SEAFOOD EXPORTS: CHALLENGES AND WAY FORWARD

Muhammad Sharif*, Muhammad Azam Niazi*
and Abdul Jabbar**

ABSTRACT:- Fisheries as a sub-sector of agriculture, is considered as one of the most important economic activity along the coastline of provinces of Sindh and Balochistan. This paper assesses current stock of seafood production, seafood exports, direction and future prospects of seafood exports from Pakistan. The production of inland and marine fish was 729,000 t in 2012-13. Not only seafood output in the country is low but dwindling to the disastrous level. Export of seafood has increased from 131,620 t (a value of US$ 315.5 million) in 2011-12 to 136,360 t (a value of US$ 333.13 million) in 2012-13, with an annual increase of 9.5% in term of quantity and 4.5% in term of value. Decline in seafood resources, lack of shrimp culture, insufficient facilities at fish markets, inadequate fishing policies and low export prices of seafood are major challenges faced by fisheries sector of Pakistan. Sustainable conservation of marine resources, promotion of shrimp culture, enhancement of the fish processing for export, provision of adequate facilities at fish markets and formulation of sustainable fishing policies are ways forward for the sustainable development of seafood resources development in the country.

Key Words: Seafood; Production; Exports; Policies; Pakistan.

INTRODUCTION

Fisheries sector grew at 1.8% during 2011-12, 24.2% less than the target of 956,000 t (GoP, 2013a). Inland fish production was dismal as compared with marine fish production in the country. Fisheries as a sub-sector of agriculture, is considered as one of the important economic activities along the coastline of provinces of Sindh and Balochistan (GoP, 2012). During 2012-13, few initiatives were adopted by the fisheries departments both in provincial and federal governments. These initiatives included reinforcing extension accommodations, exordium of incipient fishing methodologies, development of value integrated products and improvement of socioeconomic conditions of fishermen. The country is ranked one of the leading exporters in the fisheries sector (seafood) and fish processing plants are gradually incrementing to contribute to employment generation (GoP, 2013a). However, fisheries sector is challenged by acute shortage of infrastructure. Since the seafood production resources and responsibilities have been shifted to provinces, it is therefore hoped that socioeconomic condition of fisherman community would improve, for which

** Social Sciences Division, Pakistan Agricultural Research Council, Islamabad, Pakistan.*
*** International Institute of Islamic Economics, International Islamic University, Islamabad, Pakistan.*
Corresponding author: msharifcsossd@gmail.com

technical and logistic support to improve production as well as processing is required (GoP, 2012).

To enhance exports of seafood and meet the requirements of European Union and other countries to laboratories (microbiology and chemical) were got accredited from Pakistan National Accreditation Council by the Marine Fisheries Department (GoP, 2013a). Moreover, technical assistance in reverence of modification of fishing boats was rendered to Provincial regimes and pertinent stakeholders due to which 887 fishing boats had been modified (GoP, 2013b). Due to efforts of the government and cooperation of fishing community, EU has lifted its ban on its fisheries exports (GoP, 2013a), which is likely to enhance its exports with expanded market opportunities in 2013-14. The priorities for future development in 2013-14 include setting up a bio-chemical laboratory for achievements of accreditation under ISO/17025 international standards. During 2012-13, about 729,000 t fish catch from marine (467,000 t) as well as inland (262,000 t) sources was realized, which is expected to grow further (GoP, 2013b). The present exercise is related to the assessment of current resources of seafood production, seafood exports, and its direction and future prospects of seafood exports from Pakistan.

MATERIALS AND METHOD

The information on sea food production in the country is compiled from various documents published by the Planning Commission, Ministry of Finance, Government of Pakistan (GoP, 2013 a,b,c). Similarly the information on prices of seafood is also derived from the above referred published documents of the Government of Pakistan. The data on the volume of seafood export to different countries were collected from Sabir (2013), Trademap (2014) and Zaidi (2013). Using these data, the volume of seafood exports to different countries were estimated using descriptive analysis. These findings identify the challenges to Pakistan's seafood exports and proposed the way forward to address these issues.

RESULTS AND DISCUSSION

Seafood Production in Pakistan

Aquaculture, fresh water farming and marine fishing are the main components of seafood in the country.

Aquaculture comprised fish pond of sundry carp species, where its engenderment has rapidly incremented since 2000. It rose from 10 to 15 thousand ton reached over 100,000 t in 2006-07 (Sabir, 2013). He further argued that there were only two cold water and seven warm water species which are commercially raised in the country. Aqua farming has additionally obtained a considerable amount of investment in Pakistan. Facilities are now available for future expansion of aqua farming, except trout culture in the northern parts of the country (Sabir, 2013).

Aqua farming in Punjab, Sindh, Khyber Pukhtunkhwa is mainly confined to fresh water carp farming. Trout culture has a large potential to be raised in the northern mountains of the country. The estimates of the total area under fish ponds are about 60,842 ha in Pakistan (about 49000 ha in Sindh, about 11000 ha in

Punjab about 600 ha in Khyber Pukhtunkhwa and 242 ha in Balochistan, Azad Kashmir and Gilgit-Baltistan). Above all over 12,000 fish farms have been set up in the country. The estimated average size of fresh water farms ranged from 6 to 9 ha. The sector employees about 50,000 people. Generally the ratio maintained for warm water species ranges from 10% to 20% for Catla, 30% to 35% for Rohu , 15% to 20% for Mrigal, 15% to 20% for Grass carp and 15% to 20% for Silver carp (Sabir, 2013).

Seafoods (fish and fish products) plays a paramount role in Pakistan's economy where fisheries sector contributed a small share to GDP but it provides quite a large share by its export to the national income (GoP, 2013a). The total marine inland production was 600,000 t during 2005-06 (Zaidi, 2013). During 2007-08, the production of total marine and inland fish was 885,000 t which rose to 914,000 and 926,000 t in 2008-09 and 2009-10, respectively. Afterwards, the fish production declined to 700,000 t in 2010-11 and then rose to 725,000 t and 729,000 t in 2011-12 and 2012-13,respectively (Table 1). Not only seafood output in the country is low but dwindling to the disastrous level. Therefore, fisheries authorities have to take immediate measures to save marine resources from complete depletion when it is too late and there is no shrimp or fish available to export.

Seafood Prices

Exporting high priced fish to the Middle East has made local prices of fish unreachable and unaffordable to a common man and especially shrimp have become a food for the rich. The market price of Ribbon Fish was Rs.250 kg^{-1}, Red Snapper Rs.500 kg^{-1}, Pomfret Rs.1500 kg^{-1} (prices of exportable size), Red Sea Bream Rs.80 kg^{-1}, Tongue Sole Rs.300 kg^{-1} during 2012-13 (Sabir, 2013).

Seafood Exports from Pakistan

It include overall seafood exports, exports by products and direction of seafood exports. The production of seafood in Pakistan is 729,000 t of which 136,360 t were' exported in 2012-13; whereas the rest were either consumed locally or perished. Overall export of seafood has witnessed a steady growth. Seafood exports were valued at US$ 217.6 million in 2007-08 which rose to US$ 233.7 million in

Table 1. Seafood production and export in Pakistan

('000' t)

Years	Inland fish prod.	Marine fish prod.	Total fish prod.	Quantity exported	Exported value (million US$)
2007-08	283	602	885	131.23	217.6
2008-09	274	640	914	127.88	233.7
2009-10	278	648	926	108.68	226.6
2010-11	210	490	700	130.79	296.6
2011-12	260	465	725	131.62	315.5
2012-13	262	467	729	136.36	333.1

Source: GoP-(2013a , 2014)

2008-09, and to US$ 296.6 million in 2010-11. Export of seafood increased from 131,620 t worth US$ 315.5 million in 2011-12 to 136,360 t worth US$ 333.1 million in 2012-13, with an increase of 9.5% in term of quantity and 4.5 in term of value (Table 1). Zaidi (2013) expressed that export of fish and fish preparation incremented by 2.48% during the first eight months of the fiscal year 2012-13 as compared to the last period where overall seafood exports was US$199.949 million during July to February 2012-13 against US$195.119 million during July-February 2011-12.

Seafood exports from Pakistan have increased due to weakening of Pakistani Rupee against the US$ and other currencies. Further, no doubts restoration of exports to the EU will boost export but mainly of shrimp, meeting quality standard.

The exported fish products comprised fresh whole fish, chilled or frozen whole fish, smoked or cured and fish meal, crustaceans and others. The total exports of these fish products were 131,230, 127,880, 108,680, 130,790, 131,620 and 136,360 t in 2007-08, 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13, respectively (Table 2).

Total exports of these five fish products were US$ 218, US$ 234, US$ 227, US$ 297, US$ 316 and US$ 333 million in 2007-08, 2008-09, 2009-10, 2010-11 , 2011-12 and 2012-13, respectively (Table 3).

Country-wise Export of Seafood

The overall exports of whole fish fresh have increased from 4.71 thousand tonnes in 2010-11 to 8.35 thousand tonnes in 2012-13. UAE was the major importer of fresh fish whole from Pakistan, followed by Kuwait, Thailand, Saudi Arabia, Malaysia and other countries during 2012-13 (Table 4).

The overall export of fish frozen whole has increased from 81.90 thousand tonnes in 2010-11 to 87.96 thousand tonnes in 2012-13 (Table 5). Vietnam, Thailand, China, Malaysia, Indonesia, UAE, Korea, Kuwait and Bangladesh are the major importers of fish frozen whole from Pakistan during 2012-13.

The overall exports of fish cured and fish meal have increased from 5.39 thousand tonnes in 2010-11 to 8.92 thousand tonnes in 2012-13.

Table 2. Quantity of seafood products export

('000' t)

Seafood product	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Fish, fresh, whole	11.67	2.02	2.62	4.71	4.45	8.35
Fish, frozen, whole	86.38	75.09	72.5	81.9	72.49	87.96
Fish, cured or smoked and fish meal	15.97	8.91	12.38	5.39	10.52	8.92
Crustaceans	16.04	14.19	19.16	18.53	18.17	21.06
Others	1.17	27.67	2.02	20.26	25.99	10.06
Total	131.23	127.88	108.68	130.79	131.62	136.36

Source: Trade Map (2014)

Table 3. Value of seafood products export (US$ million)

Seafood product	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Fish, fresh, whole	23.66	3.55	5.75	9.86	10.11	21.36
Fish, frozen, whole	119.66	121.93	138.22	162.73	146.03	179.63
Fish, cured or smoked and fish meal	13.71	12.18	17.66	10.42	10.59	12.98
Crustaceans	58.5	46.84	64.77	67.74	61.90	101.04
Others	2.03	49.21	0.20	45.85	86.87	18.12
Total	217.55	233.70	226.60	296.60	315.50	333.13

Source: Trade Map (2014), www.trademap.org

China, Sri Lanka, Vietnam, Bangladesh and Egypt are the major importers of fish cured and fish meal from Pakistan during 2012-13 (Table 6).

The overall export of crustaceans has increased from 18.53 thousand tonnes in 2010-11 to 21.06 thousand tonnes in 2012-13 (Table 7). UAE, China, Egypt, Vietnam, Saudi Arabia, Korea, Thailand, Kuwait, Hong Kong, Malaysia and other countries were the major importers of crustaceans fish product from Pakistan during

Table 4. Country wise export of seafood (fresh fish) from Pakistan

Country	Quantity ('000' t)			Value ('000' US$)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
World	4.711	4.449	8.353	9858	10107	21361
Kuwait	1.227	2.071	1.361	2844	4982	4427
Saudi Arabia	0.694	0.71	0.819	1557	1615	2429
UAE	0.631	0.608	1.803	1293	1093	5256
Thailand	0.004	0.027	1.891	11	53	3644
Malaysia	0.033	0.029	0.526	62	59	902
Hong Kong	0.439	0.341	0.081	1010	892	299
Qatar	0.004	0.075	0.184	9	131	528
China	1.371	0.067	0.158	2411	120	454
USA	0.04	0.055	0.08	109	167	313
Indonesia	0.003	0.028	0.096	9	84	230
Other countries	0.265	0.438	1.354	543	911	2879

Source: Trade Map (2014)

Table 5. Country wise export of seafood (frozen fish) from Pakistan

Country	Quantity ('000' t)			Value ('000' US$)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
World	81.901	72.490	87.958	162729	146028	179626
Veitnam	19.958	23.990	34.342	47723	53642	71328
China	11.985	9.947	8.228	23457	19192	16601
Thailand	18.208	9.715	14.817	29151	17655	28340
Malaysia	6.866	7.486	5.800	12657	14536	11910
UAE	5.421	4.669	4.892	10193	8419	12805
Saudi Arabia	4.715	4.836	2.726	8742	7925	6039
Korea	5.343	2.654	2.591	11162	6317	7118
Indonesia	3.301	2.919	5.202	5813	5471	5762
Sri Lanka	0.169	1.22	1.086	300	1982	1733
Kuwait	2.042	1.166	2.407	4399	2320	6162
Hong Kong	0.653	0.545	0.274	1307	1201	973
Bangladesh	0.211	0.533	2.034	448	1099	1788
Japan	0.814	0.512	0.670	2745	1330	1637
Qatar	0.321	0.443	0.415	643	829	1129
Chinese Taipei	0.267	0.423	1.100	562	854	2577
Other countries	1.627	1.432	1.374	3427	3256	3724

Source: Trade Map (2014)

2012-13.

Challenges Facing Seafood Exports from Pakistan

Decline in seafood resources, lack of shrimp culture, inadequate facilities at fish markets, lack of sustainable fishing policy and low export prices of seafood are major challenges to the fishery production and exports from Pakistan. About 80% products landed on the harbors go to fish meal plants. The use of illegal nets is increasing and majority of the fishing boats carry these nets both in Sindh and Balochistan coastline. Vessels and illegal nets are used for overfishing which resultantly reduced raw material catch (Norwegian research vessel) and therefore, fisheries resources are declining in Pakistan.

Shrimp aquaculture is not subsisted in the country. Only 10% or less farmed fish are being exported from Pakistan. Even subsisting fish processing units are utilizing 25% of their capacity. There is no shrimp farming in Pakistan even having 100 km coastal area. Preservation of Mangroves is additionally needed to

Table 6. Country wise export of seafood (fish, cured and fish meal) from Pakistan

Country	Quantity ('000' t)			Value ('000' US$)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
World	5.39	10.52	8.920	10417	10586	12981
Vietnam	1.76	1.83	0.879	2773	2165	2284
China	1.57	7.00	5.750	3402	6484	6619
Sri Lanka	1.49	0.51	1.592	3047	617	3009
Indonesia	0.21	0.00	0.00	385	0	0
Japan	0.11	0.00	0.006	264	0	15
Thailand	0.05	0.0	0.032	116	5	48
Bangladesh	0.04	0.06	0.209	77	120	291
Egypt	0.03	0.73	0.110	66	702	126
Hong Kong	0.03	0.16	0.064	72	234	142
Saudi Arabia	0.02	0.02	0.030	48	25	65
Malaysia	0.02	0.20	0.108	46	189	124
Others countries	0.06	0.02	0.14	121	45	258

Source: Trade Map (2014)

increment the exports and to fixate on aquaculture.

Local administration controls the fish markets which have insufficient facilities such as poor hygienic conditions, insufficient cold storage facilities, and limited communication links and resultantly fish get less price of their engender. Most of the aquaculture products are consumed locally and fish having more than 3 kg weight fetches less price; because the prices depend on the freshness of the fish as well as supply of and demand for fish. Consumers like freshwater fish more than the marine fish. The prices of freshwater fish are higher than sea fish. The Arabian Sea Ocean physically contacting Pakistani shores, consists of one of the world's most distinctive and intricate oceanographic regions and is considered as biologically more productive areas which lack a stringent implementation of June and July fishing ban and prohibition of use of illegal fishing nets.

Fisheries exports of India crossed US$ 3 billion, Vietnam US$ 5 billion, Bangladesh over US$ 1 billion, Thailand US$ 10 billion, Saudi Arabia and even Iran have made considerable progress in shrimp farming. The seafood exports from Pakistan are only US$ 0.329 billion. Seafood exports remained about US$ 250 to US$ 275 million per annum. The average export price was US$ 2 kg^{-1}, because 90% fish were exported unprocessed and in frozen form. Presently, only 2 canning plants and 1 bulk Surimi plant are in operation and majority of processing

Table 7. Country wise export of seafood (crustaceans) from Pakistan

Country	Quantity ('000' t)			Value ('000' US$)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
World	18.53	18.17	21.06	67738	61900	101041
UAE	5.16	2.34	5.77	22956	11067	32286
Egypt	1.93	1.20	2.10	9711	7346	12704
China	4.25	6.61	3.66	10349	12750	11815
Saudi Arabia	1.52	1.46	1.65	6556	8001	10296
Viet Nam	0.79	0.80	1.80	3509	3857	9146
Thailand	0.48	1.37	1.35	1428	5490	5968
Korea	1.38	1.15	1.66	3343	2830	4767
Kuwait	0.49	0.19	0.72	1956	740	2440
Malaysia	0.10	0.12	0.50	316	471	2123
Hong Kong	1.12	1.90	0.53	2626	4724	1803
Other Countries	1.33	1.05	1.32	4988	4624	7693

Source: Trade Map (2014).

units on Balochistan coastal belt are not in operation due to law and order situation.

RECOMMENDATIONS

Sustainable conservation of marine resources, promotion of shrimp culture, enhancing the fish processing for exports, provision of adequate facilities at fish markets, fetching higher prices for exported seafood and formulation of sustainable fishing policy are ways forward for the sustainable development of seafood resources development in the country. The brief description of proposed strategies is as follows:

Sustainable Conservation of Marine Resources

Urgent efforts are required by the fisheries authorities to take imme-diate measures to save marine resources from complete depletion when it is too late and there is no shrimp or fish available to export. Such immediate measures include implementation of government's writ on the coastal belt (controlling over fishing by the vessels and utilization of illicit nets) development of investment cordial land lease policy, regime support in infrastructure, development of farm clusters with government and providing them technical support. Preservation of Mangroves is needed to increment the exports and to fixate on aquaculture.

Promotion of Shrimp Culture

Pakistan is perhaps the only coastal country having no shrimp farming. Only 10% or less farmed fish are being exported from Pakistan. Even existing fish processing units are using 25% of their capacity.

Enhancing the Fish Processing for Exports

There is a need to focus on exports of processed fish rather than fresh and frozen products. This can be achieved through by increasing the capacity of 29 fish processing plants in the country. This can be done by ensuring the increase in the raw material fish catch as raw material.

Provision of Adequate Facilities at Fish Markets

Provision of cold storage facilities, better hygienic conditions and adequate communication facilities at local fish markets can enhance fish producers share in consumer rupees.

Formulation of Sustainable Fishing Policy

A sustainable fishing policy by the Federal Regime is required for a stringent implementation of June-July fishing ostracize and veto on utilization of illicit nets. Because the federal regime is responsible for policy formulation, inter provincial coordination, orchestrating, research, quality control, training, fishing stock assessment, fisheries management, fleet amelioration, data amassment and export etc. Efforts are additionally required by the Federal Regime for enhancing the inter provincial coordination for conserving the seafood resources.

Higher Prices for Exported Seafood

Pakistani fish exporters are receiving relatively lower prices of their seafood exported because they exported 90% un-processed and frozen fish. Therefore, urgent efforts are required for operationalizing the fish processing plants in general and plants at Balochistan in particular because currently only two caning plants and one bulk surimi plant are in operation.

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