

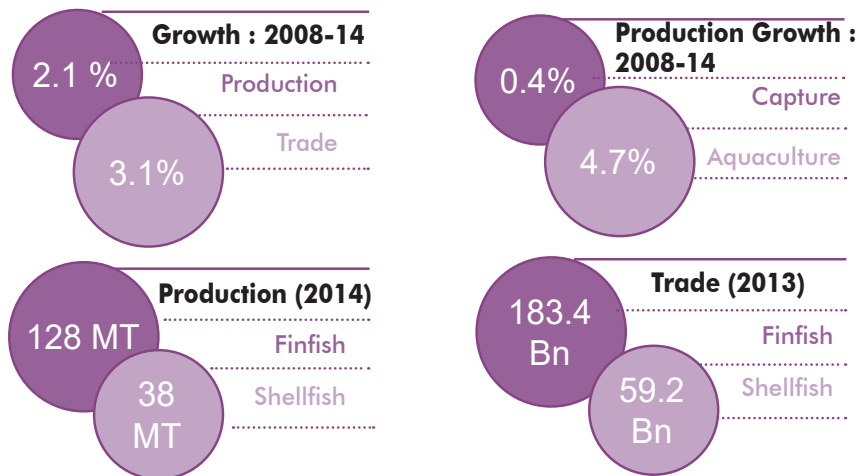
# FISHERIES SECTOR IN IORA

## Driving Force in Region's Blue Economy

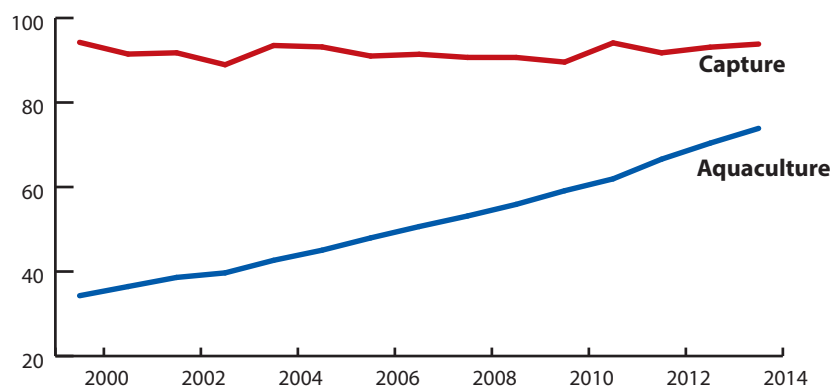
### Broad Trends in Global Fish Production & Trade

Fishery is one of the major traditional sectors of blue economy, and has undergone significant changes in the past three decades. The dynamic shifts in the sector were mostly manifested in terms of substantial rise in the volume of fish production and trade, emergence of developing countries in fish production and trade space, surge in aquaculture production, among others. Global total fish production increased from 100.7 million tonne in 1990 to 128.5 million tonne in 2000 and then to 167.7 million tonne in 2014. Growth momentum in fish production was maintained due to sustained growth of aquaculture in most parts of the world. Aquaculture grew by 6 per cent during global boom (2003-07) and in the post-recession period (2008-14) whereas fish catch registered sluggish growth of less than 1 per cent in both the sub-periods. Interestingly, developing countries accounted for a significantly higher proportion of incremental growth in fish production in those years especially aquaculture. While capture production for developed countries remained virtually stagnant, aquaculture in developing countries met the growing demand for fish in the world. The observed trends in aquaculture over the period 2000-14 shows a clear pattern in global fish production. It broadly suggests that the dynamics in global fishing sector in future will be determined by the spread of aquaculture and the participation of developing countries in fishing activities.

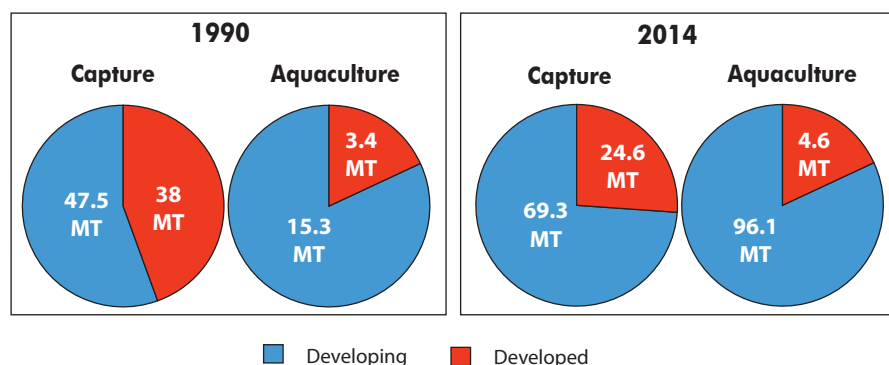
#### Trends in Fisheries Production and Trade



#### World Fish Production (Million Ton)



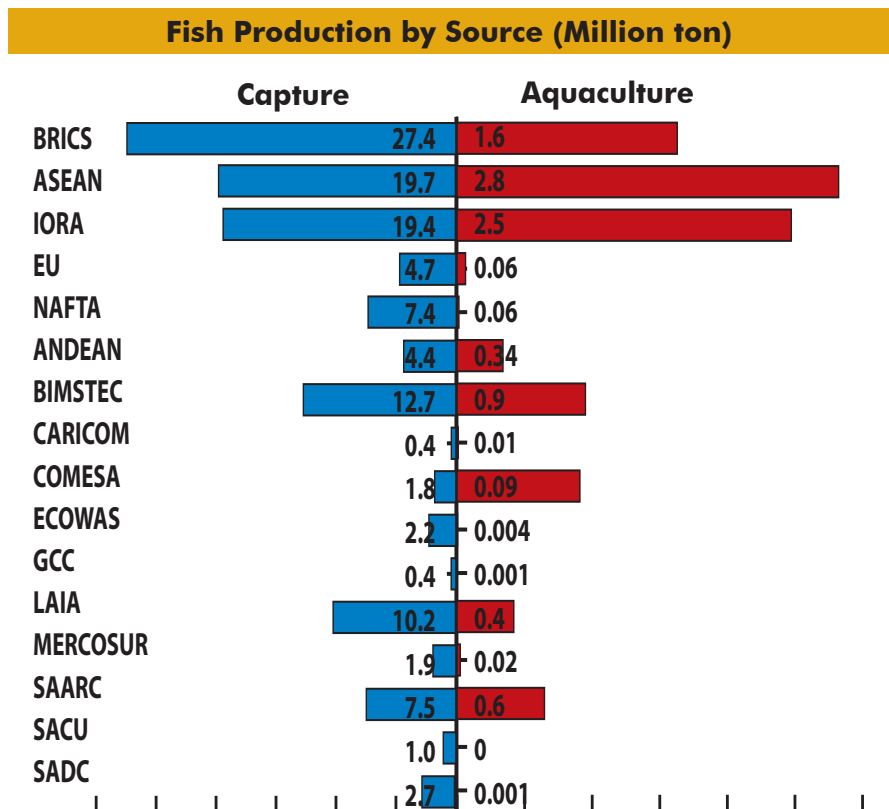
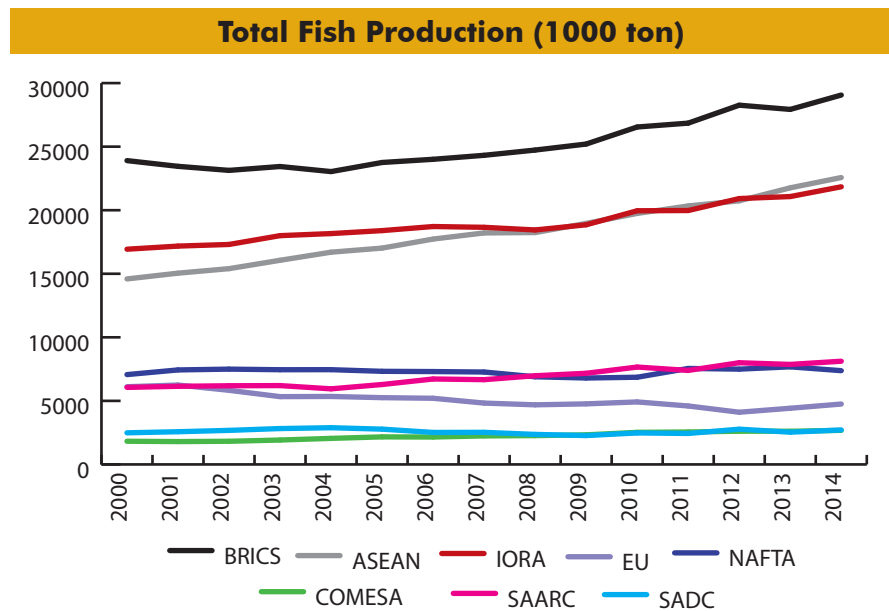
#### Changing Production Structure



*This report is prepared by the RIS team comprising of Prof. S. K. Mohanty, Dr. Priyadarshi Dash, and Ms. Aastha Gupta.*

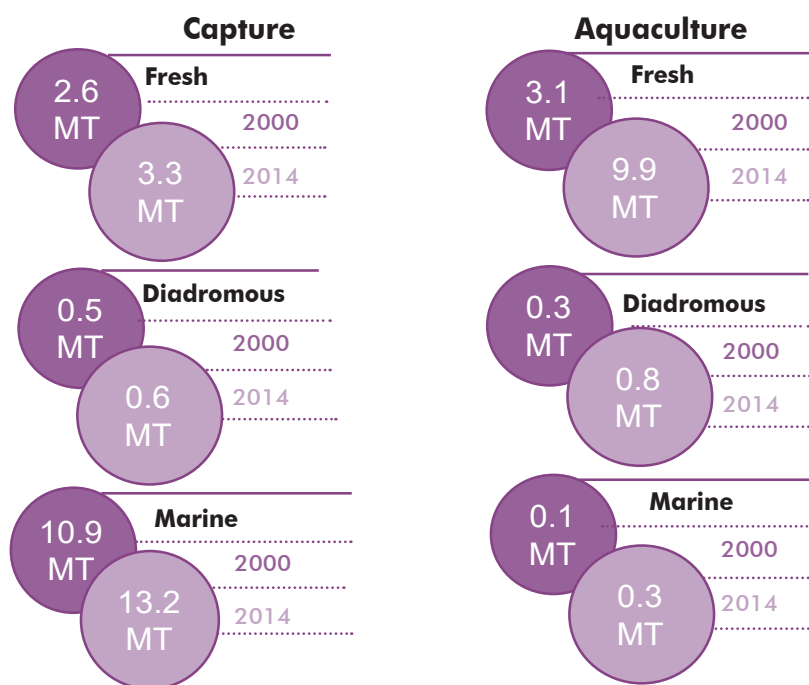
# Fish Production in Selected RTAs: A Comparative Analysis

Like global production, most RTAs experienced healthy growth in fish production. The level of fish production of IORA is pretty high relative to other major RTAs including EU, NAFTA, COMESA, SADC and SAARC. In terms of ranking, IORA is placed third among the sample RTAs after BRICS and ASEAN. Despite dramatic growth in aquaculture, the volume of fish catch is sufficiently higher than aquaculture. As corroborated from literature, this trend signals a graceful rise of developing countries in global fish production and trade. More specifically, the production of fish and plants will continue to be concentrated in South-East Asia, China, India and Indian Ocean Rim countries if this trend prevails.



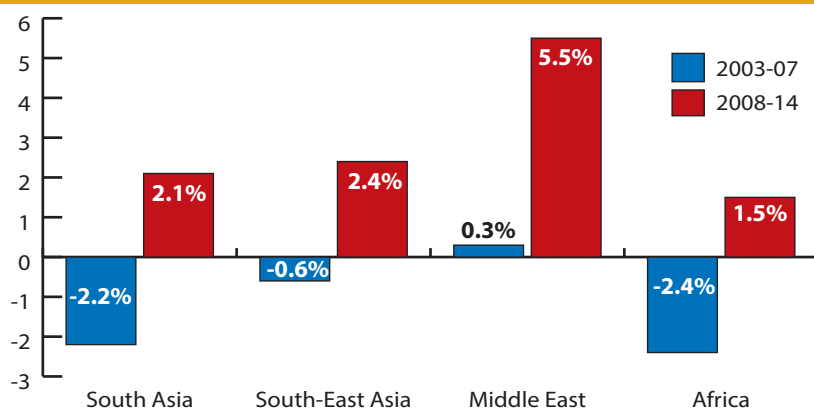
# Sectoral and Sub-Regional Trends in Fish Production

## Fish Production in IORA by Broad Categories

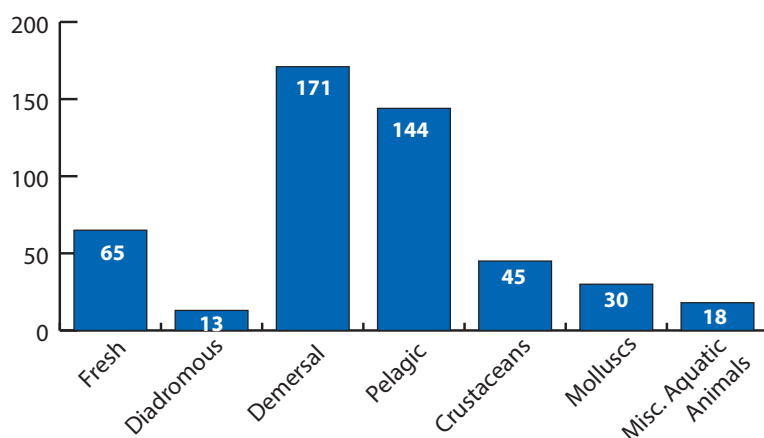


Fish production by specific categories in IORA sheds more insights about the underlying changes in the regional fish production structure. Harvesting as well as farming of freshwater fishes reveals robust trends in the 2000s. In particular, freshwater aquaculture by IORA countries registered three-fold growth over the period 2000-14. On the other extreme, marine fishes that constitute a lion's share of global fish production experienced relatively slow growth. Unlike the falling trends in fish production across regions, capture production in different sub-regions of IORA grew reasonably in the post-recession years; the highest for the Middle East. The volume of fish production is still large for capture fishery despite significant growth and diversification of aquaculture in the region. The fishing potential of IORA is apparently huge as the distribution of fish and plant species across major categories is quite diverse. Demersal and pelagic fishes dominate the region with 171 and 144 species followed by freshwater fishes (65), crustaceans (45), molluscs (30) and miscellaneous aquatic animals (18). Specie distribution by IORA countries is fairly symmetric even though some countries have less species compared to others.

## Sub-Regional Growth of Capture Production in IORA

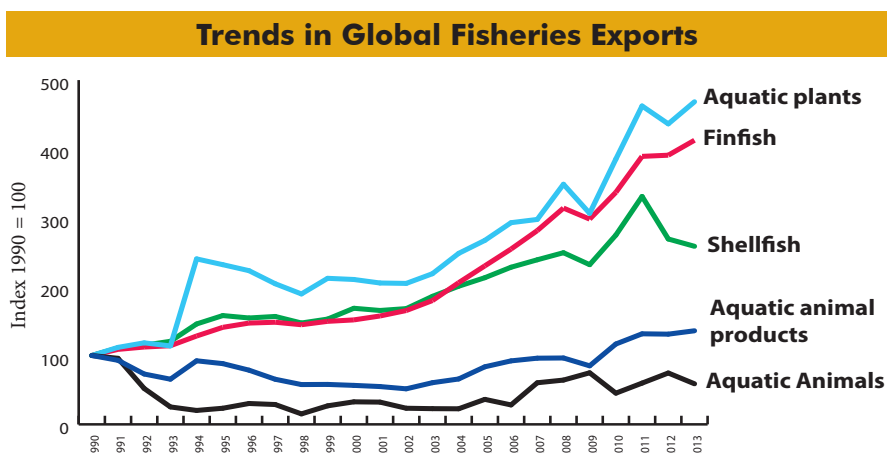
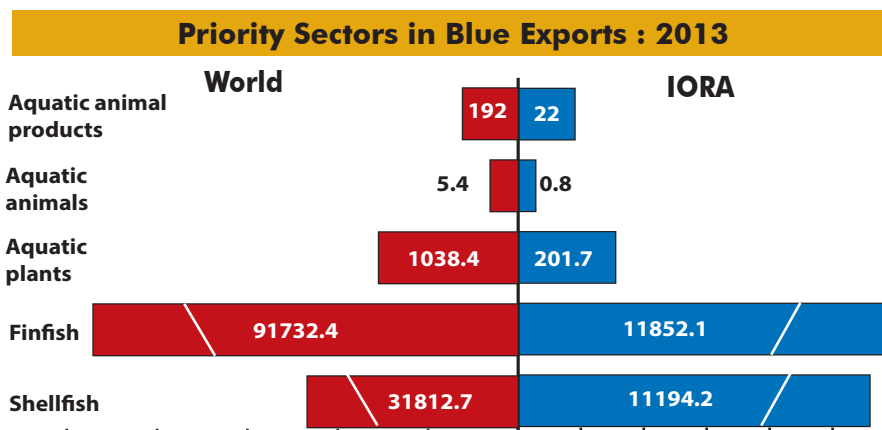
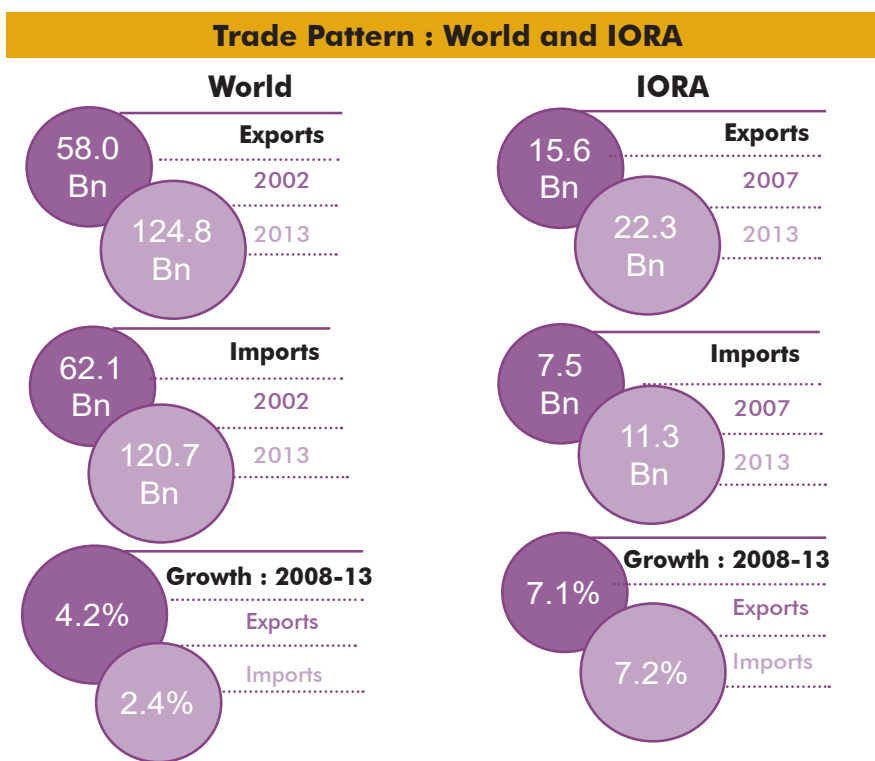


## Endowment of Species in IORA (2014)



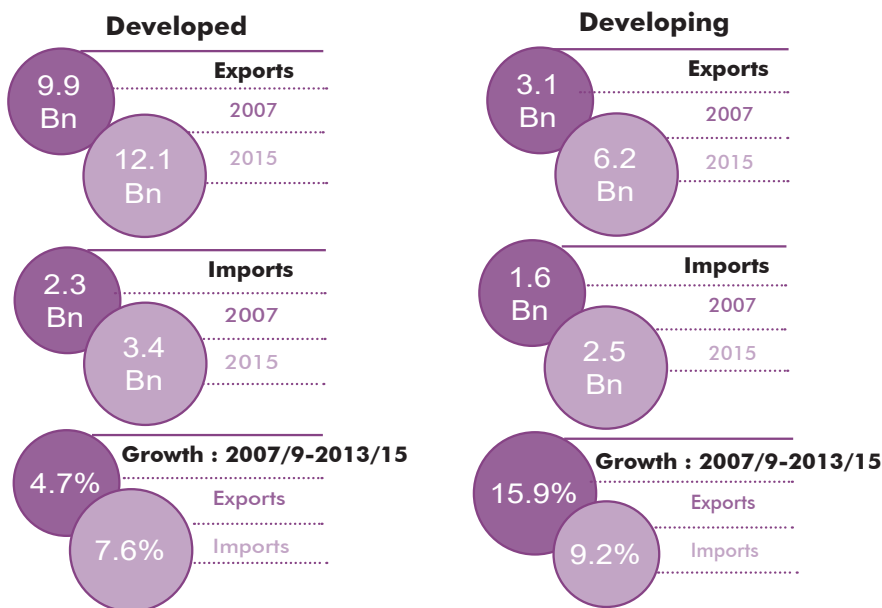
# Fisheries Trade Sector in the World and IORA

Fisheries trade exhibited interesting dynamism over time. Fish trade globally and for the IORA region made impressive growth in the recent years. Regional trade in fish products outpaced global trade in the 2000s; even in the post-recession years. Exports and imports for the IORA region surged by 7.1 per cent and 7.2 per cent whereas it was 4.2 per cent and 2.4 per cent for the world as a whole. Export growth was reasonably high across fish categories in the period 1990-2013 with relatively stronger upward trends for finfish, shellfish and aquatic plants. Unlike world trends, exports of shellfish products from the region constitute a major component of IORA's export basket. With better fish processing technology and dismantling of barriers, the prospects for remunerative trade in fish products for the IORA countries is expected to better in the future.



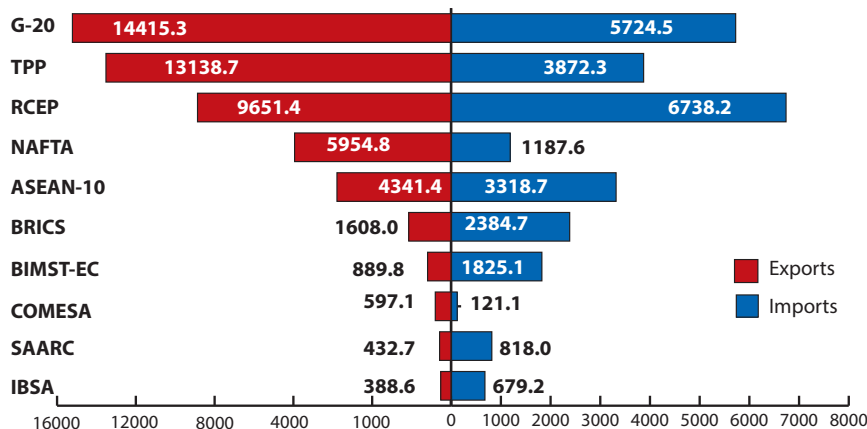
# IORA's Trade with Regional Groupings

## Performance Variations

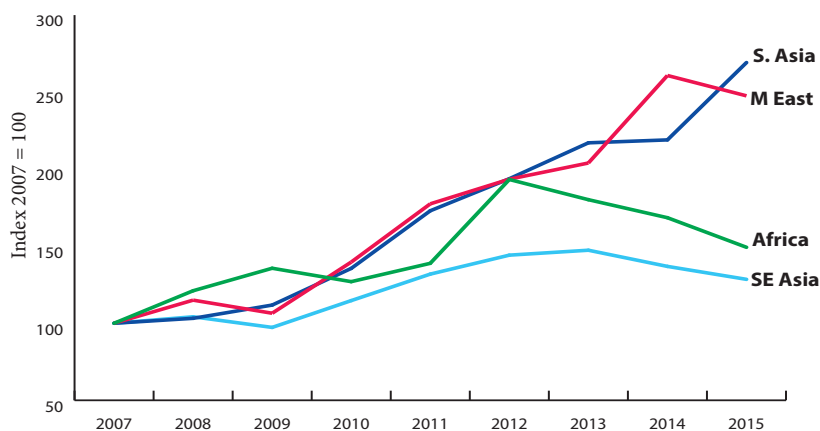


IORA is undoubtedly emerging as a key player in global fish trade. Recent trends in regional fish trade indicate superior performance of IORA vis-à-vis some other regional economic groupings of the world. Like production, the trade performance of developing countries is noteworthy. Fish exports from developing countries doubled over the period 2007-15 and imports picked up well. On the other hand, developed countries witnessed modest growth in fish exports and imports in the same period. In addition to IORA's global exports, IORA's trade with regional economic groupings presents interesting stylized patterns. IORA's trade with groupings from developed regions is shrinking day-by-day whereas the reverse holds for trade with groupings from developing regions. Most interestingly, intra-regional exports of fish products for all the four sub-regions of IORA have grown steadily in the recent past. Although the growth path was impaired a bit for South-East Asia and Africa since 2012, the overall growth trend for the four sub-regions continues to be strong.

## Trends in IORA's Trade with RTAs: 2014



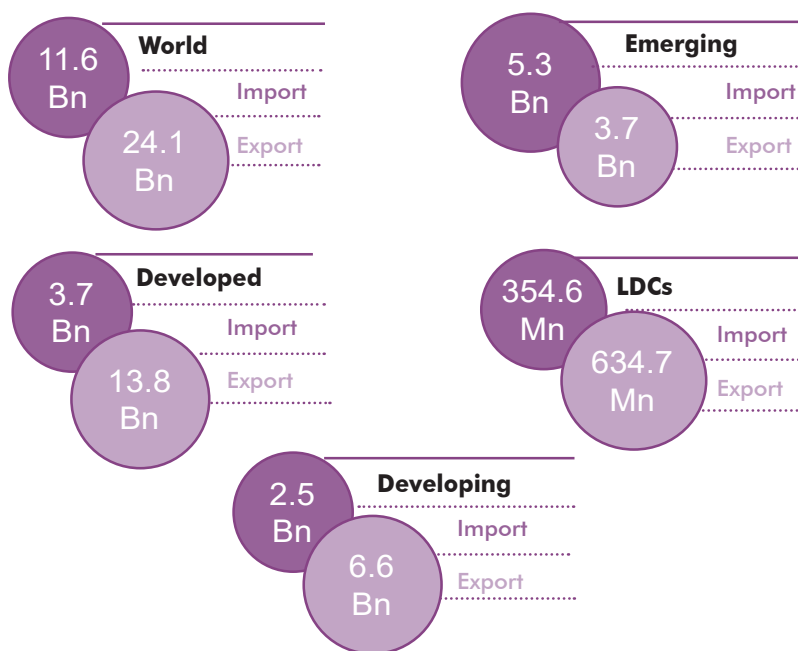
## Intra-Regional Fisheries Trade in Exports



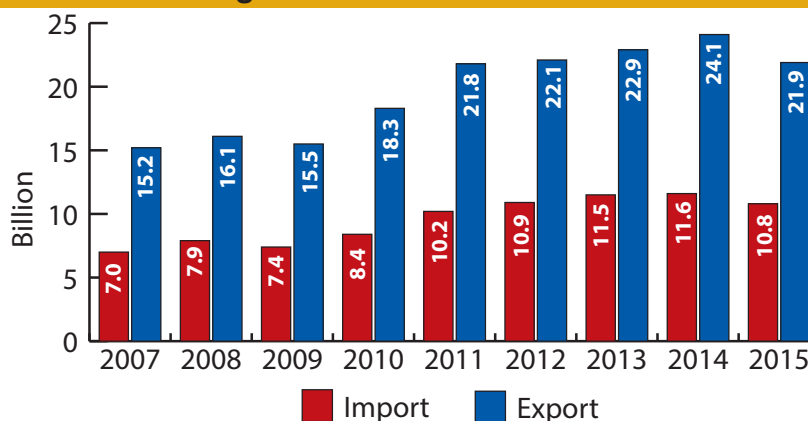
# Region's Fisheries Trade with Selected Regions

The robust trade performance of IORA with world and different sets of countries is established by multiple dimensions. Overall, it appears that IORA is a net export surplus regional grouping in the world. The region exports more fish products to the world as it imports. As per 2014 figures, the region runs a trade surplus of US\$12.5 billion. Across country groupings, the same status holds for developed countries, developing countries and LDCs as trade partners except emerging countries. Growing trade with developing world signifies a paradigm shift in the world fish trade. It not only sends strong signals about the potential for fish trade existing in developing countries but also weakens the dominance of three large markets such as the United States, EU and Japan. In fact, trade surplus of IORA in fisheries trade is growing in the recent years compared to the past. Regional exports and imports may scale up further as global fish markets get integrated with growing demand for fish in the emerging markets and developing countries.

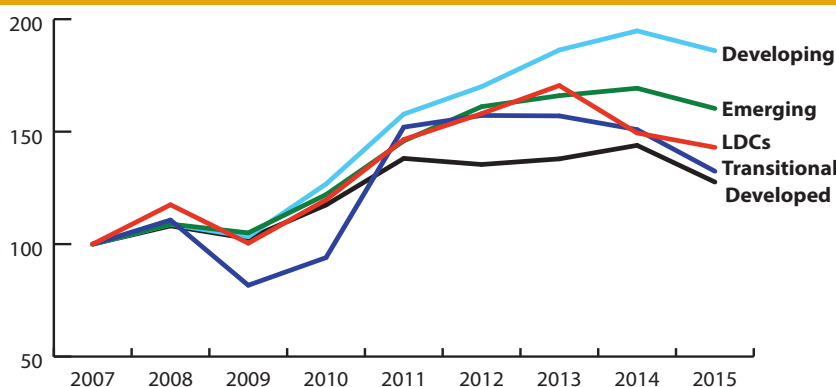
## Region's Fisheries Exports to Major Regions : 2014



## Region's Trade with the World

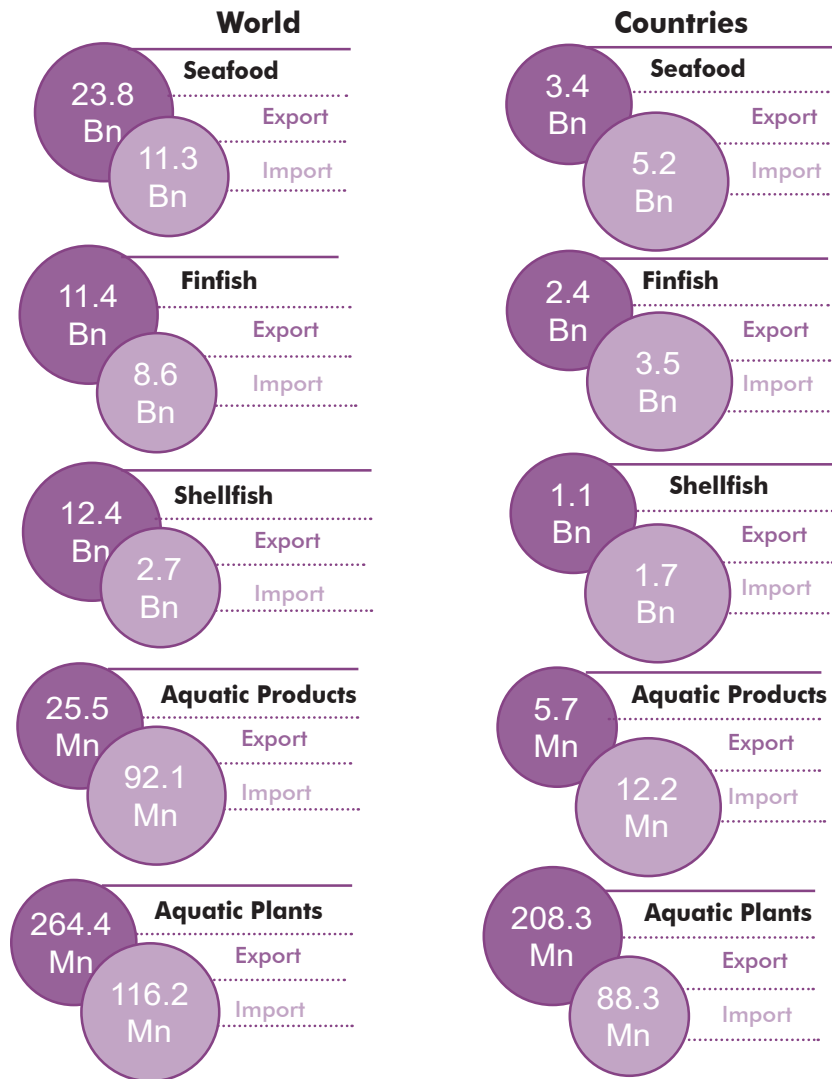


## Paradigm Shift in Trade Towards the Developing World



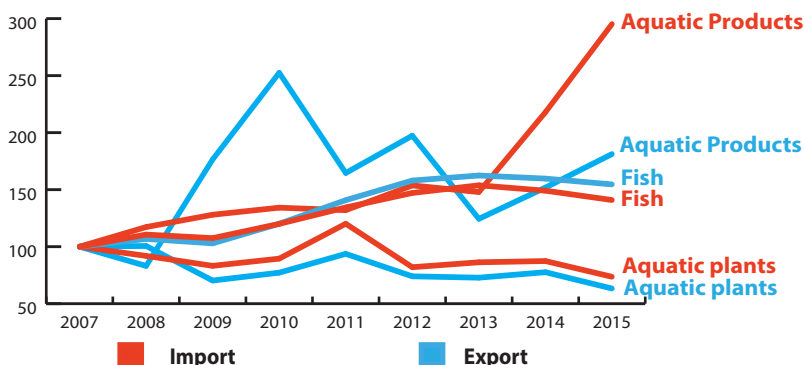
# Trade of IORA with Broad Fisheries Sectors

## Is Fisheries Trade Southern Bound?



Growth in fish trade seems to have opened up opportunities for higher production of other aquatic animals and plants in IORA. For instance, exports of aquatic plants to the world and emerging countries are remarkably higher compared to its imports. Moreover, the volume of trade in marine aquatic animal products and aquatic plants is substantially higher than finfish and shellfish trade. From blue economy perspective, it is a healthy sign as the potential of all kinds of living aquatic resources in the IORA is reflected well. Trade could possibly help harness those precious resources for the benefit of the IORA countries.

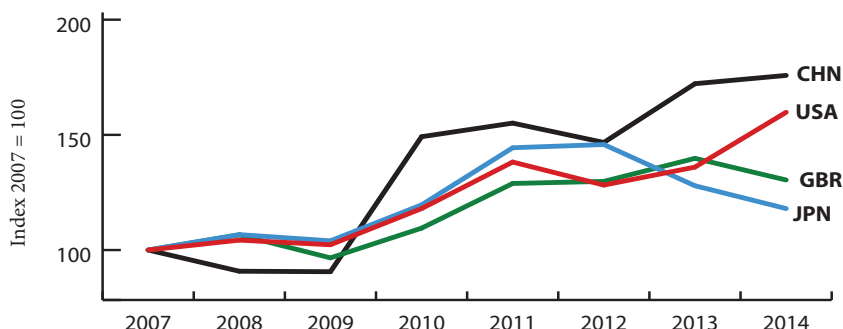
## Trends in Broad Fish Trade Categories Index



# Region's Trade in Major Markets and Products

Fish trade of IORA reflects several notable developments. Firstly, it has emerged as a leading fish producing and exporting region in the world. Secondly, the region is going to be the biggest competitor of the traditional export markets such as the United States, Japan, EU and Great Britain. Both the developments herald a new phase in global fishery sector. As shown in the graph, region's trade with Japan and Great Britain has gone down. Trade with the United States has slowed down even though it is still growing. The top fish species of IORA that are traded in the world in descending order include tuna, mackerel, gadiformes, catfishes, tilapias, and so on. Of those, in case of tuna and mackerel IORA is a net exporter to the rest of the world. Besides trade in raw fish, processed fish segment is growing faster in the IORA region. Among the different varieties of fish processing, frozen fish, dried or chilled and dried segments have registered considerable growth in the recent years. However, other types of processed fish such as salted and live do show promising trends.

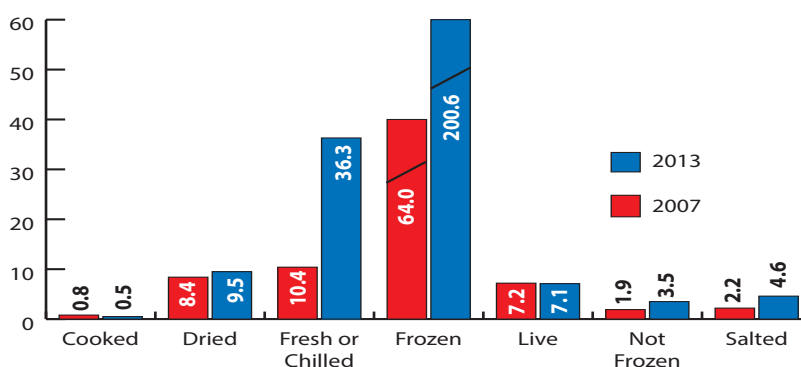
**IORA Trade with Major Markets**



**Region's Trade by Top Species**

Imports (US\$ bn)		Rank (2013)	Exports (US\$ bn)	
Species	Value		Species	Value
Tuna	14.5	1	Tuna	48.5
Mackerel	7.8	2	Mackerel	13.3
Gadiformes	5.3	3	Gadiformes	6.4
Catfishes	5.1	4	Catfishes	5.8
Tilapias	4.8	5	Tilapias	5.4
Sprats	3.6	6	Freshwater Fish	3.9
Freshwater Fish	3.5	7	Pomfrets	3.2
Pollock	3.1	8	Sardines	3.1
Marine fish	3.0	9	Pollock	3.0
Sardines	3.0	10	Marine fish	3.0

**Region's Trade in Fish Preservation**



**RIS**

Research and Information System  
for Developing Countries

Core IV-B, Fourth Floor, India Habitat Centre, Lodhi Road, New Delhi 110 003, India  
Ph. +91-11-2468 2177-80, Fax: +91-11-2468 2173-74  
E-mail: [dgoffice@ris.org.in](mailto:dgoffice@ris.org.in), Website: <http://www.ris.org.in>