisheries subsidies negotiations at the WTO, and also captures developments in the Trans-Pacific Partnership, which was concluded last year.

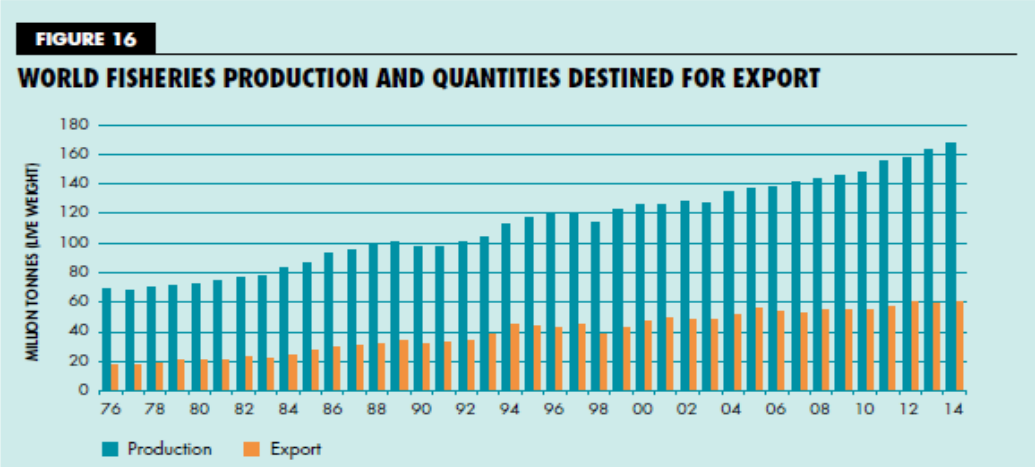
CHAPTER 2: FISHERIES RESOURCES WORLDWIDE: RELEVANT STATISTICS

In order to understand the importance of the need to discipline fisheries subsidies, it would be useful to understand and review the available statistics regarding production and consumption. Most of the references in this section are of secondary nature, drawing considerably from FAO reports.

A. International Trade in Fish and Fishery Products

According to the FAO's latest report (2016), world trade in global fish and fishery products has expanded significantly in recent decades. The following extract from the report elaborates on the statistical data:

> World trade in fish and fishery products has expanded significantly in recent decades, rising by more than 245 percent in terms of quantity (live weight equivalent) from 1976 to 2014, and by 515 percent if one considers just trade in fish for human consumption. These quantities represent a significant share of total fish production, with about 36 percent (live weight equivalent) exported in the form of different product forms for human consumption or non-edible purposes in 2014 (Figure 16), reflecting the sector's degree of openness and integration into international trade. This share increased from 25 percent in 1976 to a peak of 40 percent in 2005. Since then, it has slowed, mainly because of reduced production and related exports of fishmeal. If only trade of fish for human consumption is considered, its share in total fishery production has increased continuously, reaching almost 29 percent in 2014.



World trade in fish and fishery products has grown significantly also in value terms, with exports rising from US$8 billion in 1976 to US$148 billion in 2014, at an annual growth rate of 8.0 percent in nominal terms and 4.6 percent in real terms. The two main exceptions were experienced in 2009 and 2012. In 2009, with the general global economic contraction, trade dropped by 6 percent compared with 2008. However, the decline was only in value terms because of falling prices and margins. The decrease was not uniform and, in particular, many developing countries experienced rising demand and imports in 2009. In the following two years, trade rebounded strongly, with overall growth of 15 percent in 2010 and 17 percent in 2011, reaching US$130 billion. In 2012, trade remained rather stable, up only 1 percent on the previous year. This sluggishness was mainly the result of the downward pressure experienced by international prices of selected fish and fishery products for human consumption, in particular of farmed species. In addition, demand in many key markets was also lower because of the economic contraction still affecting consumer confidence. Demand was particularly uncertain in many developed countries. Trade increased again by 7 percent in 2013 and by 6 percent 2014. However, preliminary estimates for 2015 point to a drop of about 10 percent to US$135 billion. Final figures are likely to show that the decline was mainly in value terms, with traded volumes registering a decrease of only 2–3 percent compared with 2014. Reasons for this slowdown include the weakening of many key emerging markets after long periods of strong seafood market growth and lower prices for a number of important species. Moreover, economic contraction in Brazil and the Russian Federation appears to have played a role, at least in US dollar terms, with imports in 2014 down 46 percent for the Russian Federation (14 percent in terms of the Russian rouble) and 23 percent for Brazil (but an increase of 6 percent in terms of

the Brazilian real). Since 2014, imports to the Russian Federation have also been affected by its trade embargo on fish imported from certain countries. However, the primary underlying cause of the 10 percent decline in world fishery trade in value terms has been the strengthening of the US dollar against other currencies, particularly those of major seafood exporters such as the EU, Norway and China, which could partly reflect a reduced exchange rate elasticity. Fishery trade is closely tied to the overall economic situation. World merchandise exports have experienced strong growth in the last 20 years, climbing to US$18 trillion in 2014, almost four times the value recorded in 1995. However, this overall growth has not been regular. There was a gradual rise until the late 1990s, followed by a strong increase from 2002 to 2008, with emerging market economies being the major engine of this global growth. World merchandise trade dropped in 2009 after the 2008 economic crisis, before rebounding strongly in 2010 and 2011 to then grow at a moderate pace in 2012–14. In value terms, growth averaged 1 percent per year, and in volume terms averaged 2.4 percent between 2012 and 2014.

Available data for 2015 indicate a further slowdown in emerging markets and a weaker recovery in developed economies, with a contraction in trade, mainly in value terms. Factors contributing to the sluggishness in trade and output in 2014 and in 2015 included: slowing growth in emerging economies' gross domestic product: an uneven economic recovery in developed countries; rising geopolitical tensions; weak global investment growth; maturing global supply chains; the effect of an appreciating dollar; strong exchange rate fluctuations; and slowing momentum in trade liberalization. All these factors also influenced the recent slowdown in overall fishery growth. According to the World Bank, the global economy will need to adapt to a new period of more modest growth in large emerging markets, characterized by lower commodity prices and diminished flows of trade and capital.

Source: (FAO 2016)

As far as the share of different countries' export of fisheries in the world market is concerned, China is the largest exporter, as is evident from the table below (FAO 2016). Note that China's export figures exceed those of the other top producers by a very high margin. As far as import of

fish and fishery products is concerned, USA's and Japan's imports are significantly higher than other countries.

TABLE 15

TOP TEN EXPORTERS AND IMPORTERS OF FISH AND FISHERY PRODUCTS

		2004	2014	APR
		(US$ millions)		(Percentage)
EXPORTERS	China	6 637	20 980	12.2
	Norway	4 132	10 803	10.1
	Viet Nam	2 444	8 029	12.6
	Thailand	4 060	6 565	4.9
	United States of America	3 851	6 144	4.8
	Chile	2 501	5 854	8.9
	India	1 409	5 604	14.8
	Denmark	3 566	4 765	2.9
	Netherlands	2 452	4 555	6.4
	Canada	3 487	4 503	2.6
	Top ten subtotal	**34 539**	**77 801**	**8.5**
	Rest of world total	**37 330**	**70 346**	**6.5**
	WORLD TOTAL	**71 869**	**148 147**	**7.5**
IMPORTERS	United States of America	11 964	20 317	5.4
	Japan	14 560	14 844	0.2
	China	3 126	8 501	10.5
	Spain	5 222	7 051	3.0
	France	4 176	6 670	4.8
	Germany	2 805	6 205	8.3
	Italy	3 904	6 166	4.7
	Sweden	1 301	4 783	13.9
	United Kingdom	2 812	4 638	5.1
	Republic of Korea	2 250	4 271	6.6
	Top ten subtotal	**52 119**	**83 447**	**4.8**
	Rest of world total	**23 583**	**57 169**	**9.3**
	WORLD TOTAL	**75 702**	**140 616**	**6.4**

Note: APR refers to the average annual percentage growth rate for 2004–2014.

Source: (FAO 2016)

The FAO report also contains important observations on export and import of fisheries and fish products. The FAO report notes:

> Table 15 shows the top exporters and importers. China is the main fish producer, but also the largest exporter of fish and fishery products since 2002, although they represent only 1 percent of its total merchandise exports. China's imports of fishery products are also growing, making it the world's third-largest importing country since 2011. The increase in China's imports is partly a result of outsourcing of processing from other countries, but it also reflects the country's growing domestic consumption of species not produced locally.

However, in 2015 after years of sustained increases, its fishery trade experienced a slowdown, with a decrease of 6 percent in its exports in US dollar terms (4 percent in terms of the Chinese yuan), while its imports slightly declined in US dollar terms, but rose 2 percent in yuan terms. The slowdown was a result of the appreciation of the US dollar and a reduction in its processing sector.

Norway, the second major exporter, supplies diverse products, including farmed salmonids, small pelagic species and traditional whitefish. In 2015, Norway posted record export values in particular for salmon and cod. Its exports increased by 8 percent in terms of the Norwegian krone, but in US dollar terms they declined by 16 percent. In 2014, Viet Nam became the third major exporter, overtaking Thailand. Thailand has experienced a substantial decline in exports since 2013, mainly linked to reduced shrimp production due to disease problems. Its exports further declined in 2015 (by 14 percent in US dollar terms and by 10 percent in terms of the Thai baht) mainly because of its reduced shrimp production and lower prices of shrimps and tunas. Both these Asian countries have important processing industries, which contribute significantly to the economy through job creation and trade.

The EU, the United States of America and Japan are highly dependent on fishery imports to satisfy their domestic consumption. In 2014, their combined imports represented 63 percent by value and 59 percent by quantity of world imports of fish and fishery products. The EU is, by far, the largest single market for fish imports, valued at US$54 billion in 2014 (US$28 billion if intra-EU trade is excluded), up 6 percent from 2013.

Trade in fish and fishery products is largely driven by demand from developed countries, which dominates world fishery imports, although with a declining share (73 percent of world imports in 2014 vs 81 percent in 2004 and 85 percent in 1994). In terms of quantity (live weight equivalent), their share is significantly less at 57 percent, reflecting the higher unit value of the products they import. Their imports of products from capture fisheries and aquaculture originate from both developed and developing countries, giving many producers an incentive to produce, process and export. Source: (FAO 2016)

B. Fisheries Production and Consumption

There has been a significant increase in fish production and consumption in the recent years. The FAO (2016) notes that "in 2014, 13 out of the 25 major fishing countries had increased their catches by more than 100, 000 tonnes compared to 2013. The most significant increments were those of China, Indonesia and Myanmar in Asia, Norway in Europe, and Chile and Peru in South America." The following table, extracted from the FAO report, shows trends in world fisheries production in the past few years.

TABLE 2

MARINE CAPTURE PRODUCTION: MAJOR PRODUCERS

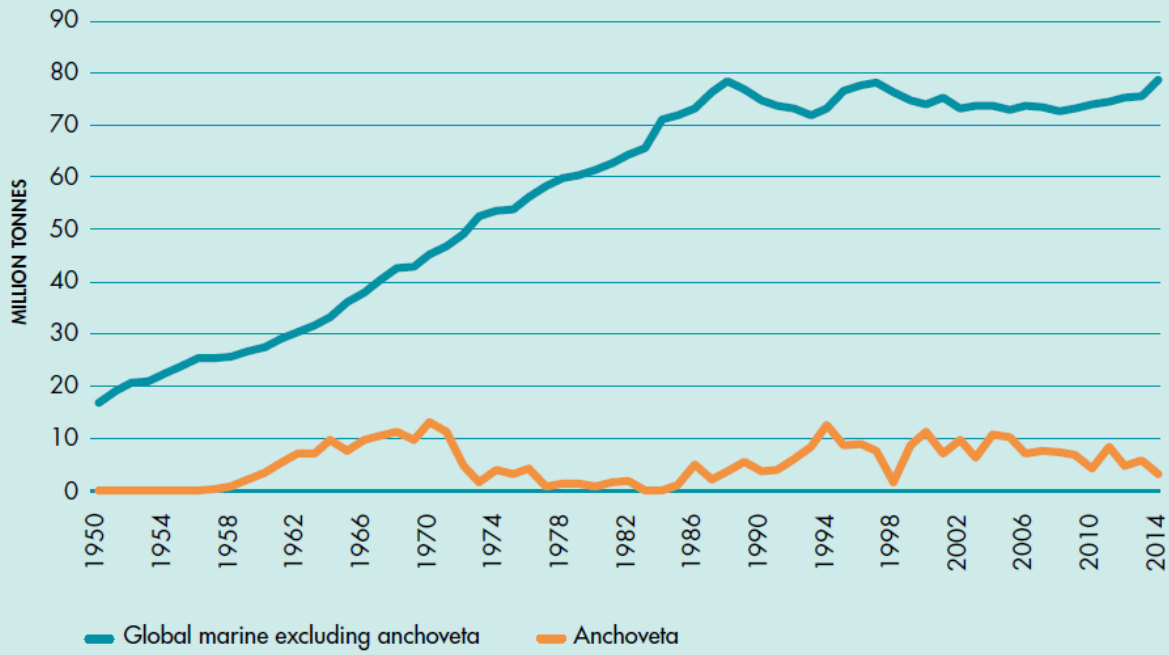
COUNTRY OR TERRITORY	AVERAGE 2003–2012	2013	2014	VARIATION		
				AVERAGE (2003–2012) – 2014	2013–2014	2013–2014
		(Tonnes)		*(Percentage)*		*(Tonnes)*
China	12 759 922	13 967 764	14 811 390	16.1	6.0	843 626
Indonesia	4 745 727	5 624 594	6 016 525	26.8	7.0	391 931
United States of America	4 734 500	5 115 493	4 954 467	4.6	–3.1	–161 026
Russian Federation	3 376 162	4 086 332	4 000 702	18.5	–2.1	–85 630
Japan	4 146 622	3 621 899	3 630 364	–12.5	0.2	8 465
Peru	7 063 261	5 827 046	3 548 689	–49.8	–39.1	–2 278 357
	918 049[1]	*956 416*[1]	*1 226 560*[1]	*33.6*	*28.2*	*270 144*
India	3 085 311	3 418 821	3 418 821[2]	10.8	0.0	0
Viet Nam	1 994 927	2 607 000	2 711 100	35.9	4.0	104 100
Myanmar	1 643 642	2 483 870	2 702 240	64.4	8.8	218 370
Norway	2 417 348	2 079 004	2 301 288	–4.8	10.7	222 284
Chile	3 617 190	1 770 945	2 175 486	–39.9	22.8	404 541
	2 462 885[1]	*967 541*[1]	*1 357 586*[1]	*–44.9*	*40.3*	*390 045*
Philippines	2 224 720	2 130 747	2 137 350	–3.9	0.3	6 603
Republic of Korea	1 736 680	1 586 059	1 718 626	–1.0	8.4	132 567
Thailand	2 048 753	1 614 536	1 559 746	–23.9	–3.4	–54 790
Malaysia	1 354 965	1 482 899	1 458 126	7.6	–1.7	–24 773
Mexico	1 352 353	1 500 182	1 396 205	3.2	–6.9	–103 977
Morocco	998 584	1 238 277	1 350 147	35.2	9.0	111 870
Spain	904 459	981 451	1 103 537	22.0	12.4	122 086
Iceland	1 409 270	1 366 486	1 076 558	–23.6	–21.2	–289 928
Taiwan Province of China	972 400	925 171	1 068 244	9.9	15.5	143 073
Canada	969 195	823 640	835 196	–13.8	1.4	11 556
Argentina	891 916	858 422	815 355	–8.6	–5.0	–43 067
United Kingdom	622 146	630 047	754 992	21.4	19.8	124 945
Denmark	806 787	668 339	745 019	–7.7	11.5	76 680
Ecuador	452 003	514 415	663 439	46.8	29.0	149 026
Total 25 major producers	**66 328 843**	**66 923 439**	**66 953 612**	**0.9**	**0.0**	**30 173**
WORLD TOTAL	80 793 507	80 963 120	81 549 353	0.9	0.7	586 233
SHARE 25 MAJOR PRODUCERS (PERCENTAGE)	82.1	82.7	82.1			

[1] Totals excluding catches of Peruvian anchoveta (*Engraulis ringens*) by Peru and Chile.
[2] FAO estimate.

Regarding marine fisheries capture, the FAO finds that: "Total capture production in marine waters was 81.5 million tonnes in 2014, a slight increase over the previous two years. However, the global trend in marine fisheries (Figure 3) is usually analysed by removing catches of anchoveta (*Engraulis ringens*). This is because anchoveta abundance is highly variable (being influenced by El Niño episodes), its catch can be very substantial, and the vast majority of the catch does not go for human consumption but is reduced to fishmeal." (FAO 2016).

FIGURE 3

TRENDS IN GLOBAL MARINE CATCHES, SEPARATED DATA FOR ANCHOVETA



Source: (FAO 2016)

C. Overview of Depletion of Fisheries Stocks

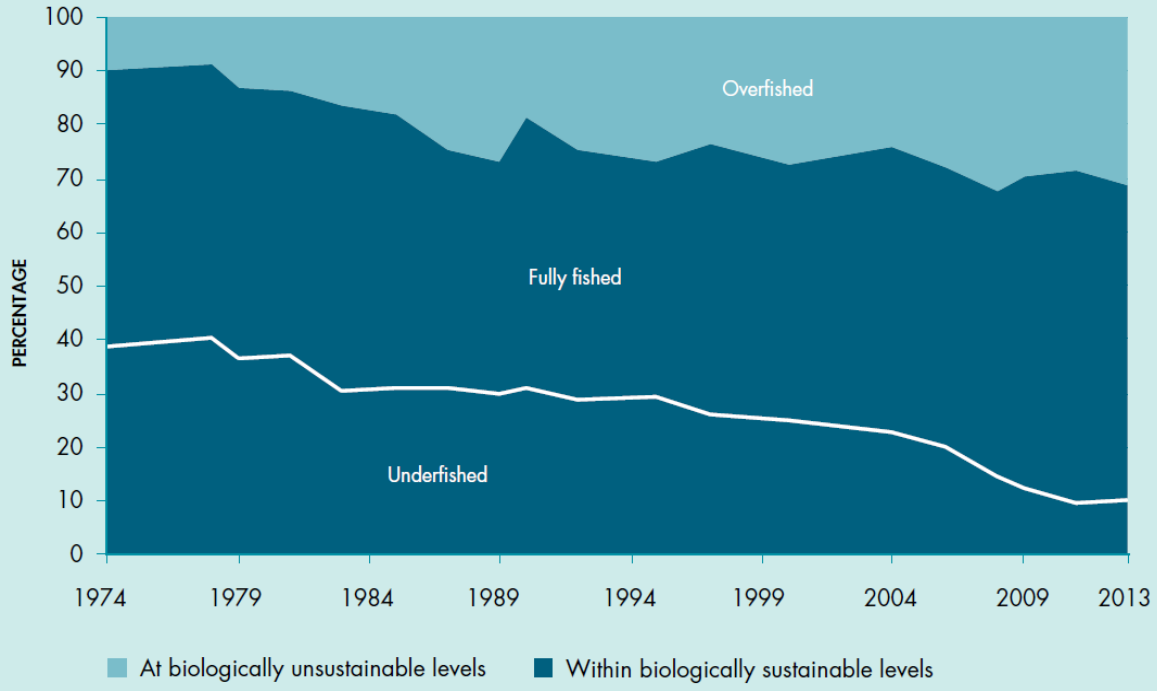
In 2002, the United Nations World Summit on Sustainable Development called for restoration of the health of species whose stocks had been drastically depleted, by 2015. However, inspite of this objective, analyses of world marine stocks show an increase in the percentage of overexploited and depleted stocks over time, and a decrease in the number of underexploited or moderately exploited stocks (FAO 2014). The FAO has concluded that the maximum wild

capture fisheries potential from the world's oceans has probably been reached. The FAO (2014) also notes that "global fish production continues to outpace world population growth, and aquaculture remains one of the fastest-growing food producing sectors. In 2012, aquaculture set another all-time production high and now provides almost half of all fish for human food, and this share is projected to rise to 62 percent by 2030."

The following graph extracted from the FAO report (FAO 2016) shows the global trends in the state of world fisheries from 1974 to 2013.

FIGURE 13

GLOBAL TRENDS IN THE STATE OF WORLD MARINE FISH STOCKS SINCE 1974



Notes: Dark shading = within biologically sustainable levels; light shading = at biologically unsustainable levels. The light line divides the stocks within biologically sustainable levels into two subcategories: fully fished (above the line) and underfished (below the line).

The FAO has also carried out an analysis of assessed fish stocks. According to the FAO (2016):

> "*the share of fish stocks within biologically sustainable levels has exhibited a downward trend, declining from 90 percent in 1974 to 68.6 percent in 2013. Thus, 31.4 percent of fish stocks were estimated as fished at a biologically unsustainable level and therefore*

overfished. Of all the stocks assessed in 2013, 58.1 percent were fully fished and 10.5 percent under-fished. The share of underfished stocks decreased almost continuously from 1974 to 2013, but that of fully fished stocks decreased from 1974 to 1989 before rising to 58.1 percent in 2013. Correspondingly, the percentage of stocks fished at biologically unsustainable levels increased, especially in the late 1970s and 1980s, from 10 percent in 1974 to 26 percent in 1989. After 1990, the number of stocks fished at unsustainable levels continued to increase, albeit more slowly, to 31.4 percent in 2013."

In addition to the problem of overexploitation through legal means, IUU fishing also causes a lot of damage to marine life. A study by David Agnew, et al reviewed the situation in 54 countries and on the high seas for the years 1980-2003. Their study estimates the losses due to IUU fishing to be between $10 billion and $23.5 billion annually, representing between 11 and 26 million tonnes.[12] Besides IUU fishing, loss of fish stock is also caused by destructive fishing practices such as bottom trawling, bycatch, the use of poison and explosives and ghost fishing.[13] They are considered "extremely destructive to delicate habitats, particularly vital fish breeding grounds such as coral reefs and seagrass meadows".[14] Fisheries subsidies provided without any checks on such destructive practices need to be curbed.

[12] David J Agnew, et al., *Estimating the Worldwide Extent of Illegal Fishing*, Vol. 4:2 (2009), PLoS ONE. doi:10.1371/journal.pone.0004570 at page 1

[13] *Destructive Fishing Practices and Bycatch*, Slow Fish, <http://slowfood.com/slowfish/pagine/eng/pagina.lasso?-id_pg=43>

[14] *Fishing Problems: Destructive Fishing Practices*, World Wildlife Fund, <http://wwf.panda.org/about_our_earth/blue_planet/problems/problems_fishing/destructive_fishing/>

CHAPTER 3: CLASSIFICATION OF FISHERIES SUBSIDIES

Many subsidies provided to the fisheries sectors at the WTO are general in nature and extend across sectors such as transportation or fuel subsidies. The specificity requirement stipulated in the WTO's Subsidies and Countervailing Agreement ("**SCM Agreement**") makes it difficult to challenge the consistency of such subsidies under the aegis of the SCM Agreement; the SCM Agreement in its current form is insufficient to address subsidies in the fisheries sector. This is the very rationale why WTO Members are attempting to carve out separate disciplines within the SCM Agreement for addressing fisheries subsidies.

Owing to the complex nature of subsidies provided to the fisheries sector, understanding their classification for regulatory purposes is a challenging yet important dimension of any study. This Chapter reviews the classification of fisheries subsidies that have been carried out by four important sources – under the Negotiating Group on Rules ("**NGR**") at the WTO; the UNEP; the FAO; and the WWF.

A. Classification under the WTO's Negotiating Group on Rules

The Draft Consolidated Chair's Texts of the Anti-Dumping and SCM Agreements issued by the Chair of the NGR on 30 November 2007[15] had adopted a broad approach in classification of fisheries subsidies. On the basis of the Chair's draft text, it is possible to arrive at the following classification of fisheries subsidies:

1. Capacity-related – acquisition, construction, repair, renewal, renovation, modernization, or any other modification of fishing vessels or service vessels, including subsidies to boat building or shipbuilding facilities for these purposes
2. Operating Costs – including licence fees or similar charges, fuel, ice, bait, personnel, social charges, insurance, gear, and at-sea support); or of landing, handling or in- or near-port processing activities for products of marine wild capture fishing; or subsidies to cover operating losses of such vessels or activities

[15] TN/RL/W/213

3. Port related - port infrastructure or other physical port facilities exclusively or predominantly for activities related to marine wild capture fishing (for example, fish landing facilities, fish storage facilities, and in- or near-port fish processing facilities).
4. Direct Payments - Income support; Price support
5. Fishing Access Rights – arising from the further transfer of access rights by a government that has acquired it from another government for the right to fish within the jurisdiction of such other government.
6. Destructive practices –in relation to fishing vessels engaged IUU Fishing; fishing vessels or activity engaged in overfishing of a particular depleted stock

As is evident from the Chair's text, many kinds of specific subsidies were proposed to be brought under the purview of rule making. In a broad bottoms-up approach, the draft text aimed to cover the most common forms of fishery subsidies, which directly related to fishing capacity and operation costs, in the ambit of proposed prohibition.

The Chair's text also enumerated a host of subsidies under General Exceptions. However these subsidies under general exceptions were permissible provided the Member granting these subsidies had sound fisheries management measures in place. The subsidies listed under general exceptions were for improving fishing or service vessels and crew safety. Further the general exceptions proposed subsidies for the adoption of gear for selective fishing techniques; the adoption of other techniques aimed at reducing the environmental impact of marine wild capture fishing; compliance with fisheries management regimes aimed at sustainable use and conservation (e.g., devices for Vessel Monitoring Systems). These were to be permissible provided these subsidies did not give rise to any increase in fishing capacity. Even the subsidies to cover personnel costs were proposed under general exceptions where these subsidies were for re-education, retraining or redeployment of fish workers into occupations unrelated to marine wild capture fishing or directly associated activities; and subsidies exclusively for early retirement or permanent cessation of employment of fish workers as a result of government policies to reduce marine wild

capture fishing capacity or effort. The proposed exceptions also included subsidies for vessel decommissioning or capacity reduction programmes.

B. FAO Classification

The FAO classifies fishery subsidies into four main categories. These are direct financial transfers; services and indirect financial transfers; regulations and lack of intervention.

1. Direct financial transfers: "this category includes all direct payments by the government to the fisheries industry. These subsidies are likely to have a direct effect on the profits of the industry and can also be negative (i.e. payments from the industry to the government). Their cost to the government can usually be found in the public budget and its direct value to the industry will appear directly in the cash flow of the recipient firms."[16]
2. Services and indirect financial transfers: "this category covers any other active and explicit government intervention but which does not involve a direct financial transfer as specified under direct financial transfers. Subsidies under this category are services provided by the public sector or indirect financial transfers, e.g. tax rebates. Their cost may or may not be specified in the public budget and the value to the industry does usually not appear explicitly in the accounting of the recipient industry."[17]
3. Regulations: "The third category includes government regulatory interventions. The government cost of these subsidies - usually an administrative cost - may be accounted for among other public expenditures for management and regulations and be difficult to identify. The value to the industry does usually not appear directly in the accounting of the industry unless it is a profit-decreasing subsidy entailing expenditure for the industry."[18]

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[16] *Chapter 5 - Different categories of subsidies*, In Lena Westlund, *Guide for Identifying, Assessing and Reporting on Subsidies in the Fisheries Sector*, Food and Agriculture Organization of the United Nations, Fisheries Technical Paper 438 (Rome, 2004) available at <http://www.fao.org/docrep/007/y5424e/y5424e07.htm>

[17] *ibid*

[18] *ibid*

The classification by the FAO is according to the method as per which the subsidy or assistance is provided. Therefore, there is significant overlap between the nature of assistance provided. For instance, a government regulation may provide both harmful and beneficial subsidy to the sector. Furthermore, the classification itself is not very clear. For instance, "lack of intervention" could also be through a government regulation if all other areas are regulated strictly except the fisheries sector. This would constitute indirect conferment of a benefit and would be covered both under the 'Regulations' and 'Lack of Intervention' section.

C. UNEP Classification

According to the UNEP, fisheries subsidies can be classified into the following categories[19]:

i. Fisheries infrastructure
ii. Management services and research
iii. Subsidies for access to foreign countries' waters
iv. Vessel decommissioning and license retirement subsidies
v. Subsidies to capital costs
vi. Subsidies to variable costs
vii. Income support and unemployment insurance
viii. Price support subsidies

This classification is quite detailed and these eight categories do not really overlap. However, one limitation with this classification is that it "excludes subsidies that arise from government inaction, for example the non-recovery of resource rents of the fishery, which some have argued could constitute an economic subsidy to the industry.[20]

[19] Anja von Moltke (UNEP), *Fisheries Subsidies, Sustainable Development and the WTO*, 2011, Earthscan, at page 20

[20] Alice V. Tipping, *A 'Clean Sheet' Approach to Fisheries Subsidies Disciplines*, Think Piece, E15 Task Force on Rethinking International Subsidies Disciplines (ICSTD and World Economic Forum), April 2015, available at <www.e15initiative.org/wp-content/uploads/2015/04/E15_Subsidies_Tipping_final.pdf> citing C. D. Stone, *Too Many Fishing Boats, Too Few Fish: Can Trade Laws Trim Subsidies and Restore the Balance in*

D. Classification by the WWF

In 2004, the WWF came out with a position paper on fisheries subsidies.[21] In this position paper, the WWF has come out with a four-fold normative classification of fisheries subsidies:

i. Most harmful – fishing subsidies so closely associated with negative consequences that they should generally be disallowed
ii. Likely to be harmful – those that are often but not always harmful, so that they should be allowed but subject to very strict disciplines
iii. Possibly Harmful – those that are occasionally harmful, so that they should be allowed and subject to less strict disciplines
iv. Beneficial – those so closely associated with positive consequences that they should generally be permitted under WTO law.

This can be said to be one of the simplest ways of classifying subsidies.

Another noteworthy classification is that by OECD into (a) Direct payments; (b) Cost-reducing transfers and (c) General Services. This is discussed in detail in the 'Country Studies' Chapter of this report.

All the methods of classifications provide diverse viewpoints of analyzing fisheries subsidies and aid in understanding the nature of fisheries subsidies. However, as is clear from the analysis, some classifications are more useful than others in the development of a framework to regulate subsidies.

There is a likelihood of renewed vigour to resume negotiations on fisheries subsidies at the WTO. The WTO Members will be posed with the task of identifying the types of subsidies which possibly can be prohibited; whether there will be some general exceptions; what will

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Global Fisheries?, Ecology Law Quarterly 1997:24, 505; M. Milazzo, *Subsidies in World Fisheries: A Reexamination*, 1998, World Bank Technical Papers No. 406: Fisheries Series, World Bank

[21] David K. Schorr, *Healthy Fisheries, Sustainable Trade: Crafting New Rules On Fishing Subsidies in the World Trade Organization*, June 2004, World Wildlife Fund, available at <https://www.wto.org/english/forums_e/ngo_e/posp43_wwf_e.pdf>

be the conditions linked to these general exceptions; what will be the scope of S&DT for developing countries and LDCs in these negotiations? These are difficult and complex issues which have bedevilled the negotiations in the past, and the negotiators will have a tough task to overcome these issues.

CHAPTER 4: TRENDS IN GLOBAL FISHERIES SUBSIDIES: IS THERE AN INCREASE IN HARMFUL SUBSIDIES IN THE RECENT YEARS?

There are two aspects to the above titular question. Some recent statistics do reveal that there has not been a substantial increase in fisheries subsidies on account of various factors such as falling fuel prices, the global economic slowdown, and the growing share of aquaculture in total production. Global fisheries subsidies were estimated at about USD 35 billion in 2009 'which is close to the earlier estimate of 2003 subsidies after adjusting for inflation'[22]. With regard to fuel subsidies itself, a 2008 study by Sumaila, et al estimated fuel subsidies provided by both developed and developing countries to the fishing sector for the period 1995 to 2006 to be in the range of $4.2 billion to $8.5 billion per year. This constituted around 10 per cent of the annual commercial fish catch value of around US$ 80 billion.[23] However, it is necessary to understand that information from countries pertaining to fisheries – whether subsidies or the catch quantum – is grossly underreported. Therefore, it becomes difficult to establish the exact extent to which fisheries subsidies contribute to overfishing.

A. Evidence of Gross Underreporting of Fisheries Subsidies and Data Pertaining to the Fisheries Sector

Article 25 of the SCM Agreement requires WTO members to follow a notification procedure as per which all 'specific subsidies' at all levels of government and covering all goods sectors, must be notified to the WTO. For the purposes of this report, the Centre for WTO Studies has analyzed subsidies notifications submitted to the SCM Committee by various WTO Members and has noted that many programmes (information of which is available from non-WTO sources) are not reported. Many other studies confirm the same. A 2012 OECD report on fuel subsidies contains information supplied by various countries to OECD regarding

[22] UR Sumaila, et al, *Global Fisheries Subsidies*, Note, 2013, Policy Department, European Union, available at <www.europarl.europa.eu/RegData/etudes/note/join/2013/513978/IPOL-PECH_NT(2013)513978_EN.pdf> (Hereinafter Sumaila et al, *Global Fisheries Subsidies*)

[23] UR Sumaila, et al, *Fuel Price Increase, Subsidies, Overcapacity, and Resource Sustainability*, ICES J. Mar. Sci. (2008) 65 (6): 832-840. doi: 10.1093/icesjms/fsn070

their subsidies[24]. A comparison of the information provided to the OECD made available in the OECD's report and the information provided to the WTO vide subsidies notifications reveals that fuel subsidies are *grossly underreported* to the WTO.

The problem of underreporting is also prevalent in the reporting of fisheries catch and other related activities. The magnitude of under-reporting of fisheries catches has been established by several studies. For instance, a 2016 study notes that China over-reports its domestic catch (for domestic political purposes) and under-reports its DWF catch[25].

According to a study by Dirk Zeller, et al covering the period 1950 to 2006, the quantum of fish caught in Russian, Canadian and U.S. Arctic waters was estimated by them to be a total of 950,000 tonnes. This, according to them, is nearly 75 times more than 12,700 tonnes reported to the FAO.[26] Their study also found that though nearly a million tonnes of fish were caught in the Arctic over the past half-century, less than 13,000 tonnes were reported to the FAO[27].

Another study, published in November 2013, that focused on the Persian Gulf region points to underreporting of fish caught in that region. For the year 2005, the quantum of fish caught by the Persian Gulf countries that was reported to the FAO was 5,260 tonnes.[28] However, a study by Dalal Al-Abdulrazzak and Daniel Pauly found that the amount of fish caught by small-scale fisheries using traps called *weirs* may be six times higher than that reported to

[24] Roger Martini, *Fuel Tax Concessions in the Fisheries Sector*, OECD Food, Agriculture and Fisheries Papers, No. 56, OECD Publishing, 2012, http://dx.doi.org/10.1787/5k9bdccqft30-en

[25] Tabitha Grace Mallory, *Fisheries Subsidies in China: Quantitative and Qualitative Assessment of Policy Coherence and Effectiveness*, Marine Policy 68 (2016) 74–82, http://dx.doi.org/10.1016/j.marpol.2016.01.028 (Hereinafter Mallory, *Fisheries Subsidies in China*)

[26] D. Zeller, et al, *Arctic Fisheries Catches In Russia, USA, And Canada: Baselines For Neglected Ecosystems*, Polar Biology (2011) 34:955, 34:doi:10.1007/s00300-010-0952-3

[27] *ibid*

[28] Dalal Al-Abdulrazzak and Daniel Pauly, *Managing Fisheries From Space: Google Earth Improves Estimates Of Distant Fish Catches*, Short Communication, ICES Journal of Marine Science, November 2013; doi:10.1093/icesjms/fst178

the FAO. Out of these countries, Kuwait, Saudi Arabia and Iran did not even report their catches.[29]

The problem of increase in harmful fisheries subsidies is real and any statistics that show a decrease in the level of harmful subsidies must be viewed taking into account the extent of underreporting prevalent in the fisheries sector. Furthermore, the issue of subsidies is a cause of concern not because of a relative or comparative increase in the level of subsidization, but because of the existing extent of subsidization itself. The major implication of such underreporting of subsidies is that it becomes difficult in identifying those subsidies that have adverse consequences on fisheries resources: this can skew attempts to discipline them at the WTO, in the absence of correct data. This analysis would be examined in greater detail later in this study. The following section pertains to the extent of administration of subsidies by WTO members.

B. Administration of Beneficial, Harmful and Ambiguous Fisheries Subsidies By WTO Members: Alarming Levels of Harmful and Ambiguous Subsidies

In a joint study published in 2008 by the World Bank and the FAO titled *The Sunken Billions*[30], it was noted:

> *Many subsidies in the fisheries sector are pernicious because they foster overcapacity and overexploitation of fish stocks. By reducing the cost of harvesting, for example, through fuel subsidies or grants for new fishing vessels, subsidies enable fishing to continue at previously uneconomic levels. Subsidies effectively counter the economic incentive to cease fishing when it is unprofitable". The*

[29] *ibid*

[30] *The Sunken Billions: The Economic Justification for Fisheries Reform*, World Bank||FAO, 2009, available at <hhtp://siteresources.worldbank.org/EXTARD/Resources/336681=1224775570533/SunkenBillionsFinal.pdf> The report states: "In economic terms, some 60 percent of the world's marine fish stocks were "underperforming assets" in 1974, the year when the (FAO initiated its reports on the state of the world's marine fish stocks. By 2004, more than 75 percent of the fish stocks were underperforming, at an estimated annual loss of $50 billion to the global economy. The "sunken billions" is a conservative estimate of this loss."

following global estimate of capacity-enhancing subsidies for both developing and developed countries is shown in table 2.2 of the study, produced below.

Table 2.2 Estimate of Fisheries Subsidies with Direct Impact on Fishing Capacity per Year, 2000 *($ billion)*

Subsidy types	Developing countries	Developed countries	Global total	Percent of global total
Fuel	1.3	5.08	6.4	63.5
Surplus fish purchases	0	0.03	0	0.3
Vessel construction, renewal and modernization	0.6	1.30	1.9	18.9
Tax exemption programs	0.4	0.34	0.7	7.3
Fishing access agreements	0	1.00	1.0	9.9
Global total	2.3	7.75	10.05	100

Source: Compiled from Milazzo 1998, with updated information from Sumaila and Pauly 2006; Sharp and Sumaila forthcoming; and Sumaila et al. 2007.

According to the same report, "over $10 billion in subsidies that directly impact fishing capacity and foster rent dissipation were provided in 2000. Close to 80 percent of the total global subsidy is provided by developed countries."[31]

Sumaila, et al published another report in 2015 containing updated estimates of global fisheries subsidies[32]. The study contains a comparative chart of some important studies conducted over a period of roughly two decades to illustrate the trends in fisheries subsidies. As mentioned earlier, the estimate of global subsidies for the year 2009 is around 35 US$ billion. It is important to understand the breakdown of this figure. A relevant graphic from the study showing the level of subsidization by continents and type of subsidy (beneficial[33], capacity-enhancing[34] and ambiguous[35]) is given hereunder:

[31] *ibid*

[32] U.R. Sumaila, et al, *Global Fisheries Subsidies: An Updated Estimate*, Mar. Policy (2016), http://dx.doi.org/10.1016/j.marpol.2015.12.026i (Hereinafter Sumaila, et al – *Global Fisheries Subsidies*)

[33] "Beneficial subsidies are programs that lead to investment in natural capital assets to a social optimum, which is defined here as the maximum allocation of natural resources to society as a whole, i.e., by maximizing economic rent. Beneficial subsidies enhance the growth of fish stocks through conservation, and the monitoring of catch rates

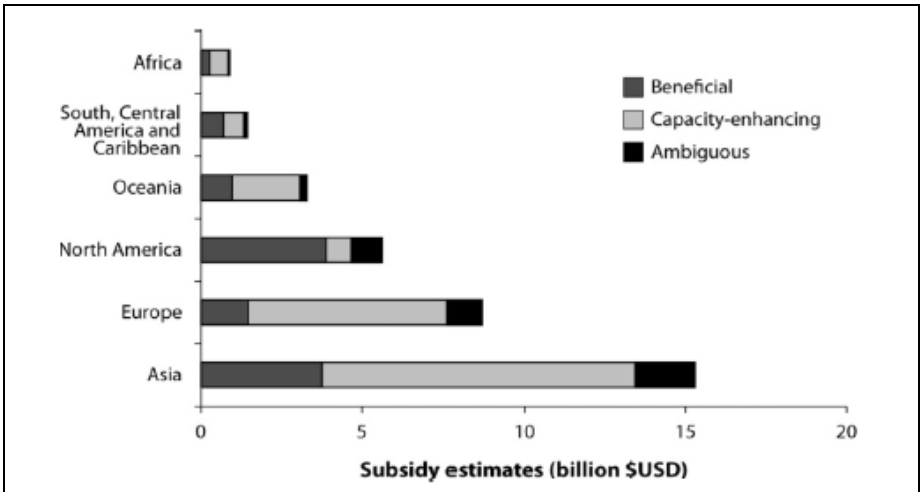

Fig. 4. Subsidy estimates by major geographic region. *Source*: adapted from FAO [6], Milazzo [5], Sumaila and Pauly [9], and Sumaila et al. [4].

According to the WWF, "subsidies provided by governments have been identified as a driving factor for the build-up of excessive fishing capacity, thereby undermining the sustainability of marine resources and the livelihoods that depend on them".[36] Indeed,

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through control and surveillance measures to achieve biological and economic optimal use." s*upra* note 32 - Sumaila, et al, *Global Fisheries Subsidies*

[34] "Capacity-enhancing subsidies are defined as subsidy programs that lead to disinvestments in natural capital assets once the fishing capacity develops to a point where resource exploitation exceeds the Maximum Economic Yield (MEY). This is equal to the maximum rent obtainable from the fishery, computed as the largest positive difference of total cost and total revenues. As such, MEY corresponds to an effort level lower than the maximum sustainable yield (MSY). Excessive disinvestment can lead in some cases to outright destruction of the natural resources. Capacity enhancing or harmful subsidies include all forms of capital inputs and infrastructure investments from public sources that reduce cost or enhance revenue and include the following types, e.g., subsidies for boat construction, renewal and modernization programs. Another example here is fuel subsidies." *ibid*

[35] "Ambiguous subsidies are defined as programs that have the potential to lead to either investment or disinvestment in the fishery resource. These subsidy programs can lead to positive impacts such as resource enhancement programs or to negative impacts such as resource overexploitation. Subsidies in this category include controversial ones such as fisher assistance programs, vessel buyback programs and rural fisher community development programs, e.g., vessel buyback programs." *ibid*

[36] *Hard Facts, Hidden Problems: A Review Of Current Data On Fishing Subsidies*, Technical Paper, 2001, World Wildlife Fund, cited by U.R. Sumaila and Daniel Pauly ed., *Catching More Bait: A Bottom-Up Re-Estimation of*

capacity-enhancing subsidies still dominate over beneficial and ambiguous subsidies. The following graph from the study by Sumaila, et al (2013) represents the trends in fuel subsidies worldwide in the last few decades.

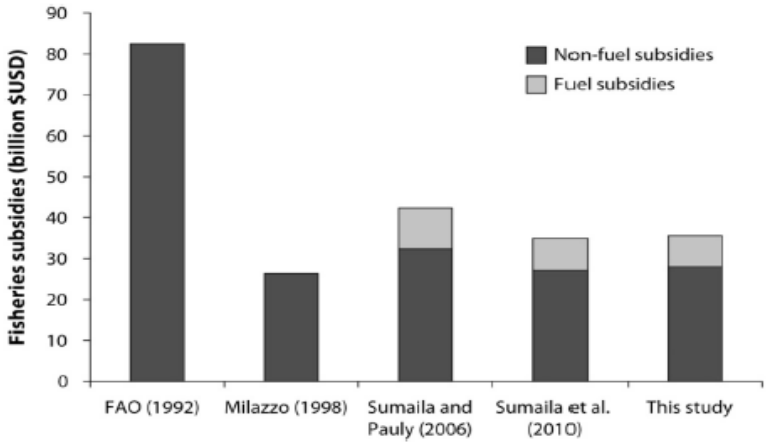

Fig. 1. A comparison of global fishery subsidy estimates. *Source*: adapted from FAO [6], Milazzo [5], Sumaila and Pauly [9], and Sumaila et al. [4]. Note that the numbers in the figure are all in 2009 real USD, in order to make them comparable (subsidy data adjusted to 2009 real value using CPI).

Sumaila, et al find that[37]:

- fuel subsidies constitute the greatest part of the total subsidy (22% of the total)
- followed by subsidies for management (20% of the total) and ports and harbors (10% of the total).
- Subsidies provided by developed countries are far greater (65% of the total) than those by developing countries (35% of the total) even though the latter lands well above 50% of total global catch.
- Asia is by far the greatest subsidizing region (43% of total), followed by Europe (25% of total) and North America (16% of total). Japan provides the highest amount of subsidies (19.7% of total), followed by the United States and China at 19.6% of total.

In Spain, one in three fish landed is paid for by a subsidy.[38]

Global Fisheries Subsidies, Fisheries Centre Research Reports, 2006, Volume 14 Number 6, available at <http://www.oceana.org/sites/default/files/Bottom-Up_Re-estimation_Sumalia_2010.pdf>

[37] *supra* note 22 – Sumaila, et al, *Global Fisheries Subsidies*

The following graphs from the study by Sumaila, et al (2013) shows the level of the aforesaid three kinds of subsidization in different countries.

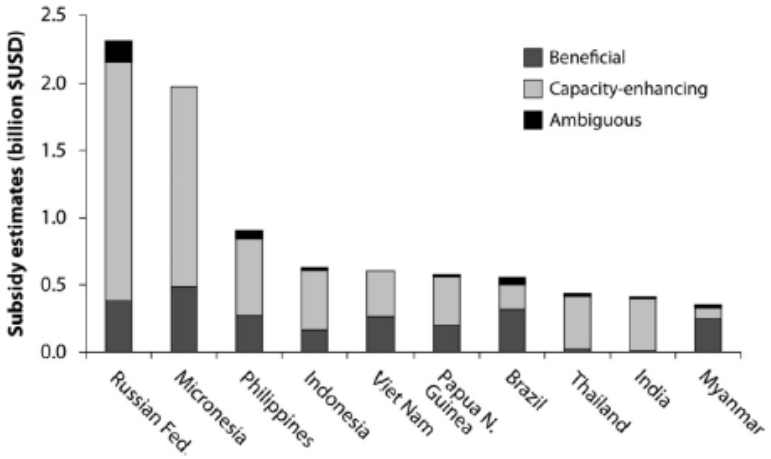

Fig. 5. Subsidy estimates for the ten largest subsidizing developing fishing countries. *Source*: adapted from FAO [6], Milazzo [5], Sumaila and Pauly [9], and Sumaila et al. [4].

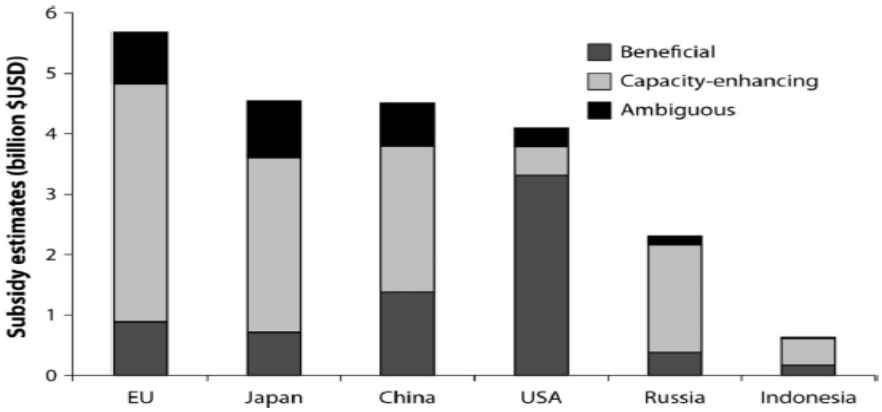

Fig. 7. Subsidy estimates by major fishing countries/political entities. *Source*: adapted from FAO [6], Milazzo [5], Sumaila and Pauly [9], and Sumaila et al. [4].

The figure above shows that the EU provides the highest subsidy amount among major fishing entities (26% of total), closely followed by Japan (21% of total) and China (20.7% of total). All entities have higher capacity-enhancing subsidies, except the United States, for which the level of beneficial subsidies is higher.

[38] Kate Willson, et al, *€6 Billion In Subsidies Fuel Spain's Ravenous Fleet*, October 2, 2011, The International Consortium of Investigative Journalists, < https://www.icij.org/project/looting-seas-ii/nearly-eu6-billion-subsidies-fuel-spains-ravenous-fleet>

It is widely accepted that the reported figures and statistics on fisheries subsidies are lower than the actual figures. Furthermore, the existence of extremely high level subsidies is a problem itself. This is because there is direct causal relationship between any mechanism that aids open access or ease of access to fisheries (e.g. fisheries subsidies, open access arrangements etc.) and increase in exploitation of fisheries as a resource.

C. Relationship between High Subsidization and Open Access and Degradation of Fisheries Worldwide

A study by Sumaila, et al concludes that around 60 per cent of global fisheries subsidies, or US$16 billion, support unsustainable fishing practices and these subsidies are equal to about 20 per cent of the value of total marine catch.[39] Even early WTO studies clearly mention the existence of a close causal relationship between overfishing and open access to fisheries resources (WTO 1999). In an open-access, common-pool fishery, overcapacity occurs even if there is no subsidization.[40] Subsidization then can exacerbate the situation. According to the WTO report on *Trade and Environment* (1999): "When everyone is free to tap a resource without restraint, resource degradation is almost inevitable. Individual efforts to conserve the resource base is deemed to fail in a regime with open access—the "tragedy of the commons."

The result of sufficiently high subsidies that reduce the cost of fishing, whether in the form of investment grants, government credits (at below market rates), tax deductions, fuel tax exemptions is overfishing (WTO 1999). Some studies have even noted that "if the management system does not effectively impose a sustainable level of catch, cost-reducing and revenue-enhancing subsidies will drive the level of overcapacity and overall effort even further than would an open-access, common-pool fishery in the absence of such subsidies".[41]

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[39] UR Sumaila, et al., *A Bottom-Up Re-Estimation of Fishing Subsidies*, Journal of Bioeconomics, (2010) 12:201-225

[40] Gareth Porter, *Fisheries Subsidies and Overfishing: Towards a Structured Discussion*, Fisheries and the Environment, United Nations Environment Programme, available at <unep.ch/etb/etp/acts/capbld/rdtwo/FE_vol_1.pdf>

[41] *ibid*

A 2010 WTO working paper further explains:[42]

> "*Many fisheries are open access, an institutional arrangement in which fishermen cannot be excluded from fishing. Open access (or management systems that do little to exclude access) is considered to be the root cause of overexploitation in fisheries, leading to economic waste from excess capacity and environmental harm through degradation of biological stocks and alteration of ecosystems. Biological growth of a fish stock combined with open access or poor management systems can lead to a backward-bending supply curve for fish along which the long-run supply of fish is less when price increases. This characteristic of open access fisheries theoretically can lead to unconventional outcomes from trade liberalization, including the possibility that increased trade may not benefit both parties in the long run.*"

The impact of subsidization and access rights arrangements is worse on coastal developing countries and Small Island Developing States ("**SIDS**") where fishing is the primary source of livelihood of majority of the population and the most significant contributor to the national income. These aspects would be discussed in detail further in the study.

The above studies suggest that fisheries subsidies may have played a role in overexploitation of fish resources. However, conservation measures are also being given due emphasis as has been reflected in the EU and Japan resulting in an optimum level of exploitation of fish stocks in many regions. The next chapter provides an overview of the level of subsidization by various countries. We briefly examine the subsidy policies and relevant statistics pertaining to some of our trading partners. It must be noted that it is difficult to ascertain the amount of subsidies granted to the fisheries sector due to lack of transparency in notification of the subsidies.

[42] Frank Asche and Martin D. Smith, *Trade and Fisheries: Key Issues for the World Trade Organization*, Staff Working Paper ERSD-2010-03, World Trade Organization, January 2010, available at <https://www.wto.org/english/res_e/reser_e/ersd201003_e.pdf>

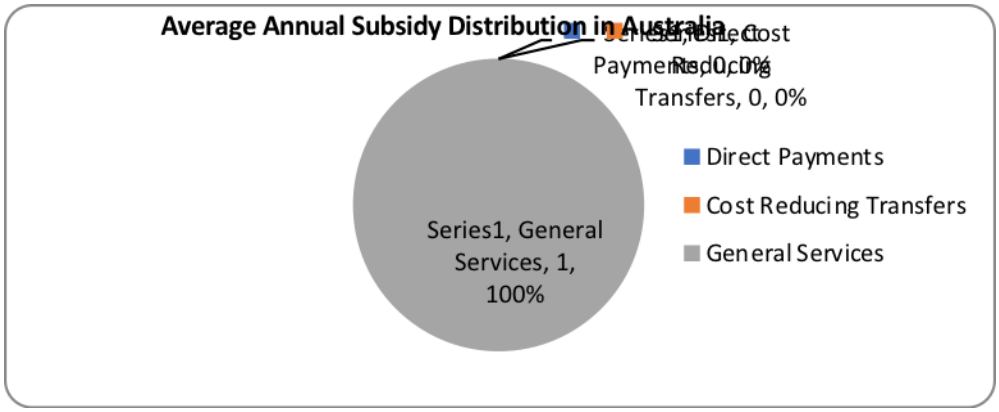
CHAPTER 5: COUNTRY STUDIES ON FISHERIES SUBSIDIES

A. Fishery Subsidies in Australia

Australia is one of the major fishery subsidy providers in the world, though it's ranking has declined over the period. It is observed from **Annex 1** that in 2006 it was ranked eleventh in terms of subsidies provided to the fishery sector and in 2009 it entered among the top 10 countries and the quantum of subsidies provided by it exceeded the same done by the Belgium and United Kingdom. It is observed from **Annex 1** that according to the OECD (2014), the extent of subsidies provided by Australia has witnessed considerable reductions. It has declined from USD 45.77 million in 2006 to USD 14.25 million in 2013.

The detailed break-up of the subsidies provided by Australia is given **Annex 3**. **Figure 1** below summarizes the distribution of the subsidies over 2006-2013. It is observed from the figure that general services, which contain several subsidies, constitute 100 percent overall subsidies, higher than the 32 percent reported during 1996-2003 in OECD (2006). Cost reducing transfers which accounted for 67 percent and direct payments which accounted for 1 percent during the period 1998-2003 were not reported. The cost recovery charges mentioned **at Annex** 3 are negative at USD 11.28 million for the year 2013.

Figure 1: Average Annual Subsidy Distribution in Australia (2006-2013)



Source: Constructed on the basis of OECD (2014) data

As far as notifications submitted by Australia to the SCM Committee are concerned, very few programmes are mentioned therein. The notification for the year 2016 lists only one programme

which is also a research related programme: '*Fisheries Research and Development Corporation Grants*', operated by the Fisheries Research and Development Corporation ("**FRDC**"). The FRDC was formed as a statutory corporation on 2 July 1991 under the Primary Industries Research and Development Act 1989 (PIRD Act). Its goal and objective is to generate increased knowledge that fosters sustainable economic, environmental and social benefits for the Australian fishing industry; including indigenous, recreational, commercial and aquaculture sectors, and the community; through investing in research, development and adoption.

The FRDC's statutory status permits funding and administration of R&D relating to primary industries with a view to:
(i) increasing the economic, environmental and social benefits to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries;
(ii) achieving the sustainable use and sustainable management of natural resources;
(iii) making more effective use of the resources and skills of the community in general and the scientific community in particular;
(iv) supporting the development of scientific and technical capacity;
(v) developing the adoptive capacity of primary producers; and
(vi) improving accountability for expenditure on research and development activities in relation to primary industries.

Note that many objectives are capacity enhancing objectives and the programme clearly aims at increasing the economic benefits in addition to the environmental and social benefits to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries. Other details of the programme are as follows:

5. Form of the subsidy
Funding is provided through a funding agreement between the FRDC and the project applicant.
A comprehensive assessment process is undertaken all projects prior to the approval of funding.
Projects receive direct funding to undertake a specific research activity.

6. To whom and how the subsidy is provided

Priorities for projects are set by the state/territory jurisdictions and industry partnership groups. Funding is provided through a funding agreement between the FRDC and the applicant/research partner organisation who are selected following an open and contestable public funding round.

7. Level of subsidy per unit

Each year the FRDC invests in a number of research projects through a public expression of interest process. Applicants put forward project applications seeking funding. Each year the FRDC invests in approximately 20-40 research projects via its industry programme.

8. Duration of the subsidy

Ongoing. Each year the FRDC fund research projects which have an average duration of three years.

9. Statistical data permitting an assessment of the trade effects

No statistical data permitting an assessment of trade effects is available.

Source: Notification dated February 04, 2016 submitted by Australia to SCM Committee in 2016: G/SCM/N/284/AUS

This is one of the few fisheries related programme mentioned in the notification for the year 2016 and the only one relevant for this study. The notifications for the years 2011, 2013 do not mention any relevant programme pertaining to the fisheries sector.

B. Fishery Subsidies in Belgium

Before we consider the EU member countries individually, it is important to note that the EU notification for the year 2013 (G/SCM/N/253/EU) discloses very few programmes pertaining to fisheries. The European Fisheries Fund ("**EFF**") exists to grant financial support to the EU's fisheries sector during the period 2007-2013 to help it adapt to changes required in the sector'.

Some objectives include providing support to the Common Fisheries Policy with a view to guaranteeing the sustainable exploitation of aquatic resources and the economic, environmental and social sustainability of the fisheries sector; promotion of the sustainable development of inland fishing; promotion of a sustainable balance between resources and the fishing capacity of

the EU's fishing fleet; strengthening of the competitiveness of the operating structures and the development of economically viable enterprises in the fisheries sector etc.

To achieve these objectives the EFF targets the following priority areas (axis):

- Axis 1 Adjustment of the fleet: aid for permanent and/or temporary ceasing of fishing activities, on-board safety and working improvements, more selective gear, small scale coastal fisheries, socio -economic measures including early retirement and retraining.
- Axis 2 Aquaculture, processing and marketing, inland fishing: diversification into new aquaculture species, environmentally-friendly aquaculture, implementation of animal health measures, processing and marketing of fisheries and aquaculture products, support for inland fishing vessels of less than 12 metres not using towed gear.
- Axis 3 Measures of common interest: protection and development of aquatic fauna and flora, improve services offered by fishing ports, shelters and landing sites, promotion of partnerships between scientists and professionals in the fishing sector, development of new marketing and promotional campaigns, pilot projects, reassignment of fishing vessels for uses outside the fisheries sector.
- Axis 4 Sustainable development of fisheries areas: restructuring and diversification of economic activities, promotion of sea food, provision of small infrastructure (e.g. for tourism), restoration of production damaged by disasters, promotion inter-regional and trans-national cooperation, capacity building to prepare local development strategies, protection of natural and architectural heritage.
- Axis 5 Technical assistance: studies, reports, information activities and other actions relating to the implementation of the above measures…..

4. Legal authority

Treaty establishing the European Community, in particular Articles 158, 159 and 161 thereof and Treaty on the Functioning of the European Union, in particular Articles 174, 175 and 177 thereof. Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund, Commission Regulation (EC) No 498/2007 of 26 March 2007 laying down detailed rules for the implementation of Council Regulation (EC) No 1198/2006 on the European Fisheries Fund;

5. Type of aid

Aid for the restructuring of fishing fleets, aquaculture, processing and marketing circuits, port facilities, selective fishing methods, financing of local strategies in support of the sustainable development of fisheries areas, and socio-economic measures.

6. To whom and how the subsidy is provided

Co-financing principle and principle of regionally diversified action.

Ship-owners, enterprises, producer organizations, public and private bodies, professional organizations, cooperatives, fishermen. Aid is normally in the form of grants.

7. Total budget of the programme

Total budget for 2007 – 2013: 4.3 billion EUR 2011: 651 MEUR, 2012: 672 MEUR.

8. Duration of the programme 2007 - 2013.

9. Trade effects

The EU has a shortfall in fishery and aquaculture products and is a major importer of these products from non-EU countries. The structural aid has only a very small influence on this situation.

Source: (G/SCM/N/253/EU: EU 2013 notification to SCM Committee)

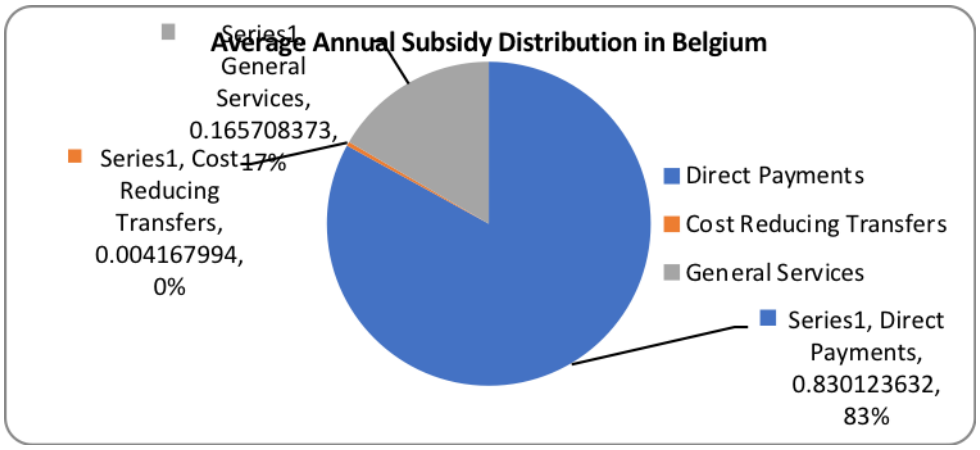
The EU notification also contains details of the EFF Programmed Amounts (Totals For The Period 2007-2013), Broken Down By Priority Axis And By EU Member State. The total amount for Belgium for the period 2007-2013 is provided as 26,261,648 euros. The notification by Belgium for the year 2014 to the SCM Committee submitted as addendum (G/SCM/N/253/EU/Add.2) is relevant for this study.

The OECD data on fishery subsidies in Belgium is reported in **Annex 4**. It is observed from the table that OECD (2014) does not report the data on cost reducing transfers for the country during 2006-2011; for the year 2012 it is USD 0.20 million. The aforementioned programmes can be viewed as cost reducing and from the said perspective, the figures reported in the notifications do not match OECD data which is possibly due to lack of disclosure of all programmes. It is observed from the table that the volume of subsidies has witnessed considerable fluctuations over time. While the level of subsidies ranged from around USD 1.27 to 13.58 million during

2006- 2013, it was USD 1.27 million in 2008, but increased to USD 13.58 in 2009. In 2013, the subsidy level stood at USD 5.68 million.

Figure 2 shows the distribution of various types of fishery subsidies in Belgium. The cost reducing transfers which was reported by OECD (2006) as gradually phased out was reported to be USD 0.20 million in 2012. The general services subsidies contribute 17 percent of the subsidies provided during this period. However, subsidies coming under direct payments explain a significant proportion – 83 percent higher from 44 percent reported during period of 1998-2002, signifying possibility of trade diversion on that count.

Figure 2: Average Annual Subsidy Distribution in Belgium (2006-2013)



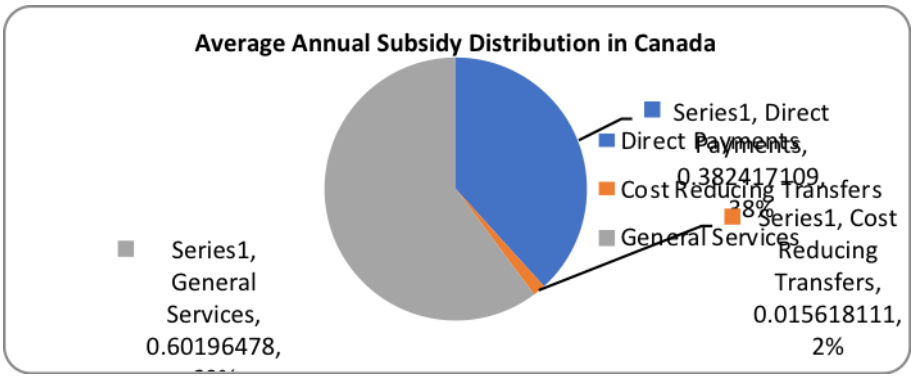
Source: Constructed on the basis of OECD (2014) data

C. Fishery Subsidies in Canada

Canada consistently remained among the top 5 subsidy providing countries in the world since 1996, though the monetary value of the subsidies over the period has witnessed limited fluctuations. As observed in the OCED report (2006), in 1996, Canada was providing a subsidy of US $ 545.30 million, which declined to US $ 433.30 million in 1997, but increased to US $ 606.44 million in 1999. Since then a fluctuating trend has been witnessed, and as seen in Annex 1 for the year 2006, the subsidy level was at USD 595.22 million increasing to USD 805.54 million in 2010, thereby ranking Canada amongst top 3 subsidisers. No data was reported for the years 2011-2013.

The detailed break-up of fishery subsidies in Canada over 2006-2013 is reported in **Annex 5** and the distribution of subsidies is shown with the help of **Figure 3**. In contrast to Australia, Canada provided 38 percent of subsidies as direct payment. There has been a steady increase in absolute values of subsidies under direct payments over time 2006-2010 (**Annex 4**). Subsidies coming under cost reducing transfers increased in 2007 to USD 12.54 million but declined during 2009 to USD 3.72 million and further to USD 0.99 million in 2010. It accounted for 2 per cent of the total subsidies. On the other hand subsidies under general services increased considerably over this period, and expanded to 60 percent of the total subsidies. In 2010 it was USD 554.21 million; there was a negative cost recovery charge of USD 39.26 million for the same period.

Figure 3: Average Annual Subsidy Distribution in Canada (2006-2013)



Source: Constructed on the basis of OECD (2006a) data

Canada also mentions '*Fisheries Alternative Programme (FAP)*', '*Atlantic Groundfish Licence Retirement Programme, 'Pacific Selective Fishing Programme', 'Pacific Fisheries Development Programme', 'Northern Cod Adjustment and Recovery Programme', 'The Atlantic Groundfish Strategy Early Retirement Programme', 'Aboriginal Fisheries Strategy Allocation Transfer Programme', 'Fisheries Access Programme'* in its notification (G/SCM/N/71/CAN) submitted to the SCM Committee in 2013.

As per the notifications, almost all of these programmes have been stated to be terminated in the mid or late 90s or early 2000s. The amounts due under the programmes are disbursed in the later years.

For instance, the *Fisheries Alternative Programme* aims to provide financial assistance to projects or activities which lead to the long-term diversification of affected fishery-dependent

communities and/or to employment for workers displaced by the depletion of ground-fish stocks. As per the notification, the programme was created in 1990, and terminated in February 1995 although the notification contains details of the amounts disbursed in 2001 and 2002. The programme's financial support is available in the form of grants and contributions toward eligible costs, loan insurance and interest buy-downs. The maximum contribution per project is 65%. This programme offered an enhanced level of assistance over what may have been available under existing programmes to eligible projects or activities. Eligible activities may have included the establishment of new businesses, expansion or modernization of existing ones, development of new products or services, and the development of business infrastructure to achieve economic diversification or economic expansion in affected fishery-dependent areas of Atlantic Canada. The Atlantic Canada Opportunities Agency (ACOA) disbursed $22,264 in FY 2000-2001 and $27,124 in FY 2001-2002.

Similarly, '*Atlantic Groundfish Licence Retirement Programme*' is stated to be established in 1998 as part of the Canadian Fisheries Adjustment and Restructuring (CFAR) regime, and terminated in 2001, consequently no new applications have been considered since that time. The objective of this programme is to put harvesting capacity in balance with resource availability and ensure the long-term sustainability of the fishing sector on the Atlantic coast. Assistance under the programme is provided in the form of contributions to purchase groundfish licenses. The programme provides for the purchase and retirement of groundfish licenses, resulting in licence holders leaving the commercial fishing industry permanently.

Another programme which has also been stated to have been terminated is the '*Pacific Selective Fishing Programme*'. The stated objective is to accelerate development of selective fishing in the Pacific salmon fisheries. The programme expenditures totalled $1,530,314 in FY 2000-2001 and $655,200 in FY 2001-2002.

Assistance is provided in the form of contributions to support the programme. The programme provides for the development of selective fishing gear and methods for First Nations[43], recreational angles and commercial harvesters.

Another programme which was similarly established in 1998 and terminated in 2001 is the '*Pacific Fisheries Development Programme*' which has the objective of fisheries diversification. The programme provides for the development of commercial fisheries for underutilized species, value-added handling and processing techniques, marketing and aquaculture research for non-salmon species, in consultation with the Province of British Columbia, First Nations and other partners. The programme expenditures totalled $412,302 in FY 2000-2001 and $114,020 in FY 2001-2002.

The '*Northern Cod Adjustment and Recovery Programme (NCARP)*' was also established in 1992 and terminated in 1994. Consequently no new applications have been considered since that time. The objective of this programme is to assist fisheries workers to cope with the closure of the northern cod fishery and to reduce dependency on fisheries. Assistance is provided in the form of income support, mainly in the form of annuity payments. This programme provides bridging income support to older fishers and fish workers until they reach 65 years of age. The programme expenditures totalled $3,891,743 in FY 2000-2001 and $2,384,740 in FY 2001-2002.

Similarly, '*Atlantic Groundfish Strategy (TAGS) Early Retirement Programme*' as established in 1994 and terminated in 1998. Consequently, no new applications have been considered since that time. The objective of this programme is to assist fisheries workers to cope with the Atlantic groundfish crisis and to reduce dependency on fisheries. Assistance is provided in the form of income support, mainly in the form of annuity payments. This programme provides bridging income support to older fishers and fish workers until they reach 65 years of age. The programme expenditures totalled $2,042,112 in FY 2000-2001 and $1,842,491 in FY 2001-2002.

[43] The term refers to aboriginal Canadian groups who have a recognized form of government.

Another programme of note which seems to be ongoing is the '*Fisheries Access Programme*' ("**FAP**") established in 1999, under which assistance is provided in the form of retiring commercial licences, vessels and gear, constructing new vessels and gear and providing training and other skill development activities. It was established to facilitate the voluntary retirement of commercial licences and the issuance of licences to eligible Aboriginal groups in a manner that does not add to the existing effort on resources. The FAP also facilitates the transfer of vessels and gear. The programme expenditures totalled $74,085,410 in FY 2000-2001 and $58,559,553 in FY 2001-2002.

Another important programme is the *'Community Economic Adjustment Initiative Programme'* but it is not mentioned under the category of fisheries programmes but under the category of 'Industrial Programmes'. The objective of the programme is to assist fishery-dependent communities and/or to employment for workers displaced by the depletion of fish stocks. The programme will assist communities undertake strategic development and diversification projects that facilitate coastal community economic transition from primary reliance on the salmon fishery to alternate economic activities. Assistance is by way of providing loans in the form of repayable and non-repayable contributions up to a maximum of $250,000. Contributions would be repayable in the circumstances of the successful implementation of a commercial project by a private sector, for-profit entity, unless the benefits from the project are primarily derived by a third party or are diffused throughout a community. Financial assistance is delivered trough the Community Futures Development Corporations. Expenditures totalled $9,526,240 in FY 2000-2001 and nil in FY 2001-2002.

Another programme is '*Special Economic Development and Adjustment Fund for Quebec Fishing Communities (FSQC)'* which has the objective to speed up the adjustment and long-term economic development of the fishing communities most affected by the decline of bottom-living fish stocks. The financial assistance may be provided in the form of repayable or non-repayable contributions. The programme provides support for SME investment projects or studies and for the organization of various business activities by non-profit-making bodies pursuing economic development objectives. The territorial area covered by the programme is confined to certain Côte-Nord (North Coast) municipalities, the Gaspésie and Île-de-la-Madeleine administrative

region, and fishing communities adjoining the Gaspésie affected by fisheries restructuring. Développement Économique Canada has made outlays of $2,697,310 in FY 2000-2001 and $2,936,437 in FY 2001-2002. The programme entered into force on 25 July 1995 and outlays under it must be made by 31 March 2000 at the latest.

An analysis of Canada's notification shows that many fisheries programmes which are stated in the notification are not ongoing but have expired.

The notification for the year 2015 (G/SCM/N/284/CAN) contains some information regarding a few ongoing programmes. One such programme is the '*Aboriginal Fisheries Strategy Allocation Transfer Program*'. The programme facilitates the voluntary retirement of commercial licences and the issuance of licences to eligible Aboriginal groups in a manner that does not add to the existing effort on the resources. It also provides for the voluntary retirement of commercial licences, and the issuance of licenses to eligible Aboriginal groups. The program began in 1994 and is ongoing and the expenditures totalled $5,200,000 in FY 2012/2013 and $5,200,000 in FY 2013/2014.

Another programme mentioned in the 2015 notification is the '*Atlantic Integrated Commercial Fisheries Initiative (AICFI)*' whose objective is to assist Milkman and Maliseet First Nations (MMFNs) in Nova Scotia, New Brunswick, Prince Edward Island and the Gaspe Region of Québec, in the development of sound Fisheries Management and Governance practices for their commercial fishing enterprises moving towards an economically and environmentally sustainable integrated commercial fishery. Assistance is provided in the form of providing training and other skill development activities. The AICFI was established to support capacity building in MMFNs commercial fishing enterprises. The new funding will assist participating communities in developing the business knowledge, skills, and resources to make full use of existing access and to participate equally in fisheries co-management. The program expenditures totalled $8,002,025 in FY 2012/2013 and $9,075,840 in FY 2013/2014. The program was announced on July 07, 2007 and recently extended until the end of FY 2015/2016.

Another programme is '*Atlantic Lobster Sustainability Measures (ALSM)'* which began in 2009 and ended in March 2014. The objective of the ALSM is to assist Canada's lobster fishery, and ensure its long-term sustainability and economic prosperity. The programme supports industry efforts to maintain healthy lobster stocks in all lobster fishing areas and improve lobster abundance in areas where stocks have declined. Assistance is provided under the legislative authority of the *Department of Fisheries and Oceans Act*, the *Atlantic Fisheries Restructuring Act*, the *Fisheries Act* and the *Fisheries Development Act*. ALSM funding is provided through a two-stage process. First, Lobster Fishing Areas (LFAs) obtain approval from the federal government for an LFA-wide Sustainability Plan. Second, commercial harvester organizations propose and carry out specific activities that support conservation, stewardship, harvester organization governance, and industry restructuring and rationalization. Assistance of up to 50 per cent of eligible expenses is provided through the ALSM program to commercial harvester organizations to carry out the activities noted above. Other funding can be secured through other third-parities (e.g., provincial governments) or through in-kind contributions. Eligible applicants include corporations, not-for-profit organizations, incorporated associations, cooperatives, trade unions and aboriginal groups. The program expenditures totalled $7,855,000 in FY 2012/2013 and $4,800,000 in FY 2013/2014.

Another programme is the '*Pacific Integrated Commercial Fisheries Initiative (PICFI)*' and the objective of PICFI is to achieve a fair, sustainable, integrated commercial fishery on Canada's west coast, in which all commercial participants fish under common and transparent rules. One of the key pillars to support this objective is to address First Nations interests in increasing their participation in commercial fisheries. It also supports higher standards of accountability for all resource users, through enhanced fisheries monitoring and report and strengthened collaboration, and enhanced cooperation amongst fisheries interests.

Assistance is provided to Aboriginal fishing enterprises in the form of commercial fishing access acquired through voluntary retirement, vessels and gear, and providing training and other skill development activities. The commercial fisheries access component of PICFI allows the federal government to retire the licences and quota of fishers who want to leave the commercial fishery, and use these resources to facilitate greater participation in a wide range of commercial fisheries

by BC First Nation fishing enterprises. It also facilitates the transfer of vessels and gear, and capacity building to support development of First Nation fisheries enterprises based on best practices. The program expenditures totalled $12,250,000 in FY 2012/2013 and $11,780,000 in FY 2013/2014. The program was announced in 2007 and was recently extended until the end of FY 2015/2016.

Similarly, '*Commercial Fisheries Freight Subsidy*' aims to support the transportation of fish to allow Nunavut fisheries to be competitive in southern domestic markets. Funding is provided under the authority of Nunavut Department of Environment. Assistance is provided in the form of a grant and the eligibility under the programme is restricted to Nunavut fisheries industry: processors, harvesters, and commercial fishing companies. Under this program, a total of $190,000 is available and the program is ongoing.

Another ongoing program is the '*Fisheries Development and Diversification fund*' whose objective is to develop and diversify Nunavut's fishing industry within the overall guiding principles of conservation and sustainability. It also aims to identify and develop new fisheries resources that will provide significant economic benefits to the residents of Nunavut. Funding is provided under the authority of Nunavut Department of Environment and assistance is provided in the form of a grant. The eligibility is restricted to: individuals who are residents of Nunavut; incorporated businesses registered as Nunavut Businesses and whose offices are located within Nunavut, societies registered under the Nunavut Societies Act or not-for-profit corporations registered for the purposes of delivering fisheries related projects in Nunavut; government agencies with a mandate to deliver fisheries related projects in Nunavut for the betterment of Nunavut; research and development institutions and regional development groups with a mandate to deliver fisheries related projects in Nunavut for the betterment of Nunavut. The program provides a contribution of up to $65,000 or $150,000, depending on the type of project. Under this program, a total of $525,000 is available in total.

Another ongoing fuel related programme is a 'Fuel Tax Exemption' to offer tax relief for various commercial activities. Assistance in the form of a tax credit is provided under the legislative authority of the *Fuel Oil Tax Act*. The tax-exempt fuel is for authorized off-road commercial

purposes: farming, hunting/ outfitting, sawmills, fishing, logging, and tourism, trapping and mining. Also authorized are off-road use for golf courses and for use in stationary generators. Fuel may be purchased without paying the associated taxes: 6.5 cents/ litre for gasoline, 7.2 cents/litre for diesel and 1.1 cents/ litre for aviation fuel. The total amount of funding credited during FY 2012/2013 was $2,935,000 and during FY 2013/2014 was $2,712,000. The program began in 1968 and is ongoing.

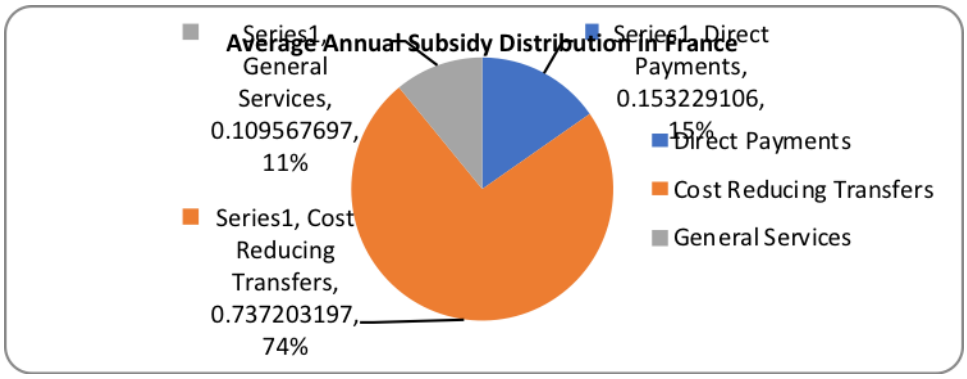
A perusal of Canada's 2015 notification shows the lack of transparency by WTO members in disclosing ongoing programmes. For instance, the notification states that the foresaid fuel tax credit is an ongoing programme which began in 1968. However, no information on the programme was available in the 2013 notification. Due to such discrepancies in disclosure of programmes by WTO members, it becomes difficult to ascertain the extent of subsidization in the fisheries sector.

D. Fishery Subsidies in France

Among developed countries, France is another consistent provider of subsidies; always retaining a position among the top 5 players in the world. However like other countries, the amount of the fisheries subsidies has showed wide fluctuations over time (**Annex 1**). It was providing a subsidy of USD 63.36 million in 2006, which increased to USD 327.81 million in 2009, but decreased to USD 284.68 million in 2012. Data for the year 2013 is not reported.

The category-wise break-up of fishery subsidies in France over the period under consideration is reported in **Annex 6** and the distribution of subsidies is shown with the help of **Figure 4** in the figure below. It is observed that general services category has been the most significant constituent of France's subsidization pattern (74 percent), while direct payments (15 percent) and cost reducing transfers (11 percent) account for the remaining proportion. The distribution has remained almost same as during the period of 1998-2003 as reported in OECD (2006).

Figure 4: Average Annual Subsidy Distribution in France (2006-2013)



Source: Constructed on the basis of OECD (2014) data

As far as programmes disclosed in the French notifications to the SCM Committee [submitted as addendum in 2013(G/SCM/N/253/EU/Add.9)], there are certain programmes which seem to apply to fisheries sector in addition to other sectors. For instance, a programme '*Deduction of investments in French Overseas Departments and Territories*' provides tax concession or deduction of the amount of eligible investment from the profits subject to corporation tax, or an income tax reduction for taxpaying natural persons. The policy objective has been mentioned as 'To contribute to the economic development of French Overseas Departments and Territories'. The programme details clearly state that authorization is not automatic for certain sectors including sea fishing and aquaculture.[44] The sectors to which the programme does not apply have been provided in the 'Conditions' mentioned in the box below containing information about the programme.

Conditions: Fixed assets, which must be tangible, new and redeemable, must be acquired, created, or leased by an enterprise engaged in agricultural, industrial, commercial or crafts activities outside the following sectors: trade; cafés, tobacconists and bars/public houses, as well as catering1; business advisory services and consultancy; education, health and social welfare;

[44] "**Allocation mechanism**: Prior authorization must be obtained for eligible investments in excess of €250,000 or €1 million, depending on the type of financing arrangements. Authorization is automatic for investments below these amounts, with the exception of investment in the following: the transport, recreational boating, agriculture, sea fishing and aquaculture sectors…", cited from G/SCM/N/253/EU/Add.9 at p. 16

banking, finance and insurance; all real estate activities; the cruise industry, car repair, rental/leasing services without operators; business services; leisure, sporting and cultural activities; postal services; and investments in installations generating electricity from solar radiation.

6. Subsidy per unit or, where this is not possible, total amount or annual amount budgeted for the subsidy (indicating, if possible, the average subsidy per unit in the previous year)

Total amount for 2011: €875 million and for 2012: €660 million, it being understood that these amounts were disbursed pursuant to both Articles 199*undecies* B and 217*undecies* of the General Taxation Code and that a significant proportion of the fiscal expenditure relating to the arrangement under Article 217*undecies* of the General Taxation Code relates to the construction of welfare housing.

7. Duration of the subsidy and/or any other time-limits attached to it

The current scheme is in force until 31 December 2017.

8. Statistical data permitting an assessment of the trade effects of the subsidy

Amounts disbursed for applications approved in 2011:

- Article 199*undecies* B: €241 million.
- Article 217*undecies*: €441 million.

Amounts disbursed for applications approved in 2012:

- Article 199*undecies* B: €202 million.
- Article 217*undecies*: €353 million.

Source: (G/SCM/N/253/EU/Add.9: Addendum by France submitted to SCM Committee in 2013)

The same programme is also mentioned in the 2011 notification by France (G/SCM/N/220/EEC/Add.9). The total amount for 2009 has been stated as €902 million and for 2010 to be €835 million, disbursed pursuant to Articles 199*undecies* B and 217*undecies* of the General Taxation Code. Statistical data permitting an assessment of the trade effects of the subsidy states that the number of applications approved in 2009: - Article 199*undecies* B: 246; - Article 217*undecies*: 79. It also states that the data for 2010 is not available. These figures do not provide information on the amount provided towards fisheries sector. This programme is also mentioned in the 2015 notification (G/SCM/N/284/EU/Add.10) under the heading '*Tax aid for*

investments in French Overseas Departments and Territories' and total amount for 2013 has been provided as €557 million and for 2014 as €485 million (estimate). Further details of financial contribution under this programme are as follows:

8. Statistical data permitting an assessment of the trade effects of the subsidy
Amounts disbursed for applications approved in 2013:
- Article 199undecies B: €131,409,317;
- Article 217undecies: €175,579,850.
Amounts disbursed for applications approved in 2014:
- Article 199undecies B: €88,070,386;
- Article 217undecies: €160,529,000.
Source: (G/SCM/N/284/EU/Add.10)

There is no further information on financial contribution towards fisheries sector specifically mentioned in the notifications submitted by France.

A comparison of these figures with OECD statistics indicates that there are discrepancies in the information available on fisheries subsidies. Although the statistics reported by different organizations rely on the best possible information available / provided, there are significant information gaps and differences. This could be because of discrepancies in the information provided by the governments of these countries at different forums which makes it difficult to ascertain the correct level of government support provided to the fisheries sector.

E. Fishery Subsidies in Italy

Similar to the programme described in the above sections, the Italian notification submitted to the SCM Committee (G/SCM/N/253/EU/Add.14) in February 2014 contains no information on programmes specific to fisheries sector. There are measures which seem to apply to all the sectors and therefore, also to the fisheries sector. For instance, a programme titled '*Urgent measures for the economy – automatic incentives'* is a tax concession and a total of 11.03 million euros were distributed as subsidies in 2009. The policy objective of the programme is listed as

'Promotion of investments of enterprises in machinery' and no final term of duration has been established for the programme. The beneficiaries are enterprises operating all over the national territory. The subsidy consists in the concession of a fiscal bonus in tax payment'. An analysis of the information submitted by Italy on this programme shows that it is widely applicable across all sectors. No exclusions are mentioned in the notification. This programme is not mentioned in the 2015 addendum.

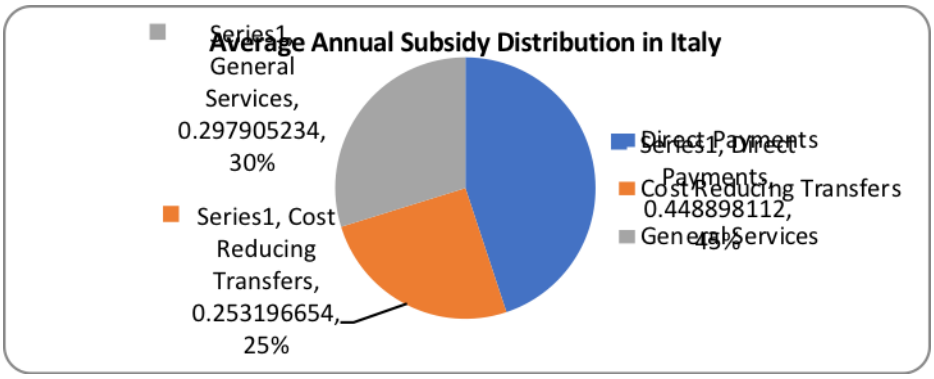
Similarly, a programme titled '*Fiscal measures in favour of innovation of industrial enterprises*' under which subsidies of 1.12 million euros were distributed in 2009 aims at promotion of investments of enterprises in R&D. This programme is also available to enterprises operating all over the national territory and the subsidy consists in the concession of a fiscal bonus in tax payment. No final term of duration is established. These are general programmes available to all sectors and therefore, also to fisheries sector. The information on the extent to which the fisheries sector has benefitted from these programmes is unavailable in the notifications. Furthermore, the absence of information on specific programmes available to the fisheries sector, makes it difficult to ascertain the financial contribution to the sector.

On the other hand, OECD estimates paint a comparatively clearer picture. From **Annex 1** it is observed that the total fishery sector subsidization in Italy has fluctuated over the period. In 2006, the subsidy provided by Italy stood at USD 194.70 million, but it increased to USD 241.05 million in 2011, after reaching a low of USD 56.86 million in 2008. The fishery subsidies provided by Italy have stabilized at around US $ 119.23 million over the last two reported years (i.e., 2005-06).

The detailed break-up of fishery subsidies in Italy over 2006-2013 is reported in **Annex 7** and the distribution of subsidies is explained with the help of **Figure 5**. It is observed from **Annex 7** that while cost reducing transfers are not reported for a major period it was reported to be USD 157.20 million and USD 161.51 million for the year 2009 and 2010 respectively. The subsidies coming under general services have declined from USD 88.70 million in 2206 to USD 69.37 million in 2011. Of these amounts, direct payments accounted for 45 percent during the period of

observation. General services and cost reducing transfers accounting for 30 and 25 percent of the total subsidy respectively.

Figure 5: Average Annual Subsidy Distribution in Italy (2006-2013)



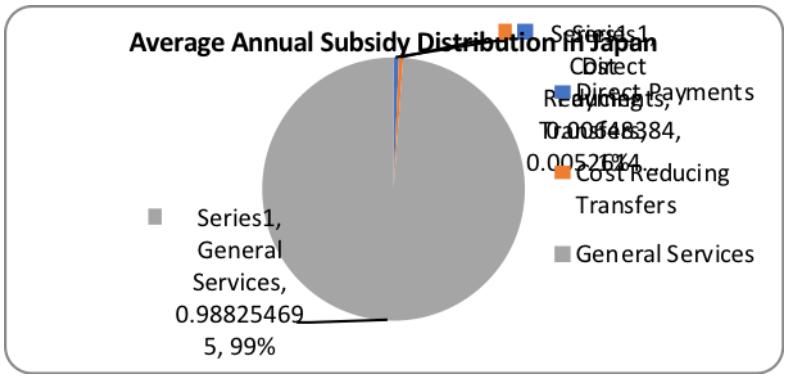
Source: Constructed on the basis of OECD (2014) data

F. Fishery Subsidies in Japan

Japan has retained the top position in the world in terms of fishery subsidy for most of the period in the past. It is seen from **Annex 1** that the amount of subsidy provided by Japan has fluctuated over the period 2006 to 2013, it reached the highest amount of USD 2152.65 million in 2009; the lowest was reported at USD 1800.09 million in 2012.

The detailed break-up of fishery subsidies in Japan over 2006-2013 is reported in **Annex 8** and the distribution of subsidies is shown with the help of **Figure 6**. Interestingly, according to OECD (20014), on an average most of the subsidies (around 99 percent) in Japan had been given towards General Services. Direct payments (1 percent) and cost reducing transfers (1 percent) consist of very small part in total subsidy.

Figure 6: Average Annual Subsidy Distribution in Japan (2006-2013)



Source: Constructed on the basis of OECD (2014) data

The 2015 notification of Japan (G/SCM/N/284/JPN) provides information on some subsidy programmes. One of the programmes of note is the '*Fisheries Modernization Fund Interest Subsidy*'. The purpose of the programme is to contribute to advanced equipments and modernize management of fisheries and related sectors. It is provided by the Ministry of Agriculture, Forestry and Fisheries under the Fisheries Modernization Fund Law. It is a grant provided in order to contribute to advance equipments and modernize management of fisheries and related sectors, central government provides interest subsidy to financial organizations including fisheries cooperatives which support these sectors. The amount of subsidy is stated as ¥1,125 thousand for fiscal year 2013 and (¥ 3,025 thousand) for fiscal year 2012. The duration of the subsidy is not clearly specified, since the subsidy is determined and provided based on a fiscal year.

Another programme is the '*Funds for the Measure to Recovery Fishery Resources*'. The purpose of the subsidy is to implement comprehensive programs for the promotion of sustainable fisheries, and thereby to ensure stable, safe and efficient supply of food to people. It is authorized by the Ministry of Agriculture, Forestry and Fisheries and assistance by budget is provided. It is available in the form of a grant by the government which funds various comprehensive programs implemented by non-governmental organizations. Subsidies are provided for sustainable management of fishery resources, promotion of stock enhancement and aquaculture, and conservation of coastal environment for stable supply of food. The amount of the subsidy is stated as ¥ 1,810 million for fiscal year 2013 and ¥ 2,157 million for fiscal year 2012. The duration of the subsidy is determined and provided based on every fiscal year.

Some programmes mentioned in the 2011 notification (G/SCM/N/220/JPN) are as follows:
The '*Fisheries Modernization Fund Interest Subsidy*' described above is captured in the 2011 notification as well. The amount of the subsidy was ¥ 4,545 thousand for fiscal year 2009 and ¥4,545 thousand for fiscal year 2008. The duration of the subsidy is not clearly specified, since the subsidy is determined and provided on a fiscal year basis.

The '*Fund for the Measure to Supply Fishery Products Stably*' programme is also mentioned in the 2011 notification. Assistance is available in the form of a grant. Under the heading 'To whom

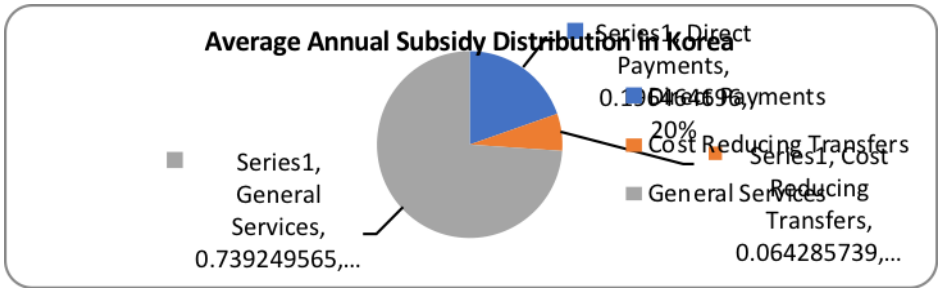
and how the subsidy is provided', it is stated 'The Government funds various comprehensive programs implemented by non-governmental organizations. Subsidies are provided for sustainable management of fishery resources, promotion of stock enhancement and aquaculture, restructure of fishing entities, conservation of coastal environment and recruitment of fishermen for stable supply of food. Subsidies for promotion of distribution, processing and consumption of fishery products are implemented for safe and efficient supply of food'. The amount of the subsidy for FY2009 is stated to be ¥ 3,071 million (¥ 2,764 million). The notification also states that the duration of the subsidy is determined and provided on a fiscal year basis.

G. Fishery Subsidies in the Republic of Korea

The Republic of Korea has been the fourth highest subsidy provider country in the list of twelve countries during 2009, and ranked after Japan, the United States and Canada (**Annex 1**). It was always ranked among the top 5 countries during the period of 1996-2013, and the subsidy level has been reducing ever since 2008. It has increased its subsidy level from USD 641.99 million in 2006 to USD 793.57 million in 2008, further reducing to USD 342.12 million in 2011.

The detailed break-up of fishery subsidies in Korea over 2006-2013 is provided in **Annex 9** and the distribution of subsidies is explained in **Figure 7**. Looking at the components, it is observed that cost reducing transfers and direct payments remained more or less constant over this period, while the subsidies coming under general services showed a decreasing trend. A significant proportion of the subsidies are provided under general services category (74 percent), while the remaining proportion is explained by direct payments (20 percent) and cost reducing transfers (6 percent).

Figure 7: Average Annual Subsidy Distribution in Korea (2006-2013)



Source: Constructed on the basis of OECD (2014) data

The notification submitted to the SCM Committee by Korea in 2015 (G/SCM/N/284/KOR) provides information on a programme titled '*Support for fishing activities*', which is provided to relieve financial burden and support stable fishing operations by providing loans with lower interest rates. The recipients are fishermen duly licensed under the relevant domestic fisheries legislation. Under the terms of the programme, a one year loan with an annual interest rate of 3% is provided. The amount of the subsidy is stated as follows:

(Unit: million KRW)

	2013	2014
Lump sum transfer (a)	-	-
Loan	1,916,814	1,978,786
Benefit of loan* (b)	41,513	36,565
Total (a+b)	41,513	36,565

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

There is no fixed time period mentioned in the notification pertaining to duration. As far as the trade effects of the subsidy are concerned, the notification states 'It is not possible to estimate the impact on trade, because the program is not trade-conditioned and beneficiaries may decide to sell the products either in the export market or the domestic market at their discretion. In addition, it is assumed that most of the catches will be consumed in the domestic market and thus the impact on trade will be negligible'.

Another notable programme is '*Support for Replacement and Modernization of Old Distant-Fishing Vessels and Their Equipment*' which aims to ensure navigational safety through the replacement of old vessels and vessel equipment by providing loans to fishermen. Terms of the loan are as follows: 3-year grace period and 7- year repayment at an annual interest rate of 3% and the amount of subsidy is listed as under:

(Unit: million KRW)

	2013	2014
Lump sum transfer (a)	-	-
Loan	40,500	27,772
Benefit of loan * (b)		
Total (a+b)		

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

As far as the duration is concerned, the programme has no fixed time period and trade effects of the subsidy state that it is difficult to estimate the effect on trade because the program is not trade-conditioned.

Another noteworthy programme is the '*Support for Vessel Decommissioning*' which supports vessel decommissioning in order to maintain fleet size at a sustainable level for coastal and offshore fishery resources by providing grants to coastal and offshore fishermen. Note that 100% grant to coastal fishermen and 80% grant to offshore fishermen is provided under the programme. The amount of the subsidy is stated as under:

(Unit: million KRW)

	2013	2014
Lump sum transfer (a)	24,886	20,529
Loan	-	-
Benefit of loan * (b)	-	-
Total (a+b)	24,886	20,529

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The notification states that the subsidy will continue provisionally until 2018. The trade effects of the subsidy have been listed as difficult to estimate, because the programme is not trade-conditioned.

Another programme which provides support to fisheries is the '*Support for Management of Distant Water Fisheries*', which is provided to ensure stable production and management for distant-water fisheries. The subsidy is provided in the form of loans to distant water fisheries industry operators. The terms of the loan are as follows: The government provides grants to compensate for the difference between the market interest and the loan interest for distant-water fisheries operators or overseas resource development companies. The amount of subsidy is mentioned as follows:

(Unit: million KRW)

	2013	2014
Lump sum transfer (a)		
Loan	2,530	2,372
Benefit of loan* (b)		
Total (a+b)		

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The duration of the programme has no fixed time period and trade effects have been listed as difficult to estimate, because the program is not trade-conditioned.
Similarly, the 2013 notification of Korea (G/SCM/N/253/KOR) lists some programmes pertaining to the fisheries sector.

A programme titled '*Support for development of deep-sea fisheries*' aims to support the stable production and management of deep-sea fisheries. Under this programme, the government provides grants to a cooperative fund to compensate for loans at a lower interest rate provided to

deep-sea fishing companies or overseas resource development companies. The amount of the subsidy is as follows:

(Unit: million KRW)

	2011	2012
Lump sum transfer(a)	4,834	4,622
Loan	-	-
Benefit of loan(b)	-	-
Total (a+b)	4,834	4,622

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The programme has no fixed time period and therefore, may be ongoing. The notification states that it is difficult to estimate the effect on trade because the program is not trade-conditioned support.

Another programme is '*Support for the development of fishery products processing*' which is provided to ensure the food safety of fishery products, and provide high quality products to consumers under which assistance is available in the form of grants and loans. The recipients are companies and people engaged in the handling, storing and processing of fishery products. Note that grants are provided to cover 30 to 50 per cent of expenses. Furthermore, loans are for a period of 1 to 10 years, at an annual interest rate of 3 to 4 per cent. The amount of the subsidy is as follows:

(Unit: million KRW)

	2011	2012
Lump sum transfer (a)	40,498	42,605
Loan	26,640	23,976

Benefit of loan* (b)	519	467
Total (a+b)	41,017	43,072

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The programme has no fixed time period. The notification states that 'it is not possible to measure the impact on trade, because the program is not trade-conditioned and the beneficiary may decide to sell products either in the export market or the domestic market at his discretion. However, the impact on trade, if any, is likely to be minimal because most beneficiaries operate small scale businesses and most of the products are presumed to be consumed in the domestic market'.

Another programme to provide support to fishing activities is '*Support For Fishing Activities'* provided to relieve the financial burden and support stable fishing operations by providing loans with lower interest rates. The recipients are fishermen duly licensed under the relevant domestic fisheries legislation. A one year loan with an annual interest rate of 3 per cent is available under this programme and the amount of the subsidy is as follows:

(Unit: million KRW)

	2011	2012
Lump sum transfer (a)	-	-
Loan	1,686,333	1,814,048
Benefit of loan* (b)	52,363	50,743
Total (a + b)	52,363	50,743

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The duration of the programme is not fixed. The notification states that it is not possible to measure the impact on trade, because the program is not trade-conditioned and the beneficiary

may decide to sell the products either in the export market or the domestic market at his discretion.

Another programme mentioned in the notification is the '*Support for Old Fishing Vessels and Equipment Replacement*' whose objective is to ensure navigational safety through the replacement of old vessels and vessel equipment. Assistance in the form of loans is provided to fishermen. Under the programme, a loan for 15 years at an annual interest rate of 4 per cent is provided. The following amounts of subsidy were provided in 2011 and 2012:

(Unit: million KRW)

	2011	2012
Lump sum transfer (a)	-	-
Loan	29,662	20,451
Benefit of loan * (b)	504	347
Total (a + b)	504	347

* The benefit of loan is estimated based on the difference between the loan rate and the market rate.

The duration of the programme is for no fixed time period. The notification also states that it is difficult to estimate the effect on trade because the programme is not trade-conditioned.

A perusal of the Korean programmes shows that some capacity enhancing subsidies are provided to fishermen. Given the existence of capacity enhancing programmes, it is essential that Korea has strong measures that prohibit IUU fishing and ensure that there is no overfishing.

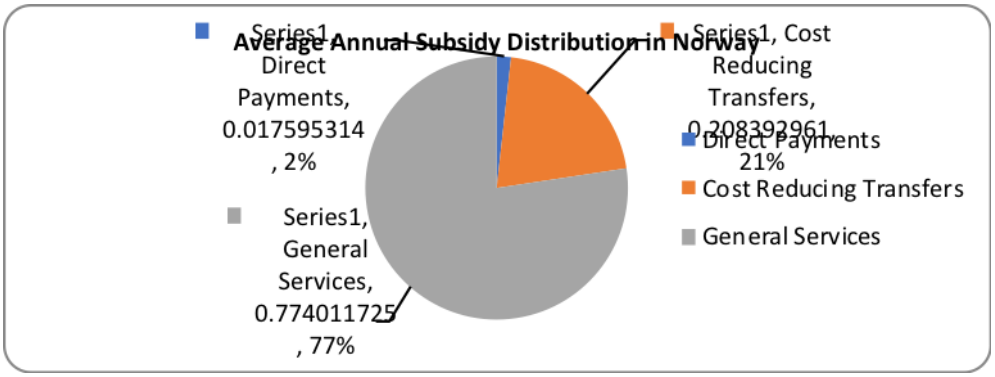
H. Fishery Subsidies in Norway

Norway has increased the amount of fisheries subsidy over time. While in 2006, the level of the subsidy was USD 188.49 million, it increased to USD 330.28 million in 2013 (**Annex 1**). The amount of subsidy is increasing each year. The detailed break-up of fishery subsidies in Norway over 2006-2013 is reported in **Annex 10** and the distribution of subsidies is explained with the

help of **Figure 8**. It is observed from the figure that subsidies under general services have gradually increased; cost-reducing transfers have increased over this period, with an exception of 2013 where it decreased to USD 53.71 million from a high of USD 67.54 million in 2009. Direct transfers have increased from USD 1.56 million in 2006 to USD 8.17 million in 2013.

General services constitute a major proportion of the total transfers by Norway (77 percent). Direct payments on the other hand constituted a relatively insignificant proportion of overall subsidy (2 percent). Average cost reducing transfers remained significant (21 percent). Cost recovery charges were negative USD 5.78 million for the year 2013 (**Annex 10**).

Figure 8: Average Annual Subsidy Distribution in Norway (2006-2013)



Source: Constructed on the basis of OECD (2014) data

The notifications submitted by Norway contain information on assistance to the fishery sector. In the 2011 notification (G/SCM/N/220/NOR), programmes towards transport support, support to the modernisation and capacity adjustment of the fishing fleet, decommissioning grant – the structural fund, and sealing is provided.

The notification also provides information on industrial R&D programmes and projects which are administered by various ministries including 'the Ministry of Fisheries and Coastal Affairs'. The support for R&D is provided in the form of grants to a variety of R&D projects, in different sectors. For other details refer to the notification. The amount of subsidy is stated as NOK 947.88 million for 2009 and NOK 857.90 million for 2010. The amounts for the year 2011have been provided as NOK 823.87 million and for 2012 as NOK 893.48 million

Another related programme is '*Tax Credit for Expenses on R&D*' under which a tax concession or tax credit is provided to all industrial and commercial enterprises across all sectors. The tax credit is 20 per cent of R&D expenses (18 per cent for large companies). Until the tax year 2008 (book year 2009), expenses per company were limited to NOK 4 million for internal R&D, and NOK 8 million for external purchases. The total basis per company should not exceed NOK 8 million. Since 1 January 2009, the corresponding limits are NOK 5.5 and NOK 11 million. Projects have to be approved as R&D ex ante by the Research Council of Norway, and the project expenditure certified ex post by an auditor. Tax credit exceeding assessed taxes (i.e., companies in a non-taxpaying position) is refunded as part of the yearly tax settlement. The amounts contributed towards this subsidy (recorded costs, includes both goods and services) from 2009 till 2012 are as follows: 2009: NOK 1 028 million, 2010: NOK 1, 140 million, 2011: NOK 1, 212 million and 2012: NOK 1, 295 million.

Another R&D related programme of note mentioned in the 2013 notification but not in the 2011 notification is that '*FORNY (Commercializing R&D results)*' for which funds come from the following three ministries vix the Ministry of Fisheries and Coastal Affairs, the Ministry of Trade and Industry, and the Ministry of Education and Research. Funds from each ministry come from the State Budget which is approved by the Norwegian Parliament by the end of each year. Aid is provided in the form of grants and the main task of the programme is to facilitate innovation and commercialisation of R&D results from publicly-funded research institutions. The programme will provide funding to projects carried out by new knowledge based start-ups that are younger than 6 years. The criteria to receive funding from the FORNY-programme for the new knowledge-based start-ups are in compliance with article 35 "Aid to young innovative enterprises" in the General Block Exemption Regulation. The target group is companies that are in compliance with this criteria. A yearly *Call for Proposals* is announced on The Research Council of Norway's and the programme's websites. The proposals are evaluated by a panel of external national and foreign experts. Their recommendation goes to the Programme Committee who makes the final decision. The projects are followed up by reports to the programme secretariat. The amount of subsidy for 2012 was NOK 5.6 million and the duration of the subsidy is till 2020.

Under a fuel related programme titled '*Exemptions and reduced rates in the CO2 taxes and in the tax on mineral oil (base tax on mineral oil)*' under which tax concessions for the pulp and paper industry and the fish oil and fish meal industries are provided. The starting date of CO2 tax was 1 January 1993 and that of tax on mineral oil was 1 January 2000.

As far as the CO2 tax is concerned, mineral oil used in the fish oil and fish meal industries is subject to a reduced CO2 tax rate. The reduced CO2 tax was NOK 0.31 per litre in 2011 and 2012. Vessels used for fishing and hunting are exempted from the CO2 tax on mineral oil, natural gas and LPG. The second tax is the tax on mineral oil (base tax on heating oil). In 2011 the tax rate was NOK 0.983 per litre and in 2012 the tax was NOK 0.999 per litre. However, vessels used for fishing and catching and the fish oil and fish meal industries are exempted from the tax on mineral oil (base tax on mineral oil). The amount of subsidy is as follows:

Expenditure for 2011:

CO2 tax on mineral oil:

Vessels used for fishing and catching NOK 196 million.

The fish oil and fish meal industries: NOK 1.1 million.

CO2 tax on natural gas and LPG

The fish oil and fish meal industries: NOK 21.2 million.

Expenditure for 2012:

CO2 tax on mineral oil:

Vessels used for fishing and catching NOK 221 million.

The fish oil and fish meal industries: NOK 1.5 million.

Tax on mineral oil (base tax on mineral oil):

The fish oil and fish meal industries: NOK 19.8 million.

Source: (G/SCM/N/253/NOR)

Additionally, another transportation grant under the programme '*Transportation Support*' is provided to support transport in order to facilitate implementation of fisheries activities in specific regions. The transport support is given to the following sales organisations:

- The Norwegian Raw Fish Organisation

- Fish Sales Association for Sunnmøre and Romsdal
- Fish Sales Association for Western Norway
- Fish Sales Association for Rogaland County
- Fish Sales Organisation for the Skagerrak Coast
- The Norwegian Herring Sales Association

The sales organisations are responsible for the distribution of transport support to the fishing industry. Each sales organisation must submit a plan showing how they intend to apply these funds so that fishing activities are secured throughout the year. The subsidy does not cover the fish farming industry. The duration of the subsidy is not provided but the amount of subsidy has been listed as follows: balanced budget for 2009: NOK 43.1 million and balanced budget for 2010: NOK 33 million.

Another sector specific programme is '*Support to the Modernisation and Capacity Adjustment of the Fishing Fleet; Decommissioning Grant – The Structural Fund*' which is a decommissioning grant directly given to the ship owner and is aimed at capacity reduction. It was phased out in 2010 but the total expenditure to decommissioning in 2009 was NOK 5.5 million (50 per cent financed by the fleet itself). Original duration of the programme was from end of June of 2003 to end of June in 2008. Payments made in 2009 were due to remaining funds from previous years.
Another programme of note specifically aimed at the fisheries sector is '*Sealing*' the objective of which is to contribute to maximum utilization of harp-seal quotas. The sealing fleet and sealing processors can apply for subsidies. No duration of the programme has been specified but balanced budget of NOK 8.1 million was for 2009 and the balanced budget for 2010 was NOK 8.4 million.

An additional tax concession is mentioned in the 2013 notification (G/SCM/N/253/NOR) under the '*Tax allowance*' which is directly aimed at sustaining competitive net income levels for fishermen. Each fisherman is entitled to a tax free allowance amounting to 30 per cent of ordinary income. The allowance is a maximum of NOK 150,000 per year. The tax allowance for fishermen has an estimated cost of NOK 220 million for 2011 and NOK 230 million for 2012.

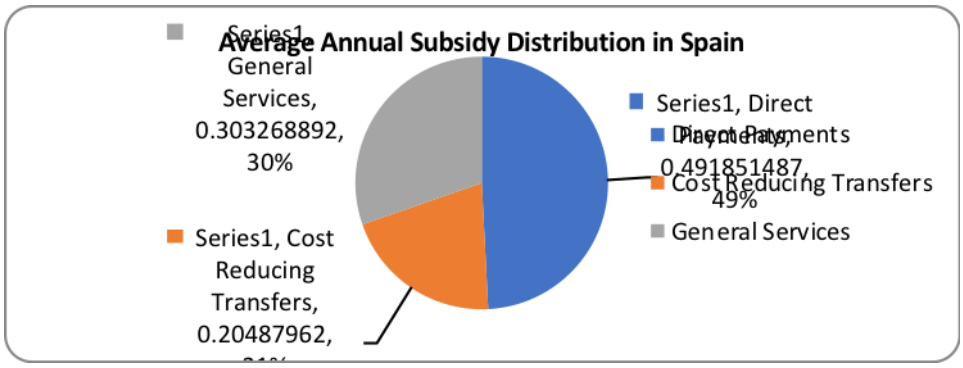
The scheme seems permanent in nature as the duration states that the tax allowance exists until modified or repealed.

Norway has significant fisheries assistance related programmes and also general schemes under which benefits can be extended to the fisheries sector. The disclosure of the aforesaid programmes in its notifications indicates some level of transparency by Norway. However, it is difficult to compare the OECD statistics to the figures estimated from the notifications by Norway to the SCM committee on account of lack of information on general programmes under which benefit is availed by the fisheries industry. Therefore, the extent of cost reducing transfers or direct transfers cannot be estimated correctly by going through the notifications.

I. Fishery Subsidies in Spain

Spain is ranked amongst the top 10 subsidisers in 2009. It is observed from **Annex 1** that the fishery subsidies given by Spain have fluctuated during the period 2006-2013. While the level of subsidies in 2006 was USD 248.49 million, it decreased to USD 84.74 million in 2013. The detailed break-up of fishery subsidies in Spain over 2006-2013 is reported in **Annex 11** and the distribution of subsidies is shown with the help of **Figure 9**. It is observed from the table that the volume of direct payments has declined from USD 75.56 million in 2006 to USD 20 million in 2008, and then increased eight fold to USD 154.42 million in 2010 and remains at USD 64.66 million in 2013. On the other hand, subsidies classified under cost reducing transfers and general services have displayed a decreasing trend over the study period. During the period of 2006-2013, on an average, 49 percent of the subsidies was given as direct payments. Subsidies under cost reducing transfers (21 percent) and general services (30 percent) also had significant presence during this period.

Figure 9: Average Annual Subsidy Distribution in Spain (2006-2013)



Source: Constructed on the basis of OECD (2014) data

The subsidy notifications submitted by Spain also provided detailed information on some programmes dedicated specifically towards the fisheries sector. For instance, the 2011 notification (G/SCM/N/220/EEC/Add.25) lists various programmes that provide support to fisheries. A programme which is co-financed by the EU is titled '*2009 And 2010 - Domestic Funding Component in EU Co-Financed Programmes (European Fisheries Fund)*' and the notification provides information on financial contribution towards the following programmes as follows:

Reorganization of the fishing fleet

2009:

Permanent cessation of fishing

€15.28 million was allocated for 166 projects.

Investments on board fishing vessels and selectivity

€0.42 million was allocated for 524 projects.

Socio-economic compensation for fleet management

€1.07 million was allocated for 275 projects.

2010:

Permanent cessation of fishing

€17.33 million was allocated for 113 projects.

Investments on board fishing vessels and selectivity

€0.27 million was allocated for 448 projects.

Socio-economic compensation for fleet management

€0.43 million was allocated for 232 projects.

Pilot projects:

2009: €0 million was allocated.

2010: €0 million was allocated.

Sources: (**G/SCM/N/220/EEC/Add.25, G/SCM/N/253/EU/Add.25, G/SCM/N/284/EU/Add.26**)

We now proceed to provide details of the aforesaid programmes. The programme titled '*Permanent cessation of fishing'* aims to help finance the permanent cessation of the fishing activities of fishing vessels under a plan to adjust the fishing effort by scrapping the fishing vessels, converting them, under the flag of a Member State and registering them in the EC Community for activities not related to fishing, and by converting them to create artificial reefs and is available to owners of fishing vessels. The financial contribution in 2009 was €15.28 million which was allocated for 166 projects and for 2010 was €17.33 million which was allocated for 113 projects. The EFF Operational Programme was from 2007 to 2013 and the period of eligibility of expenditure ran from 1 January 2007 to 31 December 2015. The contribution for later years has been mentioned in the subsequent notifications[45] as follows: 2011: €5.46 million was allocated for 104 projects; 2012: €6.01 million was allocated for 151 projects. Furthermore, in 2013, €8.82 million was allocated to 133 projects and in 2014, €7.58 million was allocated to 125 projects.

Another programme is titled '*Investments on board fishing vessels and selectivity*' and the policy objective is stated as 'To help finance investments in equipment and the modernization of fishing vessels of five or more years so as to improve safety on board, working conditions, hygiene, product quality, energy efficiency and selectivity, provided that this does not increase the fishing capacity of the vessels'. The EFF Operational Programme was from 2007 to 2013 and the period

[45] G/SCM/N/253/EU/Add.25 submitted on September 11, 2013 and G/SCM/N/284/EU/Add.26 submitted on September 18, 2015

of eligibility of expenditure ran from 1 January 2007 to 31 December 2015. Subsidy per unit or total amount of the subsidy is stated as follows: 2009: €0.42 million was allocated to 524 projects and for 2010: €0.27 million was allocated to 448 projects. In 2011, €0.14 million was allocated to 264 projects and in 2012, €0.15 million was allocated to 302 projects. In 2013, €0.31 million was allocated to 684 projects and in 2014, €0.12 million was allocated to 123 projects.

Another programme provided in the notification is the '*Socio-economic compensation for the management of the fishing fleet*' which is to help finance socio-economic measures leading to the diversification of activities to promote multiple jobs for fishery workers; upgrading professional skills, in particular those of young fishery workers; plans for professional retraining in areas other than maritime fishing; early departure from the fishing sector, including through early retirement; and non-renewable compensation for fishery workers from vessels affected by permanent cessation. The duration is similar to the aforesaid two programmes and the financial contribution for 2009 was €1.07 million allocated for 275 projects and in 2010 was €0.43 million allocated for 232 projects. According to the subsequent notifications, in 2011 €0.59 million was allocated for 215 projects and in 2012: €0.24 million was allocated for 81 projects. Furthermore, in the year 2013, €0.85 million was allocated to 452 projects and in 2014, €0.12 million was allocated to 68 projects.

Another programme is listed as '*Pilot Projects*' to support pilot projects, including the experimental use of more selective fishing techniques with a view to acquiring and disseminating new technical expertise. The beneficiaries are listed as 'Economic operators, recognized trade associations or any other competent body designated for this purpose by the Member State, in cooperation with a scientific or technical entity'. According to the notification, no money was allocated for this programme in the years 2009 and 2010. Subsequent notifications state same figures for years till 2014. As far as trade effects are concerned, the notification states that the subsidies are intended for research and experimentation in the fisheries sector and are therefore not considered to have any negative effects on trade.

It is commendable that Spain has disclosed some significant programmes in its notifications for the years 2011, 2013 and 2015. It must however be noted that the aggregate amount of subsidy

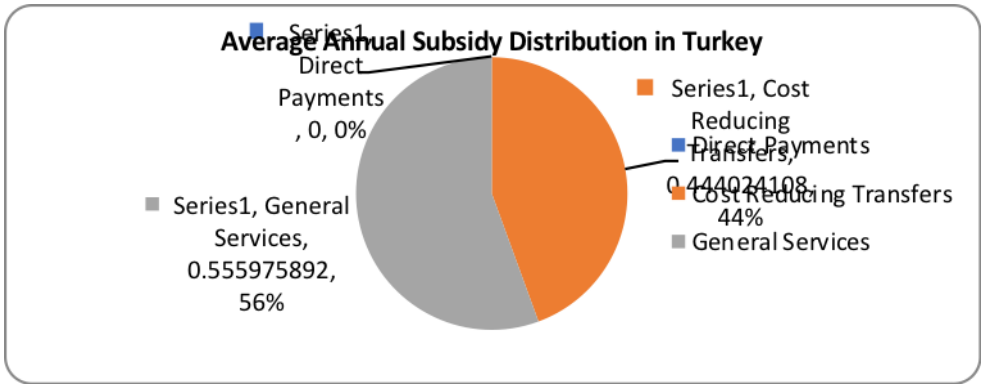
calculated on the basis of Spain's notifications to WTO does not tally with the information available with the OECD.

J. Fishery Subsidies in Turkey

Turkey has entered the league of the top 10 subsidy provider countries only during the recent years. In fact, only in 2006 Turkey was among the top 10 subsidy provider countries in the world (**Annex 1**). It is observed that the amount of subsidy provided by Turkey increased from the 2006 level to 2011 with some fluctuations, but has increased ever since. While the subsidy level in 2006 was USD 135.93 million, the same reached the level of USD 199.86 million in 2008 and then reduced to USD 166.56 million in 2011.

The detailed break-up of fishery subsidies in Turkey over 2006-2013 is reported in **Annex 12** and the distribution of subsidies is explained with the help of **Figure 10**. It is observed from the table that no subsidy was provided as direct payments during 2006-2013. Cost reducing transfers constitute 44 percent of the average subsidy over the period of study and the remaining 56 percent was under the general services component. However, since the data does not provide detailed break up of Turkey's recent subsidization for the year 2012 and 2013, no conclusion on the current constituents can be drawn.

Figure 10: Average Annual Subsidy Distribution in Turkey (2006-2013)



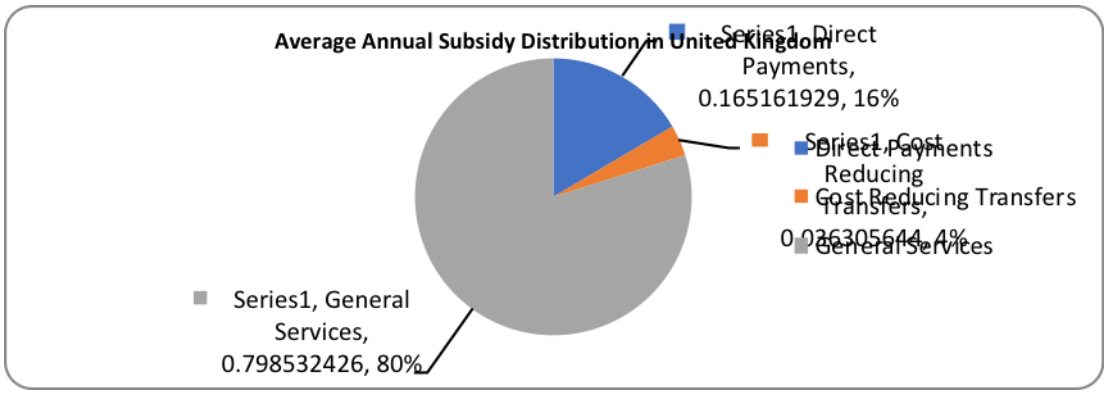
Source: Constructed on the basis of OECD (2014) data

K. Fishery Subsidies in the United Kingdom

It is observed from **Annex 1** that there has been a reduction in the UK's subsidy level since 2003 from USD 103.35 million to USD 5.68 million in 2013. The subsidy level never showed an increasing trend during the period of study. Before reaching a low of USD 5.68 million, the subsidy amount increased to USD 32.32 million in 2011, but is still considerably lower than the 2006 levels.

The detailed break-up of fishery subsidies in UK over 2006-2013 is reported in **Annex 13** and the distribution of subsidies is shown with the help of **Figure 11**. It is observed from the table that cost reducing transfers were reported only for the year 2006 (amounting to USD 1.60 million). There has been fluctuation under the direct payments and general services heads. Subsidies under general services have reduced considerably since 2006, while direct transfers have increased over the period. As a result of these changes, on an average, a major proportion of the subsidy is provided for general services (80 percent), followed by direct payments (16 percent) and cost reducing transfers (4 percent).

Figure 11: Average Annual Subsidy Distribution in United Kingdom (2006-2013)



Source: Constructed on the basis of OECD (2014) data

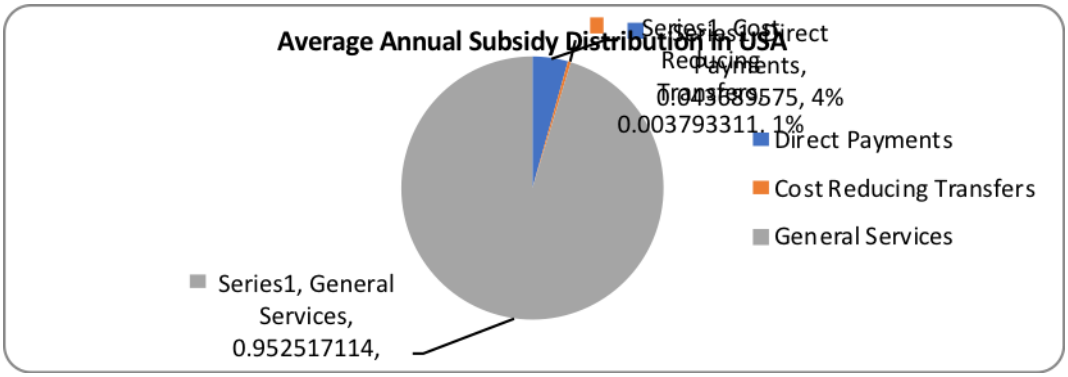
As far as notifications submitted by UK to the SCM committee are concerned, the notifications submitted for the years 2009, 2011, 2013 and 2016 contain no information on fisheries subsidies.

L. Fishery Subsidies in the United States of America

The United States has been the second highest subsidy provider in the world after Japan during 2009 but displaced Japan in 2010 and 2011. However the amount of subsidy reported in 2013 was third of what was reported in the previous year. On the whole the fishery sector subsidy provided by the US increased considerably from 2006 to 2012 with an exception of 2013.

The detailed break-up of fishery subsidies in US over 2006-2013 is reported in **Annex 14** and the distribution of subsidies is explained with the help of **Figure 12**. During the period of 2006-2013, most part of the fishery subsidies was given under general services. Cost reducing transfers had marginal significance, barring the exceptions of the years 2009 and 2010. Subsidies coming under direct payments fluctuated over the period, but have shown a decreasing trend. No subsidy is reported under this head for the years 2012 and 2013. It is observed from the data that on an average, major proportion of the subsidies come under general services (95 percent), followed by direct payments (4 percent) and cost reducing transfers (1 percent).

Figure 12: Average Annual Subsidy Distribution in United States (2006-2013)



Source: Constructed on the basis of OECD (2014) data

The USA discloses some fisheries related programmes in the notifications to the SCM committee. A programme of note is the *Fisheries Finance Program* ("**FFP**"). The duration of the programme is stated to be indefinite and the purpose of the programme is stated to be the following in 2010[46], 2011[47], 2014[48] and 2015[49] notifications: 'The purpose of FFP is to provide

[46] G/SCM/N/186/USA

fixed-rate financing with a term equal to the estimated useful life of the equipment financed. The predecessor program – the Fisheries Obligation Guarantee Program – which operated from 1972 through 1996, provided government-backed loan guarantees to the U.S. commercial fishing sector for the construction, reconstruction, replacement and, under certain circumstances, the purchase of fishing vessels.

Since 1991, the programme has been barred by NOAA policy and Congressional directives from financing any project that could be construed to lead to overcapitalization of any fishery. In 1996, the program's regulations were amended to reflect this change in policy'. All of the aforesaid notifications state that the assistance is provided through direct loans to the fishing and aquaculture industries. The interest rates charged on FFP loans are 2 percentage points above comparable maturity treasury bond yields as on the date of the loan closing. The loans are fully collateralized by fisheries and other types of assets.

The notifications also state that in light of the many loans currently outstanding, and variations in amortization schedules and interest rates, the calculation of any subsidy amount, and especially the subsidy per unit, is not readily ascertainable. The notifications also provide that is important to note, that due to the interest rates charged on these loans and the relatively low default rate, FFP is a self-financing program. In addition, the FFP charges application fees, frequently requires guarantees and secondary collateral and forecloses loan collateral. All of these factors have resulted in no net outflow of government funds. Below is a table showing the total amount of loans that have been authorized since 2009. (If this program provided a subsidy, the benefit would be based on the difference between the interest rate charged under the program and the amount the firm would pay on a comparable commercial loan.)

[47] G/SCM/N/220/USA

[48] G/SCM/N/253/USA

[49] G/SCM/N/284/USA

Type of loan	FY10	FY11	FY12	FY13
Traditional	$59	$59	$37	$37
Halibut/Sablefish IFQ	$10	$9	$6	$1

[Note: These units are to be assumed to be in millions as the US notification does not mention the unit.]

The trade effects have been stated as follows 'Since 1991, the FFP has been barred by NOAA policy, program regulations and/or Congressional directives from financing any project that could be construed to lead to overcapitalization of any fishery. Because of this policy, and because any subsidy element that might be attributable to this program is small or non-existent, the trade effects from this program are likely to be minimal, if any'.

Another programme mentioned in 2011, 2014 and 2015 notifications is the Columbia River Fishery Development Program (Mitchell Act) which is primarily aimed at conservation of fish resources in the Columbia River Basin.

2. Policy objective and/or purpose

The Mitchell Act (16 USC 755-757; 52 Stat. 345) authorizes the Secretary of Commerce to carry on activities for the conservation of fishery resources in the Columbia River Basin. The Mitchell Act specifically directs the establishment of salmon hatcheries, the conduct of engineering and biological surveys and experiments, and the installation of fish protective devices. It also authorizes agreements with state fishery agencies and construction of facilities on state-owned lands. The major objective of this program has traditionally been to mitigate the negative effects of lost salmon habitat caused primarily by the building of dams for hydroelectric power and irrigation projects, and also by other land-use factors, such as agriculture, logging, and urban development. With the listing of many of the Columbia River Basin salmon and steelhead populations under the Endangered Species Act, substantial changes have been and will continue to be required of the Mitchell Act Program. The Mitchell Act environmental impact statement (EIS) will be finalized in 2014 and will provide a basis to inform the policy direction for distribution of future Mitchell Act hatchery funding.

3. Background and authority

The Columbia River Fishery Development Program was authorized by the Mitchell Act (Public Law 75-502, May 11, 1938). It has evolved into a program which funds state agencies and tribal hatcheries, irrigation screens and fishways, and monitoring, evaluation, and reform (MER) projects in the Columbia River. The program has received federal appropriations since 1947, and is funded by general appropriations legislation.

4. Form

The United States Government provides operating grants to Columbia River Fisheries Development Program salmon hatcheries run by the Oregon Department of Fish and Wildlife (ODFW), the Washington Department of Fish and Wildlife (WDFW), the Confederated Tribes and Bands of the Yakama Nation (YN) and the U.S. Fish and Wildlife Service (USFWS), Department of Interior. In addition, the program funds irrigation screens and fishways operated by ODFW, WDFW, the Idaho Department of Fish and Game (IDFG), and YN, and funds MER projects conducted by ODFW, WDFW, YN, USFWS, and the Nez Perce Tribe (NPT).

5. To whom and how assistance is provided

The funds are provided to the ODFW, the WDFW, IDFG, the YN and the NPT through Cooperative Agreements. Funds are also provided to the USFWS through an intergovernmental transfer.

6. Amount

In fiscal years 2013 and 2014, the Mitchell Act hatchery program was reduced from the prior fiscal years' levels ($15,868,000 annually, for both FY2011 and 2012). The fiscal year 2013 final grant allocation total was $14,832,000 and the fiscal year 2014 grant allocation total was $14,072,000. These grants funded: the operation and maintenance of hatchery programs in Oregon and Washington states; necessary MER projects for Mitchell Act funded hatchery operations in Washington, Oregon and Idaho states; and screening and passage projects in Washington, Oregon, and Idaho states.

7. Duration

Indefinite.

8. Trade effects

The basic purpose of salmon hatcheries is to mitigate habitat and other losses associated with other federally-supported activities, to restore depleted salmon resources, and help to recover

listed salmon and steelhead. The contribution of Columbia River hatchery-reared fish to the commercial harvests in waters off Washington, Oregon, and California and off Alaska varies from year to year given natural variability but the Mitchell Act funded hatcheries contribute substantially to the economic value of the commercial (tribal and non-tribal) and recreational fishery in general. A recent economic analysis by TCW Economics concluded that the Mitchell Act funded hatchery production contributed $36 million in personal income to the regional economy and 871 jobs based upon hatchery production of approximately 70 million juvenile salmon and a catch of 252,000 adults in the commercial, recreational and tribal fisheries in the Columbia River, Pacific Ocean and Puget Sound, based on 2007 data (TCW Economics 2010). It is generally accepted that Mitchell Act funded hatchery production has no discernible trade effect.

Source: (Notification dated November 18, 2015 submitted by USA to SCM Committee: G/SCM/N/284/USA)

It is difficult to compare OECD findings to the information disclosed in the notifications. A research related programme mentioned in the notifications is the '*Sea Grant'*. It is a permanent programme as the duration is stated to be indefinite. The notifications states that grants may be provided to institutions of higher education (including Sea Grant College, Sea Grant Institute or other institutions), non-profit organizations, commercial organizations, state, local and Indian tribal governments, and individuals.

The policy objective is stated as follows: 'The Sea Grant College Program provides grants to carry out research that addresses many aspects of the long-term economic development, environmental stewardship, and responsible use of ocean, coastal, and Great Lakes resources, including commercial fisheries and aquaculture. National strategic focus areas for research, education, and outreach include: a safe and sustainable seafood supply; healthy coastal ecosystems; sustainable coastal development; and hazard resilient coastal communities. A majority of research grants are intended to support effective conservation and management of U.S. fisheries, rather than to assist commercial activities. However, a small number of Sea Grant

projects benefit industry, and, for that reason, in the interests of transparency, this program has been included in this notification'.

Total appropriations (fisheries and non-fisheries) for fiscal year 2012 were $62.2 million. Of that 2012 amount, approximately US$ 2.7 million was towards research focused on commercial fisheries and approximately US$ 5.3 million was devoted to research focused on aquaculture. Total program appropriations in 2013 were US$ 57.2 million. Of that 2013 amount, approximately US$ 1.2 million and approximately US$ 4.7 million was towards research focused on commercial fisheries and aquaculture respectively. Total appropriations (fisheries and non-fisheries) for the fiscal year 2014 were $67.0 million. Of this amount, approximately US$ 4.0 million and approximately US$ 4.9 million was towards to research focused on commercial and fisheries aquaculture respectively.

As far as trade effects are concerned, the notifications state that 'the Sea Grant Program is not an industry or trade promotion program. Very little of the funds provided directly impact the U.S. fishing industry. Additionally, much of the results of research conducted with Sea Grant funds are available in public domain. In light of these considerations, the trade effects of this program, if any, are likely to be minimal'.

Another research programme mentioned in the notifications of 2010, 2011, 2014 and 2015 is the '*Saltonstall-Kennedy Grant Program: Fisheries Research And Development*'. This program uses funds derived from duties collected on fishery imports to fund a wide range of R&D grants that mostly support effective conservation and management of U.S. fisheries and fisheries communities by increasing the biological, economic, and social information needed for sound management. The grants are awarded annually on a competitive basis. The notification of 2015 provides that it is difficult to estimate a subsidy per unit for a diverse R&D (S-K) grant program. 40 awards, totalling $10.5 million were obligated for competitive awards using financial year 2013 Funds. The FY 2014 funds will be used for the upcoming solicitation. It is anticipated that both a competitive and national program will be funded using both FY 2014 and FY 2015 funds.

As is clear from the recent notifications, the USA discloses primarily research related programmes under the fisheries section. It is unlikely that there are any capacity building subsidies prevalent in USA as is clear from the OECD analysis as well as other studies discussed in this paper.

M. Fishery Subsidies in the European Union

The European Union also provides other payments which may be linked to fuel use. In the past, the a maximum support of 30,000 euros per firm in the fishing sector for each three-year period during 2007-2013 for which the Commission does not require prior-notification.[50] This is a significant increase from the 3,000 euro which was allowed earlier[51]. Nevertheless they are subject to a monitoring mechanism, including ex-post reporting to the Commission, if it so requires these funds cannot be used to increase fishing capacity, though they may be used to finance variable costs of fishing vessels, including fuel. A 2009 study estimates that around 1.3 billion euros were spent on fuel by EU fishers in 2006 (based on information from 53, 700 vessels).[52] This amount has been estimated to have increased to 1.7 - 1.8 billion euros under the average fuel price of 2008.[53] As a result, the aid that could be provided by way of de minimis resources would represent approximately 13% of the 2008 fuel costs of the EU fleet.[54]

N. Fishery Subsidies in China

As China is not an OECD member, information regarding subsidies provided by China has been collected from other sources. Fish production in China has dramatically increased; particularly from aquaculture (FAO 2014). According to the FAO (2016):

> "*China is the largest exporter of fish and fishery products. It is also a major importer due to outsourcing of processing from other countries as well as growing domestic*

[50] Pavel Salz, *Towards Elimination of Subsidies in Fisheries*, December 2009, prepared for the Baltic Sea Foundation, available at <http://ec.europa.eu/fisheries/reform/docs/balticsea2020_subsidies_report_en.pdf>

[51] *ibid*

[52] *Economic Analysis of Raising De Minimis Aid for Fisheries*, Framian BV in co-operation with Symbeyond Research Group, 2009, MARE/2008/12

[53] *ibid*

[54] *ibid*

consumption of species not produced locally. However, in 2015, after years of sustained increases, its fishery trade experienced a slowdown with a reduction in its processing sector."

The FAO also reports that "Chinese fishers enjoy subsidies for fuel and also a government pension plan. However, the fuel subsidy may work against the sustainability of their livelihoods as it maintains pressure on an already depleted fishery resource". (FAO 2014)

China's notifications to the SCM Committee include information on some programmes pertaining to the fisheries sector but do not provide details of financial contribution to the sector[55]. For instance, the only programme for which some data pertaining to financial contribution is provided is the 'Subsidy fund for agricultural resources and ecological protection' which has been going on since 1984 to the present. The eligibility criteria is broad and as far as fisheries sector is concerned, the eligibility criteria is as follows: '3) Subsidies on aquatic organisms multiplication release, ocean pasture construction, reduction in the number of fishing vessels and change of fishermen's production necessary for the protection and utilization of fishery resources… 5) Other expenses in connection with agricultural resources and ecological protection'[56]. The annual amount budgeted for the subsidy is as follows:

Unit: million RMB

2009	2010	2011	2012	2013	2014
1,764.73	1,893.98	13,728.00	15,428.00	16,375.00	18,315.40

Many studies report China to be one of the world's largest subsidisers as far as the fishing industry is concerned. Among WTO members, China provides the second highest amount of subsidies (19.6% of total) after Japan (19.7% of total) (Sumaila et. al. 2016). A comprehensive assessment of the amount of financial contribution by China towards fisheries subsidies has been published in a recent study of June 2016 by Tabitha G Mallory.[57] The study notes that in 2013,

[55] China's notification to G/SCM/N/95/CHN dated May 16, 2013 and G/SCM/N/220/CHN G/SCM/N/253/CHN G/SCM/N/284/CHN dated October 30, 2015

[56] Please refer to G/SCM/N/220/CHN G/SCM/N/253/CHN G/SCM/N/284/CHN dated October 30, 2015 for detailed information about the programme

[57] *supra* note 25 – Mallory, *Fisheries Subsidies in China*

the Chinese central government spent RMB 40.383 billion (or $6.5 billion using an exchange rate of 6.21 yuan to the U.S. dollar) on fisheries subsidies. About 94 percent of this amount was in the form of fuel subsidies. Further, about 95 percent of this amount was harmful to sustainability.[58] The report also notes that China is also the world's second largest subsidizer of fishing operations.[59] The study by Mallory contains the following statistics pertaining to Chinese fuel subsidies for the past few years:

Table 1
Chinese fisheries fuel subsidies, 2006–2013 (in millions of RMB) [19].

	2006	2007	2008	2009	2010	2011	2012	2013
Domestic	2890	5107.54	11,754.18	9.383	15.07	20.63	N/A	N/A
DWF	281	326.77	883.46	815	1.608	2.68	N/A	N/A
HK, Macau	–	–	-	245	487	680	N/A	N/A
Total	3171	5434.31	12,637.64	10,443	17,165	23,990	35,113	38,132.72

Source: (T.G. Mallory 2016)

China also has a huge fishing fleet. According to Mallory's study: "In 2012, China had 451,358 motorized fishing vessels (7.707 million in total tonnage), of which 194,240 (total tonnage of 6.518 million) were marine fishing vessels and 257,118 (total tonnage of 1.190 million) were inland fishing vessels (not including aquaculture vessels)." On the basis of statistics on government expenditures collected from the China Fisheries Yearbook 2012–2014, the subsidies have been categorized as: whether they are harmful, likely to harm, ambiguous, likely to benefit, or beneficial. Aquacultural subsidies were not considered.

O. Fishery Subsidies in India

Development of fisheries in India is primarily the responsibility of the State Governments and Union Territories. The Central Government is supplementing the efforts of the State Governments and Union Territories for development of fisheries sector through the Central Plan

[58] "Harmful subsidies for the purpose of study include fuel subsidies, construction of fishing harbors, fisheries production loss assistance, fisheries insurance, and exploratory catch programs. Subsidies that are likely to harm include disaster relief and programs like "comprehensive agricultural development"." C.f T.G. Mallory - , *supra* note 25.

[59] *ibid*

Schemes. On November 21, 2014 India submitted a detailed notification specifically pertaining to programmes granted or maintained in respect of fisheries subsidies at the state governments, union territories and central government level in India. In general, the information was broadly provided for financial years 2012-2013 and 2013-2014[60].

On the basis of detailed notifications submitted by India, we have arrived at the details of fuel subsidization in India. India has been very transparent with respect to its fisheries subsidies and had submitted a supplement specifically on fisheries subsidies. As per the notification, there has been a marked reduction in fuel subsidies provided by India. Our analysis shows that the fuel subsidies provided were INR 1496.03 million in 2012-13. This dropped to INR 770.28 million in 2013-14.

Fuel Subsidies (India's notification) (Rs. in Million)		
States	**Year**	
	2012-13	**2013-14**
Andhra Pradesh	105	0
Goa	153.99	204
Maharashtra	698.32	NA
Tamil Nadu	538.72	537.72
Puducherry	0	28.56
Total	**1496.03**	**770.28**

The detailed break-up of the assistance programmes is given in **Annex 15**. In a more recent notification of April 2016 (WTO document G/SCM/N/253/IND/Suppl.2), India has provided details of assistance from the centrally sponsored scheme for development of inland fisheries and aquaculture. The programme encompasses a wide range of components – development of

[60] G/SCM/N/253/IND/Suppl.1

freshwater aquaculture, development of brackish water aquaculture; coldwater fisheries and aquaculture, development of waterlogged areas, productive utilisation of inland saline/alkaline soils for aquaculture, integrated development of inland capture resources (reservoirs/rivers etc.) and innovative projects. Subsidy is provided in the form of financial assistance to eligible beneficiaries to take up fisheries development activities covered under different components of the scheme.

Details of funds released by the Central Government during the last three fiscal years are as under: 2012-2013: 314.16 million rupees, 2013-2014: 310.39 million rupees and 2014-2015: 263.22 million rupees.

In addition, schemes by Marine Products Exports Development Authority (MPEDA) such as the MPEDA Ornamental Fish Assistance Schemes, Technology Upgradation Scheme For Marine Products (TUSMP) etc. are specifically aimed at the fisheries sector.

CHAPTER 6: FUEL SUBSIDIES

Chapter 3 of the study analysed the classification of fisheries subsidies by different sources. Chapter 4 of this study analysed the trends in increasing fisheries subsidies worldwide. Connected to the discussions in both theses chapter is the issue of fuel subsidies. Various studies show that the highest amount of subsidies being provided in the fisheries sector is in the case of fuel subsidies. It therefore becomes important to undertake a separate analysis of fuel subsidies as such. Before understanding the distorting aspects of fuel subsidies provided in various countries, it may be useful to first understand the scope and nature of fuel subsidies.

A. Scope and Nature of Fuel Subsidies

According to an official note commissioned for the European Parliament and published in May 2013, fuel subsidies have been explained in the context of fisheries as: "any government intervention regarding fossil fuels that benefits fishers by reducing their costs or increasing their revenue".[61] A more narrow definition is given by Sumaila and Pauly, who define fuel subsidies as consisting of "the difference between the price per litre of fuel paid by fishers and the national price applied to fuel purchases for other uses in a given economy"[62]. The 2013 EU note finds that fuel subsidies for fishers within the EU mainly consists of fuel tax exemptions with respect to the excise taxes directed at specific fuels.

Fuel subsidies can be considered beneficial in a developmental context, especially for resource-poor fishworkers in developing countries where the price of fuel can be well beyond their reach. However, if they are provided indiscriminately in developed country markets where fish workers are relatively better off, it can directly promote overfishing and overcapacity.

[61] Alessandra Borrello, et al, *Fuel Subsidies In The EU Fisheries Sector*, Note, 2013, Policy Department of the EU, available at <http://www.europarl.europa.eu/RegData/etudes/note/join/2013/513963/IPOL-PECH_NT(2013)513963_EN.pdf> (Hereinafter Borrello, et al, *Fuel Subsidies*)

[62] *supra* note 32 – Sumaila et al, *Global Fisheries Subsidies*

B. Magnitude of Fuel Subsidies Worldwide

There are many studies which point to the fact that fuel subsidies represent the largest subsidy category. According to a study by Sumaila, et al (2015), fuel subsidies represent the largest subsidy category (22% of the total subsidies). The graph below, extracted from the study, shows that both developed and developing countries contribute maximum towards providing assistance in the form of fuel subsidies.

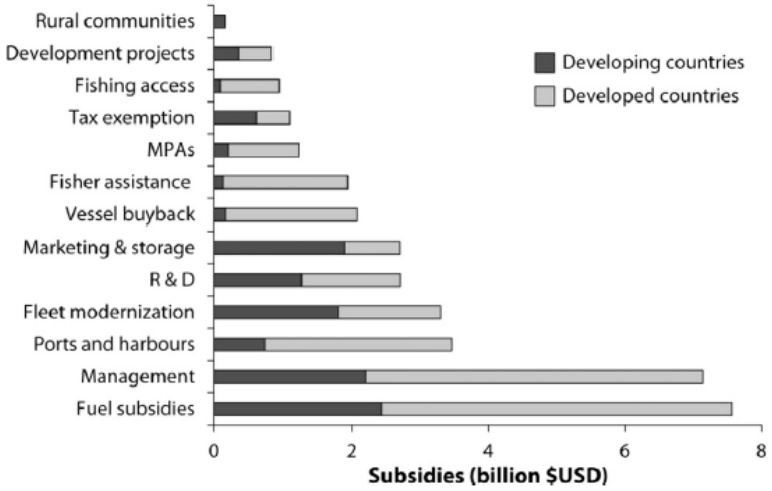


Fig. 2. Composition of the subsidy estimates by types. *Source*: adapted from FAO [6], Milazzo [5], Sumaila and Pauly [9], and Sumaila et al. [4].

China, which we have noted in the previous Chapter, spends 94 per cent of its fisheries subsidies on fuel. According to the study by T.G. Mallory, in the year 2013, this was around 40.383 billion renminbi (US$ 6.5 billion). The amount of fuel subsidies provided by the EU is also quite high. According to the 2013 note by Alessandra Borrello, et al, a significant amount is forgone revenue by governments on account of fuel tax reductions and exemptions for the fisheries sector. According to the note, the total amount of revenue forgone by EU governments roughly covering the period 2003-2013 was estimated at €1.05 billion, or 0.022% of overall average governmental revenues.[63] Borrello, et al state that even though the figure seems relatively small, "this amount should be considered a maximum, as fishers would most probably adjust their fishing behaviour and activities to reduce fuel consumption in the absence of tax exemptions, similar to that observed during recent periods of high fuel price increases". As far as subsidies

[63] *supra* note 61 – Borrello, et al, *Fuel Subsidies*

are concerned, the following excerpt presents an overview on the fuel subsidies in the fisheries sector:[64]

> *"Besides indirect benefits such as fuel tax reductions and exemptions, the EU also provides direct payments potentially linked to fuel use to the fisheries sector under the de minimis aid scheme which was introduced in 2008 to mitigate the consequences of rapidly rising energy prices. According to de minimis regulation for the fisheries sector (EC Reg. 875/2007), a maximum amount of EUR 30,000 could be given to a fisheries firm for each three-year period during 2007-2013. As for the primary agriculture sector, there is an overall limit per E, which is set at 2.5% of the total production value of the fisheries sector.*"

C. The Curious Case of the Missing Fuel Subsidies

According to Article 25 of the SCM Agreement, subsidies which are *specific* under provisions of Article 2 are required to be notified by Members to the WTO's SCM Committee. In case of the fishing sector, subsidies such as boat building subsidies, for purchase of vessels or for modernization, for safety equipment etc. can be covered under the definition of 'specific' subsidy, and would generally be required to be notified. However, fuel subsidies may not always be considered 'specific' within the meaning of the existing provisions of the SCM Agreement. It is only when a fuel subsidy is specifically provided to the fisheries sector, it would be considered a specific subsidy. But in the event fuel subsidy or a related subsidy such as reimbursement of transportation costs is provided to all the sectors (and not specifically to the fisheries sector) it shall not be considered 'specific' within the meaning of the SCM Agreement. As a result, many WTO members use this to their advantage by providing fuel and transportation related subsidies through general programmes and do not notify those schemes to the SCM Committee. Very often even specific programmes are not disclosed and sometimes complete information is not provided to the WTO's SCM Committee. In the draft fisheries subsidies text of NGR chair of November 30, 2007 'fuel subsidies' were proposed for inclusion in the list of prohibited subsidies, provided these were specific under the provisions of Article 2 of the SCM Agreement.

[64] *ibid*

The reluctance of WTO Members in disclosing their fisheries subsidies has been highlighted by various studies. A notable study is a report published by the OECD on the basis of information provided by various countries regarding their fuel subsidies. In December 2009, the OECD circulated a questionnaire to various countries for obtaining information on fuel-tax concessions ("**FTC**") for fishing vessels and a detailed report on the same was published in 2012[65]. Based on the data submitted, the total value of FTCs for OECD countries was estimated at US$ 2 billion in 2008 representing consumption of 9.3 billion litres of fuel. This figure also includes fuel consumed by fishing vessels that were otherwise not eligible for a FTC or any other form of support (OECD 2012).

For the purposes of this study, we compared the information compiled by the OECD in response to the questionnaire with the information provided to the WTO vide the Member's notifications to the SCM Committee. Our analysis showed that many fuel subsidy programmes were not notified to the SCM committee and out of the few programmes that were notified, not all provided comprehensive information (**Annex 16**).

The EU notifications submitted to the SCM Committee in 2007 provides information on funds provided to the fisheries sector. For instance, a programme of note mentioned in EU's notifications to the SCM Committee for the years 2007[66], 2009[67] and 2013[68] respectively is a measure titled '*Common Organisation of the Market in Fishery and Aquaculture Products*'. According to the 2013 notification, it aims at providing financial compensation, carry-over aid, autonomous withdrawal and carry-over, private storage aid, compensatory payment for tuna supplied to industry. It provides for ***Compensation for the additional costs, resulting from the remoteness****, insularity and other specific handicaps,* ***incurred in the marketing of certain fishery products from certain outermost regions of the EU*** (emphasis supplied). Under this scheme, mechanisms are implemented by producers' organizations and in outermost regions

[65] Roger Martini, *Fuel Tax Concessions in the Fisheries Sector*, OECD Food, Agriculture and Fisheries Papers, No. 56, OECD Publishing, 2012, http://dx.doi.org/10.1787/5k9bdccqft30-en

[66] G/SCM/N/155/EEC

[67] G/SCM/N/155/EEC

[68] G/SCM/N/253/EU

measures are implemented by the EU and the Member States concerned. The beneficiaries are fishermen belonging to such organizations and in the outermost regions beneficiaries can also include ship-owners and/or fish-processors. The aid is normally in the form of grants and it seems that the programme is a permanent scheme since the duration of the programme is listed as 'fishing years'. The total budget of the programme for 2011was 30 million euros and for the year 2012 was 30 million euros. It is likely that the programme gives subsidies for transportation from remote areas as the intervention mechanism provides for granting 'compensation for the additional costs, resulting from the remoteness, insularity and other specific handicaps, incurred in the marketing of certain fishery products from certain outermost regions of the EU'.

It is important to note that the objectives of the same programme in the 2007 notification were listed as follows:

- To stabilize to promote sustainable fishing and optimum use of fish products.
- To stabilize the market.
- To ensure a regular supply of high-quality products.
- ***To guarantee reasonable consumer prices.***
- ***To support fishermen's incomes.***(emphasis supplied)

Same objectives were listed in the 2009 notification and the total budget for the years 2005, 2006, 2007 and 2008 was provided to be 28.5 million euros, 26 million euros, 25.1 million euros and 32.5 million euros respectively. The last two objectives of the programme are extremely broad and vague and can cover all possible costs including fuel costs. The duration of the programme was listed as 'Fishing years' which is indicative of the fact that the programme is permanent.

Such programmes have broad objectives which can easily cover fuel subsidies. A Belgian programme notified in 2011 notification[69] to the SCM Committee is titled '*FIVA (Instrument for the Financing for the Flemish Fisheries and Aquiculture Sector)*' provides aid in the following forms:

[69] G/SCM/N/220/EEC/Add.2

- subsidized interest rates on loans granted to ship-owners and fish-farmers and their cooperatives;
- Capital subsidy when investment is financed by equity;
- Loan guarantees for ship-owners and fish-farmers.

The objective of the programme, granted to ship-owners, fish-farmers and their organizations and cooperatives and fish processing companies, is to help these beneficiaries become more modern, sustainable, profitable and market competitive, to ensure their profitability and to reduce their costs. This cost-reducing subsidy has been provided for the period 2007-2013 as per the notification. Note that such programmes can easily include fuel subsidies even if nothing in the programme directly mentions fuel subsidies. Furthermore, it is extremely difficult to ascertain the real extent of assistance provided to the fisheries sector due to lack of complete information. The programme was also mentioned in the 2007 notification[70] by Belgium and the following figures in relation to financial commitment were provided:

Total amount of aid in 2005 (in terms of commitments)

- Interest rate subsidies EUR 762,601.21
- Capital premiums EUR 346,144.63
- Loan guarantees EUR 2,617,870.00

Total amount of aid in 2006 (in terms of commitments)

- Interest rate subsidies EUR 111,328.27
- Capital premiums EUR 96,770.07
- loan guarantees EUR 0

(Source: Notification of Belgium to SCM Committee WTO dated December 21, 2007 G/SCM/N/155/EEC/Add.2

The OECD in its report notes the following as far as the EU's fuel subsidies are concerned:

The European Union also provides other payments which may be linked to fuel use, but are not captured here. Specifically, the "*de minimis*" regulation for fisheries, EC Reg. 875/2007, allows a

[70] G/SCM/N/155/EEC/Add.2

maximum support of EUR 30 000 per firm for each three year period during 2007-13. These funds cannot be used to increase fishing capacity, though they may be used to finance variable costs of fishing vessels, including fuel (see the discussion of the European Union in the Country Review section for more details).

The estimate of total value of fuel tax concessions under-estimates the total value of fuel-tax concessions in OECD countries, because:

- not all countries have responded;
- there are sub-national tax concessions that have not been reported; and,
- in some cases, a reasonable estimate of the total value of fuel-tax concessions could not be estimated because fuel-consumption data were not available, though the tax and exemption rates were known.

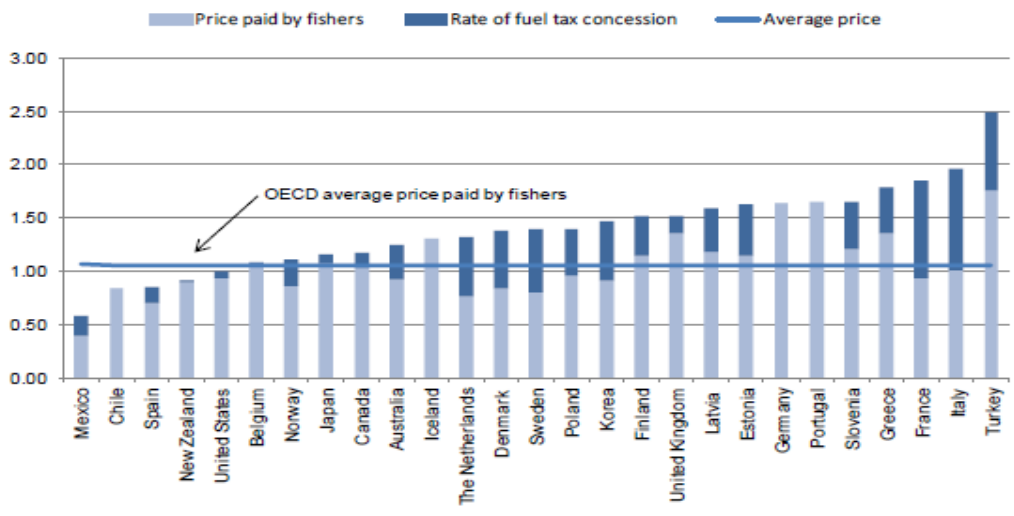
The previous section cautioned against international comparisons of this data, because of the lack of appropriate benchmarks for comparison. To this should be added the issue of the different methods of estimation seen in the data submissions (Box 3).

Source: (OECD 2012)

The OECD database has prepared the following graph to illustrate fuel tax concessions and net price for fishers in 2008:

Figure 6. FTC and net fuel price for fishers, 2008

USD per litre



Source: OECD FTC database 2011.

As stated earlier, many programmes apply to the fisheries sector but are structured in a manner that it is not possible to ascertain this. For instance, a programme duly disclosed by Belgium in its 2007 notification[71] to the SCM Committee is '*Excise duty on energy products and electricity, Programme Law of 27 December 2004 (Articles 419 and 420, paragraphs 5 and 6)*'It is disclosed under the head 'Tax Measures for Exemption from or Reduction of Excise Duty on Energy Products and Electricity'. The exact information about the programme provided as per the notification by Belgium is as follows:

(a) Form of the subsidy

The aid granted consists of a reduction of or an exemption from excise duties for enterprises which have concluded an environmental agreement

In this case, energy-intensive enterprises holding an environmental permit are granted a zero rate, while a reduced rate (normally 50 per cent) is applied to other enterprises which hold such a permit.

(b) Amount in 2005 and 2006

Budgetary estimate of EUR 40 million per year. Real cost figures are not yet available. (c)

Policy objective

The tax measures apply to the professional consumption of energy-intensive enterprises engaged in economic activity involving production, trading or the provision of services, including mining and agricultural activities and liberal professions.

(d) Duration

The reduced excise rates provided for in Article 419 of the Programme Law of 27 December 2004 have been in force since 1 January 2005.

[71] G/SCM/N/155/EEC/Add.2

Source: (WTO: Belgium's notification to SCM Committee dated December 21, 2007 G/SCM/N/155/EEC/Add.2)

The notification does not indicate that the programme applies to the fisheries sector. However, according to the information provided by Belgium to OECD, fishers are exempted from this excise tax. OECD notes:

Belgium

Belgium reports that its fuel support consists of an excise-duty exemption, granted at the national level, for gasoline - light fuel oil [HS code 2710 1945]. This type of fuel is differentiated in the tax codes according to its final use. The level of excise duty for the type of fuel used by the Belgian fleet is 21/1000 litres. Fishers are exempted from this excise tax on the basis of "Energy products supplied for use as motor fuel or heating fuel for the purposes of navigation within Community waters (including fishing) and electricity produced on board a craft" (OECD and the European Environment Agency database on instruments used for environmental policy and natural resources management). Data provided by companies that supply the Belgian fishing fleet with fuel indicate that fishers use gasoline of 0.1% sulphur content (with 0.86 density); this is also known as marine gas oil.

Source: (OECD 2012)

However, OECD report notes that the level of support provided by Belgium is 3% of all support. As per OECD statistics, FTCs were to the extent of 0.1 million euros in 2008.

It must be noted that Belgium has provided information on programmes applicable to the fisheries sector under a separate section 'AID TO THE FISHERIES AND AQUACULTURE SECTOR' in its 2007 notification. However, this programme is not mentioned in the aforesaid section. Therefore, on a perusal of the notification by Belgium, it would not have been possible to conclude that the programme applies to the fisheries sector.

This is not only true for Belgium but for other countries as well. **Annex 16**, provides comparative chart of information provided in notifications of some WTO members and the information

provided to OECD for its analysis in the 2012 report. Our research shows that the enormity of fisheries subsidies including fuel subsidies is much higher than the estimates by various studies. This is due to several factors including the non-specific nature of fuel tax exemptions in most jurisdictions. However, there can be general reluctance on the part of WTO members in being transparent about their fisheries policies and fuel subsidies. It is, therefore, even more important to ensure that fuel subsidies are regulated through clear well-drafted rules.

CHAPTER 7: FISHERIES ACCESS RIGHTS ARRANGEMENTS

A. Introduction

Every coastal state has a sovereign right for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of its Exclusive Economic Zone ("**EEZ**"), which is the area seaward to a distance of no more than 200 nautical miles measured from coastal baselines.[72] These EEZs are often rich in marine resources and therefore, besides serving the needs of the particular coastal State, may be the subject of arrangements with other States to exploit these resources in exchange for a valuable economic consideration. This has significant relevance in the context of the fisheries sector. The increased demand for fish in many countries coupled with the economic gains arising for coastal States has contributed to the emergence of these arrangements between coastal nations called Distant Water Fishing Nations (**DWFN**). This has also been further facilitated by the provisions of the UN Convention on the Law of Seas, 1962.

DWFNs are increasingly partnering with countries such as those in the ACP ("**African, Caribbean and Pacific**") region which have surplus fish stocks ("**Coastal States**"). Further, the advancement of fishing technology coupled with growth in fishing capacity[73] has increased the interest in exploiting the vast fish stocks located mostly in the developing world. This exploitation of distant water fisheries resources by DWFNs has been facilitated by legal frameworks known as fisheries access arrangements or agreements, as per which a country with surplus fish resources in its EEZ sells fishing rights to another country (the DWFN) for a financial consideration known as access rights fee. Upon acquisition of access rights, the DWFN is allowed to fish or permit its fishermen to fish in the distant waters of the third country.

[72] Article 57, United Nations Convention on the Law of the Seas (UNCLOS), 1982

[73] Antonius Gagern and Jeroen van den Bergh, *A Critical Review Of Fishing Agreements With Tropical Developing Countries*, Marine Policy 38 (2013) 375–386, at page 375, available at <http://dx.doi.org/10.1016/j.marpol.2012.06.016>

Fisheries access arrangements are mostly inter-governmental. However, they can also be entered into between the coastal government and a particular fishing enterprise, and in many cases, between a coastal government and a fisheries association based in a DWFN. The nature of these fishing access agreements also varies. They may be multilateral or bilateral. The World Bank notes that approximately half of the world's EEZs are subject to some form of foreign fishing arrangement.[74]

After discussing the general importance of fisheries access arrangements and their various implications, this Chapter analyses some of these fisheries access rights arrangements. For a better understanding of fisheries access agreements, it would be useful to understand the scope of the various fisheries access rights agreements. Rather than analysing these agreements simply in commercial terms, the emphasis of this Chapter is on understanding these agreements from a fisheries conservation and management perspective.

Before proceeding with the analysis, there are two transparency related limitations that the authors of this Chapter wish to identify. First, while some fisheries access agreements (such as the EU) are publicly available, many fisheries agreements are not available in public domain. As a result, in this study, much reliance has been placed on secondary sources which have a reasonable degree of credibility. This is an issue which has been iterated in other studies on fisheries agreements as well. As a result, it may be difficult to accurately understand and analyse the scope and implications of these fisheries access agreements. One possible reason for not making public the details of fisheries access agreements is that the lack of transparency would preserve the negotiating power of DWFNs in the absence of comparable details, information of the coastal States.[75] Given the implications these agreements pose for society and the economy

[74] Robert Arthur, et al., *Trade in Fishing Services: Emerging Perspectives on Foreign Fishing Arrangements*, 2014, Environment and Natural Resources Global Practice Discussion Paper No. 1, World Bank Group, available at <http://documents.worldbank.org/curated/en/504571468164949623/Trade-in-fishing-services-emerging-perspectives-on-foreign-fishing-arrangements>

[75] *ibid*

of a country, the lack of transparency regarding details of these agreements also undermines public interest.[76]

The second concern pertains to subsidies notifications in the WTO. From a general point of view, it is possible to construe certain payments made for getting access to fishing grounds when made by the DWFN government as subsidies. As has been discussed in the previous chapters, Members can be opaque about notifying fisheries subsidies. As a result, it is difficult to ascertain the full details of payments made in respect of fisheries access rights by DWFN governments. The lack of transparency regarding the subsidies made available for obtaining fishing access rights is also a major limitation. This lack of transparency makes it difficult to understand the exact nature of the link between subsidies for fisheries access and the exploitation of fish stocks in host states.

The agreements that are discussed in this Chapter include bilateral government-to-government agreements such as the EU fisheries access agreements, multilateral access agreements such as the US Treaty, and the FSM Arrangement. Subsequently, this Chapter discusses bilateral instruments such as industry-country arrangements initialled by fishing industry associations in China and Japan. The last set of agreements discussed is the Russian Fisheries Agreement.

B. Implications of Fishing Access Arrangements

i. Economic Implications for Coastal States

Fishing access rights arrangements are particularly lucrative for SIDSs which lack capacity for exploiting their fisheries stocks. Granting access to their EEZs via these fisheries access

[76] Jane Mbendo (Samaki Eco-Systems), *Developing Regional Minimum Terms And Conditions For Granting Tuna Fishing Access In The Western Indian Ocean*, WWF- Coastal East Africa Global Initiative consultancy on 'Developing Regional Minimum Terms and Conditions (MT & Cs) for granting tuna fishing access in the Western Indian Ocean, September 2012, available at <http://wwf.panda.org/?208719/DEVELOPING-REGIONAL-MINIMUM-TERMS-AND-CONDITIONS-FOR-GRANTING-TUNA-FISHING-ACCESS-IN-THE-WESTERN-INDIAN-OCEAN>, page 6

arrangements gives them major financial benefits, which in some cases, amount to around 50 percent of their GDP, providing a major source of income to meet their development goals.[77]

Besides the financial support for the coastal states, fishing by foreign vessels creates a significant employment opportunities for the local population of coastal states when the fish caught are landed in the coastal state. The benefits are mostly for the processing, canning and port infrastructure sectors in the coastal state. According to a study by the Department for International Development ("**DFID**"), fishing access arrangements with the EU have brought positive results for certain African countries such as Côte d'Ivoire, Mauritius and Seychelles.[78]

However, since these arrangements have traditionally been a prime source of continuous income, these coastal states seem to be more than eager to enter into such agreements without considering the brunt these access arrangements may have on small-scale fish workers. According to a World Bank report:

> *[I]n many cases the role and significance of small-scale fishing activities (including the wider economic and social dependencies) have not been taken into account in the process of negotiating access and calculating the costs of the agreements and determining who will bear these costs. Beyond this, there is often little consideration of the potential role of small-scale fishers as drivers of development. Furthermore, there is a transparency issue whereby small-scale fishers may be excluded from the negotiations and may even be unaware that the negotiations are going on.*

The domestic fishing industry has started demanding greater involvement in policies affecting their national resources[79] but this problem has not been addressed adequately by small countries due to dependence on fisheries arrangements for their income and political realities.

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[77] Stephen Mbithi Mwikya, *Fisheries Access Agreements: Trade and Development Issues*, International Centre for Trade and Sustainable Development, Issue Paper No. 2, 2006, available at <www.ictsd.org/downloads/2008/04/mbithi_2006.pdf> (Hereinafter Mwikya, *Fisheries Access Agreements*)

[78] Cited by *supra* note 11 – Chakraborty and Singh, *Implications of Fishery Sector Subsidies* at page 46

[79] Stan Gorton, *Indigenous Fishing Rights Protest On Far South Coast*, Narooma News, 12 December 2012, <http://www.naroomanewsonline.com.au/story/1181289/indigenous-fishing-rights-protest-on-far-south-coast/>

ii. (Over)exploitation of Fish Stocks

There are several studies which show that the quantum of marine fish caught by DWF vessels under fishing access arrangements is quite significant. According to a DFID study, DWF vessels caught between 5-15 percent of worldwide fisheries catches annually for the period 1970-99.[80] However, what is worrying is that the exploitation of fish stocks through these access arrangements has gradually become a case of overexploitation. The problem of over-exploitation is exacerbated by the absence of appropriate regulation (including lack of implementation of existing conservation laws). This has caused serious injury to the local fishing industry in terms of depleted fish stocks. A study by Marcos Orellana states that facilitated by former Euro-African fishing agreements, DWFN vessels have significantly contributed to overfishing and declining yields in African waters.[81] Orellana also notes that the absence of proper means and equipment for monitoring fishing activities taking place in their EEZs means that coastal state authorities are unable to effectively curb overfishing.[82]

The consideration paid by DWFNs represents a very small percentage of the value of catch[83]. Studies have suggested that the financial compensation paid for acquisition of access rights, is between two to seventeen percent of the value of the catch with an average of six percent[84].This relatively inexpensive cost for acquiring access rights makes it highly lucrative for DWFNs to enter into access rights arrangements and exploit foreign EEZs.

C. Fisheries Access Arrangements and Negotiations at the WTO

It is no doubt that the remuneration and the employment benefits earned by coastal states through fishing access arrangements presents valuable economic benefits for them. However, these fishing access arrangements may present a host of problems, as discussed in the previous section. The problems of overfishing and threats to local fishermen, due to these fishing access

[80] Cited by *supra* note 11 - Chakraborty and Singh, *Implications of Fishery Sector Subsidies*

[81] Marcos A. Orellana, *Towards Sustainable Fisheries Access Agreements- Issues and Options at the WTO*, UNEP, 2008, available at <www.unep.ch/etb/publications/FS Access Agreements/ Inside FS ACcess Agreements.pdf>

[82] *ibid*

[83] *supra* note 77 – Mwikya, *Fisheries Access Agreements*

[84] *ibid*

arrangements can be exacerbated by the subsidization of fishing access fees by the DWFN governments. For instance, in the case of the EU, while the access fees under the access rights arrangements are paid by the EU, the level of compensation paid by the EU fishing industry is substantially low in terms of the value of the fish that is caught.[85]

The significance of fisheries access arrangements and their subsidization has been duly recognized in the fisheries subsidies negotiations at the WTO. In the draft Chair's text in Annex VIII of 30 November 2007[86] the proposed prohibition of subsidies includes, inter alia, *subsidies arising from the further transfer, by a payer Member government, of access rights that it has acquired from another Member government to fisheries within the jurisdiction of such other Member*. However, it was clarified through a footnote that government to government payments for access to marine fisheries shall not be deemed to be subsidies.

In the same draft text under the S&DT section, the proposed Article III.3 provides an exception from the above proposed prohibition for developing countries. It proposes that subsidies arising from further transfers of access rights shall not be prohibited where the fishery in question is within the EEZ of a developing country Member. This S&DT exception is subject to the condition that the agreement pursuant to which the rights have been acquired is made public, and contains provisions designed to prevent over fishing in the area covered by the agreement based on internationally recognized best practices for fisheries management and conservation.

The fisheries management and conservation measures referred to in the draft text are contained in the relevant provisions of international instruments aimed at ensuring the conservation and sustainable use of certain marine fish stocks.[87] Therefore, the S&DT exception for subsidies

[85] F Le Manach, et al, (2013) *European Union's Public Fishing Access Agreements in Developing Countries*, PLoS ONE 8(11): e79899. doi:10.1371/journal.pone.0079899 (Hereinafer Le Manach, et al – *EU's Publish Fishing Access Agreements*)

[86] TN/RL/W/213

[87] Some of these instruments of international law are: the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, the Code of Conduct on Responsible

arising from further transfer of access rights are contingent upon strong fisheries management measures aimed at sustainable fishing.

Subsequently, a submission by Brazil, China, India and Mexico in February 2010[88] reflected a shift in the seeking of S&DT exception in respect of subsidies arising from transfer of access rights. As per this proposal the S&DT exception from prohibition of subsidies arising from transfer of access rights was limited to the access rights which are acquired by developing country Member for the fishery in the EEZ of a developing country Member. Essentially, through this proposal the proponents restricted the benefit of S&D only to the access rights acquiring developing country Member and in respect of fisheries of another developing country Member. This was ostensibly to prevent developed country Members to seek benefits of reverse S&DT since in most of the cases the access rights were being acquired by developed country Members.

In a later submission in March 2011 by the ACP Group, there was proposal by Kenya seeking S&DT to address the need for appropriate and effective S&DT for those developing countries which do not contribute to over capacity and over-fishing, and to provide workable and effective solutions to allow ACP States to develop their fisheries sector, safeguard livelihood security and to pursue their national development strategies, including diversification of their economic base.[89]

D. EU Fisheries Access Arrangements

The EU is one of the major developed players which has utilized the opportunity to fish in other countries' EEZ through the access route. As stated earlier, "the actual benefits received by the developing countries / LDCs from these arrangements has often been questioned (Kaczynski and Fluharty, 2002). As a response to these criticisms, the EU in 2004 moved away from the Fisheries Agreements for obtaining access rights to Fisheries Partnership Agreements (FPAs),

Fisheries of the Food and Agriculture Organization, the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

[88] TN/RL/GEN/163

[89] TN/RL/GEN/176

with the latter having a distinctive focus on development of the partner LDC".[90] Part of the reform of EU fisheries policy is intended to: (a) improve the scientific knowledge underlying the fishing rights granted under the agreements and provide more information about the overall fishing effort deployed in partner country waters; (b) strengthen the governance of the agreements, including a clause to protect human rights and gradually increase EU ship-owners' contribution to the access costs; (c) better promote sustainable fishing in the partner country waters by making EU sectoral support more targeted and subject to regular monitoring[91]. According to the EU, 'These agreements also focus on resource conservation and environmental sustainability, ensuring that all EU vessels are subject to the same rules of control and transparency'[92]. However, the EU has been subject to criticism for not honouring its commitments under the FPAs.

As on date, the EU has FPAs effective with at least 13 coastal states. A table capturing salient aspects of these FPAs is provided in Annex 17. The current generation of EU FPAs can be divided into two categories (a) Tuna agreements, which allow EU vessels to pursue migrating tuna stocks as they move along the shores of Africa and through the Indian Ocean; and (b) Mixed agreements, which provide access to a wide range of fish stocks in the partner country's EEZ. The EU has Tuna SFPAs with Cape Verde, Comoros, Côte d'Ivoire, Gabon, Kiribati, Madagascar, Mauritius, Mozambique, Sâo Tomé and Principe, Senegal, Seychelles. It has mixed agreements with Greenland, Guinea-Bissau, Mauritania, Morocco, Faroe Islands, Iceland and Norway.

As per these FPAs, EU fishing vessels are given access rights to the EEZs of these coastal states in consideration for a sizable sum of license fees to these coastal states paid by the EU itself. The EU fishing vessels in turn have to pay their home government an amount per tonne of fish caught by them in the host state waters. A specific feature of these FPAs is that there are quantitative restrictions on the amount of catch per country per annum. An interesting aspect of the financial

[90] *supra* note 11 – Chakraborty and Singh, *Implications of Fishery Sector Subsidies*

[91] *Bilateral Agreements With Countries Outside The EU*, Fisheries, <http://www.ec.europa.eu/fisheries/cfp/international/agreements/index_en.htm>

[92] *ibid*

contribution that is to be paid by the EU is that there is a separate component for support to the coastal states' fisheries sector.

The access fees that the EU pays under these FPAs are a significant source of income for coastal states. However, it also constitutes significant expenditure for the EU government. According to the 2013 Trade Policy Review of the EU (Secretariat's Report), the EU spent an average of 150 million euros on international fisheries agreements between 2008 and 11.[93] According to a study undertaken by Frederic Le Manach, et al and published in November 2013, "*the subsidies spent by taxpayers to grant the EU fishing industry the access to waters of host countries represent approximately 75% of the total value of the agreements for which such a ratio could be estimated*".[94] The study by Le Manach, et al also points out that the fees paid by the EU fishing industry represents less than 2% of the industry's gross revenue.[95]

Prior to the current template of FPAs, FPAs between the EU and coastal states did not mention catch quotas, and as a result, usually led to over-exploitation of fish stocks.[96] It was only over a course of time that the EU started to emphasize on principles of conservation and sustainable fishing. The text of the EU FPAs stresses on conservation and sustainable fishing in the waters of the DWFN parties.

The preamble to each FPA expressly refers to the UNCLOS, and the FAO Code of Conduct for Responsible Fisheries. Article 3(1) obliges parties to undertake responsible fishing in coastal state waters. Article 4 of every FPA - which pertains to scientific cooperation – obliges parties to take steps towards conservation and sustainable fishing in the host state waters. Paragraph 1 of

[93] *Trade Policy Review of the European Union*, Report by the Secretariat, WT/TPR/S/284, 28 May 2013, pages 131-132.

[94] *supra* note 85, Le Manach, et al – *EU's Publish Fishing Access Agreements* at page 6
available at <*journals.plos.org/plosone/article?id=10.1371/journal.pone.0079899*>

[95] *Ibid*

[96] U.R.Sumaila, et al, *A Bottom-Up Re-Estimation Of Global Fisheries Subsidies*, Journal of Bioeconomics, (2010) 12:201-225, at page 223 citing V.M. Kaczynski & D.L. Fluharty, *European Policies in West Africa: Who Benefits from Fisheries Agreements*, 2002 *Marine Policy*, 23, 47-69

Article 4 requires parties to (endeavour to) monitor the state of (fisheries) resources in host state waters. Under paragraph 2 of Article 4, parties are required to take measures to ensure the sustainable management of fisheries resources based on the recommendations and resolutions of the Indian Ocean Tuna Commission (IOTC) and the best available scientific advice. Further, under paragraph 3 of Article 4, parties are required to consult each other, either directly or within the IOTC, to ensure the management and conservation of living resources in the Indian Ocean, and to cooperate in the relevant scientific research.

Article 9 of each FPA also establishes a Joint Committee consisting of representatives from the EU and the coastal state for monitoring implementation of the FPA. Though not expressly described in Article 9, a constructive interpretation of all the provisions leads us to understand that the functions of this Joint Committee extend to monitoring conservation and sustainable fishing in the coastal state's waters. However, certain studies have pointed to the concerns about the efficiency of such committees, primarily due to the lack of accessible (and accurate) data and analytical capacity of these committees.[97]

Even though the EU's Common Fisheries Policy and the current FPA templates are good steps, practical issues and the state of implementation leaves much to be desired. Some of the criticisms that have been pointed out in a study by Antonius Gagern and Jeroen van den Bergh[98] are:

(i) The EU continues to agree on targeting stocks for which biological surplus production cannot be ascertained scientifically

(ii) European regulations pertaining to technical measures (for example minimum mesh size) are not applied in foreign EEZs. Rather, less rigorous local regulations are followed

(iii)underlying reasoning and evaluations however, as well as detailed reporting on landings and values of landings, are not disclosed

(iv)FPAs are not coherent with their objectives to enhance fisheries management in host countries nor does the EU make sure that the money is spent as foreseen in the

[97] *supra* note 85, Le Manach, et al – *EU's Publish Fishing Access Agreements*

[98] Antonius Gagern and Jeroen van den Bergh, *A Critical Review of Fishing Agreements with Tropical Developing Countries*, Marine Policy 38 (2013) 375–386, available at < http://dx.doi.org/10.1016/j.marpol.2012.06.016> at page 378

> *contract. The partnership dimension in FPAs often is far from reaching its goals: one of several evaluations concerning FPAs summarizes that ''this aspect of partnership is an illusion". Funds do not reach the intended purposes, fish stocks are decreasing and the lives of fish workers in contracting states are harder than ever.*

Another research paper of note is a 2012 Working Paper by Matthias Mundt of the Institute of International Political Economy, Berlin, who has carried out an empirical study to assess the effects of the EU FPAs on the Cape Verde fishing community and fish stocks. Focusing on the subsidies embedded in the EU-Cape Verde FPA, the study concludes that "*the subsidies provided by the EU to their fleet increase the problem of overfishing in Cape Verde*".[99] It should be noted here that the study does not state that these subsidies in FPAs are the direct cause or lead to overfishing, but that they "increase the problem" of overfishing.

There are various factors from Mundt's study which help understand how EU subsidies in FPA access could contribute to overexploitation. First, Mundt cites FAO statistics which point to an overall decrease in underexploited and moderately exploited global fishing stock.[100] Second, Mundt offers a sound economic explanation to understand how these access arrangements could contribute to overexploitation of fish stocks. According to Mundt, by providing its fishermen with access to the EEZs, the industry's cost of effort is reduced.[101] Mundt contends that without the access fees being paid by the EU, fishermen would have to pay out of their own pocket: this would increase their overall costs and thereby decided not to engage in fishing (beyond what is necessary).[102] Mundt also points out to the lack of surveillance of EU fishing fleet and illegal fishing: in the absence of comprehensive monitoring of the fleet by the EU, data of fish catch remains sketchy.[103]

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[99] Matthias Mundt, *The Effects of EU Fisheries Partnership Agreements on Fish Stocks and Fishermen: The Case of Cape Verde*, Working Paper No. 12/2012, Institute for International Political Economy Berlin, available at <www.ipe-berlin.org/fileadmin/downloads/working_paper/ipe_working_paper_12.pdf > at page 1

[100] *Id* at pages 2-3

[101] *Id* at page 31

[102] *ibid*

[103] *Id* at page 18

The EU has modified its fisheries policy substantially to introduce additional sustainability measures. However, the practice and implementation of the EU's FPAs have been criticised. In a study, by Frédéric Le Manach, et al, the EU's FPA with Madagascar has been criticised for failing to fulfil financial aid commitments under the FPA towards making Madagascar's fisheries more sustainable.[104]

E. US Pacific Fishing Arrangement

The association between the United States and the Pacific island fishing nations goes back to the year 1987 when a certain number of Pacific island states signed a multilateral agreement known as the Multilateral Treaty on Fisheries Between Certain Governments of the Pacific Island States and the Government of the United States of America in 1987 (Multilateral Treaty). These Pacific island states are those states which are party to the South Pacific Forum Fisheries Agency Cooperation. These include 16 countries: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The Multilateral Treaty entered into force in 1988 for a five year period. In 1993, when the treaty was set to expire, the parties agreed to renew their commitments and thereby gave a ten year extension to the Multilateral Treaty, i.e., till 2003. In 2003, the US Treaty was again renewed for an additional 10 years until 2013. In May 2013, the parties signed an interim arrangement to extend the Multilateral Treaty till December 31, 2014. In October 2013 another interim arrangement was signed extending the Multilateral Treaty till December 31, 2015. The Multilateral Treaty seems to have been extended for a certain number of years more, with negotiations on the treaty provisions ongoing between the parties.[105]

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[104] Frédéric Le Manach, *Who Gets What? Developing A More Equitable Framework For EU Fishing Agreements*, Marine Policy, Volume 38, March 2013, 257–266, available at <http://dx.doi.org/10.1016/j.marpol.2012.06.001>

[105] *Smiles for US Treaty as Pacific reaches six-year deal: Major breakthrough for Pacific Islands Parties, US*, Pacific Islands Forum Fisheries Agency (FFA), < https://www.ffa.int/node/1735>

As per Article 3.1 of the Multilateral Treaty, fishing vessels of the United States are allowed to fish in a defined area subject to license requirements and other conditions stipulated in the Multilateral Treaty. Some of these conditions are: fishing is permitted only to tuna (Article 5), and only purse-seine method of fishing is permitted. Unlike fisheries access agreements concluded between the EU and other coastal states, the Treaty does not place any limitation on the quantum of catch. It is a flat sum paid for access to the Pacific island coastal waters. As per Schedule 2 to the Multilateral Treaty, an annual industry payment of US$ 4 million is to be paid as license fees for authorising fifty five vessels to fish in the coastal states of the party to the Multilateral Treaty (Paragraph 1(a)). Paragraphs 2 and 3 provide for reviewing of the license fees and also the number of licenses that may be issued under the Multilateral Treaty.

F. Federated States of Micronesia Arrangement

The Pacific island states seem to have taken an active role in developing subregional instruments for cooperation in the fisheries sector. The first such instrument which came about was the Nauru Agreement on terms and conditions for tuna purse seine fishing licences in the region.[106] The parties to the Nauru Agreement are the Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu.[107] The Nauru Agreement seeks to co-ordinate and harmonise the management of fisheries with regard to common stocks within their fisheries zone for their benefit (Article1). The Nauru Agreement envisages, inter-alia, the establishment of a centralized licensing system of fishing vessels.

Subsequent developments under the aegis of the Nauru Agreement were the Palau Arrangement for the Management of the Western Pacific Purse Seine Fishery and the Federated States of Micronesia Arrangement for Regional Fisheries Access ("**FSM Arrangement**"). In this section, analysis is confined to the FSM Arrangement for the purposes of this Note since it deals with the legal framework for fisheries access while the others are broader frameworks concerning fisheries.

[106] *Nauru Agreement*, Pacific Islands Forum Fisheries Agency (FFA), <https://www.ffa.int/nauru_agreement>

[107] *ibid*

The FSM Arrangement is one of the few multilateral arrangements specifically concerning fisheries access rights besides the US Multilateral Treaty. The FSM Arrangement is an arrangement amongst certain Pacific island states, namely Federated States of Micronesia, Marshall Islands, Nauru, Palau, Papua New Guinea and Solomon Islands.[108] Signed on 30th November 1994, the FSM Arrangement entered into force on 23rd September 1995.[109] In its objectives, the FSM Arrangement underscores cooperation to secure sustainable economic benefits from the exploitation of the tuna resources of the Central and Western Pacific for the mutual benefit of the member states (Article 2(a)). Concern about the expansion of the purse seine fishery was probably what led to the development of the FSM Arrangement.[110] The members also recognized the need for a set of agreed criteria to ensure that only those fishing operations which are capable of providing genuine and quantifiable economic benefits to the parties to the Arrangement (Article 2(d)).

The FSM Arrangement covers only fishing by vessels of the countries party to it. In order for a fishing vessel to fish in the EEZs of the party states, it needs to obtain a regional access license under the Arrangement (Article 6(2)). In order to apply for a license under the FSM Arrangement, a fishing vessel is required to pay a certain fee which is determined in accordance with Schedule I of the Arrangement. The fees to be paid are based on real data on the actual catch performance of vessels operating under the FSM Arrangement in the preceding rolling three years, and data on the average price for tuna in the corresponding rolling three years. The Arrangement employs different fee structures for each size class of vessel to reflect the different catching capacities.

There are no quantitative restrictions on the catch size for either vessel or country. This then makes it difficult to understand the impact of the FSM arrangement on the exploitation of fish stocks in the Pacific islands region. It is possible to theorize that a market-oriented determination of license fees to be paid for gaining access to FSM coastal waters would not encourage over-

[108] *FSM Arrangement*, Pacific Islands Forum Fisheries Agency (FFA), <https://www.ffa.int/taxonomy/term/443>

[109] *ibid*

[110] *Ensuring the Sustainability of Pacific Tuna, Palau & FSM Arrangement*, Factsheet 2011, World Wildlife Fund, available at <assets.panda.org/downloads/palau_fsm_factsheet_1.pdf>

exploitation of fish stock. However, in the absence of proper empirical studies it remains inconclusive.

G. Japanese Fisheries Association Agreements

In the case of DWFNs such as Japan, the fishing enterprises form associations for negotiating with coastal states. An example of one such agreement is the Fishing Agreement between the Republic of Seychelles and Japan Tuna Fisheries Co-operative Association on Fishing Activities in Seychelles Waters. Signed originally in May 2007, the operation of the agreement was for a period of two years (till April 2009). The Agreement allows a maximum of 80 surface longliners (Article 1) to fish tuna and tuna-like species in Seychelles water for any continuous period of 6 months and one year (Article 2.2.26). In consideration for the same, certain license fees are payable which vary with the license period (Article 2.3). The license fees are to be paid by a vessel to the Seychelles government. For a one year period, the license fee is US$ 22,000, and for a 6 month period, it is US$ 14,500. Similar to the US Treaty, there is no quantum of catch that is prescribed. However, fish caught under the agreement are required to be landed and transshipped at Port Victoria, Seychelles.

Another example of such an agreement is the Fishing Agreement Between the Republic of Seychelles and the Taiwan Deep Sea Tuna Boat Owners and Exporters Association on Fishing Activities in Seychelles Waters. This agreement was however of a short period, lasting from 01st January 2008 till 31st December 2008. This agreement also requires that the fish be landed and transshipped at Port Victoria, Seychelles. Under the agreement, 120 surface longliners are allowed to fish in Seychelles waters. The fees structure is similar to the agreement with the Japan Tuna Association: US$ 22,000 for a one year period, and US$ 17,500 for a 6 month period.

H. Chinese Fisheries Access Arrangements

China's DWF industry is a very vital industry to its economy. Unemployment in the domestic fishing industry as a result of domestic resource depletion coupled with China's implementation

of UNCLOS[111] has increased pressure on the DWF industry to exploit fisheries resources in other countries. Chinese fisheries associations are also major participants in government-to-association arrangements: fisheries access agreements exist between Seychelles and the China Fisheries Association; Mauritania and Chinese Fisheries Association, et al. While it is noteworthy that China is one of the very few (or probably only) developing countries to explore fishing opportunities in Pacific island EEZs, concerns have been expressed regarding the effects of these fisheries access agreements. Some have even been critical of the Chinese DWF industry for its exploitative effects on its coastal partners.

In Chinese fisheries agreements, the financial contribution is purported to be made by the fisheries associations. On the face of it, there seems to be no DWFN government involvement. However, there are many reasons to believe that government financial support has facilitated these access agreements. According to a study on Chinese fisheries access agreements published in April 2013 by the Pacific Islands Forum Fisheries Agency Secretariat ("**PIFFA**")[112]:

> "*For purposes of this paper, it has been noted from the MSG (2012) study that at least 50% of access fees are fully recoverable from the Chinese Provincial governments. This may generate savings of between US$6000 – US$18,000 per vessel under the standard Pacific Island Countries (PICs) charging system. It is not huge in overall cost terms, but were access rents to increase to US$80,000 per vessel, as the MSG (2012) highlighted, this would be around 6% of the turnover.*"

[111] *China as a Distant Water Fishing Nation***,** Testimony Before the U.S.-China Economic and Security Review Commission, Tabitha Grace Mallory, Hearing: China's Global Quest for Resources and Implications for the United States, Panel V: China's International Fisheries January 26, 2012

[112] Justin Ilakini, *Fisheries Subsidies And Incentives Provided By The Peoples Republic Of China (PRC) To Its Distant Water Fishing (DWF) Industry*, Pacific Islands Forum Fisheries Agency (FFA) Secretariat Paper, April 2013, <http://www.ffa.int/system/files/FFA%20Secretariat%20Paper%20-%20Fisheries%20Subsidies%20and%20Incentives%20provided%20by%20the%20PRC%20to%20its%20DWF%20Industry.pdf>, page 7

The fact that provincial governments subsidize the access fees for the Chinese DWF industry in Pacific and other coastal waters has been confirmed by other sources.[113] In such cases, it is difficult to ascertain the financial contribution of the government for fees paid by non-Government entities due to the lack of information and transparency. According to one source, "fees paid to host countries are often considered 'off-budget' payments, and are therefore not reflected in annual government accounts"[114].

The same study by the PIFFA also argues that these specific access arrangements coupled with the massive subsidies provided by the Chinese government has contributed to depletion of local fish stock in the Pacific island states.[115] Even though the study does not provide any scientific or empirical backing for the same, it is possible to understand from a theoretical perspective the combined effect of subsides and subsidized fisheries access to Chinese fishing vessels.

The Chinese fisheries access agreements do make reference to international legal principles pertaining to conservation of fisheries. Like most fisheries access agreements, the Chinese fisheries access agreements contain provisions that begin with references in the preamble to the agreement. For instance, in the Seychelles – Chinese Fisheries Association Agreement, the preamble records the parties as "having regard to the UNCLOS", and being "aware of the principles established by the code of conduct for responsible fisheries adopted at the FAO conference in 1995". The preamble further records that the parties to the agreement are "determined to cooperate, in their mutual interest, in promoting the introduction of responsible fishers to ensure the long term conservation and sustainable exploitation of marine living resources".

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[113] Adrian Tatum, *Is China Really a Land of Promise?*, 30 Sep 2014, World Fishing, available at <http://www.worldfishing.net/news101/regional-focus/is-china-really-a-land-of-promise>

[114] Fisheries, Open Government Guide, <http://www.opengovguide.com/commitments/publish-detailed-and-up-to-date-information-on-the-proposed-contents-of-bilateral-fisheries-access-agreements/>.The guide highlights practical, measurable, specific and actionable steps that governments can, and are taking across a range of cross-cutting and focused areas. The Open Government Partnership (OGP) was established in 2011 as an international voluntary effort to foster more transparent, effective and accountable governments.

[115] *Id* at pages 7-8

Article 5 of the aforesaid agreement deals with conservation and sustainable fishing of marine resources. Paragraph 1 obliges Seychelles and the Chinese Fisheries Association to "co-ordinate action to ensure the proper management and conservation of living resources, in the Indian Ocean, especially in and around Seychelles Waters". Paragraph 2 gives Seychelles particular leeway to "take at any time such measures it deems necessary in the circumstances or in compliance with its international obligation in order to conserve and protect fish stocks in and around Seychelles Waters". However, before implementing any such measures which would affect the fishing activities of the DWFN vessels, paragraph 3 requires Seychelles to notify the DWFN association and determine by agreement the most convenient ways to implement the same. Again, an exception seems to be given in favour of any conservation efforts that Seychelles may want to undertake. Paragraph 4 allows Seychelles to take immediate steps for implementing conservation measures if Seychelles is of the opinion, based on scientific evidence, that such measures have to be implemented immediately.

According to a study titled *The Role of China in World Fisheries* conducted by the Directorate-General for Internal Policies of the EU Parliament, and published in 2012, China is alleged to majorly under-report its DWF catch to the FAO. [116] The study estimates the actual DWF catch by Chinese fleet to be at around 4.6 million tonnes per year (± 687,000 tonnes/year) globally for the 12 year period from 2000 to 2011. The study highlights Africa as the region where Chinese DWF fleets extract the largest catch: about 3.1 million tonnes per year (± 690,000 tonnes). The table below extracted from the study and based on data obtained from the *Sea Around Us Project* reflects the findings in fuller detail for all regions.

[116] Roland Blomeyer, et al., *The Role of China in World Fisheries*, Policy Department, European Parliament, 2012, available at <www.europarl.europa.eu/meetdocs/2009_2014/documents/pech/dv/chi/china.pdf>

Table 2.1: Estimated annual catch by vessel type of the Chinese distant-water fleets from the Exclusive Economic Zones of maritime countries and territories (and adjacent high sea areas), 2000-2011.

Region	Annual catch by gear (1000 tonnes)					
	Miscellaneous boats	Bottom trawlers	Purse seiners	Tuna longliners	Tuna purse seiners	Total (± st. dev.)
West Africa	15.0	2,355.0	554.7	11.4	4.7	**2,941 ± 631**
East Africa	2.7	119.0	18.0	11.7	29.5	**181 ± 59**
Asia (excl. Japan and South Korea)	32.5	697.0	127.0	24.1	67.5	**948 ± 241**
Japan and South Korea	See Table A.I.2 in Annex I for details on catch by vessel type[1]					**106 ± 16**
Oceania	3.5	18.4	0.0	84.3	91.9	**198 ± 31**
Central and South America	34.0	109.7	31.7	7.0	0.0	**182 ± 53**
Antarctica	1.0	0.0	46.6	0.0	0.0	**48 ± 26**
Total	--	--	--	--	--	**4,604 ± 687**

[1] Standard deviation based on the same coefficient of variation as total catch without Japan and Korea.

Source: *Sea Around Us* Project

I. Russian Fisheries Access Arrangements

A lesser-known participant in fisheries access agreements is Russia. Russia has also been entering into government-to-government agreements for gaining access to coastal nations fishing grounds. Examples of such agreements include that between Russia and Mauritania that was entered into on 12th May 2003; and Russia and Namibia that was entered into on 20th May 2010. Like the others, Russia too does not place its fisheries partnership agreements in public domain. As a result, unofficial secondary resources are being relied upon. For the purpose of analysis, an unofficial translated agreement between Russia and Morocco that was entered into in May-June 2010 provided by Western Sahara Resource Watch is considered. As per this agreement, provisions governing access and access fees are as detailed as the EU FPAs.

As per Article 5 of the Agreement, a quantitative restriction of 1,20,000 tonnes of small pelagic fish species is set for the first year of the agreement. In the subsequent two years, Morocco has been given the liberty to establish the catch quota. This is distinct from the catch quota of small pelagic fish allocated under the implementation of joint projects under the agreement. Towards

the objective of conservation, the Agreement specifically prohibits catching species such as cephalopods, crustaceans, ground and benthic species (Article 7).

The Agreement sets the number of Russian fishing vessels at 12, each with a gross tonnage not exceeding 7765 GRT, during the first year of the Agreement. The Agreement then gives Morocco the autonomy to determine the number of Russian fishing vessels in the next two years of the agreement (Article 8).

The existence of varied access rights arrangements requires monitoring and surveillance to ensure that the interests of indigenous communities and small scale fishermen are protected. Although some international instruments such as the FAO Code of Conduct, IPOA-IUU etc. exist, as instruments of soft law, they are not formally enforceable. WTO Members have therefore taken negotiations on disciplines on fisheries subsidies to the WTO. In these negotiations, it is necessary to ensure that the interests of developing countries and LDCs are protected as majority fishermen in these countries are small scale fishermen. The next chapter discusses the ongoing rules negotiations pertaining to fisheries subsidies.

CHAPTER 8: STATE OF PLAY OF WTO NEGOTIATIONS

Having dealt with topics such as state of fish stocks, fisheries subsidies in select countries, access rights agreements, etc, this Chapter discusses the state of play of fisheries subsidies negotiation at the WTO. In this Chapter, development concerns raised by developing WTO Members in the course of negotiations are also discussed.

A. Background of WTO Negotiations

At the Seattle Ministerial Conference of 1999, certain countries including Australia, New Zealand, Iceland and the United States ("**US**") proposed a work programme in the area of fisheries subsidies. Due to the collapse of the talks, there was not much progress on fisheries subsidies at Seattle. In the Ministerial Conference at Doha in 2001, negotiations on the issue of fisheries subsidies were officially launched. The mandate on fisheries subsidies negotiations was covered within the broader mandate of negotiations on reviewing the SCM Agreement and the ADA Agreement. Paragraph 28 of the Doha Ministerial Declaration stated, inter-alia, that:

> *28.* ***In the context of these negotiations, participants shall also aim to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries. We note that fisheries subsidies are also referred to in paragraph 31.***

WTO Members were mindful of the environmental harms caused due to harmful fisheries subsidies. However, in an apparent attempt to avoid an overlap, the Doha Ministerial Declaration implicitly excluded these from the purview of negotiations on the inter-linkage trade and environment.[117] Since disciplining subsidies on fisheries under a revised SCM Agreement is a more appropriate mechanism than through any environment-related decision, fisheries subsidies negotiations are conducted exclusively within the purview of the Negotiating Group on Rules ("**NGR**").

[117] *See* paragraph 31 of the Doha Ministerial Declaration which "notes that fisheries subsidies are part of the negotiations provided for in paragraph 28".

From 2001 to 2005, various Members had submitted proposals on different issues. Proposals that were made in the NGR were either from individuals Members or those that were co-sponsored by multiple Members. In many other cases, Members formed informal negotiating groups (that continue even till today) as is typical in all WTO negotiations. Some of the prominent groups, inter-alia, are the "Friends of Fish" – a coalition consisting of 11 developed and developing WTO Members; the "Small and Vulnerable Economies"; and the African, Caribbean and Pacific ("**ACP**") .

The importance of disciplining fisheries subsidies was stressed again at the Hong Kong Ministerial Conference in 2005. Adopted on 18 December 2005, the Hong Kong Ministerial Declaration reaffirmed the Doha mandate and provided further guidance for fisheries negotiations:[118]

> *"…recall our commitment at Doha to enhancing the mutual supportiveness of trade and environment,* note *that there is broad agreement that the Group should strengthen disciplines on subsidies in the fisheries sector, including through the prohibition of certain forms of fisheries subsidies that contribute to overcapacity and over-fishing, and* call on *Participants promptly to undertake further detailed work to,* inter alia*, establish the nature and extent of those disciplines, including transparency and enforceability.* ***Appropriate and effective special and differential treatment for developing and least-developed Members should be an integral part of the fisheries subsidies negotiations, taking into account the importance of this sector to development priorities, poverty reduction, and livelihood and food security concerns****.."* (Emphasis supplied)

Under the work programme of Doha Round, negotiations on fisheries subsidies are conducted in the NGR. In the initial phase of fisheries subsidies negotiations, two broad approaches were developed to address prohibition of subsidies: a top down approach; and a bottoms-up approach.

[118] Annex D: Rules, **I. Anti-Dumping and Subsidies and Countervailing Measures including Fisheries Subsidies**, Annex to the Hong Kong Ministerial Declaration, at paragraph 9

As the negotiations progressed there was some degree of convergence towards a broad, bottoms-up approach. The NGR Chair followed this approach in his first draft text on fisheries subsidies, which was issued on 30 November 2007. The prohibited subsidies listed in the Chair's text included subsidies for vessel construction/repair/modernization; subsidies for operating costs which included fuel subsidies; personnel costs, handling of port processing activities; subsidies for port infrastructure exclusively or predominantly for activities related to marine wild capture fishing; income support; price support; subsidies for further transfer of access rights and subsidies for IUU fishing. In addition, subsidies conferred on fishing activity affecting fishing stocks that are in an unequivocally over fished conditions were also covered by prohibition.

B. Whither S&DT? Neither Special Nor Differential

As per the reaffirmation of the Doha mandate in the Hong Kong Ministerial held in 2005, Special & Differential Treatment ("**S&DT**") for developing countries had to be an integral part of the fisheries subsidies negotiations. However, there were significant shortcomings in this regard, which were reflected in the Chair's draft text. India voiced its strong concerns on the draft text due to several restrictions attached for grant of S&DT to developing countries which were mainly: a) unwarranted conditionalities such as 'non-mechanized net retrieval', 'restriction to family members/associations', 'small profit trade', 'no major employer-employee relationship', 'catch principally for self-consumption' and; (b) Onerous fisheries management conditions for fishing in territorial waters as well as in EEZs.

Later on, in May 2008, India and Indonesia submitted a proposal to the NGR seeking effective S&DT for developing countries.[119] China signed on as a co-sponsor later. In the proposal, the three countries emphasized on the need for effective S&DT provisions in the Chair's text. The conditions of the fishing industry of developing countries and LDCs were clearly explained to make a strong case for S&DT. Section II of the proposal concerned itself with '*Background on Fisheries in Developing Countries*'. An excerpt from the aforesaid section is reproduced hereunder to highlight the plight of small scale fishermen in the developing countries which necessitates their need for financial support and handholding by the government:

[119] N/RL/GEN/155/Rev.1

Most developing countries have large sections of their population involved in fisheries. More often than not, fishing is a means of livelihood in such countries, as opposed to its predominantly commercial nature in developed countries. Further, the fisheries sector is characterized by unpredictability and seasonality of catch, where prices obtained for catch on any given day can be highly uncertain. Available evidence also suggests that coastal fishing communities, in general, have lower levels of literacy, a lower sex ratio, and poorer conditions of housing, as compared to national averages. Evidence also suggests that fishing communities are faced with a deteriorating quality of life as a result of pollution, sea erosion, increased pressure on coastal lands, degradation of the coastal environment and displacement.

In addition, the technology used for fishing in developing countries is also very basic, with large sections of the fishing community using unpowered boats or at best, vessels with minimal motorization (up to 10 Horse Power outboard motors). For example, 44 per cent of the fishing vessels in India are unpowered, but contribute to less than 10 per cent of the marine fish production. If the small motorized vessels (up to 10HP motors) are also taken into account, these, together with the unpowered vessels account for about 75 per cent of the vessels and 50 per cent of the fish production. Most of these vessels are up to 20m length overall. Similarly, in Indonesia, 85 per cent of fishing vessels are small and traditional, operating mostly in the territorial waters. There are about 9,337 unpowered vessels and 77,339 small motorized vessels, which form this small and traditional fleet. Most of these vessels are also about 20m in length. In China, 87 per cent of the vessels are about 20m in length.

The fishing infrastructure in most developing countries is under-developed and in need of large doses of state intervention. For example, India has a long coastline of 8,118 sq. km and an Exclusive Economic Zone of 2 million sq. km. However, there are only 6 major and 41 minor fishing harbours and 2,000 landing sites. Most of the landing sites are rudimentary and in need of maintenance and repair. Clearly, there is a need to build more fishing harbours and landing sites.

It is therefore clear that developing countries need to protect the livelihood concerns of their poor fishermen and also take up major infrastructure development. Further, given the public good

nature of the infrastructure and the involvement of huge investments with long gestation lags, it is clear that the State would have to continue to support such activities. Some of the possible marine fishery policies that developing countries need to develop or are already implementing could be inter alia:

1. Mechanization of country craft and introduction of new mechanized boats.
2. Taking up repair and maintenance of existing harbors and landing sites and beginning Greenfield projects for new harbours and landing sites. Overall technological upgradation in the fishery sector.
3. Provision of training facilities.
4. Support to poor fishermen, especially the small and artisanal fishermen, through providing income support, fishing equipment and fuel support.
5. Developing efficient mechanisms to preserve and market the catch.
6. Putting in place effective management techniques on stock assessment of various species, using remote sensing to help such assessment, development and conservation of fish stock, electronic tracking of vessels etc.

The rationale for the above steps is quite clear. Small craft do not operate beyond a few miles from the shore and spend much of their time in going to and from the fishing grounds. Consequently production per unit of effort is low. Basic mechanization of fishing operations (for example, fitting of inboard or outboard motors of about 10 Horse Power) would enable the fishermen to reach deeper into the territorial waters or into areas in the EEZ contiguous to territorial waters and also to fish for longer hours, thereby enabling them to get out of the vicious cycle of poverty.

The most important part of the proposal is contained in Section III titled '*Why The Chair's Text Militates Against Developing Country Interests*' and which specifically explained that the bottom-up approach and the overall provisions of the draft text had not taken into account the conditions of developing country members and did not contain effective S&DT provisions.

As the negotiations in the NGR progressed, different views of different negotiating groups and Members led to growing divergence on the future course of fisheries subsidies negotiations.

C. Impasse in Fisheries Subsidies Negotiations

In December 2008, the Chair of the NGR outlined a roadmap for discussing all the issues of fisheries subsidies i.e. what type of subsidies should be prohibited, what should be the general exception, what should be the scope of S&DT and their conditionalities, fisheries management requirements and their linkage to grant of subsidy, etc. These issues were discussed in the meetings of NGR held during February to October 2009.

Japan, Korea and Chinese Taipei opposed the basic approach of the Chair to treat various types of subsidies as prohibited *ex-ante* as according to them all the types of subsidies proposed for prohibition in the Chair's text may not necessarily lead to over-capacity and over-fishing. These countries maintained that with sound fisheries management measures, subsidies programmes may not necessarily lead to over-capacity and over-fishing. On the other hand, other Members such as New Zealand, Australia, the US, Norway and to some extent the EU, maintained that the Chair's approach of broad prohibition may be appropriate. These Members also advocated for strong fisheries management measures, adequate transparency provisions through strict notification requirements. Developing countries such as India, Indonesia, China, Philippines, Brazil were demanding effective S&DT considering the importance of this sector in the national economy, livelihood concerns of fishermen.

India, Brazil, Mexico and China submitted a revised text on S&DT elements in February 2010 seeking a clear carve out for fisheries subsidies for low income, resource poor and livelihood fishing activities which are largely performed in coastal areas. However, the negotiating group "Friends of Fish" opposed the text arguing that the nature of the provisions were very broad, open ended and would even support fishing activity in high seas as there was no geographic limitation in the proposed text.

In April 2010, the United States submitted a proposal to the WTO[120] supporting the NGR chair's draft text on types of prohibited subsidies and suggested improvements in general exceptions and fisheries management.

Korea's proposal of September 2010[121] deviated from the chair's text and took out operating cost subsidies, port infrastructure subsidies, income and price support subsidies from the scope of prohibited subsidies and emphasised on fisheries management.

In January 2011, Japan submitted a proposal (TN/RL/GEN/171) to the WTO and clearly stated that subsidies do not *a priori* contribute to over capacity or over fishing and therefore, issues of over capacity and over fishing should be addressed through fisheries management. The proposal challenged the approach to prohibition itself by stating that subsidization by itself does not promote overfishing.

This lack of convergence between WTO members on the core substantive issues such as what type of subsidies should be prohibited, what should be the scope of S&D treatment to developing countries, issue of fisheries management etc. was noted by the Chair in the report of April 21, 2011. The Chair noted that there was no convergence of views on technical issues even and negotiations remained wide open on almost all the issues. This reflected a stalemate in the negotiations.

D. Fisheries Disciplines in the TPP: Fish Out of the Water?

Even though negotiating activity at the WTO has been moving at a tepid pace, some of these Members have been active elsewhere in concluding free trade agreements. A significant development concerning FTAs was the conclusion of the Trans-Pacific Partnership Agreement ("**TPP**") in October 2015. Consisting of 12 members straddling both sides of the Pacific Ocean, the TPP was formally signed in February 2016. However, with the United States having withdrawn from the TPP, the future of TPP's entry into force is highly uncertain. Nonetheless,

[120] TN/RL/GEN/165

[121] TN/RL/GEN/16/168

the TPP is of interest from a negotiator's perspective as it contains normative provisions on several aspects, some of which are within the WTO ambit, and some of which are not (WTO plus). Incidentally, the TPP has provisions concerning fisheries subsidies.

Chapter 20 of the TPP contains provisions which its proponents claim are aimed at preservation of the environment. This Chapter 20 also contains, inter-alia, provisions concerning Marine Capture Fisheries, specifically in Article 20.43. In paragraph 5 of Article 20.43, TPP Parties have recognised the need to control, reduce and eventually eliminate all subsidies that contribute to overfishing and overcapacity. Paragraph 5 of Article 20.43 particularly seeks to prohibit subsidies, which are specific within the meaning of Article 2 of the SCM Agreement, for (a) fishing that negatively affects fish stocks that are in over fished condition, and (b) provided to fishing vessels engaged in IUU fishing. Under paragraph 6 of Article 20.43, subsidies falling within paragraph 5(a) are required to be phased out as soon as possible or within a period of 3 years from the TPP's entry into force. These provisions of the TPP reflects an interesting development in the sense that the US and Japan who were on opposite sides on the issue of prohibition of fisheries subsidies at the WTO, have come around to agree to certain types of fisheries subsidies to be prohibited.

Footnote 11 of Chapter 20 of the TPP Agreement defines "IUU fishing" to have the same meaning as in paragraph 3 of the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing ("**IPOA-IUU**"). The TPP also defines overfishing. According to footnote 16 of Chapter 20, "a fish stock is said to be overfished if the stock is at such a low level that mortality from fishing needs to be restricted to allow the stock to rebuild to a level that produces maximum sustainable yield or alternative reference points based on the best scientific evidence available. Fish stocks that are recognised as overfished by the national jurisdiction where the fishing is taking place or by a relevant Regional Fisheries Management Organisation is also considered overfished" for the purposes of TPP.

Paragraph 7 of Article 20.43 deals with subsidies, not prohibited by either paragraph 5(a) of 5(b). Under paragraph 7, Parties are under the obligation to refrain from introducing new, or extending or enhancing existing subsidies that contribute to overfishing or overcapacity. However, this

particular obligation is in the nature of a 'best endeavour' clause; paragraph 7 gives TPP Parties to give consideration to their social and developmental priorities, including food security concerns.

The TPP also has obligations regarding notification of fisheries subsidies. As per paragraph 9, each TPP Party is required to notify the other Parties every two years of subsidies that the Party provides to persons engaged in fishing or fishing related activities. Paragraph 10 establishes a detailed notification procedure which Parties are required to follow. As per paragraph 10, the notification should include information about:

(a) name of the programme
(b) legal authority of the programme
(c) catch data by species in the fishery for which subsidy is provided
(d) status of the fish stocks in the fishery for which subsidy is provided, (whether over exploited, depleted, fully exploited, recovering or underexploited)
(e) fleet capacity in the fishery for which the subsidy is provided
(f) conservation and management measures in place for the relevant fish stock
(g) total imports and exports per-species.

The TPP's notification obligation, when compared to the existing notification obligations under Article 25 of the SCM Agreement, is much more demanding and onerous. For example requirements under items clauses (c) to (g) are clearly in addition to what is there in the present format of subsidies notification agreed by the WTO Members. Clearly, the TPP has set a very demanding standard of notification obligation by linking every fishery subsidy being granted by a Party with the conservation measures, fish stocks for each species, fleet capacity etc. for the fishery for which the subsidy is being provided. This will certainly lead to a very high demand on the resources and capacities of developing countries, if adopted at the WTO.

E. Nairobi Ministerial Meeting December 2015

After a long hiatus, negotiations in the NGR on fisheries subsidies revived in the year 2015 in the months leading to the Nairobi Ministerial (scheduled for December 2015). Argentina, Iceland,

New Zealand, Norway, Peru and Uruguay submitted a proposal in June 2015[122]. Some suggestions of note included prohibition on subsidies on activities affecting overfished stocks and subsidies provided to any vessel engaged in IUU fishing. On the issue of S&DT, there were hardly any substantive provisions in the proposal. However, it proposed S&DT only in the context of transparency provisions or the transitional arrangements. The proposal stated that transitional arrangements remain to be negotiated but must not be accorded in cases of prohibited subsidies for IUU fishing. As regards standstill provisions, the proponents proposed a language based on Rio+20 i.e. "to refrain from introducing new subsidies that contribute to overcapacity and overfishing or from extending or enhancing existing ones". The proponents were of the view that since only a limited list of subsidies were being proposed for prohibition, the standstill provisions were being proposed in respect of a range of subsidies that are recognized as harmful, such as subsidies for vessel construction and fuel subsidies. This is somewhat similar to what has been included in the TPP (Paragraph 7 of Article 20.16), as discussed earlier.

During the negotiations on fisheries subsidies at the Nairobi Ministerial Conference, there was a discussion on a draft facilitator's text. The draft facilitator text proposed fisheries subsidies negotiations post Nairobi in 2 years for prohibition of subsidies for fishing vessels engaged in IUU and subsidies for fishing activity negatively affecting fished stocks in an over fished condition. It also contained proposals that the disciplines to be developed post Nairobi shall be subject to agreed definitions and terminology. However, as regards the S&DT for developing countries and LDCs, the text proposed that it would be an integral part of "these negotiations" without clearly linking S&D to the proposed prohibition of subsidies for IUU fishing or fishing activity affecting overfished stocks. There seemed to be some ambiguity in the language on the S&DT proposal. India rightly raised its concerns on the lack of clarity on S&DT provisions and gave an alternative text to highlight concerns of the developing countries.

During the Nairobi Ministerial Conference, the US stated strongly that it wanted an outcome on fisheries subsidies, but it did not have much expectation in Nairobi. The US objected to the reference of the Doha and Hong Kong Declarations in the preamble of the fisheries subsidies

[122] TN/RL/W/258 of 19 June 2015

text. It clearly indicated US position to discuss fisheries subsidies post Nairobi without reference to previous Ministerial Decisions and thereby take different approach to negotiations. The US indicated an upfront commitment for prohibiting subsidies for IUU and over fished stocks.

However, India and several other like-minded developing countries such as China, Morocco and South Africa opposed the US position on deleting references to the Doha and Hong Kong mandates, and asked for clear mention of S&DT in any draft text or Declaration. In addition, China also strongly opposed the enhanced notification requirements and suggested that it should be only for developed countries. It also opposed the standstill provision.

Korea was of the view that the 2 years timeline for fisheries subsidies negotiations may not be realistic as the issues are complex. Brazil supported the S&D text with further condition that it should be subject to sustainable exploitation of fished stocks. It also opposed the proposal on standstill provision.

Overall, the discussions on facilitator's text showed the divergent position of Members on the S&D elements, standstill provisions and transparency provisions. Inspite of expectations that had been drummed up in the months leading to the Nairobi Ministerial Conference, the Nairobi Ministerial Package did not contain any decision on fisheries subsidies (and also anti-dumping). Furthermore, the fact that certain Members have not reaffirmed the Doha mandate puts a question mark on concluding negotiations on the remaining issues including fisheries subsidies. However, the saving grace is in paragraph 31 of the Nairobi Declaration where it mentions "***that there remains a strong commitment of all Members to advance negotiations on the remaining Doha issues***"; this includes work on rules issues. Also, paragraph 32 mentions that many Members want to carry out the work on the basis of the Doha structure, while some want to explore new architectures. In paragraph 33, Members have agreed that officials should work to find ways to advance negotiations and have requested the Director General to report regularly to the General Council on these efforts.

F. Way forward

Several concerns remain to be addressed in the fisheries subsidies negotiations; this is evident from the lack of agreement on major issues by WTO members. It is imperative to arrive at clear definitions of terms such as "IUU fishing" declaration of "Overfished stocks". There is need for a clear understanding of what types of subsidies are to be prohibited where these are for IUU fishing or where stocks are overfished. There is also an imperative for clear S&DT provisions; for instance, the standstill provisions have to be more specific in including S&DT elements. Programmes that are otherwise considered non-specific must be brought within the ambit of application of rules if these contribute to over fishing or support IUU fishing. For instance, fuel subsidies need to be regulated even if the programmes provide fuel subsidy across all sectors or geographic region and does not limit itself to fisheries sector.

G. Recent Negotiations in NGR

Inspite of not having achieved an outcome on fisheries subsidies at the Nairobi Ministerial Conference, Members have expressed a strong desire to develop rules at the WTO, post-Nairobi. In the month of May 2016, "WTO members expressed a "clear interest" in securing outcomes in the Rules negotiations for the organization's 11th Ministerial Conference (MC11) in 2017, with a significant number of delegations interested in an outcome on fisheries subsidies".[123] However, there were disagreements between Members on the way forward.[124]

On June 29, 2016, an informal meeting of the NGR was held where nearly 30 delegations expressed their views on the advancement of negotiations on fisheries subsidies[125]. At this meeting, a number of different views were expressed. Given the particular pace that the negotiations on fisheries subsidies picked up, certain Members stressed on the need to ensure that progress on fisheries subsidies was balanced with progress on other issues under negotiation.

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[123] *"Clear Interest" In Securing Outcomes In Rules Negotiations For 2017 Ministerial*, News Item, 25 May 2016, World Trade Organization, at <https://www.wto.org/english/news_e/news16_e/rule_06jul16_e.htm>

[124] *ibid*

[125] *WTO Members Affirm Interest In New International Fisheries Subsidies Rules, But Differ On Way Forward*, News Item, 29 June 2016, World Trade Organization, at <https://www.wto.org/english/news_e/news16_e/rule_25may16_e.htm>

Certain other Members raised the issue of effective S&DT in an eventual fisheries agreement, with one delegation suggesting that the flexible approach that was used in the Trade Facilitation Agreement be used in the fisheries subsidies negotiations. As for the NGR Chair, he stressed that the negotiations would be based on a "bottom-up" approach with no intervention from the chair, and Member-driven initiatives.

An interesting intervention was made by two Members who stated that "it was important to avoid approaches that proved divisive in the past". They stated that there was a need "to look for innovative ways, including outside the NGR, to achieve a result that can address the pressing global problem of over-depleted fisheries stocks".

Towards the end, many Members reiterated the need to conclude a multilateral agreement by the 2017 Ministerial Conference in light of the UNGA mandate to achieve Target 14.6 of the UN SDG by 2020.

H. Challenges in the Negotiations

In light of renewed interest to achieve an outcome on disciplines for fisheries subsidies, there are two factors that underpin this interest. First, is the global commitment under the UNSDG target 14.6 to prohibit, by 2020, certain forms of fishery subsidies which contribute to over capacity and over-fishing and to eliminate subsidies that contribute to IUU fishing. Clear signals are evident that proponents of fishery subsidies negotiations will strive to develop strong rules to give effect to the above Rio Declaration of UN SDG. Second, is the conclusion of TPP. With disciplines already having been developed at a non-WTO trade fora in a shorter time-frame[126], there will be subtle pressure on WTO Members to deliver disciplines on fisheries subsidies at the earliest. However, one flipside of this development is that some of the TPP Parties will attempt to push the TPP's fisheries subsidies text as a negotiating template at the WTO, as is being attempted for other issues as well.

[126] Disciplines have also been agreed to in Article 7.4 of the EU – Canada Comprehensive Economic Trade Agreement. However, these provisions are not substantial and are more in the nature of hortary dispute settlement provisions.

Having discussed the need to conclude negotiations at the earliest, it is also necessary to highlight the challenges that negotiations at the WTO can face. **First and foremost**, is the possibility of an imbalanced outcome with regard to prohibitions on fuel subsidies. As has already been cited by several studies and discussed in Chapter 6 of this paper, fuel subsidies account for a significant proportion of fisheries subsidies. Also, as has been highlighted in Chapter 6 of this study, the difficulty in remedying fuel subsidies in the fisheries sector under the SCM Agreement in its current form is the element of non-specificity; fuel subsidies provided by most developed countries are non-specific in nature. However, in case of developing countries like India, the nature and design of schemes of India's coastal states show that they are specific in nature.

However, there are indications that certain WTO Members may attempt to push forward a text that prohibits subsidies that are specific under the SCM Agreement and which contribute to over capacity/over-fishing or support IUU fishing. This can exclude a major chunk of fuel subsidies of OECD countries which provide subsidies under the garb of widely dispersed programmes of fuel tax credit and other energy related programmes which also benefit their fisheries; estimated to be in billions of dollars, outside the ambit of the SCM Agreement. On the other hand, developing countries such as India which have fisheries sector-specific fuel subsidies will be significantly impacted. This is a very important element of fishery subsidies negotiations that must be addressed upfront and at the earliest.

The **second issue** is the prohibition of fisheries subsidies provided to vessels engaged in IUU fishing. Target 14.6 of the SDG, while committing countries to prohibit certain forms of fisheries subsidies that contribute to over fishing or over capacity, and to eliminate subsidies for IUU fishing, also recognizes that S&DT for developing countries shall be an integral part of fisheries subsidies negotiations in WTO.

Within the framework of the FAO Code of Conduct for Responsible Fisheries, an International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing ("**IPOA-IUU**") was developed. The IPOA-IUU includes a broad range of activities. It is essential to understand the full implications of IUU fishing while entering into binding commitment in

WTO to prohibit certain subsidies. Part II of the IPOA-IUU defines the terms 'illegal', 'unreported' and 'unregulated' in paragraph 3:

3.1 Illegal fishing refers to activities:

3.1.1 conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;

3.1.2 conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or

3.1.3 in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.

3.2 Unreported fishing refers to fishing activities:

3.2.1 which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or

3.2.2 undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.

3.3 Unregulated fishing refers to fishing activities:

3.3.1 in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or

3.3.2 in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.

3.4 Notwithstanding paragraph 3.3, certain unregulated fishing may take place in a manner which is not in violation of applicable international law, and may not require the application of measures envisaged under the International Plan of Action (IPOA).

Part IV of the IPOA contains provisions regarding "Implementation of Measures to Prevent, Deter and Eliminate IUU Fishing". These contain State responsibilities as regards International Instruments and National Legislation. As regards international instruments, States are required to give full effect to relevant norms of international law, in particular the 1982 UN Convention, in order to prevent, deter and eliminate IUU fishing. It also says, inter-alia, that the States should implement fully and effectively all relevant international fisheries instruments which they have ratified, accepted or acceded to. Further States should fully and effectively implement the Code of Conduct and its associated IPOA.

As regards national legislation, the IPOA says that it should address all aspects of IUU fishing in an effective manner. This provision entails a responsibility on us to look into state legislations on marine fishing regulation to see whether these cover all aspects of IUU Fishing.

A more onerous responsibility of IPOA Member States is to undertake comprehensive and effective monitoring, control and surveillance of fishing from its commencement, through the point of landing to final destination. Among the measures which the coastal State should consider are effective monitoring, control and surveillance of fishing activities in the EEZ. States are expected to develop a "National Plan of Action" to further achieve the objectives of IPOA within 3 years after adoption of the IPOA.

It may be noted that the IPOA also recognizes the special requirements of developing countries. More importantly the IPOA is voluntary. However, agreeing to any prohibition of fishery subsidies for IUU in the context of WTO negotiations will bring with it concomitant commitments to fully comply with the IPOA. In view of the onerous implementation measures required to comply with the IPOA, which is otherwise a voluntary code, it is important to fully understand the implications of binding commitments under the ASCM.

India's coastal states have enacted the Marine Fishing Regulation Act ("**MFRA**"). Fishing operations in the territorial waters upto 12 nautical miles from the baselines are regulated by individual State Governments. An assessment of the MFRA provisions needs to be carried out to see if all the relevant requirements of IPOA to prevent, deter and eliminate IUU fishing are there so as to comply with the national legislation obligation of the IPOA (Article 16).

In certain situations any subsidy programme of a State government may inadvertently be perceived to be for IUU fishing. It is from this perspective our position on taking binding commitments at the WTO should emerge. The preparedness of state governments in fully implementing the IPOA should be fully assessed, gaps should be identified and a time-bound action plan should be chalked out so as to make all the Indian states fully in compliance with the IPOA-IUU in near future. Therefore, appropriate S&DT for developing countries should be argued based on the time-frame for fully adopting and implementing the IPOA-IUU.

The third issue is the prohibition of certain forms of subsidies which contribute to overfishing and overcapacity. There are several challenging questions that have to be addressed to deliver an outcome in this regard. For instance, who will be the competent authority to declare whether a particular fish stock is overfished? Should it be as per the UN Fish Stocks Agreement or a RFMO or left to the self assessment by the Member concerned? Understandably it has to be as per national legislation consistent with the country's obligations under relevant international instruments such as UNCLOS, UNFSA, CITEs, CMS and IOTC Agreement. Declaring fish stocks as overfished is a complex issue. Though the TPP has provisions to define and declare overfishing, whether the same approach should be adopted at the WTO rules negotiations?

As per the FAO's report on the *Status of Fishery Resources* (2016), overall 31.4% of world's marine fish stocks were overfished (unsustainable level) in 2013. However, this was a slight improvement from the extent of over fished stocks at 33% in 2008. As per the FAO report, sustainability of fisheries is the over-riding goal of fisheries management. By a commonly accepted definition, stocks fished at biologically unsustainable levels have an abundance lower than the level that can produce the maximum sustainable yield (MSY), and are therefore being overfished. These stocks require strict management plans to rebuild stock abundance to full and

biologically sustainable productivity. The stocks fished within biologically sustainable levels have abundance at or above the level associated with MSY. Stocks fished at the MSY level produce catches that are at or very close to their MSY. As per the FAO report world marine fisheries can be divided into 3 groups.

- **Group 1** is of Oscillating catches representing about 47 % of Marine catch in 2013. This comprises Eastern Central Atlantic, North-East Pacific, Eastern Central Pacific, South-West Atlantic, South-East Pacific and North-West Pacific. About 70 percent of fish stocks in this group are fished within biologically sustainable levels.
- **Group 2** contributed about 21 % of global marine catch in 2013 and this comprises North-East Atlantic, North-West Atlantic, Western Central Atlantic, Mediterranean and Black sea, South-West Pacific and South-East Atlantic. According to the FAO Report, "lower catches reflect fisheries management measures that are precautionary or aim at rebuilding stocks". About 65 percent of fish stocks in this group are estimated to be within biologically sustainable levels.
- **Group 3** accounted for 31 % of global marine catch in 2013 and shows continuously increasing trends. This comprises Western Central Pacific, Eastern Indian Ocean and Western Indian Ocean. As per the FAO report, there is uncertainty about actual catches due to poor quality of statistical reporting system. This group has the highest proportion (77 percent) of fish stocks within biologically sustainable levels.

The FAO report also highlights that:

- Eastern Indian ocean showing high growth rate in catches – up 50 percent in the last decade to a total of 7.7 million tonnes
- Landings from Bay of Bengal and Andaman Sea regions have shown increased catches
- 42% of catches in this area are of marine fishes not identified – a cause of concern for FAO as regards monitoring stock status
- Increased catches may in fact be due to the expansion of fishing to new areas or species.
- Declining catches in the fisheries within Australia's EEZ can be partly explained by a reduction in effort, structural adjustment to reduce overcapacity, and a ministerial direction in 2005 aimed at ceasing overfishing and allowing overfished stocks to rebuild.

The latest assessment shows that 85 percent of species were within biologically sustainable levels in 2013.

- In the Western Indian ocean, total landing continued to increase and reached 4.6 million tonnes in 2013.
- Narrow-barred Spanish mackerel (Scomberomorus commerson) in the Persian Gulf, and off the coast of Pakistan and India, is fully fished to overfished. Catch data in this area often not detailed enough for stock assessment.
- The Southwest Indian Ocean Fisheries Commission started stock assessment in 2010 for major species in its area of competence based on best available data and information. Overall, 68 % of fish stocks were estimated to be fully fished or under fished, and 32 % fished at unsustainable levels.

Given the above status of fish stock assessment in the Indian Ocean, India will have to be very careful to agree to the condition of prohibition when stock-specific information is not available in spite of India having ratified the UN Fish Stocks Agreement and India being party to the Indian Ocean Tuna Commission ("**IOTC**"). It was the view held by India during negotiations at the WTO that tropical waters have greater species diversity as compared to temperate waters. On average, the number of exploitable species in tropical waters would be greater, where pelagic species dominate. For example, anchovies, sardines, mackerel, which are popular tropical pelagic species in Indian waters, breed fast and their populations bounce back cyclically, irrespective of the fishing pressure. It is therefore difficult to say that these are unequivocally overfished. On the other hand, temperate waters tend to be dominated by demersal species such as the cod, which have a lower breeding capacity and come under fishing pressure easily.

As there will be strong push for an outcome in the fishery subsidies negotiations so as to give effect to the UNSDG target 14.6 to prohibit fishery subsidies which contribute to over-capacity and over fishing and to eliminate subsidies that contribute to IUU fishing, India will have to work on a clear roadmap to engage in these negotiations. The Rio Declaration also recognises that appropriate and effective S&DT for developing countries should be an integral part of the WTO fisheries subsidies negotiations. In the fisheries subsidies negotiations in WTO, India's

stance on seeking S&D for developing countries has to be carefully articulated around its special difficulties in complying with IPOA-IUU due to the limitations of the State governments, pre-dominance of coastal fisheries. Though India has not signed the UN Fish Stock Agreement, 1995, it has become a party to it from 19th August 2003. India is also party to the FAO Code of Conduct for Responsible Fisheries. The IPOA-IUU was developed as a voluntary instrument within the framework of the Code of Conduct for Responsible Fisheries. There are global concerns on IUU fishing and as a responsible nation India cannot be seen to support IUU fishing.

A Task Force has been setup under the Chairmanship of Joint Secretary (Fisheries) in the Department of Animal Husbandry, Dairying and Fisheries (DADF). The Task force has been constituted to deliberate on the issue of Marine fisheries regulation and management to evolve a consistent position in the negotiations on fishery subsidies.

As for fishing in EEZ, these are regulated by the Comprehensive Marine Fishing Policy of 2004. The draft Comprehensive Marine Management and Regulation Bill, 2014 is still under executive consideration. Therefore, keeping in view India's level of fulfillment with IPOA-IUU conditions, India should take a nuanced stand in the fisheries subsidies negotiations to seek S&DT for a longer implementation period for complying with the proposed prohibition on fisheries subsidies for IUU fishing. India can also seek a complete carve out or S&DT exception from prohibition in respect of marine fishing activities within the territorial waters.

Challenges at WTO Fisheries Subsidies Negotiations

1. Fuel subsidies – Issue of "Specificity" and possibility of an imbalanced outcome

- fuel subsidies account for a significant proportion of fisheries subsidies
- Proponents pushing for disciplines on 'specific' subsidies
- Most OECD Members' fuel subsidies programmes are non-specific
- Many developing countries have fuel subsidy programmes which are specific
- Disciplines will lead to an imbalanced outcome

2. Prohibition of fisheries subsidies for IUU fishing

- FAO IPOA-IUU is a voluntary code
- IPOA-IUU entails National Legislation addressing all aspects of IUU fishing
- IPOA-IUU requires comprehensive and effective monitoring, control and surveillance of fishing from commencement till landing

- Members are at different level of compliance with the IPOA-IUU
- UN SDG also embodies S&DT for developing countries and LDCs while framing rules for prohibition of subsidies for IUU fishing
- Important to understand the full implications of provisions on IUU fishing before making commitments to prohibit certain subsidies.

3. Prohibition of subsidies where stocks are in over fished state

- Who declares whether a particular fishstock is overfished? Should it be as per the UN Fish Stocks Agreement or by a RFMO or self assessment by the Member concerned?
- Declaring fish stocks as overfished is a complex issue.
- FAO has highlighted the non-availability of sound fish stock assessment in the Indian Ocean.
- India will have to be very careful to agree to the condition of prohibition when stock-specific information is not available in spite of India having ratified the UN Fish Stocks Agreement and India being party to the Indian Ocean Tuna Commission

4. Emergence of FTA Disciplines on Fisheries Subsidies

- TPP includes provisions on fisheries subsidies such as assessment of over-fished stock
- TPP Parties have recognised the need to control, reduce and eventually eliminate all subsidies that contribute to overfishing and overcapacity
- Resulting pressure on the WTO to achieve an outcome
- More demanding and onerous notification requirements under TPP
- Whether TPP should or could be used as a template for negotiations at the WTO?

5. Special and Differential Treatment

- Hong Kong Ministerial Declaration affirms the need for appropriate and effective S&DT to be an integral part of the negotiations
- Most fishworkers in developing countries are resource poor, low income and depend on fisheries for their livelihood. Subsidies are important for their welfare.
- divergent position of Members on the S&D elements, standstill provisions and transparency provisions even at Nairobi Ministerial Conference

I. Conclusion

In the post Nairobi scenario, when the Doha round was not affirmed unanimously, there are fissures in the negotiating process to be adopted in the WTO. However, whatever architecture that may be followed, it is quite certain that fisheries subsidies negotiations will get a push for a possible outcome in the Ministerial meeting to be held in December 2017 in Buenos Aires. Fisheries subsidies is an outstanding Doha issue and more importantly Members have committed under the UN SDG to prohibit by 2020 certain fisheries subsidies that contribute to over capacity and overfishing and eliminate subsidies that contribute to IUU fishing.

In making binding commitments at the WTO to eliminate subsidies that contribute to IUU fishing, Members will have to be mindful about their level of compliance with the FAO International Plan of Action to prevent, deter and eliminate IUU fishing (IPOA-IUU). No country on the face of it can support IUU fishing- and therefore, consequentially should not give subsidies for IUU fishing activities. However, taking a binding commitment under the WTO for prohibition of subsidies, that may benefit IUU fishing, is to be seen from the perspective of full compliance with IPOA-IUU which entails appropriate national legislation addressing all aspects of IUU fishing; comprehensive and effective monitoring, control and surveillance of fishing from its commencement through the point of landing to final destination. Unregulated fishing may happen when the fishing activity is not consistent with or is in contravention of the conservation measures of the RFMO or else the fishing activity contravenes the Member State's responsibility for the conservation of marine resources. A developing country Member, therefore, has to have a sound and efficacious system of scientific assessment of fish stocks in its fishing territory to know fully well that it is not in breach of the IPOA-IUU obligations. Likewise in the case of prohibition of subsidies that contribute to over capacity and overfishing, there will be a responsibility on the Member to have a system of regular stock assessment of fish stocks either by itself or by RFMO. However, do all WTO Members have a sound system of scientific assessment of fish stocks in place? The FAO has noted in its report on the *State of the World Fisheries* (2016) that catch data in East and West Indian Ocean is not detailed enough for stock assessment. Given these resource challenges, developing countries will have to seek effective S&DT in the negotiations on fisheries subsidies.

Another important aspect of the negotiations is the treatment of fuel subsidies. The report highlights the extent of fuel subsidies being granted by Members and the opaque nature of these subsidies in view of the design of the subsidy programme of various WTO Members- largely the developed ones. The approach being pushed by the proponents is to prohibit subsidies which are specific as per the WTO Subsidies Agreement. While in the case of many developed countries, the fuel subsidies may not be specific in view of the design of the tax-rebate schemes in their systems, in the case of other countries, including India, the fuel subsidies schemes are specific to the fisheries sector. In such a scenario there is a possibility of an imbalanced outcome of the negotiations, in as much as there will be disciplines on specific fuel subsidies for some countries

like India, and on the other hand large swathes of fuel subsidies of some developed countries will be left out of the disciplines- being non- specific.

India may have to explore the possibility of building coalition of developing countries who may face similar challenges in these negotiations.

ANNEXES*

Annex 1: Government Financial Transfers to Fishing (ranked on the basis of 2009)

S.No	Country/Year	2006	2007	2008	2009	2010	2011	2012	2013
1	Japan	1952.85	1821.14	2008.99	2152.65	1697.53	1920.13	1800.09	
2	United States	1793.83	1985.50	2084.41	1579.74	1878.46	2429.86	2356.43	765.43
3	Canada	595.22	634.53	657.05	699.54	805.54			
4	Korea	641.99	702.99	793.57	490.13	403.35	342.12		
5	France	63.36		323.81	327.79		295.50	284.68	
6	Norway	188.49	237.35	261.24	277.89	283.97	316.82	310.43	330.28
7	Italy	194.70	123.28	56.86	270.69	286.47	241.05		
8	Turkey	135.93	144.93	199.86	165.73	179.52	166.56		
9	Spain	248.49	195.07	102.70	78.98	198.01	144.97	129.11	84.74
10	Australia	45.77	57.95	66.96	26.96	17.03	18.72	14.25	14.25
11	Belgium	7.13	3.29	1.27	13.58	10.55	2.87	6.18	5.68
12	United Kingdom	103.35		30.09	11.38	16.63	32.32	14.88	15.33
13	Total	5971.11	5906.01	6586.81	6095.06	5777.05	5910.93	4916.06	1215.72

* All figures mentioned in the tables from Annex 1 to Annex 14 are in USD million.

Annex 2: India's Marine Export to Top 15 Countries (ranking on the basis of 2014 figures)

S. No	Country	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	United States	282.93	240.54	190.19	187.75	349.52	568.76	638.74	1135.39	1404.93
2	Vietnam	16.38	11.62	12.16	28.14	108.34	510.22	477.82	963.47	1099.07
3	Japan	236.04	243.20	211.46	187.78	299.95	393.98	339.68	410.32	431.52
4	Belgium	117.46	114.98	96.99	55.04	73.58	111.10	137.65	177.14	225.38
5	Spain	126.52	144.13	116.92	108.23	150.17	170.79	174.17	151.40	205.51
6	United Arab Emirates	44.27	59.53	47.79	47.52	50.93	84.38	103.99	97.95	185.02
7	United Kingdom	85.08	81.98	63.55	66.83	67.75	94.65	85.69	130.07	159.79
8	Italy	50.28	59.73	52.78	51.06	85.41	113.00	101.75	120.83	138.46
9	France	42.60	50.84	43.00	56.61	59.88	106.13	103.66	126.72	132.09
10	China	136.36	131.32	83.02	89.52	245.87	213.00	169.70	196.66	124.80
11	Canada	44.79	47.12	30.92	41.36	43.49	68.93	62.66	109.5	122.6

									0	**0**
12	**Thailand**	**25.50**	**27.31**	**37.64**	**55.84**	**93.30**	**125.36**	**110.85**	**150.40**	**106.09**
13	**Hong Kong, China**	**39.16**	**57.52**	**62.69**	**115.68**	**156.66**	**94.36**	**98.65**	**97.34**	**97.59**
14	**Netherlands**	**12.31**	**18.79**	**26.47**	**43.31**	**37.40**	**46.15**	**50.44**	**57.28**	**96.96**
15	**Russian Federation**	**1.20**	**4.82**	**10.07**	**10.46**	**10.54**	**16.45**	**25.47**	**37.59**	**75.31**

Annex 3: Composition of Fishery Subsidies in Australia

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments								
Cost Reducing Transfers								
General Services	45.77	57.95	66.96	37.05	28.90	33.05	28.55	25.53
Cost Recovery Charges	0.00	0.00	0.00	-10.09	-11.87	-14.33	-14.31	-11.28
Total	45.77	57.95	66.96	26.96	17.03	18.72	14.25	14.25

Annex 4: Composition of Fishery Subsidies in Belgium

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	7.13	3.29	1.27	13.58	10.55	2.87	2.32	1.13
Cost Reducing Transfers							0.20	
General Services							3.66	4.55
Cost Recovery Charges								
Total	7.13	3.29	1.27	13.58	10.55	2.87	6.18	5.68

Annex 5: Composition of Fishery Subsidies in Canada

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	277.59	266.93	269.14	257.39	289.60			
Cost Reducing Transfers	0.16	12.54	11.19	3.72	0.99			
General Services	356.97	396.47	417.21	477.19	554.21			
Cost Recovery Charges	-39.50	-41.41	-40.49	-38.75	-39.26			
Total	595.22	634.53	657.05	699.54	805.54			

Annex 6: Composition of Fishery Subsidies in France

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	35.07		56.26	92.59				
Cost Reducing Transfers			261.70	225.06		295.50	284.68	
General Services	28.29		6.88	10.99				
Cost Recovery Charges			-1.04	-0.86				
Total	63.36		323.81	327.79		295.50	284.68	

Annex 7: Composition of Fishery Subsidies in Italy

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	105.90	64.95	12.72	74.60	75.13	171.69		
Cost Reducing Transfers				157.20	161.51			
General Services	88.79	58.33	44.13	38.89	49.84	69.37		
Cost Recovery Charges								
Total	194.70	123.28	56.86	270.69	286.47	241.05		

Annex 8: Composition of Fishery Subsidies in Japan

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	13.22	12.79	13.83	17.61	13.76	6.48	5.63	
Cost Reducing Transfers	3.21	3.08	2.76	3.04	27.88	13.59	26.01	
General Services	1936.42	1805.27	1992.40	2132.00	1655.78	1900.07	1768.45	
Cost Recovery Charges								
Total	1952.85	1821.14	2008.99	2152.65	1697.53	1920.13	1800.09	

Annex 9: Composition of Fishery Subsidies in Korea

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	69.65	141.92	338.61	85.26	67.10	33.61		
Cost Reducing Transfers	19.87	21.65	24.11	28.51	54.46	46.57		
General Services	552.47	539.41	430.85	376.35	281.79	261.94		
Cost Recovery Charges								
Total	641.99	702.99	793.57	490.13	403.35	342.12		

Annex 10: Composition of Fishery Subsidies in Norway

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	1.56	1.28	2.59	2.07	8.42	8.26	7.94	8.17
Cost Reducing Transfers	45.02	49.00	67.48	67.54	64.64	63.62	61.38	53.71
General Services	149.05	197.47	200.33	217.39	217.95	253.74	248.19	274.18
Cost Recovery Charges	-7.15	-10.41	-9.16	-9.10	-7.04	-8.80	-7.08	-5.78
Total	188.49	237.35	261.24	277.89	283.97	316.82	310.43	330.28

Annex 11: Composition of Fishery Subsidies in Spain

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	75.56	74.98	20.00	60.62	154.42	83.71	95.55	64.66
Cost Reducing Transfers	86.45	61.03	33.60					
General Services	86.48	59.05	49.11	18.36	43.59	61.26	33.57	20.09
Cost Recovery Charges								
Total	248.49	195.07	102.70	78.98	198.01	144.97	129.11	84.74

Annex 12: Composition of Fishery Subsidies in Turkey

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments								
Cost Reducing Transfers	59.04	63.78	67.03	68.12	85.89	81.98		
General Services	76.89	81.14	132.82	97.61	93.63	84.58		
Cost Recovery Charges								
Total	135.93	144.93	199.86	165.73	179.52	166.56		

Annex 13: Composition of Fishery Subsidies in United Kingdom

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments			1.52	8.69	5.93	26.03	1.57	3.42
Cost Reducing Transfers	1.60							
General Services	101.75		28.57	2.69	10.70	6.29	13.31	11.91
Cost Recovery Charges								
Total	103.35		30.09	11.38	16.63	32.32	14.88	15.33

Annex 14: Composition of Fishery Subsidies in United States

Particulars/Year	2006	2007	2008	2009	2010	2011	2012	2013
Direct Payments	135.31	145.46	263.60	0.41	59.96	14.00		
Cost Reducing Transfers	2.20	2.20	2.20	17.79	28.07	2.20	2.20	2.20
General Services	1656.33	1837.84	1818.61	1561.54	1790.44	2413.66	2354.23	763.23
Cost Recovery Charges								
Total	1793.83	1985.50	2084.41	1579.74	1878.46	2429.86	2356.43	765.43

Annex 15: India – Subsidy programmes granted to fisheries sector by Indian states

State	Name of Programme	Year			
		2012-13 (in INR)	2012-13(in USD)	2013-14 (in INR)	2013-14 (in USD)
Andhra Pradesh	Exemption of Sales Tax on HSD Oil	105	1.574	0	0
Total		105	1.574	0	0
Goa	Subsidy for Canoe Construction	2.99	0.045	6.65	0.1
	Motorization	2.99	0.045	1.2	0.018
	VAT Rebate on HSD Oil	103.99	1.558	146.37	2.193
	Subsidy for Kerosene	50	0.749	57.63	0.863
	Insurance	0.19	0.003	0.19	0.003
	General Insurance Fisherman Scheme	0.51	0.008	0.53	0.008
	Gill nets and Accessories	1.18	0.018	1.34	0.02
	Safety Equipment	7.34	0.11	0.61	0.009
	Life Jacket and Life Bouys	0.83	0.12	0.14	0.002
	Supply of Insulated Boxes	0.75	0.11	0.98	0.015
	Income Support	10.98	0.164	10.9	0.163
	Infrastructure	3.5	0.052	0	0
Total		185.25	2.775	226.54	3.394
Gujarat	Gear and At Sea Support	65.37	0.979	106	1.588
	Safety of Fisherman at Sea	2.5	0.037	0	0
	Mechanization of fishing Crafts	6.27	0.094	1.26	0.019
Total		74.14	1.111	107.26	1.607

Karnataka	**Modernization**	**32.87**	**0.491**	**0**	**0**
	CSS Motorization	**8.5**	**0.127**	**0**	**0**
	Life saving equipments	**2.14**	**0.032**	**0**	**0**
	Assistance for purchase of life jackets	**20**	**0.3**	**9.9**	**0.148**
	Infrastructure	**104.41**	**1.564**	**1.75**	**0.026**
Total		**167.92**	**2.515**	**11.65**	**0.175**
Kerala	**Inland Fisheries**	**59.84**	**0.896**		
	Fishing Gear	**5**	**0.075**		
	NCDC-IFDP	**10**	**0.15**		
Total		**74.84**	**1.121**		
Maharashtra	**Insurance**	**4.86**	**0.073**		
	Reimbursement of Sales of HSD	**698.32**	**10.458**		
	Infrastructure	**5**	**0.075**		
Total		**708.18**	**10.605**		
Odisha	**Motorization**	**18**	**0.27**	**18.88**	**0.283**
	Income Support	**13.09**	**0.196**	**0**	**0**
	Insurance Scheme	**29**	**0.434**	**31.9**	**0.478**
Total		**60.09**	**0.9**	**50.78**	**0.761**
Tamil Nadu	**Motorization**	**40**	**0.599**	**0**	**0**
	Income Support	**236.55**	**3.544**	**247.24**	**3.704**
	Tamil Nadu Saving cum relief scheme for marine infrastructure	**199.45**	**2.988**	**220.75**	**3.307**
	Insurance Scheme	**10.5**	**0.157**	**14.3**	**0.214**
	Sales Tax Exemption on Industrial Kerosene	**538.72**	**8.07**	**538.72**	**8.07**

Total		**1025.22**	**15.36**	**1021.01**	**15.299**
West Bengal	**Sea Food Processing**	**5**	**0.075**	**0**	**0**
	Fisheries Development Project	**0**	**0**	**3.74**	**0.056**
Total		**5**	**0.075**	**3.74**	**0.056**
Andaman & Nicobar	**Scheme for supply of fishing inputs (essential fishery requisite)**	**3.92**	**0.059**	**3.67**	**0.055**
	Motorization	**0.82**	**0.012**	**0**	**0**
	motorized boats	**0.23**	**0.003**	**3.81**	**0.057**
	Deep Freezer	**0.59**	**0.009**	**0.54**	**0.008**
	Insulated Ice Boxes	**0.63**	**0.009**	**0.6**	**0.009**
Total		**6.19**	**0.093**	**8.62**	**0.129**
Daman & Diu	**Motorization**	**0.75**	**0.011**	**0.14**	**0.002**
	Insurance	**0.28**	**0.004**	**0.28**	**0.004**
	Fisheries Requisites	**3.12**	**0.047**	**6.99**	**0.105**
	fishing vessel	**2.98**	**0.045**	**0.2**	**0.003**
	Safety and communication equipment	**0**	**0**	**14.89**	**0.223**
	Replacement of Kerosene	**0**	**0**	**5.4**	**0.081**
Total		**7.13**	**0.107**	**27.9**	**0.418**
Puducherry	**Subsidies for mechanization of boat**	**0**	**0**	**28.54**	**0.427**
	Reimbursement of Sales Tax on HSD	**0**	**0**	**28.56**	**0.428**
	Infrastructural Facilities	**0.44**	**0.007**	**0**	**0**
	subsidized fishery	**2.83**	**0.042**	**4.02**	**0.06**

Total		**3.27**	**0.049**	**61.12**	**0.916**
MPEDA	**Financial Assistance for installation of insulated Refrigerated Fish Hold, Refrigerated Sea Water System (RSW) and Ice Making Machine on board mechanized fishing vessels**	**9.9**	**0.148**	**9.59**	**0.144**
	Financial assistance for the conversion of existing vessels to Tuna longliners	**21.5**	**0.322**	**8.56**	**0.128**
	Farm development	**13.8**	**0.207**	**6.54**	**0.098**
	small-scale hatcheries	**0.3**	**0.004**	**1.2**	**0.018**
	PCR Labs in hatcheries	**4.1**	**0.061**	**3.54**	**0.053**
	Shrimp Farms	**1.1**	**0.061**	**1.88**	**0.028**
	Registration of Aquaculture Societies	**1.6**	**0.024**	**1.8**	**0.027**
	Scampi farming	**0.3**	**0.004**	**0.25**	**0.004**
	organic farming	**3**	**0.045**	**2.42**	**0.036**
	financial assistance for the establishment of ornamental fish breeding units	**16**	**0.24**	**24.81**	**0.372**
	curing fish	**1.5**	**0.022**	**0**	**0**
	Technology Upgradation	**49.6**	**0.743**	**74.39**	**1.114**
	Renovation of existing plan	**0**	**0**	**0.84**	**0.013**
	Acquisition of Refrigerated Truck/Containers	**0**	**0**	**0.35**	**0.005**
	Cold Storages	**18.4**	**0.276**	**24.73**	**0.37**
	Subsidized distribution of insulated fish boxes	**3.4**	**0.051**	**3.44**	**0.052**

	Mini Laboratory	**0.7**	**0.01**	**1.54**	**0.023**
	Assistance to seafood processors for construction	**6.8**	**0.102**	**4.42**	**0.066**
	Insurance	**0.8**	**0.012**	**1.08**	**0.016**
	Developmental assistance for export of ornamental fishes	**1.1**	**0.016**	**1.8**	**0.027**
	Sea freight assistance	**65.8**	**0.985**	**63.6**	**0.953**
	Total	**219.7**	**3.291**	**236.78**	**3.548**

Annex 16: Comparative Table of Information Provided on Fuel Subsidies by Some Countries to WTO and OECD

In December 2009, the OECD circulated a questionnaire to various countries (listed below) to obtain information on fuel-tax concessions for fishing vessels. In this Annex, we have compared the information provided by these countries to OECD[127] in response to the questionnaire, to the information provided to the WTO in the notifications submitted by these countries to the SCM committee. The following table contains comparative analysis of the conclusion of the OECD report regarding each of the countries and the information in their latest notifications.

S. No.	Country	OECD Report	Information contained in notifications submitted to SCM Committee by WTO members
		Summary of country submissions	
		Fuel tax concession: Australia, Belgium, Canada, Denmark, Estonia, Finland, France, Greece, Italy, Korea, Japan, Latvia, Mexico, Netherlands, New Zealand, Norway, Slovenia, Spain, Sweden, Turkey, United Kingdom, United States	

[127] Martini, R. (2012), "Fuel Tax Concessions in the Fisheries Sector", OECD Food, Agriculture and Fisheries Papers, No. 56, OECD Publishing. http://dx.doi.org/10.1787/5k9bdccqft30-en

		Budgetary support: Russian Federation No fuel tax concession or other support: Chile, Germany, Iceland, Poland, Portugal, Thailand Not applicable: Austria, Czech Republic, Hungary, Israel, Luxembourg, Slovak Republic, Switzerland		
1.	Belgium	Belgium reports that its fuel support consists of an excise-duty exemption, granted at the national level, for gasoline - light fuel oil [HS code 2710 1945]. The level of excise duty for the type of fuel used by the Belgian fleet is 21/1000 litres. Fishers are exempted from this excise tax on the basis of "Energy products supplied for use as motor fuel or heating fuel for the purposes of navigation within Community waters (including fishing) and electricity produced on board a craft". According to the OECD report, FTCs (2008) as a percentage of all support is 3% for Belgium. The fuel price is EUR 0.74 per litre and 0.00 is the rate of FTC per litre. Therefore, net fuel price for fishers is same as	Belgium Notification G/SCM/N/253/EU/Add.2 dated May 27, 2014 The notification only provides an email address under the heading: '4.4 Aid to the Fisheries and Aquaculture Sector Wordt aangeleverd door FOD Buitenlandse Zaken (DGE, E4, marc.thirion@diplobel.fed.be)' (page 38). The notification contains no information specifically stating that there is a gasoline-light fuel oil subsidy. However, the notification mentions a few programmes under '1.4 Excise duty on energy products and

		EUR 0.74 per litre. Total volume of fuel consumed is 45.6 million litres and total value of all fuel support EUR 0.1 million. The FTC is 0% as percentage of total landed value of catch.	electricity' and '1.5 Reduced excise rates for biofuels'. The aid granted consists of a reduction of or an exemption from excise duties and the notification states that the Order was published in the Moniteur Belge (Official Journal) of 5 March 2004. The tax measures apply to the professional consumption of energy-intensive enterprises engaged in economic activity involving production, trading or the provision of services, including mining and agricultural activities and liberal professions. It does not specifically exclude fisheries sector but in absence of specific mention thereof no conclusion can be drawn as to whether the measure applied to fisheries sector as well. Furthermore, the notification does not mention any estimate regarding the amount involved in implementation by stating that these are reduced rates and therefore, no information is available on the amount involved in their implementation. '1.5 Reduced excise rates for biofuels' Reduce excise rates for biofuels, Programme Law of 11 July 2005 (Chapter 1, Title V) pertains to reduction of excise duty, allows fuels from a renewable source to compete with fuels of fossil origin, the cost price of which is

			significantly lower. The purpose of the aid is to compensate for the difference between the production costs and the market price of renewable energy. The duration of the scheme is limited to six years. Amount in 2011 and 2012: 2011: €231.85 million and 2012: €232 million (estimate) The aid is granted in the form of a reduction in the excise rate when the fuel is released for domestic consumption. The reduction of the excise rate for bioethanol and biodiesel is granted in the form of a reduction in the excise rate applicable to mixtures of fossil/renewable fuels in relation to the rate applicable to pure fossil fuels which the biofuels substitute.
2.	Denmark	The OECD report states that no direct support to fuel use is given to fisheries. The calculated support provided to the OECD Secretariat represents tax-exemptions (e.g. taxes that would have to be paid if fisheries were subject to the same tax regime as road transport). Processing of fish etc. is not included. The taxes consist of a direct tax on fuel, a CO2 tax on fuel and 25% VAT. These fuel-taxes are not paid by fishing vessels. The VAT is calculated as 25% of the value of the fuel including other taxes. In its submission, Denmark specifies that "In general it should be noted that this type of calculation tends to overstate the value	The subsidies notification by Denmark (G/SCM/N/253/EU/Add.6 dated February 03, 2014) contains a lot of information on fisheries. It provides information on programmes under the following sixteen sub-headings: Restructuring of the Fishing Fleet, Fishing from the Coast (hauling up vessels), Investments in the Processing for Fish Products, Advisors for Fishery and Aquaculture, Aqua-environment, Investments in Aquaculture, Fishing Port Facilities, Market Promotion, Aid for Young Fishermen, Modernization of Fishing Vessels, Experimental Fishing and Fish Processing Development, Processing of Fish, Innovation, Research

		of the support because it does not take into consideration the substitution which would take place at higher prices. Moreover VAT, if it was imposed, would be a tax on the added value not a fuel tax". The volume of fuel consumed is calculated from the "Account Statistics for Fishery 2008". The statistics cover 97% of the fishing fleet measured in landings and revenue. Some fuel is bought abroad and foreign fishing vessels buy fuel in Danish ports. These quantities are not known. According to the OECD report, FTCs (2008) as a percentage of all support is 30% for Denmark. The fuel price is DKK 7.04 per litre and 2.73 is the Rate of fuel tax concession per litre. Therefore, net fuel price for fishers is EUR 4.31 per litre. Total volume of fuel consumed is 92.8 million litres and total value of all fuel support is DKK 253.7 million. The FTC is 10% as percentage of total landed value of catch.	and Development in the Fisheries Sector, Pilot Projects, Aquatic Fauna and Flora, Fisheries Areas. Some fuel subsidies include programme titled 'Temporary action to promote the restructuring of the fishing fleet' under 'Restructuring of the Fishing Fleet' (page 50). Under this programme, aid is granted for investment on board fishing vessels to improve energy efficiency and for decommissioning of fishing vessels to reduce fuel dependency. The aim of this measure is to restructure the fishing fleet in order to reduce fuel dependency and achieve a better balance between the fisheries resources and their exploitation by reducing the fishing capacity. The EU-refunds provided were 19.3, 25.0 and 4.4 million DKK for the years 2010, 2011 and 2012 respectively. However, financed contribution for the aforesaid years was 1.0, 1.3 and 0.2 million .DKK respectively. No other programme specifically mentions a fuel subsidy provided to fisheries. In addition, another programme is covered under the heading 'Research' which pertains to financing of 'Public Institutions involved in Research in Agriculture and Fisheries'. The aim of the scientific policy advice is to promote food, agricultural and fisheries policies, regulation and development based on scientific

<table>
<tr><td></td><td></td><td></td><td>knowledge with due consideration to a sustainable utilisation and management and the terrestrial and aquatic resources.</td></tr>
<tr><td>3.</td><td>Finland</td><td>Finland Article 9 of the Law of the Liquid Fuel Excise (no 1472/1994) notes that fuel used by commercial vessels (including fishing vessels to the extent they are used in commercial fisheries) are exempt from the fuel-excise taxes. This tax-exemption represents the full value of the excise tax. Finland distinguishes three types of fuel (petrol, diesel and domestic fuel oil) consumed by fishing fleets along with the respective fuel-tax concession rates.

Table 3. Fuel Types used in Finland, 2008
<table><tr><td>name</td><td>Tax Rate</td><td>Tax concession value EUR</td><td>Fuel Consumed</td></tr></table></td><td>The notification by Finland (G/SCM/N/253/EU/Add.8 dated 4 October 2013) contains various measures in relation to fuel listed under the following headings: ‘4.6 Aid measures connected to biofuels’ and ‘4.7 Aid measures connected to biofuels’, ‘4.9 Carbon dioxide tax discount for natural gas, coal, light and heavy fuel oil and biofuel oil used chp-power plants’, ‘4.10 Waste oil management financed by waste oil charges’.

Transport subsidy ‘Prolongation of the reimbursement scheme for social security costs and costs related to personal income taxation in the maritime transport sector’ has the objective of prolongation of the reimbursement scheme for social security costs and costs related to personal income taxation in the maritime transport sector. Since 1990s, Finland has in place the reimbursement scheme with respect to social security payments and employees' income tax in the maritime</td></tr>
</table>

			Petrol	0.63	234 600	374 400
			Diesel	0.36	5 700	15 800
			Domestic Fuel Oil	0.09	72 400	836 500
		According to the OECD report, FTCs (2008) as a percentage of all support is 1% for Finland. The fuel price is EUR 1.04 per litre and 0.25 is the Rate of fuel tax concession per litre. Therefore, net fuel price for fishers is EUR 0.78 per litre. Total volume of fuel consumed is 1.2 million litres and total value of all fuel support EUR 0.3 million. The FTC is 2% as percentage of total landed value of catch.				transport sector. The latest changes/prolongations of the scheme were approved by Commission decisions N 67/2009 and N 120/2009. Commission decision SA.35110 combines the aforementioned decisions N 120/2009 and N 67/2009 (and thus all previous notifications related to manning costs). The scheme foresees subsidies covering 100% of seafarers' income tax and 100% of the social security payments with respect to seafarers employed on Finnish flagged ships. Any shipping company whose vessels sail under Finland's flag is eligible for subsidies. The indicative annual budget of the State aid scheme is MEUR 81.0. The total amount of the subsidy for the year 2012 was MEUR 78.8. Furthermore, the Finnish authorities notified the prolongation of the scheme from 1 January 2012 for unlimited duration, insofar as the applicable EU State aid rules for the transport sector remain unchanged. The Supplement G/SCM/N/253/EU/Add.8/Suppl.1 dated October 24, 2014 to the Addendum to the EU's notification relates to the fisheries subsidy programmes of Finland. This document contains information about the following:

a) European Fisheries Fund (EFF): The EFF exists to grant financial support to the EU's fisheries sector to help it adapt to changes required in the sector. To achieve these objectives the EFF targets the following priority areas (axis) Axis 1 Adjustment of the fleet, Axis 2 Aquaculture, processing and marketing, inland fishing,

Axis 3 Measures of common interest, Axis 4 Sustainable development of fisheries areas, Axis 5 Technical Assistance.

EFF and Finland national funding granted amounts (totals for the period 2007-2013), broken down by Priority Axis (in euros)

	Total EFF programme	**EU funding (EFF)**	**National funding**
Priority Axis 1	5,835,000	2,495,000	3,340,000
Priority Axis 2	42,920,000	18,430,000	24,490,00
Priority Axis 3	33,050,000	14,220,000	18,830,00

			<table><tr><td>**Priority Axis 4**</td><td>8,412,000</td><td>3,606,000</td><td>4,806,000</td></tr><tr><td>**Priority Axis 5**</td><td>1,631,827</td><td>697,827</td><td>934,000</td></tr><tr><td>Total</td><td>**91,848,827**</td><td>**39,448,827**</td><td>**52,400,000**</td></tr></table> This type of aid is for the restructuring of fishing fleets, aquaculture, processing and marketing circuits, port facilities, selective fishing methods, financing of local strategies in support of the sustainable development of fisheries areas, and socio-economic measures. The beneficiaries include ship-owners, enterprises, producer organizations, public and private bodies, professional organizations, cooperatives, fishermen. The notification lists the duration of the programme from 2007 to 2013.
4.	Italy	In Italy, an FTC for fishing vessels consists of an exemption from VAT and other direct fuel taxes, in accordance with the Council Directive 2003/96/EC of 27 October 2003. Italy has one fuel-tax rate for all fleets, but provided a breakdown of fuel consumption (and total value of the fuel-tax concession) by fleet; the total values are reported in Table 2. Between 2007 and 2008, the cost of a litre of diesel fuel for fishing vessels rose from EUR 0.55 to EUR 0.70. Italian authorities have not undertaken any special measures to mitigate	Some programmes of note are stated in the notification (G/SCM/N/253/EU/Add.14 dated February 18, 2014) as follows: One scheme is listed under the heading ‘3.2 Excise Duty Reduction on Some Products for Environmental Protection – Biodiesel’. A 20% excise duty reduction

		the consequences of the fuel-price rises. According to the OECD report, FTCs (2008) as a percentage of all support is 85% for Italy. The fuel price is EUR 1.34 per litre and 0.65 is the rate of FTC per litre. Therefore, net fuel price for fishers is EUR 0.69 per litre. Total volume of fuel consumed is 422.0 million litres and total value of all fuel support EUR 274.3 million. The FTC is 22% as percentage of total landed value of catch.	was granted on biodiesel used as it is or mixed with gas oil, instead of the standard 423 €/m3 at a temperature of 15°C. The rate applied to the subsidized biodiesel was 84,6 €/m3 at a temperature of 15°C. The quantity of subsidized biodiesel was 250,000 tons in 2009 and 18,000 tons in 2010. The subsidy has been granted in the following way: - at the tax warehouses where biodiesel is mixed with gas oil: by taking into consideration the tax amount resulting from the difference between the rate applied on gas oil used as engine fuel and the reduced rate applicable to subsidized biodiesel and by deducting such an amount from the excise accounting records of the warehouse keeper where the mixing procedure takes place; - at the tax warehouses from where the biodiesel is brought into consumption as it is: by applying the reduced rate to the quantity brought into consumption. Beneficiaries were: authorized warehousekeepers located in Community territory and owning biodiesel plants. The subsidy is provided to increase energy sources with

			reduced environmental impact, for biodiesel used as it is or mixed with energy products used as engine or heating fuel.
5.	Norway	Fuel taxation in Norway consists of several different elements, each meant to address different issues within the overall taxation policy. The rate of FTCs provided in Norway's submission includes the base tax on mineral oil and the CO2 tax, which are both refunded for fishing within the Norwegian economic zone; fishing vessels are completely exempt from the base tax on mineral oil and the CO2 tax. The taxes are described below. • Base tax on mineral oil: The base tax is intended to correct any adverse effects arising from the introduction of an electricity tax in the year 2000. The base tax thus counteracts the tax incentives to the use of fossil fuels for heating. The tax is levied on all mineral oil, with the following exceptions: all mineral oil where a diesel tax applies, and jet fuel. Mineral oil used for the following purposes is also exempt: international shipping, goods and passengers traffic in international waters, construction on the continental shelf, supply shipping, high-seas fishing, and production in the fishmeal industry. The tax is refunded for fishing within the economic zone. High-sea fishing is exempted from these taxes. (Source: Garantikassen for fiskere). • CO2 tax: A CO2 tax is levied on all mineral oil,	The notification by Norway (G/SCM/N/284/NOR dated July 07, 2015). The '5.4 TRANSNOVA – Schemes for introduction of zero and low emission transport technologies and transport practice' Grants/investment support is provided to help introduce new and green transport technologies, for instance renewable fuels, and transport practice. The subsidy is provided to regional and local authorities, private companies, NGO's, research institutes and other organizations can apply to Transnova for grants. The scheme does not apply to national authorities and households/private individual consumers. In 2012, Transnova was made permanent as one of the policy instruments to reduce greenhouse gas emissions. From 01.01.2015, Transnova was closed down, and its objectives were transferred to Enova. An important policy instrument to promote energy efficiency, the promotion of renewable energy and the development of energy and climate technologies is the availability of investment aid through the public enterprise Enova. Enova's activities are financed by resources in a dedicated fund, "the Energy Fund". The subsidy is given

		with the exemption of mineral oil used for international shipping, international flight, and fishing within the economic zone and high-seas fishing. The tax is fully refunded for fishing within the economic zone, whereas vessels fishing in high-seas are exempt from the tax. • Petrol and diesel tax: A petrol tax is levied on all petrol. This tax is intended to capture the negative externalities from the use of motor vehicles such as: accidents; congestion; noise pollution; road wear; and environmental pollution (except CO2 emissions). A complete exemption from the tax is given for all petrol used by airplanes, boats, and snowmobiles in areas without roads. Petrol used for technical purposes, medical purposes and for the exploitation of national resources in the oceans outside of Norwegian territory is also exempt from the petrol tax. The tax rate on petrol and diesel tax was not included in the Norwegian submission to the OECD. This tax is intended to capture the negative externalities arising from the use of land-based motor vehicles. All petrol used by airplanes, boats, and snowmobiles in areas without roads is exempt from the tax. Similarly, the diesel tax is levied on all diesel used for the propulsion of motor vehicles and is also meant to capture the negative externalities from the use of motor	in the form of investment aid. The Energy Fund was established on January 01 2002. There is no time limit for the duration of the fund. The notification lists some tax concessions under heading '7 assistance to specific industry sectors' (page 30). The exemptions and reduced rates in the CO2 taxes and in the tax on mineral oil (base tax on mineral oil) is a tax concession provided to the pulp and paper industry and the fish oil and fish meal industries. The notification states that the rates of the CO2 tax and tax on mineral oil (base-tax on heating oil) and the tax concessions are decided by the Parliament during the annual budget process. CO2 taxes and taxes on mineral oil have also been introduced in 1991 and 2000 respectively. From 1 September 2010 the CO2 tax also applies to natural gas and LPG used on the mainland (CO2 taxes already apply to natural gas used in offshore activity). From 1 September 2008, undertakings covered by the EU Emission Trading Scheme ("**ETS**") are exempted from the CO2 tax on mineral oil, in order to avoid the use of two economic instruments (tax and quota) to reduce the same emissions. Exemptions and reduced rates for undertakings covered by the EU ETS are therefore not included in the listed figures for the tax expenditures. Further details provided in the notification

		vehicles. In the Norwegian tax structure, these taxes are not levied on the use of fossil fuel as such, but on the use of the national road network. Thus, no relevant data regarding fishing vessels exists for these taxes. The NOx tax applicable for each undertaking is based on calculated emissions with the rate in 2008 being NOK 15.39 /kg, and for propulsion engines it applies only to those with an installed engine power over 750 kW. High-seas fishing, international shipping and international air transport are completely exempt from the tax. In addition, an agreement to reduce emissions was signed by the authorities and several industry organisations, effective from 2008. This agreement allows undertakings whose activity falls within the limits of the agreement to pay a reduced tax rate of NOK 11 /kg for offshore oil activity and NOK 4 /kg for fishing, national and international shipping, supply shipping, industrial production, air transport and other sectors included in the agreement. Revenues from this tax are placed in a fund that financially supports investments in emission-reducing measures. The agreement is set to expire in 2011. It has not been possible to calculate the value of support to the fishing fleet.	are as follows: • CO2 tax: An excise duty is levied on mineral oil, natural gas and LPG. In 2013 the CO2 tax on mineral oil was NOK 0.61 per litre and in 2014 the tax was NOK 0.88 per litre. The CO2 tax on natural gas was NOK 0.46 per Sm3 in 2013 and NOK 0.66 per Sm3 in 2014. The CO2 tax on LPG was NOK 0.68 per kg in 2013 and NOK 0.99 per kg in 2014. Tax concession: Mineral oil used in the fish oil and fish meal industries is subject to a reduced CO2 tax rate. The reduced CO2 tax was NOK 0.31 per litre in 2013 and 2014. Undertakings covered by the EU ETS are exempted from the CO2 tax on mineral oil, in order to avoid double regulation. Manufacturing and mining and undertakings covered by the EU ETS are however levied a minimum rate of NOK 0,05 per Sm3 natural gas. Vessels used for fishing and catching are exempted from the CO2 tax on mineral oil used in distant waters, natural gas and LPG. Vessels used for fishing and catching in inshore waters are subject to a reduced CO2 tax on mineral oil. The reduced CO2 tax was NOK 0.13 per litre in 2013 and NOK 0.26 per litre in 2014.

		Estimates of fuel acquired in third countries by Norwegian vessels are 29 million litres for 2007 and 28 million litres for 2008. The reliability of the estimates is uncertain and stem from changes in reporting procedures from the oil companies where, inter alia, it is difficult to distinguish the sales between the petroleum industry, shipping, fisheries and distributors. The estimate of the fuel acquired abroad is based on a 30-year analysis, and the reliability of the estimate is uncertain. (*Source*: Statistics Norway - SSB) According to the OECD report, FTCs (2008) as a percentage of all support is 16% for Norway. The fuel price is NOK 6.25 per litre and 1.40 is the rate of FTC per litre. Therefore, net fuel price for fishers is NOK 4.86 per litre. Total volume of fuel consumed is 238.1 million litres and total value of all fuel support NOK 332.1 million. The FTC is 3% as a percentage of total landed value of catch.	Commercial greenhouses are exempted from the CO2 taxes on natural gas and LPG. • Tax on mineral oil (base tax on heating oil): Main rules: An excise duty is levied on mineral oil. In 2013 the tax rate was NOK 1.037 per litre and in 2014 the tax was NOK 1.557 per litre. Tax concession: For the usage of mineral oil in the pulp and paper industry and in the production of pigments and colouring agents a reduced tax rate is applied. The reduced tax rate was NOK 0.126 NOK per litre in 2013 and 2014. Vessels used for fishing and catching and the fish oil and fish meal industries are exempted from the tax on mineral oil (base tax on mineral oil). Amount of Subsidy Expenditure in 2013 CO2 tax on mineral oil: NOK 220 million. NOK 260 Vessels used for fishing and catching The fish oil and fish NOK 0.9

			meal industries:	NOK 1.1 million.		
			CO2 tax on natural gas and LPG Industry and mining and undertakings covered by the EU ETS	NOK 660 million	NOK 920 million	
			Tax on mineral oil (base tax on mineral oil): The pulp and paper industry:	NOK 17.0 million.	NOK 47.2 million	
			The fish oil and fish meal industries:	NOK 17.3 million	NOK 17.8 million	

The subsidy regarding CO2 tax was started on 1 January 1993 and tax on mineral oil on1 January 2000.

In addition, the Ministry of Trade, Industry and Fisheries of Norway also provides transport support listed under '8.2 Transport Support'. This subsidy is in a form of

			grant and the purpose is to support transport in order to facilitate implementations of fisheries activities in specific regions. The transport support is given to the following sales organisations: • The Norwegian Raw Fish Organisation • Fish Sales Association for Sunnmøre and Romsdal • Fish Sales Association for Western Norway • Fish Sales Association for Rogaland County • Fish Sales Organisation for the Skagerrak Coast • The Norwegian Herring Sales Association The sales organisations are responsible for the distribution of the transport support to the fishing industry. Each sales organisation must submit a plan showing how they intend to apply these funds so that fishing activities are secured throughout the year. The notification states that no transport subsidies have been granted to the fish farming industry. Balanced budget for 2013 and 2014 was NOK 26 million for each year. Duration of the subsidy has not been specified.
6.	Korea	In Korea, tariff and fossil fuel import levies are imposed on fuel for fishing vessels. However, in accordance with the Special Tax Treatment Control Act (1965), VAT, special consumption taxes, transportation, energy, and environmental taxes,	The notification by Korea (G/SCM/N/284/KOR) does mention Special Tax Treatment Control Act (1965) under the heading '5.1 Support for Foreign Invested Enterprises'. The subsidy is titled 'Support for Foreign-Invested Enterprises' in the form of tax concessions and cash grants granted to the following beneficiaries:

		educational taxes and mileage taxes on fuels (light fuels, heavy fuels and others) for agriculture, livestock farming, forestry and fisheries are exempted. These tax concessions are given not only to the fisheries sector but also to other primary production sectors as well. Fuel-tax exemptions for fishing vessels are given when the tax on such fuel does not conform to the purpose of the tax law or when there is a need to protect the socially and economically vulnerable groups. These exemptions are legitimate in line with Korea's tax legislation system. For example, the purpose of transportation, energy, and environmental taxes is to secure financial resources that are needed to improve transportation infrastructure, promote public transportation and implement energy-related projects. Therefore, it is reasonable to exempt such taxes for fuels for fishing vessels. Also, mileage taxes are imposed to discourage the use of cars and mitigate traffic congestions which are not related to fisheries and thus not applicable to fuels for fishing vessels. The amount of fuel used by fishing vessels has been on the decline in recent years (1.51 billion litres in 2000 compared to 830 million litres in 2008). Also, the Korean government, with the national vision of "low carbon green growth", is taking various measures to reduce the fuel	Foreign-invested enterprises which are involved in businesses related to advanced technology or engaged in the service sector supporting other industries, Foreign-invested enterprises doing business in Foreign Investment Zones, Free Economic Zones, Free Trade Zones, the Jeju Investment Promotion Zone and Development Districts of Enterprise New Towns. The notification also states the terms of availing benefits and lists various kinds of taxes from which exemption or concession is available at specific rates for a specific period. However, the notification does not list the programme or the aforesaid statute as providing benefit to the fishery sector. The notification does contain a separate category 'Fisheries' with sub-headings listing support to fishing activities, Aquaculture Fishery Development, Vessel Decommissioning, Management of distant water fisheries. However, it does not list tax concessions, if any under the same.

		consumption by the fisheries sector. For instance, with the government's support, Korean fishers are encouraged to use fuel saving devices and LED (light) fish aggregating devices. The government is also supporting the establishment of seaweed forests as carbon sinks. According to the OECD report, FTCs (2008) as a percentage of all support is 34% for Korea. The fuel price is KRW 1 615.0 per litre and 605.63 is the rate of fuel tax concession per litre. Therefore, net fuel price for fishers is KRW 1 009.34. Total volume of fuel consumed is 836.8 million litres and total value of all fuel support KRW 506 799.6 million. The FTC is 15% as percentage of total landed value of catch.	
	United States	Economists at each of the six National Marine Fisheries Service (NMFS) Fisheries Science Centres and at the Office of Sustainable Fisheries provided estimates of the amount of fuel used and landings by fishery for the most recent year(s) that fuel use or expense data were available. In most cases, the fisheries were defined by species or species group and gear. That information was used to calculate the litres of fuel used per metric tonne of landings by fishery, and those estimates were used with fishery-specific landings estimates for 2007 and 2008 to estimate the amount of fuel used in each of	The US notification (G/SCM/N/253/USA dated May 09, 2014) mentions various programmes under '2 energy & fuels (energy development, storage and transportation & other related sectors)' and '3 other energy and fuels' and '4 Fisheries'. Please note that there are various programmes pertaining to fuel subsidies but they seem to be available mainly to producers and not just users of the fuels. However, an important programme is the '2.2 Energy

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<td>those two years. Although the litres per metric tonne of landings can vary by year, better proxies of the litres of fuel used in 2007 and 2008 for those fisheries were not available.

According to the OECD report, FTCs (2008) as a percentage of all support is 4% for USA. The fuel price is USD 1 per litre and 0.06 is the rate of fuel tax concession per litre. Therefore, net fuel price for fishers is USD 0.94.

Total quantum of fuel consumed is 1337.5 million litres and total value of all fuel support USD 85.6 million. The FTC is 7 % as percentage of total landed value of catch.</td>
<td>Conservation Programs – Transportation Sector' which aims to develop more energy-efficient and environmentally friendly highway transportation technologies (for both cars and trucks) that meet or exceed performance expectations and environmental requirements and that will enable the US to use significantly less petroleum and reduce greenhouse gas emissions.

Assistance under the program is provided through grants, cooperative agreements, CRADAs another forms of collaboration accomplished through consortium-based activities between government laboratories and private industry. Participation in the program is determined through various competitive procedures, which are open to all eligible private parties. annual appropriations (approximate dollars in millions) for fiscal years 2011 and 2012 are as follows:

<table>
<tr><td colspan="3">Applicable Vehicle Technologies Sub-Programs</td></tr>
<tr><td></td><td>FY 2011</td><td>FY 2012</td></tr>
<tr><td>Total, Vehicle Technologies Office</td><td>293.2</td><td>328.8</td></tr>
<tr><td>Innovations</td><td>121.3</td><td>144.0</td></tr>
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			Emerging Technologies	111.3	113.6	
			Systems Integration	17.6	19.9	
			Market Barriers	43.0	43.5	
			SBIR/STTR3	0	7.8	
			Note that the Vehicle Technologies Office is not subject to any fixed completion date. Its continuation is contingent upon ongoing annual appropriations and authorizations by Congress.			
			The programme of 'Expensing of Exploration and Development (E&D) Costs for Oil, Gas and other Fuels' has the objective to encourage the development of domestic oil, natural gas and coal resources. This income tax concession is available to fuel mineral producers are permitted accelerated deductions from taxable income.			

			This the notification mentions the duration of this programme to be indefinite. The expensing of intangible drilling costs was originally established in a 1916 Treasury regulation with the rationale that such costs were ordinary operating expenses. Limitations on expensing for integrated oil companies were applied in 1976 and later years. The revenue loss was $500 million in 2011 and $470 million in 2012. Similarly, the programmes of 'Excess of Percentage over Cost Depletion for Oil, Gas and Other Fuels' also provides tax concessions for an indefinite duration. It has the objective stated as to stimulate the supply of oil and gas, compensate producers for the high risks of prospecting, and relieve the tax burdens of small-scale producers. Some excerpts from background and authority are as follows: Independent (i.e., non-integrated) oil and gas producers

			and other fuel mineral producers and royalty owners are generally allowed to take percentage depletion deductions rather than cost depletion on limited quantities of output for tax purposes. The 'Biodiesel and Renewable Diesel Credit' aims to 'encourage the substitution of biodiesel and renewable diesel for diesel fuel'. The form of subsidy is 'Income tax concession, excise tax concession, or direct payment for fuels containing biodiesel'. 'The small biodiesel producer credit reduces the income tax liability of qualifying producers. All other credits reduce federal income or excise tax of, or result in a direct payment to, qualifying producers, blenders, or users' The 'Alternative Fuels Credit' also aims to encourage the substitution of alternative fuels for gasoline and diesel fuel. Note that this is an excise tax concession. ***This credit reduces the excise tax of, or result in direct payment to, qualifying producers, blenders, or users.*** This concession is available not only to producers but also users. The revenue loss was under $160 million in 2011 and $310 million 2012. However, as per the notification the tax credit expired on 31 December 2011 (except in the case of hydrogen). In the case of hydrogen,

			the credit expires on 30 September 2014. The background and authority are as follows: An excise tax credit is available for alternative fuels including liquefied petroleum gas, P Series fuels, compressed or liquefied natural gas, liquefied hydrogen, liquefied fuel derived from coal through the Fischer-Tropsch process, compressed or liquefied gas derived from biomass, or liquid fuel derived from biomass. For coal-to-liquids produced after 30 September 2009 through 30 December 2009, the fuel must be certified as having been derived from coal produced at a gasification facility that sequesters 50 percent of such facility's total carbon dioxide emissions. The sequestration percentage increases to 75 percent for fuel produced after 30 December 2009. The alternative fuel credit is 50 cents per gallon of alternative fuel or gasoline gallon equivalents. The excise tax credit was enacted as part of the Safe, Accountable, Flexible, Efficient Transportation Act of 2005. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended the alternative fuel credit through 2011 and eliminated the credit for any fuel (including lignin wood residues, or spent pulping liquors) derived from the production of paper or pulp (black liquor).

			There is a tax credit for biodiesel or renewable diesel used as a fuel. This credit is equal to $1.00 per gallon for biodiesel (including agri-biodiesel). In addition, small producers of biodiesel are eligible for a 10 cent per gallon income tax credit. The credit is included in a taxpayer's income. Please note that there are several other fuel and energy related programmes mentioned in the notification such as 'Alcohol Fuel Credit', 'Credits for Investment in Advanced Coal Facilities and Advanced Gasification Facilities', 'Advanced Energy Property Credit' etc. These details of these programmes are provided in the notification but have not been mentioned here as they do not seem to be applicable to the fisheries sector. For instance, another programme 'Capital Gains Treatment of Royalties on Coal' is an income-tax concession of indefinite duration. Under the heading 'To whom and how assistance is provided' all that is mentioned is 'Sales of certain coal under royalty contracts can be treated as capital gains for tax purposes'. It is unlikely that an individual or enterprise under the fisheries sector would sell coal under royalty contract and therefore, we have not provided the details of this

			programme here. Similarly, fuel programmes which seem to be applicable only to producers of fuel or are applicable to all sectors have not been mentioned here.
7.	Canada	The OECD report on page 1, footnote 5 states the following: 'For example, in Canada, relief of the federal excise tax of 4 cents per litre of diesel is generally available to fishing vessels that fish outside 12 nautical miles offshore (i.e. outside Canada‟s territorial sea). However, data on how many vessels proceed beyond 12 nautical miles from shore is not available, so the total value of this relief is not calculated here'. According to the OECD report, FTCs (2008) as a percentage of all support is 1% for Canada. The fuel price is 1.25 CAD per litre and 0.14 is the rate of fuel tax concession per litre. Therefore, net fuel price for fishers is 1.11 CAD. Total volume of fuel consumed is 82.7 million litres and total value of all fuel support CAD 11.4 million. The fuel tax concession is 1% of total landed value of catch.	Canada has some specific freight assistance programmes for fisheries. Now freight assistance is provided in terms of grant so although it is not linked directly to fuel expenses but has the effect of reducing freight cost. Therefore, it can be compared with fuel or transportation subsidies. Canada's notification (G/SCM/N/284/CAN dated July 09, 2015) mentions various freight assistance programmes. For instance the 'Northern Fisherman's Freight Assistance (NFFA) Program' is for Manitoba area. It assists marginally viable commercial fishing operations through partial subsidization of the *cost of transporting selected fish species from lakeside to Winnipeg for processing*. Funding for this program is provided for under the authority of the Fisheries Act by the Freshwater Fish Marketing Corporation (FFMC), a federal Crown corporation. (emphasis supplied)

			Assistance is available to fishermen employed in the fishery sector. Eligible species for freight assistance are whitefish, pike, lake trout, perch, goldeye, tullibee, and suckers. Under this program, fishermen pay the first 20 cents per kilogram of freight cost, and the Province pays for the next 45 cents per kilogram (with fishermen responsible for any freight costs in excess of 65 cents per kilogram). Fishermen also receive 7 cents per kilogram for suckers from all lakes listed as eligible for assistance. The total amount budgeted and disbursed was $400,000 for FY 2012/2013 and $400,000 for FY 2013/2014. The program was established in 1976 and is ongoing. Funding for this program is provided for under the Fisheries Act by the FFMC. Similarly, another ongoing programme with no expiry date mentioned is the 'Commercial Fisheries Freight Subsidy' for Nunavut. The stated objective of the programme is to support the transportation of fish to allow Nunavut fisheries to be competitive in southern

			domestic markets. Funding is provided under the authority of Nunavut Department of Environment. Assistance is provided in the form of a grant. Eligibility is restricted to Nunavut fisheries industry: processors, harvesters, and commercial fishing companies. Under this program, a total of $190,000 is available. Also for Nunavut, is another ongoing programme 'Fisheries Development and Diversification fund' whose objective is broad enough to cover various kinds of assistance. The notification states the objective as follows: 'to develop and diversify Nunavut's fishing industry within the overall guiding principles of conservation and sustainability. To identify and develop new fisheries resources that will provide significant economic benefits to the residents of Nunavut'. The Nunavut Department of Environment provides funding under this programme and assistance is provided

			in the form of a grant. Eligibility is restricted to: individuals who are residents of Nunavut; incorporated businesses registered as Nunavut Businesses and whose offices are located within Nunavut, Societies registered under the Nunavut Societies Act or not-for-profit corporation registered for the purposes of delivering fisheries related projects in Nunavut; government agencies with a mandate to deliver fisheries related projects in Nunavut for the betterment of Nunavut; research and development institutions and regional development groups with a mandate to deliver fisheries related projects in Nunavut for the betterment of Nunavut. The program provides a contribution of up to $65,000 or $150,000, depending on the type of project. Under this program, a total of $525,000 is available in total. As stated earlier, the programme is ongoing with no start or expiry date mentioned in the notification. Canada has programmes which specifically apply to fisheries sector:

			Genome Canada is a foundation created by the Government of Canada in 2000, and will end 31 March 2017. Together with these six Genome Centres, and other partners, Genome Canada supports large-scale research projects in key selected areas such as agriculture, environment, fisheries, forestry, health and new technology development. In addition, Genome Canada is active in addressing public concerns and increasing public awareness about genomics researching including ethical, environmental, economic, legal and social issues related to genomics. The initial recipient is Genome Canada, which in turn provides assistance to the ultimate recipients, which are: a Genome Centre or persons undertaking research into GELS. Federal departments and agencies are not eligible recipients. The assistance is in the form of a grant for $140,000,000 and an up-front, multi-year funding agreement for $75,000,000 to Genome Canada. Expenditures for FY 2012/2013 were $67,800,000 and $56,600,000 for FY 2013/2014. This programme is mentioned here as the assistance provided is very general in nature but specifically pertains to fisheries sector and some other sectors. Therefore, usage of the assistance for transportation is

			not precluded.
8.	Australia	The fuel tax credit rate for the following activities is 38.143 cents per litre. If the fisher is undertaking commercial fishing operations, you can claim for taxable fuel (for example, diesel or petrol) the fisher uses for any of the following activities, provided these activities are not connected with sport, recreation or tourism: • Taking, catching, capturing of fish; • Processing fish on board vessels; • Fish farming; • Constructing ponds and tanks or other structure to contain fish to be farmed, as long as this is done by the fish farmer or a contractor or subcontractor to the farmer; • Pearling; • Operating a dedicated mother vessel in connection with eligible fishing operations; • Sailing a vessel to or from a port for the purpose of refitting or repairing the vessel or its equipment; • Undertaking trials connected with the repair or refit. According to the OECD report, FTCs (2008) as a	Australia's notification (G/SCM/N/253/AUS dated 11 September 2013) The notification mentions no programmes specific to the fisheries sector or transportation related programmes. However, two fuel related programmes are a) Liquefied Petroleum Gas Vehicle Scheme (LPG VS) assists *families* with the high cost of fuel, promotes the use and uptake of LPG as an alternative fuel and promotes cleaner, more environmentally friendly technology (emphasis supplied). The form of subsidy is cash grants to successful applicants on an entitlement basis. Funding under the LPG VS is provided to individuals who purchase a new LPG powered vehicle or have their existing vehicle converted to LPG. However, an individual is only eligible for a grant under the Scheme if that individual has not received a grant under the Scheme in the previous three years.

		percentage of all support is whopping 66% for Australia. The fuel price is AUD 1.49 per litre and 0.38 is the Rate of fuel tax concession per litre. Therefore, net fuel price for fishers is AUD 1.10. The total quantum of fuel consumed is 196.7 million litres and total value of all fuel support AUD 75.0 million. The FTC is 5% as percentage of total landed value of catch.	There are different grants available, subject to eligibility criteria: a. For the LPG conversion of a registered vehicle are provided in the notification. This scheme appears to be general in nature and if it is actually applicable across all sectors (as is evident from the notification) it cannot be termed as specific. The duration of the programme was 1 July 2006 to 30 June 2014. The 'Green Car Innovation Fund (GCIF)' has the objective to enhance the R&D and early stage commercialisation of Australian technologies that significantly reduce fuel consumption and/or greenhouse gas emissions of passenger motor vehicles. The Australian Government contributes one dollar for every three dollars of eligible expenditure contributed by a grantee, unless otherwise agreed on an exceptional basis. On 27 January 2011, the Australian Government closed the Green Car Innovation Fund to new

			applications. Applicants could access the Green Car Innovation Fund through two separate streams: • Stream A – grants for motor vehicle producers registered inter alia under the Automotive Competitiveness and Investment Scheme or the Automotive Transformation Scheme; or • Stream B – grants for non-tax exempt companies that are not motor vehicle producers. Level of subsidy per unit is mentioned as follows: Green Car Innovation Fund grants were awarded on a project-by-project basis. Stream A provided grants of $5 million or more, and up to a cumulative grant total of $300 million per grantee over the life of the program. Stream B provided grants of $100,000 or more, and up to a cumulative grant total of $100 million per grantee over the life of the program. The possibility of availing the benefit by fisheries sector is under Stream B where non-tax exempt companies that are not motor vehicle producers can avail the benefit.

Annex 17: EU Fisheries Partnership Agreements

S. No	Country	Agreement Duration	Protocol Duration	Fee for ship owners [per tonne caught]	FPA Nature	Reference tonnage [Tonnes per year]	Financial contribution [All figures are in Euros. All contributions annual basis.]	
							Aggregate Contrib.	Support for coastal nations fisheries sector
1.	Cape Verde	5 years renewable (29.3.12-29.3.17)	3 years *(New protocol initialled on 28.8.2014 not yet in force)*	1. Seiners and longliners- 35 2. pole and liners- 25	Tuna	5000	435 000	110000

2.	Comoros	7 years renewable (1.1.12 to 31.12.18)	3 years (1.1.14 – 30.12.16)	55	Tuna	6000	600000	300 000

3.	Côte d'Ivoire	6 years renewable (1.7.07—30.6.13)	5 years (1.7.13—30.6.18)	35	Tuna	6500	680 000	257500
4.	Gabon	6 years renewable (14.04.14-14.04.20)	3 years (24.07.13-23.07.16)	1. Until 24.07.14-55 2. post- 65	Tuna	20000	1350000	45000
5.	Greenland	6 years renewable (1.1.13 – 31.12.18)	3 years (1.1.13 – 31.12.15)	Average of 93 € per tone on eight species	Mixed	85,765 b/w 2013-2015	15104203 including a financial reserve of 1500 000 for additional quantities of species as set	2743041

							out in the protocol.	
6.	Guinea-Bissau	4 years renewable (16.6.11 - 15.6.15)	3 years (24.11.14—23.11.17)	1. Pole and line: 25 2. Seiners and long-liners: 35 3. Fish & cephalopods- 256 €/GRT/year 4. Shrimps- 344€/GRT/year)	Mixed	Nil	9200000	3000000

7.	Kiribati	6 years renewable (16.9.12 – 15.9.18)	3 years (16.9.12 – 15.9.15)	1. 35 € per tonne caught: 2. per purse seine- 131 250 2. per long-liner - 15000 Special contribution for fishing authorisation for ship owners € 300000 per purse seiner	Tuna	15,000	1,325,000	350 000

8.	Madagascar	6 years renewable (1.1.07–31.12.12)	2 years (1.1.13 – 31.12.14)	35	Tuna	15,000	1,525,000	550 000

9.	Mauritius	Information unavailable	3 years (28.1.14 - 27.1.17)	35	Tuna	5,500	6,60,000	302 500

10.	Morocco	4 years renewable (28.2.11-27.2.15)	4 years renewable (28.2.11-27.2.15)	1. Tuna: 35 € per tonne caught 2.SSF,pelagic species: 75 €/GT/ qtr 3. SSF, long-liners: 67 €/GT/ qtr 4. Indust. fishing/pelagic species: 100 €/tn (freezer trawlers), 35 €/tn (RSW vessels) 5.Demersal fishing: 60 €/GT/ qtr 6.SSF/south: 67 €/GT/qtr	Mixed		30 ,000,000 Additional contribution by fleet-10,000,000	14,000,0000
11.	Mozambique	5 years renewable (1.1.07 – 31.12.11)	3 years (1.2.12 – 31.01.15)	35	Tuna	8000	980,000	460,000
12.	São Tomé and	4 years renewable	4 years (23.5.14 –	1. Years 1 & 2-55	Tuna	7000	1. 710,000 per year for for 3	325 000

	Príncipe	(01.06.10 to 31.05.14)	22.5.18)	2. Year 3-60 3. Year 4- 70			years 2. 675 000 for the last year of the protocol application	
13.	Seychelles							1. First two years-2 600,000 per year 2. 3rd to 6th Years 2,500,000 per year