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GOVERNMENT POLICIES FOR THE
PROCESSING OF VALUE-ADDED FISH PRODUCTS
IN ASIA AND PACIFIC**

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PROCESSING OF VALUE-ADDED FISH PRODUCTS IN ASIA & PACIFIC

The tropical and sub tropical seas of Asia and Pacific hold multispecies fisheries with varying fishery resources for exploitation. Fishery development in those countries also varies to a large extent from cottage scale to large scale industry. The economic status of the country, fishery resource potential, level of exploitation, status of technology, infrastructure development, investment capacity and policy of the Govts vary very widely and it would be difficult to generalise a common policy and strategy for development in Asia and Pacific. Island countries and main land countries have their own problems in terms of exploitation of fishery resources and processing of value added products. The economic viability of value-added processing would depend on adequate resources and their exploitation for the supply of quality raw material, technology development, trained labour, management skill, availability of essential inputs to operate the plants, product acceptability to the consumers, volume of supply, price realisation and access to affluent markets. The overseas markets in developed countries offer attractive prices for quality products processed in value added form. The world seafood market is expanding very fast because of health attributes. Untapped domestic market also offers big scope for

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selling value-added products from low value fish. Therefore it is very timely that processing of value-added products from the existing raw material and new source of raw material from untapped fishery resources, can be undertaken by setting up necessary facilities.

Justification for processing value-added products for export

Among all food items seafood is one of the few commodities which can be processed into value-added products in the exporting countries because of the following reasons:

1. Freshness of the product could be retained since reprocessing is avoided.
2. Demand for seafood overshoots supply and retailers look for quality products with continuous and reliable supply from anywhere in the world.
3. Production cost is comparatively lower in developing countries and consumers can get better products at a cheaper price.
4. Exporting countries can have gainful employment and brand image.

Therefore, there is full justification for the developing countries to cash on this golden opportunity by exporting their products in value-added form.

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Governments role to modernise existing seafood processing industry to process value-added products from high value items

Shrimps, lobsters, squids, cuttlefish, tuna etc., exported in bulk packs is reprocessed in the importing countries in value added form and marketed with their own brand names. As a result, the exporting countries lose their profit margin and brand image. Therefore, the first and foremost step required, is to modernise the existing processing plants with the latest technology in processing and packing of value added products. It requires liberal government policy on import of processing and packaging machineries, import of technology, marketing assistance and investment incentives in the form of financial assistance to equip the factory with modern machineries.

Shrimp is processed in plate freezer in 2 Kg/5 lbs blocks and exported to Japan, USA and W. Europe. Block freezing is the first step to export shrimps in bulk packs. If it is processed in the form of individually quick frozen (IQF) the value goes up by 20-25%. It can be in 1 Kg pack, ½ Kg pack and other sizes either in raw form or cooked form, headless shell-on or peeled. It can also be packed in ready to cook and ready to serve form to fetch higher unit value.

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For all these, IQF inline freezing system is a must with machineries for peeling, grading, weighing, cooking, freezing, glazing and packing. Less human handling is preferred to avoid contamination. Therefore, in the first phase, the existing processing plants have to set up these facilities which requires an investment of nearly 2.0 million US dollars per factory. The same facilities could be utilised to process squids, cuttlefish, etc. In the second phase, when these processing plants go for diversified processing from low value fish, other fish processing machineries for gutting, filleting, nobbing, sawing, meat picking, mixing, forming, breaching, battering etc., can be set up with adequate Government's incentives.

Provision of funds and incentive systems

1. Loan from Banks/Financial Institutions at concessional interest.
2. Financial assistance in the form of subsidy on capital cost of the machineries to compensate the high cost.
3. Cash Compensatory Support (CCS) on export of value-added products to assist the exporters in overseas marketing.
4. Import of machineries under Open General Licence without any duty.
5. Overseas joint ventures with adequate incentives to attract foreign companies.
6. Tax holiday for the first five years.

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To promote new industry or upgrade the old seafood processing industry, the government can set up a parastatal body like the Marine Products Export Development Authority (MPEDA) of Govt. of India with sufficient autonomy and powers to formulate and implement several plan schemes. This body can function as a catalyst to assist private sector without involving itself into actual business.

The promotional body can be authorised by the Government to implement the following schemes with sufficient budget for the induction of new technology and modernise the old plants.

Schemes for technology upgradation and value addition

1. Capital subsidy on cost of In-line processing machineries such as peeling, grading, cooking, individually quick freezing (IQF), glazing, packaging, etc., which can be fixed around 25% of the capital cost in the form of grant from the Govt.
2. Refrigerated transport by road, rail and water

To transport the processed product at low temperatures, reefer transport is a must. It can be in the form of refrigerate truck or prime mover with reefer/containers or refrigerated carrier boats. 25% of the capital cost can be subsidised to the processors to set up this facility as part of the

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integrated system. For long distance transport, refrigerated rail transport can also be introduced.

3. Acquisition of generator set and diesel oil supply

Power supply is erratic in many developing countries and the processors will find it difficult to maintain the cold storage constantly at -18°C . IQF products will get thawed easily if the temperature rises up and quality of the product will be badly affected. To assist the processors in such a situation, the Government can subsidise the cost of diesel generator and supply diesel oil without excise duty.

4. Cash Compensatory Support (CCS) on export of value-added products

When the products are made, the exporters need marketing assistance abroad. They have to face resistance from the established reprocessors in importing countries and tariff and non-tariff barriers. Value-added products cost extra in packaging and freight. Market promotion through overseas publicity and participation in trade fairs costs a lot. To compensate part of this expenditure the government can grant cash compensatory support to the tune of 10% of FOB value on export.

5. Joint Ventures and Equity Participation

When small scale processors/exporters want to set up a highly capital intensive scheme, the banks are shy to advance

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loan and highly doubtful about their technology and successful marketing of value-added products. Therefore overseas joint ventures with buy-back arrangement are found to be easy to convince bankers and other government agencies involved in giving clearance for setting up these processing units. Since government follows a lengthy procedure for joint venture with overseas companies, it is found to be easier and quicker to support such venture with equity participation from Govt. in the form of 10% on paid up capital. Though this is a small monetary help to the company, the Government's participation in the project, helps the company to get all clearances quickly. It also gives confidence to the overseas company in import trade. The company can always buy back the shares from the Government in due course once it is established well. Thus, the Government is able to promote a joint venture company for processing value-added products.

6. Assistance to the processors to improve
the quality of the products

The seafood processors in many developing countries are not very quality conscious and do not take adequate care to check the quality of the raw material and the finished products. The consignments are often rejected in foreign countries and it is settled at a heavy cost. Therefore, in some countries,

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the Government has set up an agency for quality control. They visit the factory, test the quality of the product and certify it as export worthy. In other countries this work is entirely left to the responsibility of the processor/exporter.

Since the appointment of a Govt. agent to check the quality does not help in the long run, the processor has to be fully equipped for this purpose to conduct his own inspection at various stages of processing. For this purpose, each processor has to set up a quality control laboratory with a well qualified technician. Since it adds extra cost to the processor and the prestige of the country is also involved, the Government can subsidise the cost of testing equipments and give training to the quality control technicians within the country or in advanced countries.

Water is found to be a major source of microbial contamination and treatment of water is essential and therefore water treatment plant could also be made compulsory and its cost can be subsidised by the Govt.

The Govt. can also bring out a quality control bulletin with latest informations on technology and regulations for the benefit of the technicians working in the processing plants.

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If there is any serious problem due to atomic radiation, heavy metal contamination etc., the Government can help the industry by conducting a special study and find solution to such problem in the larger interest of the trade.

7. Assistance for publicity and participation
in Trade Fairs

Trade Fairs are like show windows for promoting new products. Participation in overseas trade fairs is very expensive for a small scale exporter. Therefore, till the exporter succeeds in marketing his new products, the Government can assist him for the first 2 or 3 years in the form of subsidising his travel cost and stall rent for his participation in trade fairs. The publicity cost can also be shared to some extent by the Government.

In addition to this, the Government should organise international trade fairs in their own country and provide facilities for the foreign buyers to participate. Buyer-Seller meets and joint venture tie-ups could also be arranged for improving the relation between the domestic and foreign companies for a long term sustained business. Periodical advertisements could be released by the Government agency in

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overseas magazines about the value-added products, exported from the country. Test marketing of value-added products and publicity campaign in leading food chain stores in importing countries by private exporters could also be supported by the Government.

8. Market survey

Many countries bring out several products in value-added form every year and some are catching up quickly on a large scale. It is imperative to know the latest trend in product development and marketing of value-added products. The Government agency should conduct a market survey ^{every}/year and disseminate the findings to the industry and trade.

9. Reduction of waste and spoilage

The fish is a perishable item and has to be preserved immediately after catch. The price of fish varies according to the freshness it maintains. Since many fishing boats and fish landing centres lack adequate infrastructure for preserving the fish catch in good condition, the loss in terms of unit value realisation and total spoilage and rejection, amounts to millions of dollars every year. If Government comes forward to invest in creating this basic infrastructure such as landing

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fish in hygienic conditions, supply of ice, washing fish with potable water and transport of fish in insulated/refrigerated transport, the wastage can be avoided to a large extent. Since many landing centres are not easily accessible by road, conveyances such as bicycles, two wheelers have to be used. The people who are involved in such transport are financially very poor and need support from Government or private industry. The Government can assist them by supplying insulated fish boxes at 50% of the cost. Small mechanised boats should have insulated fish holds and preserve fish in ice compulsorily. Tube wells for potable water could be installed for washing in landing centres. The processor/exporter can be persuaded to supply ice to fishermen at a reduced price or the Government can set up ice factory and supply ice to the fishermen at a reasonable price. Mobile cold stores/containers can also be set up to preserve the fish catch in collection centres. Improvement in hygiene and handling requires extension service by Government agencies to educate fishermen and others involved in handling, transporting and marketing of fish catch. Without proper improvement in quality of the raw material, it would not be possible to go for processing value-added products.

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10. Assistance during distress sales

Fluctuation in demand and price is inevitable in seafood trade. As the unit ^{value} of the products such as shrimps is high in the international markets, the exporters have a tendency to push them out then and there and realise their money to pay back the bank loan. Whenever there is temporary set back in the demand and consequent fall in prices in the overseas markets, the banks should extend financial accommodation so as to avoid distress sale. If necessary, the Government should subsidise the interest rate during this period so that it can save the foreign exchange loss due to distress sale.

11. In some of the landing centres, especially in remote islands where there is absolutely no infrastructure for preservation in ice, the only way is to go for salting and drying. The Government can provide facilities for hygienic salting and drying of fish.

Several Asian and Pacific countries follow different kinds of credit and incentive schemes and some of them are given below:

1. Deduction from taxable income according to incremental export sales, direct labour costs etc.
2. Subsidy on R & D expenses
3. Subsidy on freight
4. Investment guarantee by Government
5. Interest subsidy on loans

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6. Carry over as deduction from taxable income of net operating losses.
7. Deduction from taxable income for the amount reinvested on modernisation and expansion with new processing lines.
8. Venture capital
4. Mixed credit scheme

Credit system with special reference to export of Seafood

Seafood industry has its own problem and require special consideration in credit system. For example, the following three credit systems are prevailing in India.

1. Term loans for construction/equipping processing units and infrastructure development
2. Packing credit for export of marine products
3. Post-shipment credit.

Since the availability of raw material is seasonal, the exporters buy maximum during the seasons and the plants operate in full swing. During this period their credit requirement is large. During the lean period, only a small percentage of the capacity is utilised due to shortage of raw material. Therefore, the banks have to adjust the packing credit limit and give adequate holding power to the exporters so as to avoid distress sale and consequent exploitation by foreign buyers. The banks should make realistic assessment of the packing credit requirement of the exporters depending upon the seasonal abundance,

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market demand and price situation. The concessional rate of interest (7.5 %) should be permitted for a period of six months and normal interest can be levied afterwards if the exporters fail to repay the loan.

The Govt's participation can be in the form of offering export credit guarantee for insuring the credit given by exporters to their overseas clients as well as those needed by them from their bankers to conduct export business. If the export business is carried out under Letter of Credit, the risks are not encountered but when it is on consignment sale, the risks are more. The insurance policy under export credit guarantee can be designed to protect the interest of the exporters for losses on account of commercial and political risks. This will also help the exporters to get adequate and timely pre-shipment finance from the commercial banks. A premium of 0.3% on export ^{credit} can be charged to run this export credit guarantee scheme.

Government policy for attracting seafood industry in diversified processing for value-added products from low value fish

Tropical seas hold multispecies fishery. The size ranges from tiny clupeids to giant sharks. Nearly 65% of the catches are graded as low value items and do not bring sufficient remuneration to the fishing efforts because of unattractive physical appearance, colour, size, texture etc., inadequate knowledge of utilising these varieties high percentage of wastage due to improper handling and

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preservation and consequent use of them as dried fish. Until the fish processing scientists find a better way of utilising these low value fish and raise their real unit value through appropriate processing, the commercial firms will not get attracted to take up large scale production. At present, the seafood processing industry is coming up everywhere to process high value items which bring them quick return with high profit margin. Thus, the industry develops as 100% export oriented unit, since domestic market could not afford to pay attractive price. This gold-rush goes on until the industry exhausts the reserve of high-value raw material base and finally, when they don't get sufficient material for processing, they think of diversified processing with cheaper varieties. When they do so, marketing is a problem and promotional efforts are required to develop both domestic and export markets. Under these circumstances, the Government has to take the lead to set up an R & D unit for utilising the low value fishes. It is a good development in a few Asian countries to see the utilisation of a few varieties of low value fishes such as threadfin, breams, conger eel, ribbon fish, croakers, lizard fish etc., for surimi production, minced meat, fish balls, cutlet, fish fingers, etc. The Govt.

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at this juncture has to evolve a suitable policy to attract the processing industries to go for diversified processing of low value items which will bring following immediate benefits.

- (1) Valuable fish protein from low value fish could be profitably utilised to eradicate malnutrition.
- (2) The industry can thrive well by making use of their underutilised idle capacity
- (3) Additional foreign exchange can be earned
- (4) More rural employment can be generated
- (5) Fishermen will get higher income.

Since the social benefits outweigh all other benefits, the Government can find a way to invest heavily in the initial phase to support the industry. The support can be in the form of creation of infrastructure to preserve the fish catch and distribute the finished product in good condition, supply of machineries and technology at a reduced cost, tax holiday for the first five years and marketing support. Foreign development aid could be used to set up such project, despite the cost benefit analysis proves to be economically unrealistic in the beginning due to various factors.