

Quality Management of Fishery Products in Vietnam : Advancing Towards Integration With the Regional Countries and the World

TRAN THI DUNG

Department of Science and Technology
Ministry of Fisheries, Hanoi, Vietnam

Introduction

Vietnamese economy is undergoing the process of *doi moi*; all over the country industrialisation and modernisation is taking place in order to achieve economic wealth, to build a society based on justice.

For more than 20 years Vietnam carried out post-war rehabilitation and rebuilding under the wise and capable guidance of the Vietnamese Communist Party and the intelligence, creativity and hard labour of the Vietnamese people, as well as with the aid of countries in the region and from other parts of the world. As a result of this accelerated rate of growth of the Vietnamese economy, Vietnam now enjoys harmony with countries in the region and around the World.

Fisheries has been identified as one of the important economic sectors for development and growth. Fish processing has contributed towards increasing the export of Vietnamese fisheries products and the income of fisheries workers. It is also the main animal protein source for most of our people. In order to develop further and to benefit the fishery sector and the national economy, the technology of fisheries processing must be upgraded and the quality management methods must be improved to meet the stringent requirements of customers from around the world as well as in the country.

Present status of fishery processing activities in Vietnam

Since 1977, when the first seafood products were exported, seafood processing in Vietnam has increased continuously in quantity as well as in value. Since then, the export value of fisheries products has risen 49 times. This sector is now ranked fourth in export value and is the fastest sector in the Vietnamese economy.

Seafood sold consist of shrimps, cephalopods, fish, oyster, crab and products of various mollusc and seaweed. Most of exported seafood products have undergone minimum processing. Because of the small value-added component, Vietnamese seafood products in the world's market are bringing in lower benefits to

seafood processing companies.

Recently, although the processing establishments have made efforts to increase the diversity of seafood products and upgraded their production facilities and technology level, the product structure is still monotonous and cannot meet the demands of the world market. The major products are frozen, comprising 87-89% in quantity and 78-82% in value of total exports, of which frozen shrimp makes up 58-60% in quantity and 68-73% in value. The fish and mollusc products have increased in recent years, but their proportion is still low. The value-added products occupy only of 6-7% of export value.

The main customers of Vietnamese seafood are companies which reprocess and repackage with their trade label. These products are then re-exported. For example the products exported from Vietnam to Hongkong are usually re-exported to Japan.

Vietnam has yet to learn to deal with new and better clients. Although the processing plants may not completely meet the hygienic standards, seafood product quality is still accepted by clients who buy them for reprocessing.

However, it recognised that if the Vietnamese seafood industry wants to enlarge its market and raise the value of its products, it should step up the management and monitoring of seafood quality. It should invest in facilities and technology to upgrade production conditions and ensure high hygiene standards, in order to meet the requirements of the main clients in the world's market, where the products are sold directly to consumers.

At most processing plants, immediately after their establishment, there is a product quality control section consisting of 5-10 persons; most of them are trained in universities or colleges, or by the Quality Control Center (QCC), or in training courses on quality control organised by FAO.

There is a quality control laboratory in many plants, but most of them are not well-equipped and they only assess the quality of raw materials or products by sensory methods. When needed, they must ask accredited quality control institutions to inspect their products and issue the

health certificate for export.

Faced with the practical requirement that there should be an office with jurisdiction to control and issue seafood products with health certificate, in 1983 the Export Aquatic Product Quality Control Center (QCC) was established. It belongs to the Ministry of Fisheries and is charged with the responsibility of sending cadres into plants to inspect their processing methodology, production technology and hygiene conditions and to take samples for the purpose of controlling product quality before issuing export seafood products with health certificate. The water samples from processing plants are also periodically tested in laboratories. But in practice its main office was in Seaprodex's building and its activities are related closely with this organisation. QCC has laboratories in Haiphong, Danang, Ho Chi Minh City, but most of their equipment are backward.

There are many laboratories providing seafood products with health certificates. These laboratories belong to different ministries; for example: Regional Centre for Standardisation Metrology and Quality (SMQ), Vinacontrol, Center of Hygiene & Epidemiology, Pasteur Institute, Seaspimex, Food Control Center, Animal Quarantine Center and others. The chaotic situation in the control and issue of such certificates has complicated the quality management program. This may have resulted in the erosion of the quality of Vietnamese seafood in recent years, leading to a drop in the average price of our exports.

In order to enhance the prestige of Vietnamese seafood products on the international market, the Ministry of Fisheries established the National Fishery Inspection Quality Assurance Center (NAFIQACEN). NAFIQACEN is responsible to the Minister of Fisheries to organise activities on inspection, to issue establishments with hygiene and assurance certificates, to control export of seafood products and to issue health certificates in accordance with state and international requirements. The NAFIQACEN headquarters is in Hanoi, with branches in Haiphong, Danang, Nhatrang, Ho Chi Minh City and Camau. Besides NAFIQACEN, the Fishery Resources Conservation Department and its branches, which are responsible for controlling diseases and quality of fishes, as well as inputs of aquaculture, also take part in the control and issue live fishes with health certificates.

Instead of quality management by control only of product quality and issue of certificate before exporting, nowadays quality management is extended and this consists of the quality management from culture, catch, handling and transport of raw material as well as processing, store and transport of

export products.

Projects supported by international organisations such as UNIDO, DANIDA have helped Vietnamese fisheries train specialists in quality control of seafood products, educate the managers, processors and inspectors on new knowledge of quality management, equip NAFIQACEN branches with appropriate laboratories and train and guide processors in their application of GMP and HACCP in processing plants in the country.

Because of the pressure of market competition and quality requirements, processors are rushing to obtain aid from the project US/VIE/93/058 and NAFIQACEN to upgrade production facilities and upgrade technology in seafood processing. This is especially so in plants which want to export their products to the EU. Currently there are no Vietnamese plant that can meet completely the requirements of Directive 91/493/EEC dated July 22, 1991 of the Council of the European Communities. The number of plants permitted temporarily to export their products into the EU market is only 58%. That is why upgrading production facilities of seafood plants must be continued systematically in order to produce the products which can meet the hygiene assurance requirements of all markets in the near future.

Although NAFIQACEN was established only two years ago, it has contributed significantly to improvements in the quality of seafood exported. The average export price of Vietnamese seafood products was US\$5.58/kg in the first 10 months of 1995, an increase of 30.1% over the annual average price of the year 1994.

Problems facing the seafood product processing industry

Although the quality management program of seafood products is a success, the Vietnamese seafood processing industry still faces the following problems :

- Fluctuations in the supply of raw materials, insufficient and unstable supplies resulting in excessive competition between fish processing establishments. Because they lack experience, some processors buy raw materials which do not meet quality requirements, therefore resulting in low quality products.
- In processing plants the technology must be upgraded, the lay-out of production lines must be rearranged, advanced methods of quality management must be implemented so that they respond to hygiene assurance requirements for seafood products.
- The fishing vessels, fishing ports, the

equipment for landing, transport and store of fish and fish products are not satisfactorily kept in good hygiene condition, resulting in deterioration and post-harvest losses.

- The aquaculture fisheries have not been developed sufficiently to supply enough raw materials to the processing industry.
- The fishermen in fishing vessels and workers in fish farms are not trained sufficiently for proper handling of raw materials to reduce post-harvest losses.
- Rules and regulations for quality management are lacking.

The fisheries quality management system is facing the following matters :

Because the fisheries quality management system has been established recently, we have yet to fine-tune the rules and regulations. These rules and regulations do not take sufficient note of the complicated situation of seafood product quality in the market. The Ministry of Fisheries is actively setting up new rules and regulations in order to manage thoroughly and closely the quality of fish products.

The government has passed the law of commodity No 86/CP on 8/12/1995. The enactment distributes responsibilities on commodity quality to the various ministries. Since July 1996, the Ministry of Fisheries, based on that enactment and on by-law rules and regulations, has been charged to carry out fishery quality management in the country. This will tidy up the control and issue of seafood products with health certificate. The Ministry of Fisheries will now manage closely and effectively the export of seafood products.

The fishery product quality inspection organisation is prepared to issue product hygiene and quality assurance for overseas customers. It is also providing proper training to cadres who are quality managers in state departments or establishments to upgrade their skills.

Future Developments in Relation to Quality Management

In order to improve the quality of Vietnamese fishery products and to keep up with fisheries development in the region the Ministry of Fisheries has set up the following measures on quality management to be implemented in the next few years:

1. Perfecting the fisheries product assurance and quality management system.
- Strengthen personnel, upgrade laboratories and train cadres from MOFI, NAFIQACEN,

the Fishery Resources Conservation Department and branches of the last two organisations.

- Promulgate the rules and regulations for monitoring fishery product quality and hygiene assurance practised in the establishments from the production of raw material, post-harvest handling and preserving, collecting, transporting, processing and product storage and their import and export.
 - Set up and promulgate the Vietnamese standards based on product quality. Stipulate the scope and objectives of these standards and supervise and monitor their implementation. In particular, attach importance to implementing good manufacturing practice (GMP) and advanced management methods based on the application of HACCP.
 - Intensify training for quality inspectors, and quality managers of establishments; concentrate on training for total quality management.
 - Establish relations with ASEAN fishery quality management systems. Cement the relationship with quality control institutions of EU, America and Canada in order to create conditions for the export of Vietnamese seafood products into those markets.
2. Set up the quality management program for raw materials.
- Promulgate the technical standards and procedures for producing, collecting, transporting and preserving raw materials. Only those establishments which meet those requirements in full will be issued with a permit to produce raw materials.
 - Promulgate regulations which require processing plants to extend the scope of their quality management programs to the production of raw materials. Develop measures to help preserve raw materials, decrease post-harvest loss and promote hygiene and quality assurance. Organise seminars to disseminate technical guidance in preservation, transport and handling of raw material appropriate with hygiene and assurance conditions.
 - Continue upgrading production facilities and improve preservation and processing technology, fine-tune investment policy, divert capital to increase production of raw materials, develop aquaculture in areas with commercial productivity into industrial-scale

concerns, rationalise exploitation of natural resources, and prevent the deterioration of the environment; also attach importance to off-shore capture fisheries.

- To meet the requirements of industrialisation and modernisation the fisheries processing sub-sector must re-organise itself to produce a large amount of products with added value, in order to meet the demands of different markets.

The issues concerning quality management must be confronted now so that the export value of fish products can be increased. Besides the Vietnamese economy can be subsequently strengthened and the country can keep in step with the rest of the region.

Recommendations for Seminar

After reviewing the draft recommendations, the summary of recommendations for the Seminar was adopted on 1 November 1996.

The winner of the two awards were announced. Ms Sirilak Suwanrangsi received the MFRD Award for the best country paper, while the Amano Award for the best research paper went to Ms Krissana Sophonphong for her paper on the Sensory Evaluation of Frozen Prawns.

Summary of recommendations :

1. To put emphasis on traditional fish products especially at improving quality, e.g. standardizing production methods, improving packaging, promoting utilization and upgrading the industry.
2. To use the ASEAN Network of Fisheries Post-Harvest Technology Centres (ASEAN Network) and its existing electronic information network to disseminate information and other aspects of technology development in the region.
3. To put more emphasis on handling and preservation of fish and raw materials.
4. To look into simple and rapid methods on quality assessment in the industry.