FAO Fisheries Circular No. 948 **FIIT/C948**
ISSN 0429-9329

FISHERIES INSURANCE PROGRAMMES IN ASIA - EXPERIENCES, PRACTICES AND PRINCIPLES

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by

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Rome, 1999

PREPARATION OF THIS DOCUMENT

This document has been written by Dr. Masamichi Hotta, retired Senior Fishery Planning Officer, FAO Rome and presently Advisor, Ecoh Corporation, Tokyo, and edited by Dr. J.F. Dorsey, Consultant, and Dr. U. Tietze, Fishery Industry Officer, FAO Rome. It is largely based on case studies and country papers which were presented and discussed at a Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia, held in Tokyo, Nihon University, 11-15 November 1996, which was jointly organized by the National Federation of Fishery Co-operative Associations of Japan (Zengyoren), the Asia Pacific Rural and Agricultural Credit Association (APRACA) and the Fishery Industries Division of FAO.

The purpose of the document is to give an overview of experiences with fisheries insurance programmes in Asia, to identify key elements and principles of insurance programmes and to provide guidance for the design of future insurance policies and programmes.

Hotta, M.
Fisheries insurance programmes in Asia: experiences, practices and principles.
FAO Fisheries Circular. No. 948. Rome, FAO. 1999. 54p.

ABSTRACT

The document aims to provide guidance for the design of insurance policies and programmes for the fisheries sector based on a review of experiences with fisheries insurance programmes in Asia. These experiences were discussed at a Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia, held in Tokyo, Nihon University, 11-15 November 1996, which was jointly organized by the National Federation of Fishery Co-operative Associations of Japan (Zengyoren), the Asia Pacific Rural and Agricultural Credit Association (APRACA) and the Fisheries Department of FAO and attended by participants from Bangladesh, India, Indonesia, Iran, Malaysia, Micronesia, Nepal, Philippines, Republic of Korea, Sri Lanka, Thailand, Vietnam, Japan and Norway as well as by observers from Bolivia, Brazil, Senegal and Tunisia

The document commences with an overview of fisheries insurance programmes in Asia. It then highlights the need for fisheries and aquaculture insurance and elaborates on planning and practices and on the design of fisheries and aquaculture insurance schemes. It concludes by proposing basic principles and concepts for the development of fisheries insurance policies and programmes.

The Annexes to the document include information on fisheries and aquaculture mutual insurance programmes in Japan, on fishing vessel insurance schemes in Japan, on fishery credit and insurance guarantee systems in Japan as well as the list of participants and the programme of the Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia, Tokyo, Nihon University, 11-15 November 1996.

The FAO Fisheries Circular is a vehicle for distribution of short or ephemeral notes, lists, etc., including provisional versions of documents to be issued later in other series.

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1. INTRODUCTION

Asian fisheries make significant contributions to the food supply, employment and foreign exchange earnings of countries in the region, and the contribution of small-scale fisheries and fish-farming to the total production is more important in Asia than in many other regions. Cognisant of the fisheries sector's increasing importance to the achievement of national economic, nutritional and financial goals, many governments aim to strengthen the economical and social viability of their fisheries industries in the context of efforts to introduce sustainable and responsible fishing practices and to conserve and rehabilitate coastal environment and fisheries resources.

An important factor is the management of risks inherent in fisheries and aquaculture. A number of countries have take steps to provide a measure of protection against part of the risks inherent in fisheries by setting up insurance schemes of various kinds. However, insurance schemes are still in an early stage of development in the fisheries sector in many developing countries of the region and countries face a number of institutional, financial, and technical constraints in their establishment.

In response to this interest on the part of governments in the region and the agencies concerned with fisheries insurance, the Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia was held in Tokyo, Nihon University, in November 1996 under the auspices of FAO, the Asia and Pacific Rural and Agricultural Credit Association (APRACA) and the National Federation of Fishery Co-operative Associations of Japan (Zengyoren). The Conference provided a forum for interaction between policy makers and technicians on matters relating to fisheries insurance and an opportunity to discuss the experiences of the countries involved in the insurance practices. It was conference was attended by participants from Bangladesh, India, Indonesia, Iran, Malaysia, Micronesia, Nepal, Philippines, Republic of Korea, Sri Lanka, Thailand, Vietnam, Japan and Norway as well as by observers from Bolivia, Brazil, Senegal and Tunisia. The list of participants of the conference and its programme are attached as Annexes IV and V.

The purpose of this paper is to outline the role of fisheries and aquaculture insurance in order to assist governments, insurance and banking institutions; organisations concerned with the design and implementation of insurance programmes including fishermen organisations. The paper identifies key elements important in fisheries insurance and discusses how they can be incorporated in preparing fisheries insurance programmes. The observations and recommendations contained in the paper are largely derived from the discussions at the Tokyo Conference.

The paper is divided into seven chapters:

- The first one summarises the current situation of fisheries and aquaculture insurance in developing countries in Asia and in selected developed countries;
- the second chapter sets out the benefits to be derived from fisheries insurance;
- the third examines the planning and practices of fisheries insurance schemes;
- the fourth outlines the design of fisheries insurance schemes;
- the fifth introduces administrative arrangements;
- the sixth provides guidance for planning and implementation of such insurance programmes; and
- the seventh is a proposal for specific actions to implement fisheries insurance programmes.

Annexes I, II and III of the document also include information on fisheries mutual insurance programmes in Japan, fishing vessel insurance schemes in Japan and on fishery credit and Insurance Guarantee Schemes in Japan

2. PRESENT SITUATION OF FISHERIES AND AQUACULTURE INSURANCE IN DEVELOPING COUNTRIES IN ASIA AND IN SOME DEVELOPED COUNTRIES

The present situation of fisheries and aquaculture insurance (called "fisheries insurance" throughout these guidelines) in Asian countries is covered in this chapter. The countries covered are those which participated in the Conference and the description is based on the country papers that were presented in the conference. They are listed under the reference section at the end of this document.

2.1 Countries without Fisheries Insurance Schemes

Four of the countries participating in the Conference have not implemented fisheries insurance schemes. These countries are Nepal, the Philippines, Thailand and Vietnam. In these countries no significant attempt has been made to establish fisheries insurance of any kind. The primary reason for this failure appears to be the complexities of the countries' fisheries, lack of awareness of the contributions such insurance could make, and technical and financial considerations.

Nepal

In land-locked **Nepal,** a variety of fishing activities are nevertheless carried out in ponds, lakes and reservoirs. Fish production has significantly increased during the last three decades and the sector will continue to receive emphasis under national development plans. Institutional credit already plays a catalytic role in fisheries expansion; the Agricultural Development Bank has provided both financial and technical support to fish-farmers. However, so far no insurance scheme for fisheries activities has been introduced to help participants deal with the risks associated with fishing and aquaculture. A livestock insurance programme does, however, exist. Livestock insurance coverage can be obtained through either the Credit Guarantee Corporation or the Small Farmers Development Programme; the latter managed by groups of local small farmers themselves organised in a Livestock Insurance Committee. The programme has adopted flexible and simple procedures, suited to local circumstances and making efficient and expeditious programme operation possible.

The fisheries sector could capitalise on the positive experience gained under the Small Farmers Development Programme by introducing a similar programme for fisheries and aquaculture. As a first step, an FAO TCP (Technical Co-operation Programme) project was established in 1997 to identify actions needed to move toward establishing a fishery insurance scheme.

The Philippines

Crop insurance mechanisms are already well established in the Philippines and cover priority commodities (such as rice, maize, etc.) as well as livestock; insurance programmes have not yet been expanded to cover capture fisheries and aquaculture. Such activities are, however, covered by loan guarantee schemes. A number of factors seem to be responsible for the failure to establish insurance programmes for fisheries; these include:

- Limited Government technical and financial resources which might be available for such a programme;
- Lack of base data needed to provide a sound actuarial basis for such insurance;
- Complications due to a wide variety of fishing techniques, practices and systems;
- A high risk of widespread damage and heavy losses in the case of natural calamities.

There is also a shortage of personnel trained in the technical and administrative aspects of insurance and of adequate infrastructure facilities to support the development of local fisheries. Furthermore, the people who depend on fisheries for their livelihoods have little understanding of the possible benefits that an insurance programme could bring. As a result, the demand for insurance from the fishermen and fish-farmers themselves is not strong at present.

Thailand

Fisheries play a central role in the Thai economy; they supply a major part of the protein requirements of the population, provide employment and earn foreign exchange. Mitigation of the risks involved in fisheries is urgently needed in order to encourage this important sector. Crop insurance has been available since 1978 for some major commodities, such as cotton and soybeans, but has not been very successful. The principal reasons for the failure of this program were the lack of the basic data needed for determining appropriate rates and coverage, as well as the need for specialised services. A comprehensive programme of insurance for dairy cows, on the other hand, has worked satisfactorily. A major reason for its success has been the availability of accurate records of disease, mortality and milk production; an additional factor is that the sector is technically efficient and highly profitable.

No government policy has so far been developed with respect to insurance for fisheries. A survey some years back revealed that about 20 percent of commercial boat owners operating outside Thai waters were interested in buying vessel insurance. However, wider use of vessel insurance has been limited by high premiums (an annual rate of 7.5 percent of the insured value). Most commercial fishermen and small-scale fishermen operating in Thai waters do not feel that insurance is necessary. Small-scale fishermen lack a basic understanding of insurance; their low incomes would also be an impediment to their willingness to participate in such a programme. Even commercial fishermen lack understanding of insurance and its benefits.

No insurance schemes exist for inland water fisheries and aquaculture. However, large-scale shrimp farmers understand the need for insurance to protect against loss from natural hazards and disease. Insurance companies, for their part, have little practical knowledge of fisheries and, under these circumstances, would find it hard to set appropriate rates for premiums and to establish conditions of coverage.

However, despite the lack of coverage, in the case of unusually serious flooding or storms causing severe damage and losses to the fishermen and fish-farmers, the Thai government occasionally does provide grant assistance and make other special arrangements on an exceptional basis. In 1995 the government spent over US$ 11 million as compensation to fishermen and fish-farmers for losses from floods and storms.

Risk reduction could be achieved by providing insurance. However, there are a number of reasons why no fisheries insurance scheme has yet been established. Marine fisheries are complex by nature:

- many different types of fishing gear are employed,
- a wide variety of areas are fished,
- the fishing fleet is highly diverse, being composed of vessels of varying size, age and types, and
- A broad range of social and economic situations prevails among the fishermen.

Furthermore, fishing is considered to be a high-risk operation. Great effort is required to generate the kind of complete and accurate data needed to design a workable fisheries insurance programme. Once designed and in operation, specialists and technicians are required to perform functions, such as monitoring losses, supervising the adjustment and claims settlement process, and ensuring fair and equitable settlement of legitimate claims, etc. Operating and administrative costs, including the initial promotion of the insurance scheme, are likely to be high. Initially at least, government subsidies may also be necessary to encourage participation in new insurance programmes by offering insured parties affordable premium rates; financial support may also be required for a reinsurance plan. The Thai representative to the Conference noted that such assistance must be within the terms of the Agreement on Subsidies and Countervailing Measures of the Marrakech Agreement, which led to the creation of the World Trade Organisation (WTO). This is especially important for Thailand, which is a major exporter of raw and processed fish.

Vietnam

Vietnamese fisheries have been growing at a rate of four to six percent per year; annual fish production now exceeds 1.3 million tons, including both fisheries and aquaculture. Government targets for the year 2000 are for a catch of 1 million tons from marine fisheries and a production of 600,000 tons from aquaculture. The heavy investment needed to meet these targets and the risky nature of fisheries combine to justify the establishment of adequate insurance systems for the fisheries sector. However, although a government-owned and operated insurance company, BAOVIET provides nation-wide insurance coverage for such activities as transport, medical needs, schools and social welfare, it does not, so far, cover either agriculture or fisheries. The constraints appear to be the level of efficiency of the programmes and inadequate institutional networks of the current system. Moreover, the fishermen and fish-farmers generally lack any understanding of, or familiarity with, insurance principles and benefits. The staff of BAOVIET is unfamiliar with the fisheries sector and does not understand its special needs. However, the government plans to undertake a feasibility study on fisheries insurance, and, if the results are favourable, plans to establish a pilot project for aquaculture insurance in Nghe-an province.

2.2 Countries Implementing Pilot Schemes

In Bangladesh, Indonesia and Iran fisheries insurance has been introduced through pilot schemes, undertaken in limited areas in each country.

Bangladesh

Bangladesh's public insurance company (General Insurance Corporation) has introduced insurance to cover shrimp farms operating at a high level of technology; the coverage is for losses due to floods, tidal waves, cyclones and sudden surges of water. However, the programme has not been financially viable nor is its coverage of risk insured deemed adequate. In particular, policies do not cover disease, which limits interest in the coverage.

Insurance for fishing vessels is provided mainly by the General Insurance Company; most policies cover offshore fishing vessels, although private companies also write such policies. Premium rates are higher for mechanised inland and coastal fisheries vessels than for trawlers and thus owners of these vessels are reluctant to pay to have them covered. Fishing vessel insurance is subject to English law and practices.

Indonesia

No nation-wide insurance scheme has been established specifically for the fisheries sector in **Indonesia.** However, a pilot project for aquaculture insurance has been implemented as part of the fisheries transmigration project, which settles farmers on nucleus-estates and as small holders (NES) in West Kalimantan. There are also a number of insurance arrangements, in addition to life insurance schemes established by Provincial Governments, in which fishermen and fish-farmers participate. Banks which grant loans to Small-Scale Enterprise Credit (SSEC) can insure their loans in two state owned insurance companies: PERUMPKK, on a selective basis, provides insurance for the co-operative sector, while PT ASKRINDO insures loans for farms which are not co-operatives.

Experience with a small number of projects insured under arrangements with these companies has been encouraging. The possibility that these institutions might reduce rather than expand their involvement in fisheries insurance is a matter for concern; such a reduction would reduce the availability of credit for the sector. There is an urgent need for promotion of special insurance schemes for the fisheries sector as a matter of government policy, for the evaluation of existing pilot programmes and for an increase in awareness of the importance of insurance in achieving sustainable fisheries development.

Iran

A crop insurance programme was initiated in **Iran** in 1984 and now covers sugar beets, cotton, soybean, rice and wheat. Government subsidies cover 50 percent of the value of premiums. A livestock insurance programme was began with a pilot scheme in 1993 and has since been expanded to cover dairy cattle, sheep and goats, poultry and horses.

Warm and cold water fish have very recently been included under the livestock insurance coverage, but no separate schemes for the fisheries sector has been established. Insurance coverage provided for warm and cold water fisheries is 70 percent; the premium rate is 4 percent. The government provides an 80 percent subsidy for the cost of the scheme. This programme has not worked very effectively, indicating a need to acquire expertise in the field to make fisheries insurance successful. Training courses in fisheries insurance provided experts from countries having successful programs would be beneficial.

2.3 Countries Implementing Schemes on a Nation-wide Scale

Some countries already have nation-wide insurance programmes, which have achieved varying degrees of success. These include India, Malaysia, the Republic of Korea and Sri Lanka.

India

In **India** fisheries insurance programmes have been in operation for the past three decades. However, the occurrence of shrimp diseases in recent years and the resulting high volume of claims have negatively affected the viability of insurance, as well as that of credit programmes for shrimp culture. As a result, insurance companies have been reluctant to provide new insurance cover for shrimp aquaculture. To reduce the risks both to insurers and to shrimp-farmers, the National Bank for Agricultural and Rural Development (NABARD) has proposed the creation by government of a regulatory body to control further expansion of shrimp culture and to monitor farmers' compliance with regulations. Better co-ordination between banks and insurance companies is important. Insurance companies are also considering the formation of a consortium to cover high risks.

Accident and life insurance for fishermen has been successfully implemented, with the help of fishermen's co-operatives, where they exist; indeed these programmes have contributed to strengthening fishermen's co-operatives.

To reduce the risks to banks and insurance companies from outbreaks of disease, proper culture management practices need to be followed. The government could play a role in supporting credit guarantee schemes and reinsurance programmes and also by subsidising insurance programme costs. Improvement is needed in research and development efforts and in the extension facilities operated jointly by the Marine Products Export Development Authority (MPEDA), insurance companies and research institutes.

Malaysia

Malaysia's economic development strategy emphasises the principle of balanced growth with equity. It recognises the growing contribution of fisheries in the achievement of national economic, nutritional and financial goals, and calls for the sustained expansion of a modern, progressive fishing industry. A number of insurance schemes for fisheries have been introduced since the mid-1980s. However, only one of these schemes has been successful, a scheme involving personal accident insurance. Its success is largely due to its having been made a mandatory requirement for vessel licensing. A special scheme introduced in conjunction with a credit programme for vessel purchase/upgrading, collapsed due to poor design. Borrowers' participation was mandatory for the year of a loan, but optional for successive years. Consequently, most borrowers failed to renew coverage after the first year. A group personal accident insurance scheme offering wide coverage at nominal premiums to members of fishermen's associations, also failed, mainly because of its voluntary nature and of the lack of promotion by local, village-level

agents. Insurance cover should be made mandatory in respect of vessels whose displacement exceeds 70 Gross Registered Tonnes (GRT). Fishermen's associations should be compelled to provide group personal insurance cover with all credit and loans arrangements. Furthermore, fishermen need to be educated on the importance of insurance and the benefits of adequate insurance cover; local agents need to be trained and motivated with regard to insurance issues; claim procedures and settlement mechanisms need improvement; and greater co-operation between the various agencies and institutions involved is also needed.

The Republic of Korea

In **the Republic of Korea**, insurance services have been successful in providing coverage for fishing vessels and for making life and accident insurance coverage available to fishermen. A pilot aquaculture scheme was tested for oyster culture and production of other aquatic organisms, but failed since the amount paid out to settle claims far exceeded the amount collected in premiums. Compensation for natural calamities is already provided under existing legislation. Despite some problems, insurance coverage for the fisheries sector has been expanding and the overall performance of insurance programmes has been satisfactory.

Sri Lanka

Sri Lanka is one of the few countries where institutional credit and insurance programmes, and pension and social security schemes, for fishermen are implemented by the government. These measures emerged as part of the total development package concept, a new experience the impact of which has yet to be fully assessed. Since 1980 insurance programmes have provided coverage for the loss of and damage to fishing vessels, gear, engines, as well as personal accidents of the crew. Sri Lanka was the first country to introduce pension and social security coverage for fishing communities, which it inaugurated in 1990. The scheme is voluntary and requires contributions from participants. Ninety-five percent of insurance coverage in the fisheries sector is linked to bank credit. At present the public sector is dominant in the field of fisheries credit and insurance. Greater involvement by the private sector in fisheries insurance should be encouraged. Appropriate reinsurance arrangements, with active participation of government, are required.

2.4 Developed Countries

Japan

Small-scale, owner-operated fisheries are notoriously vulnerable to a wide variety of uncertainties and natural disasters. In **Japan**, a Fishery Mutual Insurance Scheme was established at the request of fishermen and has for many years provided a cushion against a variety of losses. The basic principle of the scheme is to make payments which cover production costs and thus allow fishermen to stay in business in the face of major losses and to offer an element of stability in the uncertain environment in which they operate. The types of policies available under the scheme are:

- "harvest" or marine insurance;
- aquaculture insurance;
- specialised aquaculture insurance; and
- gear insurance.

(Policies, regulations, premium rates, and claim standards are outlined in Appendix I.)

The programme is essentially an assistance mechanism operated and administered by the fishermen themselves through the Fisheries Co-operative Associations (FCAs), the prefecture level Fishery Mutual Insurance Associations and the National Federation of Fishery Mutual Insurance Associations. The central government, however, plays an important role by supporting the system with premium subsidies, back-up insurance, administrative subsidies and special finance in the event of specific disasters (such as red tide). Insurance payments are mainly used to rebuild productive capacity and to repay debts to the FCAs. The programme has efficiently served the

purposes for which it was established. However, serious problems have emerged which need to be addressed in the near future. These are partly the result of a decline in the number of fishermen subscribing to the scheme. More serious is the deteriorating financial situation of the programme, the accumulated debt of which had exceeded 37 million-yen by the end of 1994.

In Japan fishing vessel insurance is regarded as part of a national programme to mitigate the effect of fishing disasters and to promote stability in the management of fisheries enterprises. This insurance programme is organised on a multi-tiered basis, involving Fishermen's Co-operative Associations (FCAs), the prefecture level Fishing Vessel Insurance Associations and the Central Society of Fishing Vessel Insurance supported by the central government. There are three broad categories of vessel insurance contracts: individual, compulsory and group. A variety of policies is available, the main ones being basic fishing vessel insurance, owner-operator insurance covering unforeseen liabilities of such operators and cargo and equipment insurance. Over the 60 years since the first fishing vessel insurance scheme was introduced, the services and coverage have been considerably strengthened and modernised. In particular, compulsory policies and government subsidies have been established. Initially, the programme was intended to provide basic compensation for loss of or damage to fishing vessels, but it has since been expanded into a comprehensive system embracing almost all conceivable contingencies. The number of insured vessels now exceeds 250,000, representing the majority of Japan's fishing fleet. (An outline of the fishing vessel insurance programme is presented in Appendix II.)

A wide range of schemes providing life insurance and many other types of coverage are also available to members of fisheries co-operatives in Japan. The schemes include insurance arrangements covering life endowment with term insurance, whole-life policies, children's insurance, crew welfare schemes, old age annuities, supplementary pensions, group credit life insurance and non-life insurance for buildings, fire and automobiles. The National Mutual Insurance Federation of Fisheries Co-operatives provides all these different kinds of coverage.

Norway

In **Norway** marine insurance has its basis in the local fishermen's self-help clubs, which go back to the early nineteenth century. Commercial companies began to take an interest in marine/fisheries insurance about one hundred years ago. At the present time, there are four large insurance companies involved in fisheries/marine insurance, in addition to 28 mutual clubs owned and operated by the fishermen. The government is not involved in insurance schemes; it does, however, provide an effective search and rescue service, and a training programme for fishermen. The fishermen themselves benefit from a package of insurance, required of fishing vessel owners, which supplements the national social security scheme, covers loss of belongings and wages and provides compensation for occupational illness, injury or death. The purchase or rebuilding of fishing vessels is covered. Accurate determination of appropriate premium rates is possible, because of the availability of accurate data on accidents going back many years.

Finland

In **Finland** coverage of the risks involved in fisheries and aquaculture is handled primarily through fishermen's mutual insurance associations, with substantial financial support from the government. Insurable objects are the following:

- Fish-trapping tackles (i.e. woven trapping tackles, salmon trawl-lines, traps and anchors);
- Fishing vessels and boats;
- Means of transport and transport equipment used for fishing on ice and winter fishing, fishing huts, and floating and dragging equipment of seine nets;
- Vessels, boats and equipment used in sealing (except for rifles and binoculars).

Aquaculture insurance is provided by two commercial insurance companies. The company which first provided aquaculture insurance for operations located on the mainland is OSTO Interruptions

Insurance Company. OSTO's total insurance premiums in 1995 were US$7.5 million (excluding value-added tax of 18%) while in the same year the compensation it paid for indemnities amounted to US$9.1 million.

Additional support is provided to fishermen in the form of price supports and subsidies, low interest rates on loans and unemployment compensation. Despite such assistance, only half of the fishermen are covered by insurance schemes, which tend to be too expensive for part-time fishermen, who earn only a part of their income from fishing. Moreover, minimum unemployment benefits for fishermen are lower than those paid to most other categories of the self-employed. The need to tackle these issues, and integrate Finnish policies and practices with those of the European Union, is likely to lead to considerable changes in the nature and scope of fisheries insurance arrangements in Finland.

2.5 Major Findings of Tokyo Insurance Conference

Based on the discussions of the country papers presented at the Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia held in Tokyo in November 1996, the following conclusions can be drawn.

There is a growing consensus among the countries of the Asian region in regard to the importance of fisheries insurance, even in countries where insurance schemes have yet to be implemented (such as Nepal, the Philippines, Thailand, Vietnam). Existing insurance schemes have had only limited success, despite the effort and financial resources put into them. The performance of insurance programmes has been poor in regard to financial viability, as a result of high loss ratios, high administrative costs and inadequate coverage of insurance needs. A fishing vessel insurance scheme in Malaysia ceased operations due to non-participation by the target group; coverage by fishing insurance in Sri Lanka is also diminishing for the same reason; profits in shrimp aquaculture insurance in Bangladesh are low; and the performance of insurance schemes in Indonesia has generally been poor.

Nevertheless, some successful cases were reported. In India, for example, the performance of fishing vessel insurance has been reasonably satisfactory. In the Republic of Korea, insurance schemes for fishing vessels and crew and life insurance have also been satisfactory. However, there was agreement that insurance schemes in developing countries in Asia were, in general, far from perfect and that numerous improvements were still needed.

Many conference participants noted the high level of risk associated with fisheries and aquaculture and that, as a result, private insurance companies are reluctant to get involved in this sector, particularly, in traditional small-scale fisheries and fish-farming. Only large commercial fishing companies, in countries such as Bangladesh and Malaysia, can afford to insure their vessels, because of the high cost of coverage. Where premiums are high and the full cost of insurance cover is borne by the insured, fishermen are unable to afford coverage and therefore reluctant to join insurance schemes. It was reported that high premiums are the main constraint to the implementation of insurance schemes in countries such as Thailand, where no serious attempts have yet been made to set up fisheries insurance programmes.

Participants observed that government financial support is critical to introduce such programmes and to sustain them during their initial operation. They noted that, without government support, the private sector is not in a position to absorb the costs of establishing such programmes on its own. The importance of fisheries to national economies, in terms of food security, employment and foreign exchange earnings, all justify some level of government support to get insurance programmes established.

The Conference stressed that fisheries insurance should be viewed from the perspective of the small-scale fishermen and fish-farmers, who comprise the majority of the fishermen population in developing countries. Such fishermen need protection against losses caused by natural disasters, particularly in areas where typhoons and tropical storms are common and often damage or destroy

the investments of small-scale fishermen and fish-farmers. Fisheries insurance schemes are therefore indispensable and government support is necessary for their establishment.

The point was made that in Sri Lanka the government heavily subsidises fisheries insurance, justifying its intervention as providing a necessary service to this essential activity. Some countries, such as India, are considering a proposal for subsidising the premiums for crop insurance, with fish farming to be classified as one of the crops covered.

However, some countries, including Thailand, had expressed the view that subsidies should be limited or avoided altogether, believing them to be in contravention of the WTO Agreement on Subsidies and Countervailing Measures, particularly when fisheries and aquaculture activities are export-oriented.

The Conference recognised that government support to insurance schemes should include not only financial aspects, formulation of insurance policy and setting up schemes, but also in motivating the industry and the private sector to participate, as has already occurred in Malaysia. In some countries, such as Sri Lanka, the government is directly involved in the implementation of credit and insurance schemes, as well as pension and social security schemes, for fishermen.

Participants recognised that, in addition to financial constraints, a number of technical and institutional issues need to be addressed, which can not only affect programme implementation but also hinder the establishment of insurance schemes. Among these issues are the following:

- inadequate benchmark data on the extent of damage to vessels, gear, catches and production, ponds and installations,
- a wide variety of diverse fishing and aquaculture practices,
- little apparent demand for insurance,
- lack of a government policy with respect to insurance,
- lack of an institutional arrangement to connect village level participants with the programmes,
- lack of trained personnel familiar with insurance programs,
- lack of co-ordination among relevant agencies,
- long delays in settling claims,
- lack of an appropriate legal and regulatory framework, and
- lack of necessary infrastructure.

A number of countries, including the Republic of Korea, India, Malaysia and Indonesia assign a central role to fisheries co-operatives in implementing insurance schemes. Their organisation of the beneficiaries provides a decentralised mechanism, which ensures better risk control and more efficient provision of services. The integration of traditional institutions, such as fisheries co-operatives, with the fisheries insurance programmes is critical to their outreach and success in serving a clientele composed of small-scale fishermen and fish-farmers. In Kalimantan, for example, fishermen's co-operatives were established primarily to provide accident insurance, with part of the proceeds of fish sales retained to cover premiums. Thus, as with loan recovery in credit programmes, collecting insurance premiums by deduction from co-operative marketing of fish can be an effective element in making fisheries insurance programmes work successfully.

In India, once the state federation of fisheries co-operatives began to offer group insurance coverage, membership in the co-operatives rose substantially.

Whether insurance is voluntary or compulsory is often an issue for fisheries management. In Malaysia the fishermen's personal accident insurance scheme worked reasonably well, partly because it had been made compulsory and linked to the licensing of fishing vessels.

In many countries, including Sri Lanka, India, and Thailand, insurance is linked to bank credit programmes. Financial institutions, which lend to the fisheries and aquaculture sector, have an

incentive to lend when assets financed by the loans are insured, thus reducing the risk to the institution and making possible increases in lending and investment in the fisheries sector.

There was general agreement at the Conference on the importance of providing proper incentives to encourage fishermen to participate in insurance schemes. It was noted that in the Republic of Korea part of the profits from insurance operations is returned to the beneficiaries in the form of consumer loans and special education grants for their children.

The main conclusion at the Conference was that the lack of insurance constitutes a major impediment to the further development and commercialisation of fisheries, hampers investment by fishermen in their fishing and aquaculture operations, and is a constraint to the provision of adequate institutional credit to the sector. The success of insurance schemes is affected by natural, physical and socio-economic conditions as well as cultural traditions. Administrative and institutional arrangements also affect programme success. The integration of insurance in national development programmes should be encouraged and should take into account each country's unique historical, economic and social situation. Many participants emphasised the need to carry out feasibility studies for the establishment of fisheries insurance schemes and, where appropriate, to set up pilot projects to test and refine the designs for proposed national insurance programmes.

Among developed countries, such as Japan, Norway and Finland, there is considerable variation with respect to the role played by national government in the establishment of fisheries insurance schemes. The system operating in Norway today is largely the product of developments going back nearly a century, which led to the creation of mutual insurance societies as private initiatives.

In Japan and Finland, by contrast, government has been heavily involved in establishing the insurance systems. Special legislation was enacted establishing independent insurance associations. Their formation was the result of national policy rather than private initiatives. Despite government support, the co-operative spirit remains strong among the fishermen in both Japan and Finland. Close collaboration between government and fishermen has proved highly effective.

There are significant differences in the degree of involvement of national governments in the internal operation of their respective systems. From a financial standpoint, the Norwegian insurance system is virtually independent, receiving no subsidies either for premiums or administrative costs. The only significant financial aid, which the system received, were the start-up funds provided by the government for the establishment of the re-insurance institute.

Parallel to this financial independence, the Norwegian system enjoys substantial administrative freedom. Both the societies and the re-insurance institute act as independent insurers, free to negotiate the terms of their insurance contracts. The only exception is for vessels below 25 GRT or 15m in length, where the terms are subject to the provisions of the "Insurance Agreement Act" as established by Parliament. Thus, from both financial and administrative standpoints, Norwegian government intervention in fisheries insurance is limited and largely supervisory. The main objective in Norway seems to be that of providing fishermen with maximum insurance protection at the minimum cost consistent with sustainability of the system.

Government intervention in the Japanese system, on the other hand, is substantial. The national government provides subsidies for both premiums and the administrative costs of promoting and operating the system. The principal characteristics of the Japanese system are the following:

(i) Fisheries insurance is implemented not only on the basis of insurance principles, but also with the goal of fostering mutual assistance and co-operation;
(ii) Traditional institutions, such as fisheries co-operatives, are used to establish linkages with small-scale fishermen and fish-farmers;
(iii) The government provides strong financial and technical support; and
(iv) Participation by fishermen and fish-farmers is mandatory.

These arrangements have led to a number of conditions favourable to the success of insurance programmes. The most important of these factors are the following:

(i) A high degree of motivation of fishermen and fish-farmers, resulting from on-going promotion and education on insurance issues by fisheries mutual insurance associations;
(ii) Continuous provision of extension services by the fisheries department at the prefecture level;
(iii) Cross-checking of accident and loss reports provided by the co-operatives against claims made by member fishermen;
(iv) Incentives for fishermen to adopt appropriate measures to reduce production costs and thereby raise profits;
(v) Maintenance of sustainable fisheries and stabilisation for fishermen's production and incomes;
(vi) Encouragement of productivity in fisheries by government support of credit provided by co-operatives and financial intermediaries.

3. NEED FOR FISHERIES AND AQUACULTURE INSURANCE - ITS ADVANTAGES AND CHALLENGES FOR DEVELOPING COUNTRIES

- Problems and Constraints

Fish production is an inherently risky business, in which fishermen and fish-farmers face a variety of risks associated with weather and natural phenomena, variations in production, prices and income, human-error, mechanical failure and accidents from a variety of causes beyond their control. Fishing differs from other types of economic activity in a greater dependence on nature than is the case for other businesses. Fishing must face difficulties arising from weather phenomena, sea conditions, and currents, while disease, parasites, salinity levels and water quality affect aquaculture production. The volume of catches is strongly affected by the state of fish stocks and their migration, in the case of pelagic species. Production costs, such as fuel and other inputs, interest rates, etc. can also fluctuate. In addition to production risks, fishermen also face uncertain market conditions, including dramatic declines in the price of fish when catches are abundant. Being a highly dangerous occupation, the health and personal safety of those engaging in fishing is frequently at risk.

Fishermen, therefore, worry about daily production, sea conditions, marketing of their catch, their ability to meet overhead costs and to repay their debts, and often even their ability to provide for the essential needs of their families. Small-scale fishermen constitute some of the poorest members of their societies in many developing countries; they lack the reserves necessary to cope with the loss of their income and investments. The high level of risk and above average repayment problems associated with fisheries, compared to other branches of economic activity, make financial institutions reluctant to lend for fisheries.

The prevalence of risk in fisheries is not new and fishermen, fish-farmers, fisheries co-operatives, and banking institutions have developed mechanisms adapted to local conditions for coping with such problems. These traditional mechanisms of risk management are in some cases still adequate. Governments also often intervene by providing emergency assistance and tax relief to fishing communities in the wake of natural disasters. Such relief can be provided on an emergency basis, but is not feasible, either financially or politically, on a long-term basis, since preferential treatment for fisheries is unlikely to be acceptable to other sectors.

Fisheries insurance can promote the sustainability of the productive capacity of fishermen and fish-farmers without provoking criticism of this type. Relatively small premiums can provide fishermen and fish-farmers with the compensation they need to cover the loss of and damage to vessels, gear and production or catch. In some cases governments find it worthwhile to provide partial subsidies for premiums and for administrative costs of insurance programmes; some governments also support re- insurance schemes.

The major risks confronting fishermen can be divided into two categories: **asset risks**, **production and management risks, and market risks** and **personal and health risks**. Asset risks include loss of or damage to fishing vessels, equipment, and gear and aquaculture installations, as a result of natural disasters. Production and management risks involve the loss of catch, production failure and fish disease. Market risks relate to changes in the prices of outputs and inputs, as well as increases in interest rates. Personal and health risks include accidents at sea and death and job-related illnesses.

In some countries the goal of insurance programmes is not merely to provide coverage for insurable risks, but also to foster mutual assistance and co-operation. Small-scale fishermen and fish-farmers are more likely to be reached by programmes of this type, although the financial viability of the schemes may be less certain. In other cases providing insurance is left entirely to the private sector, limiting coverage to those groups better able to support the full cost of programme operation.

A number of difficulties and problems often arise with respect to the introduction of fisheries insurance. The most important of these are the following:

1) Limited financial resources;
2) Exclusion of small-scale fishermen and fish-farmers from insurance;
3) Lack of well-established village institutions, such as co-operatives, to act as insurance agents;
4) Lack of legal framework for fisheries insurance;
5) Difficulty in promoting insurance policies, designing sustainable insurance programmes and co-ordinating the work of the agencies concerned;
6) Difficulty of covering credit projects under insurance schemes;
7) High cost of premiums and providing appropriate levels of benefits;
8) Speed and transparency of claims settlement;
9) Lack of trained personnel;
10) Lack of understanding of the value of insurance; and
11) Lack of reliable actuarial data for establishing premium rates.

- **Advantages and Benefits**

The advantages and benefits provided by fisheries insurance vary from scheme to scheme. However, in general, the principal benefits of fisheries insurance are:

1) Protecting fishermen and fish-farmers against accidents and natural hazards beyond their control;
2) Providing basic compensation for the loss of or damage to fishing vessels, gear and catch (or harvest), thus contributing to stabilisation of incomes within the fisheries sector;
3) Reducing the risk to financial institutions, which providing credit to fishermen and fish-farmers, in relation to fisheries credit;
4) Reducing the risk for fishermen and fish-farmers in investing their own resources in the adoption of new technologies and acquiring improved equipment;
5) Fostering mutual assistance and co-operation among fishermen, fish-farmers and their organisations;
6) Reducing the unpredictable burden on government of providing emergency assistance in the wake of natural disasters;
7) Promoting stability in fishery enterprises and contributing to the general welfare of fisheries communities;
8) Stabilising the contribution of the fisheries sector to national economy.

4. PLANNING AND PRACTICES OF FISHERIES AND AQUACULTURE INSURANCE

- **Voluntary or Compulsory**

The foregoing discussions indicate that the objective of insurance for the fisheries sector is to protect fishermen and fish-farmers from financial losses caused by natural hazards, human errors

and other factors beyond their control, in order to ensure protection of assets, uninterrupted fish production and stable incomes. Continuity in fish production is important from the standpoint of nutrition, foreign exchange earnings and employment and constitutes an underpinning for social and economic stability. These concerns often justify government assistance in the establishment of fisheries insurance, including subsidies for premiums and partial coverage of administrative costs.

Fisheries insurance programmes can be either voluntary or compulsory. Which alternative is best for achieving high levels of participation and adequate coverage of risks at reasonable costs depends on the social, economic, and cultural orientation of the communities the programmes are designed to serve. For a scheme to be compulsory, some level of government involvement is necessary. Compulsory schemes have a number of advantages:

(i) A high degree of participation, a key requirement for the success of insurance schemes, is essential;
(ii) Administrative costs can be pro-rated over a larger number of policies, thus reducing the cost of the system to users and of subsidies to government.

In the case of Japan, fisheries insurance is compulsory for small- and medium-scale fishermen and fish-farmers. The purpose of the compulsory system is to spread risks by increasing the number of policyholders and to spread costs over a large customer base. Compulsory schemes are established by law and are a legal requirement with which fishermen must comply; the Japanese government pays part of the administrative costs, as well as subsidising the cost of premiums for such schemes. The government has also established a re-insurance programme to increase system viability.

There are a number of steps in the establishment of a compulsory system. Legislation must be enacted, as a pre-condition for making the system mandatory. It is necessary to create awareness, on the part of fishermen and fish-farmers, of the benefits and obligations of the system and to take their views into account in designing and implementing the system. Financial institutions can also help encourage greater use of insurance by requiring that fisheries assets (and the lives and health of fishermen) be insured as a condition for providing loans. Linking a compulsory system to credit or marketing operations can be an effective tool for assuring compliance with mandatory coverage.

When the production is relatively stable, objections to a compulsory system may be reduced, since premiums are likely to be low and thus not be a major burden on the payment capacity of fishermen, which is often low. Under this scenario, participation in a voluntary scheme might be rather low.

- **Government Involvement and Private Sector Insurance**

Government intervention can be justified on the following grounds:

(a) Potential losses are difficult to estimate with any degree of precision to allow for coverage under a private insurance scheme;
(b) Monetary losses due to uncertainty in the volume of catch or production and in the price of fish sold would have a serious impact on the well-being of small fishermen with no alternative sources of income.

In addition to continued financial support by government, there are some complementary factors required for the success of insurance schemes. These include:

(a) Commitment on the part of the government
(b) Interest on the part of fishermen in participating,
(c) Cohesion and support from fishermen's organisations,
(d) Credit support and extension services, and
(e) Availability of appropriate fisheries infrastructure.

Private sector insurance works well with large commercial fisheries companies and aquaculture producers of high value species. However, such schemes do not provide for the needs of many of

the small- and even medium-scale fishermen and fish-farmers. Coverage of a wider range of prospective customers almost always requires some degree of financial support from government.

- **Criteria for Determining Insurance Coverage**

Fisheries insurance does not have to cover all elements of fishing or fish-production. During the initial years of operation, an insurance programme may limit coverage to those areas most critical to the success or failure of the types of enterprises participating. Coverage can later be expanded gradually to cover other areas as the agency implementing the programme acquires the skills and the experience needed to expand coverage to items of lesser importance to these enterprises or to areas which will encourage participation by enterprises not initially targeted by the programme. The choice of particular insurance items to cover varies from one locality to the next even within the same country. In general terms, the choice of items for coverage should be guided by certain criteria, the most important of which are the following:

(i) Coverage of an item should contribute to improving food security or nutrition.
(ii) It should contribute to the overall viability of fisheries or aquaculture production and enhance national economic and social stability.
(iii) Programme design should be such that it does not preclude or discourage participation by a wide range of small-scale fishermen and fish-farmers.
(iv) Actuarial data on losses and casualties covering a sufficient period of years should be available to allow accurate establishment of appropriate rates for premiums.
(v) Availability of the infrastructure necessary to keep damages and losses in production, marketing and credit to a minimum.
(vi) A high percentage of fishermen and fish-farmers should have access to and be using credit.
(vii) The losses resulting from items to be covered should have a significant impact on the income of fishermen and fish-farmers.

5. DESIGN OF FISHERIES AND AQUACULTURE INSURANCE SCHEMES

- **Premium Standards**

Premiums should be based on sound actuarial calculations, using available records on incomes, damages and losses on insured fishermen and fish-farmers. Premiums should be set at high enough levels to cover average indemnities, administration costs and, where appropriate, a contribution towards building up financial reserves.

In order to be actuarially sound, a fishery insurance programme should be based on a large volume of comparable statistical data regarding incomes of potential policyholders, and losses and damages experienced in the past. This is required for the calculation of premium rates and indemnities to be paid. Ideally, such data should cover an extended period of time, showing fisheries and aquaculture yields and their variation from season to season and year to year. Data on damage and losses should be classified according to the sources of the losses and damages, discriminating between the various sources, such as those attributable to fishermen's neglect on handling gear, fish-farmers' poor management of fish ponds, lack of proper fish handling, etc. Moreover, such data need to be further broken down by types of fishing and aquaculture.

In many developing countries, inaccuracy, incomplete coverage or complete lack of such statistical data is a serious problem. In some cases it may be necessary to delay implementation of fishery insurance programmes until a reasonable volume of accurate data has been accumulated. Even where the data is available, they need to be analysed for insurance purposes. Many countries do have some sets of data which, though not entirely satisfactory, can be useful in developing estimates of sufficient accuracy for the initial planning of a pilot programme, with adjustments made during the course of initial operations based on more accurate and more complete data.

- **Pilot Project Operation**

There probably is no single best way to conduct an experiment of this type and no standard timeframe for a pilot insurance programme. The best course is often to run the experimental programme long enough to permit the drawing of meaningful conclusions and to observe client reactions to its operations. The effects may emerge gradually, whether they are positive or negative. The pilot project should be confined initially to a single item; whichever one is most important to fishermen's income and national interests. This and other items selected for coverage should be those for which there are reasonably good records for past production and losses, and which are relatively simple to insure. It is also wise to conduct the pilot project in a limited geographical area, where the conditions under which fishermen operate are as nearly homogeneous as possible. Experience gained from pilot operations would provide highly relevant and reliable data on which to expand the service the programme provides and to assist in the design of larger-scale operations to cover other areas of the country or to serve other types of customers.

- **Awareness Building**

Fisheries insurance, like other forms of insurance, is oriented towards the future. In most cases it provides no immediate and tangible benefits unless and until, at some time in the future, a covered loss occurs. For that reason, it is often difficult for fishermen and fish-farmers to appreciate the value of a fishery insurance programme. They have difficulty in understanding the promise of possible benefits at some uncertain future time in exchange for immediate outlays of money and effort in the form of premiums and adherence to a variety of conditions of coverage, some of which, such as carrying safety equipment on-board, may require further expenditure. It is likely, therefore, that considerable time and effort will have to be devoted to educational campaigns among the fishermen to achieve their co-operation with an insurance programme. A variety of media should be used, including public meetings at local and national levels, brochures, newspapers, radio, television, and the Internet. Fishermen's organisations can be useful in generating support amongst their members and in encouraging them to participate in insurance schemes.

- **Fostering Trained Personnel**

Fisheries insurance is a technical field. Its effective operation requires a thorough understanding of the complexities of fisheries and aquaculture operations. The lack of properly trained personnel, not only at village level, but also at provincial and national levels, poses a serious problem. Different expertise is required at each level. At the top administrative level, there is a need for expertise in the over-all design of the insurance programmes, taking into account the integration of insurance components into national fisheries development plans. At a technical level, terms and conditions of coverage need to be established and actuarial aspects incorporated into programme design. At the local level, there must be extension officers or personnel who can effectively explain the insurance system to fishermen and fish-farmers and are able to make clear to an unsophisticated audience the complexities of the claims settlement function. Unfortunately, insurance matters are normally not dealt with by extension officers who have direct contacts with fishermen and fish-farmers.

However, depending on the way in which the system is organised, there may be a need at intermediate levels (e.g. financial institutions or federations of local fishermen's co-operatives) for them to assist with such activities as premium collection, data gathering, loss prevention, etc. Suggested actions in this respect include a study tour for extension workers to a country with experience in insurance or the organisation of a workshop to learn insurance principles and methods. Also, their involvement in a survey of fishermen's needs, the collection of the necessary basic data and the formulation of a pilot project would help insurance personnel to improve their knowledge and understanding of fishing and fish-farming as discussed in section G (Suggested Actions).

6. ADMINISTRATIVE ARRANGEMENTS

- Organisational Aspects

In the management of insurance programmes, there are variations in operational procedures. The efficiency of fisheries insurance depends to a large extent on the capability of insurance agents and on how efficiently they serve the needs of policyholders. The settlement processes, which include assessment of damage or loss, verification of the assessment, prompt reporting of the survey results, determination of indemnities, acquisition of approval of indemnity payment from the relevant offices, etc., need to be carried out efficiently and swiftly after a claim is made. Inaccurate loss assessment may result not only in high premium rates, but also in distortion of the fishermen's perception towards the scheme, which may cause them to withdraw.

Effective management of policies calls for the establishment of a focal point at community level, which maintains contact with policyholders and ensures a smooth flow of operations. The existing fishermen's organisations can constitute such a focal point; their involvement may include premium collection, record-keeping, assisting in field surveys and assessment of loss, campaigning for insurance schemes, identification of priority insurance coverage, promotion of fishermen's participation, and identification of potential policy holders (if compulsory systems are not employed).

For example, in Japan, insurance programmes are administered through a decentralised three-tiered structural system, namely: the Fisheries Co-operative Associations (FCAs) at the village level; the Federation of Fisheries Mutual Insurance Associations at the prefecture level; and the National Federation of Fisheries Mutual Insurance Associations at the national level. The FCAs are established by the fishermen themselves as members of the association. Fishermen participate in the operations and management of insurance programmes through their voting rights in the general assembly. Similarly, the prefecture level Federations are organised and managed by the FCAs in the same prefecture and the National Federation by its prefecture federations. Under the Fisheries Disaster Compensation Act, the Ministry of Agriculture, Forestry and Fisheries provides guidance and supervision over the National Federation of Fisheries Mutual Insurance Associations especially in terms of law and policy formulation. It normally takes 2-3 months after receipt of claims before the payment of indemnities is effected.

- Moral Hazards

While moral hazard is a common problem in the implementation of insurance schemes, it can be reduced by close monitoring of the activities of policyholders, in order to ensure that proper fishing and fish-farming practices are being followed. During the Regional Conference on Fisheries Insurance held in Tokyo in 1996, it was reported that in Japan only two to three cases of moral hazard were reported during the last 30 years. Moral hazards could be reduced through the following measures:

(i) Formulation of specific procedures, which facilitate uniformity in the process of loss and damage assessment throughout the country.
(ii) Promotion of proper management in fishing and aquaculture, and educational programmes.
(iii) Establishment of a loss assessment committee at various levels, for the purpose of crosschecking.
(iv) Adoption of a sampling survey method, using existing statistical data from which results of assessment are compared, verified and adjusted, if needed (in the case of aquaculture).
(v) Strengthening of data collection, processing and storage systems to serve effectively for loss assessment. Verification of assessment results using data from the relevant agencies.

7. GUIDELINES FOR DEVELOPMENT OF INSURANCE SCHEMES FOR FISHERIES SECTOR

- Basic Concepts

The advantages and benefits to be derived from fisheries insurance will vary according to the nature and extent of the protection provided by the insurance programmes. In general, the principal benefits are described in the following. These concepts and principles were discussed and agreed upon by the FAO/APRACA/ZENGYOREN Regional Conference on Insurance and Credit for Sustainable Fisheries Development in Asia held in Tokyo in November 1996.

(i) Fisheries insurance provides fishermen and fish-farmers with protection against a variety of natural hazards beyond their control, which affect their health and personal security, their fishing and fish-farming assets, and their catches and harvests.

(ii) Fisheries insurance helps to make fishermen's incomes more secure and thus contributes to greater stability and social and economic welfare in fishing communities. It spreads losses over space and time: losses suffered by fishermen in specific localities are borne by fishermen at large over a wide geographical area, and reserves built up over the years, with fewer claims to be paid out in years when losses are large. Insurance not only protects fishermen's investments in fisheries and aquaculture, but can also maintain their incomes in periods of exceptionally poor catches or yields and low prices.

(iii) Fisheries insurance will improve the access of fishermen to institutional fisheries credit by reducing the risk of non-payment of loans, due to loss of assets or income. Access to institutional credit lessens the dependence of fishermen on middlemen and moneylenders for financing their operations and can reduce their overall outlays on finance. Fisheries insurance also improves the quality of the portfolio of banking institutions financing fisheries by reducing the risk of non-payment of loans and enhances the willingness of central banks and other regulatory institutions to permit banks to increase their lending to the fisheries and aquaculture sectors.

(iv) Fisheries insurance also increases fishermen's incentives to invest in the development of their own enterprises and can speed up their adoption of new technologies designed to enhance productivity, maintain fish stocks and improve personal security for those engaged in fishing and fish-farming.

(v) Fisheries insurance also encourages self-help and mutual aid and promotes co-operative efforts amongst fishermen.

(vi) Part of the burden on government in providing disaster relief grants and soft loans in the wake of natural calamities is taken over by compensation provided by insurance coverage.

(vii) Combined with adequate provision for storage, transport and marketing of fish, insurance programmes can be important factors in improving food security by stabilising the supply of fish and so the price of this important component of Asian diets.

- Principles

Getting fisheries insurance started generally requires considerable financial support from government, at least at the initial stages. However, since the capital required by such a programme may already be committed to other priorities for a country's economic development, the need for fisheries insurance may be overlooked. Policy makers would do well to bear in mind the principles of fisheries insurance, which facilitate the long run development of fisheries insurance schemes.

(i) Insurance protection should be initially limited only to certain types of fishing and aquaculture, with priority given to those having a reasonable chance of success. Coverage can be expanded later to other areas, as experience is gained with a successful initial programme of limited scope.

(ii) Geographical coverage should also be limited at the start to those areas, which can be most profitably served. Additional areas can be added as and when justified by successful operations over limited areas.

(iii) Eventually, insurance should be comprehensive and encompass all natural hazards, which can be covered without jeopardising programme viability. Insurance of production assets and harvests can in some cases be feasible. Accident and life insurance protection for fishermen is commonly provided by such programmes.

(iv) Insurance may be compulsory or voluntary, depending on the conditions and requirements of each country. However, compulsory insurance schemes are best where a high level of participation by small-scale fishermen and fish-farmers is desired.

(v) Protection should be limited to a maximum specified percentage (for example, 75-80% of the value for building a boat in the case of vessel insurance). The actual coverage rate should depend on the decision of each individual policyholder.

(vi) Initially at least, insurance should receive strong government financial support, which may take the form of subsidies for premiums and partial coverage of administrative costs. In order to ensure the soundness of the insurance schemes, government re-insurance will be useful to cope with natural hazards, which exceed the resources of the insurance scheme to cope with the liability for losses and damage.

(vii) Information, including early warning advisories, should be given to policy-holders concerning the state of fish stocks, sea conditions, weather forecasts, occurrence of red tides, outbreaks of fish diseases, etc.

(viii) Incentives should be given to policyholders, such as discounts on premium rates for those who have not made any claims for set periods of time.

(ix) To keep insurance operating costs to a minimum, the fullest possible use should be made of the services of existing government agencies, fishermen's organisations and NGOs.

(x) The insurer should only write coverage on insurable risks; that is, perils, which can easily be quantified, losses easily attributed and evaluated, and only for items which are not subject to moral hazard problems.

(xi) Each country will have to design its own fisheries insurance schemes based on its own specific national goals, the financial requirements of the programmes, the willingness of its fishermen to participate, the financial resources it has available, and the management capacities of its institutions.

(xii) To increase the viability of a given insurance scheme and to reduce its cost, a number of complementary programmes should be developed to stimulate increased fish production, improve marketing facilities, stabilise prices, prevent outbreaks and transmission of fish diseases, etc.

- **Suggested Actions**

The development of fisheries insurance can be initiated if certain conditions are met. These include the following:

1) All parties (policy- and decision-makers, banking institutions, insurance agencies, and fishermen and fish-farmers) must understand the benefits and obligations of the beneficiaries of fisheries insurance.
2) The legal and policy environment of the country should be favourable to the fisheries insurance.
3) The management capacity of fishermen's organisations and local entities should be sufficient to sustain such initiatives.

Where these conditions do not already exist, the following actions could be taken at government, development agency, and community level to support countrywide programmes. The suggested actions may vary, depending on national policies and the stage of development of the fishing industry and aquaculture, as well as of fisheries insurance in each country.

Government Level

(i) Recognise fisheries insurance as an integral part of fisheries and rural development policy;
(ii) Evaluate the social and economic costs and benefits of fisheries insurance programmes;

(iii) Conduct technical seminars and training courses on insurance matters, targeting fisheries managers, extension officers, middle-level technicians and administrative staff;
(iv) Carry out feasibility studies for the establishment of a pilot fisheries insurance project.

Development Agency Level

(i) Encourage and assist governments to establish the legal and institutional framework necessary for inclusion of a fisheries insurance component in national fisheries development programmes;
(ii) Advise governments, lending institutions and insurance agencies on the design and implementation of long-term strategies, improved policies and incentives for the development of fisheries insurance.
(iii) Provide technical guidance for on-going insurance programmes and assist governments in carrying out feasibility studies for preparation of pilot projects.
(iv) Organise seminars and training courses in order to build the internal capacity of insurance agencies, fisheries departments, fishermen's organisations and lending agencies on matters related to fisheries insurance.
(v) Promote the use of technical co-operation among developing countries (TCDC), whereby countries already having successful insurance programmes share their know-how to accelerate the development of fisheries insurance programmes in those countries planning to establish them.

ANNEX I:

FISHERIES AND AQUACULTURE MUTUAL INSURANCE SCHEMES IN JAPAN

A. Basic Principles and Features

1. Natural disaster relief measures

The Fisheries Disaster Compensation System has been in operation since 1964 under the terms of the Fisheries Disaster Compensation Law to ensure the stabilisation of fisheries and aquaculture operations. The objectives of the schemes are:

(i) Promotion of sustainable fishing and aquaculture
The scheme will make payments to cover production costs in the cases of poor catches (or harvest) and unforeseen natural disasters, thus indemnifying fishermen and fish-farmers against insurmountable losses and making it possible for them to continue operations into the future despite immediate losses.

(ii) Protection of production assets
The guarantee of compensation for lost income makes it possible for fishermen not to fish when conditions impose unacceptable risks, thus reducing the chance of loss of their production assets (fishing vessels and gear) and of their catch.

(iii) Finance for reinitiating a fishing business
Indemnities yet to be received can be used as collateral for borrowing money from the financing institutions. Fisheries Co-operative Associations will establish mortgage rights on insurance claims of fishermen, assuring rapid reposition of lost assets and continuity of their income from fishing.

2. Mutual relief and co-operation

Fisheries insurance is operated not only on the basis of insurance principles, but also in the spirit of promoting mutual assistance and co-operation.

3. Fisheries Co-operative Associations

The focal point at village level for the insurance programmes is the Fisheries Co-operative Associations (FCAs) while the Prefecture level Federation of Fisheries Mutual Insurance Associations (FMIAs) operates the programme. The FCAs belong to the FMIAs and make contributions to help support them. The FCAs keep in close touch with their members. The success of the insurance scheme is the direct result of this day-to-day contact between the fishermen and their FCAs.

4. Government support

The government provides the following assistance:

(i) To cope with large losses or damages, which exceed the financial resources of the FMIAs, the government provides reinsurance to limit the liability of the FMIAs. Reinsurance provided by the government is in addition to reinsurance contracted by the FMIAs with the National Federation of FMIAs. Thus, part of the FMIAs' reinsurance responsibility is reinsured by the national government under the Fisheries Reinsurance Special Account; this system has been in operation since 1967. (Government reinsurance is not applied to the fishing gear insurance scheme.)

(ii) The government subsidises premiums for policyholders whose business size is below levels determined by the law.

(iii) It provides the National Federation of FMIAs with a subsidy to cover the administrative and personnel expenses required to run the insurance programmes.
(iv) It provides a subsidy to cover two thirds of the cost of premiums for damages in aquaculture caused by red tides.
(v) It provided the capital, amounting to 2.86 billion yen (as of 1988), to the Agriculture, Forestry and Fisheries Credit Fund (AFFCF).

B. Insurance Policies and Organisation

1. Four types of insurance programmes

The Fisheries Disaster Compensation Law provides for four types of insurance policies. These types of policies are described below. All small- and medium-scale fishermen and fish-farmers, as defined in the law, are eligible to participate.

(i) Harvest insurance:

Type 1: Harvesting of seaweed, and shellfish.
Type 2: Capture fishing operated by a boat of less than 10 GRT.
Type 3: Capture fishing by a boat of more than 10 GRT and set net fishing.

(ii) Aquaculture insurance:

Nori culture
Oyster culture
Pearl culture
Mother-of-pearl culture
1-2 year old scallop culture
1-2 year old yellow tail culture
1-3 year old sea bream culture

(iii) Special aquaculture insurance:

Nori culture

(iv) Fishing gear insurance:

Set net
Purse seine

2. Fishery Mutual Insurance Associations (FMIAs)

At present 39 Fishery Mutual Insurance Associations are in operation at the prefecture level. They are responsible for insurance contracts with the help of FCAs.

3. Reinsurance

(i) When mutual relief associations have signed contracts, reinsurance coverage by the prefecture level Federation of FMIAs is automatically bound for 85% of the total value of insurance (90% in the case of fishing gear insurance).
(ii) The prefecture level reinsurance system is itself reinsured at national level by the National Federation of FMIAs. The national level system guarantees payment even if losses in a given prefecture exceed the prefecture level FMIAs' ability to pay and thus diversifies risk to a nation-wide basis.

4. Agriculture, Forestry and Fisheries Credit Fund

(i) The Fund provides the National Federation of FMIAs, as well as the prefecture level Federation of FMIAs, with emergency loans at a low interest rate when they are required to pay indemnities, which have exceeded their income and reserves from premiums.
(ii) The Credit Fund guarantees the loans of the National Federation of FMIAs and the prefecture level Federation of FMIAs when they get loans from the co-operative banks, such as the Central Bank for Agriculture, Forestry and Fisheries.

C. Harvest Insurance

The purpose of harvest insurance is to provide insurance payments, which cover lost income due to poor or non-existent catches. Situations of this kind develop when there is: (a) a reduction in fish stocks, (b) a failure of migratory species to arrive on customary fishing grounds, (c) a fall in the price of fish, (d) the inability to fish due to accidental damage to fishing boats, and (e) damage or loss to the catch occurring on the trip back into port, as a result of a situation beyond the fisherman's control. There are three categories of policies available.

1. Type of policies

Type-1 Fishery: Harvest of marine algae and sedentary invertebrates
Type-2 Fishery: Using vessels of less than 10 GRT
Type-3 Fishery: Using vessels of over 10 GRT and set nets

(i) Contracted value

The amount of income contracted for under the insurance is based on the policyholder's average annual income over the past five years. The highest and lowest annual incomes are discarded, and the remaining three are then averaged.

The following formula is used to calculate the contracted value.

Contracted value = Average annual gross income * Compensation rate: 0.7-0.9

The compensation rates vary, depending on the type of fishing: seaweed harvesting is 0.75; shellfish (abalone) is 0.80; bottom trawling 0.90; purse seining 0.85; large-scale bottom trawling 0.90; tuna/skipjack fishing 0.90; and set net fishery 0.75.

(ii) Premium standards

The amount of the premium to be paid is calculated by the following formula.

Premium = Contracted value * Coverage rate * Premium rate

(iii) Value of insurance to be covered

The value of damage is calculated by subtracting the policyholder's actual harvest income during the insured period from the Contracted Value established under the policy. The insurance amount paid to the policyholder is calculated by the following formula.

Payment (to policy holder) = Contract rate * Value of damage * Compensation rate

For example, a fishing vessel worth 1 million yen can be insured for upto 80% (i.e. for a maximum of 800,000 yen); however, up to that limit, each client can decide the percentage he wants to insure (for example 65% would be 650,000 yen). In the case of Type 1 and Type 2 fisheries, the minimum rate is 40%.

(iv) Contract procedures

The contract procedures differ according to the type of policy.

Type-1 Fishery

Fishermen's Co-operative Association (FCA) takes out the insurance policy on behalf of its member fishermen. Member fishermen then agree among themselves and make their own rules for sharing the cost of premiums and the indemnities received in settlement of claims.

Type 2 Fishery and Type 3 Fishery

Three contract procedures are available for these types of policy.

- Individual contract: For type 2 Fishery policies, at least 1/2 of the individual fishermen in a region must contract for the insurance.
- FCA contract: If 2/3 of the members of a FCA may enter into a contract; in this case, the policy is treated the same as a Type 1 Fishery policy. Internal rules are agreed, as in the case of Type 1 Fishery Insurance.
- Group contract: A group of fishermen form a special group for the purpose of establishing an insurance policy. If 1/2 of the members of a FCA enter into contract, the policy is treated the same as a Type 1 Fishery policy. Rules for sharing premiums and payment are made in the same manner.

D. Aquaculture Insurance

There are seven categories of policies available; Nori culture, oyster culture, pearl culture, mother-of-pearl culture, scallop culture, cage net culture for young yellow tail, and cage culture for sea bream.

(i) Contracted value

The contracted value is calculated by the following formula:

Total contracted value = Per unit contracted value * Number of damaged units.

The amount contracted for under the insurance is based on the value of the policyholder's aquaculture equipment and product. The Contracted Value is calculated by adding up the individual values of the policyholder's equipment or product. In the case of equipment, the size, materials and utilisation period of rafts and nets etc. are taken into consideration. In the case of product, the species as well as the age are taken into consideration.

(ii) Premium standards

The premium is calculated by the following formula.
Premium Amount = Contracted value * Contract rate * Premium rate

(iii) Value of damage

The criteria for the calculation of the value of damage to cultured species or equipment/facilities is determined as follows.

- Cultured species: the value of damage is calculated from the number and age of fish damaged, destroyed or lost during the contract period.
- Aquaculture equipment/facilities: the value of damage is calculated from the number of pieces of equipment damaged, destroyed or lost during the contract period.

Compensation payments, however, are not made when damage results from the following causes.

- war and insurgencies
- theft
- toxic pollutant or discharge
- when the policy-holder or a third party is clearly responsible for the damage or loss
- red tide in extreme cases (except when a special Red Tide Indemnity Clause is contracted for).

(iv) Insurance indemnities to be paid

For cultured products, the amount of payment is calculated from the following formula.

Contracted amount per unit of species cultured * Number of unit damaged * Elapsed time rate * Survival rate * 80% * Contract rate

The Elapsed Time Rate is based on the assumption that the amount of production cost lost will depend on how long the products have been under cultivation. The end of the insurance contract period is defined as 100%, and the Elapsed Time Rate is then calculated by applying a fixed schedule to the time when the actual loss or damage occurred. The Survival Rate is based on the number of lost or damaged products, which can be assumed to have been lost or damaged through natural mortality by the end of the contract period.

In the case of aquaculture equipment/facilities the amount of payment is calculated as follows.

Payment = Contracted amount per unit of equipment * Number of units damaged * Contract rate

(v) Contract procedures

Aquaculture producers contract for individual policies, but all such producers engaged in the production of a particular species in a particular region must contract before a programme can be established.

(vi) Transfer policy

In the case of inheritance from father to son, the policy is usually automatically continued. Whenever ownership of aquaculture equipment or products is transferred, however, permission of the Fishery Mutual Insurance Association is required to transfer insurance coverage.

E. Fishing Gear Insurance

Compensation will be made for the loss of or damage to fishing gear while it is operated. This means that the insurance policy does not cover the loss of or damage to gear when it has occurred during transport or during travel to and from fishing grounds.

(i) Insurable object

There are three categories of policies available. Only the net can be insured; accessories such as floats, sinkers, ropes, etc. cannot be insured.

- Set net, composed of leader nets and main nets; indemnities will be paid only when more than 30% of the entire netting is damaged or lost to currents;
- Purse seine; compensation will be made when more than 30% of the netting is damaged or lost.
- Salmon drift-net fishery with mother ship (diminishing, now rare).

(ii) Contracted value

The following formula is used to calculate the contracted value.

Contracted value = Value of object * Compensation rate

The FMIA determines the value of the object taking into account the type of material, the size of netting, the duration of use, depreciation, as well as the current market value of the same material. The maximum contracted value must be less than 10 million yen.

(iii) Premium standards

Premium is calculated by the following formula.

Premium = Contracted value * Coverage rate * Premium rate

(iv) Government support for fisheries insurance

The following kinds of Government support are provided in Japan:

(a) Government provides reinsurance or back-up insurance for harvest and aquaculture (except gear insurance) where the amount of damages exceeds the payment capabilities of the Fishery Mutual Insurance Scheme.
(b) Government grants subsidies for premiums for medium- and small-scale fishermen and fish farmers below a determined scale of operations.
(c) Government provides subsidies to the National Federation of Fisheries Insurance Associations involved in administering the Fishery Mutual Insurance Scheme for administrative and personnel costs.
(d) Government grants subsidies (2/3 of the premium) to the damages caused by red tides.
(e) Government provided the initial capital of 2.86 billion yen for establishing Agriculture and Fisheries Guarantee Fund.

The following table shows the rate of financial support by the government.

Type of gear	Subsidy limit	Subsidy Rate	
		Compulsory	Group
Purse seiner			
less than 10 GRT	60%	1/2	1/4
10-20 GRT	60%	1/2	1/4
20-50 GRT	50%	1/3	1/6
50-100 GRT	47%	1/4	1/8
Set net			
small size	60%	1/2	1/4
large size	50%	1/3	1/6

F. Organisation and Functions of Insurance Agencies

The functions of organisations involved in fisheries insurance are described below.

A Fishery Mutual Insurance Association (FMIA) is formed in each prefecture and is comprised of the local FCAs. In some cases, the risks are too large to be borne by a single FMIA, and so the National Federation of Fishery Mutual Insurance Associations was formed as an apex body to reinsure some of the risks assumed by member FMIAs. The government also provides back-up insurance for some of the policies held by the National Federation, in the case of large-scale disasters, which exceed the payment capabilities of the insurer. The Agriculture, Forestry and

Fisheries Credit Fund (AFFCF) provides low interest loans to both the National Federation and the individual FMIAs.

Functions of Fishermen's Co-operative Associations (FCAs)

The local FCA has important roles and functions in the Fishery Mutual Insurance Scheme.

(i) Consultation and guidance

The Fishermen's Co-operative Association Law, which is the basis upon which the FCAs are set up, specially provides for fishery mutual insurance as one of the activities in which a FCA is permitted to engage in under its charter. The local FCA provides guidance to its members to help them sign up for fishery mutual insurance policies.

(ii) Legal representative

For some policies the FCA itself signs the contract on behalf of its member fishermen. This system allows the FCA to take the initiative in safeguarding the interests of member fishermen.

(iii) Administrative contractor

The FMIAs contract out part of their administrative work to the local FCAs. This system helps the FMIAs to keep administrative costs to a minimum and allows these organisations to handle a greater number of insurance policies. Among the jobs contracted out with the local FCAs are the calculation of contracted amount, procedural matters (such as notice of damage) and the function of gathering the information needed determining premiums and payments. The FCAs collect data on income from fisheries and aquaculture. Since, in most cases, the fishermen market their catch through their local FCA, the FCA thus keeps all data on catches and income for each of its members. These data are essential in determining a contract holder's average annual income, which is the basis for determining the value of the insurance contract, as well as claim payments in case of damage or loss. By working through the FCAs, the FMIAs are able to establish contract and claim values with maximum accuracy and efficiency. Thus the FCAs are indispensable to the smooth functioning of the insurance provided by Fishery Mutual Insurance Associations.

G. Role of Government

The Fishery Mutual Insurance Programme is essentially a mutual assistance programme operated by the fishermen themselves through the offices of the FCAs and FMIAs. The government, however, treats the Fishery Mutual Insurance Programme as an important element of the national fishery disaster countermeasure policies, and as such provides the following support.

Premium subsidies

The government provides part of the premium as subsidies for fishermen below a pre-determined scale of operations.

Back-up insurance

In extreme cases, where the amount of damages exceeds the payment capabilities of the Fishery Mutual Insurance Scheme, the government provides back-up insurance (except for gear insurance). When the claim payment required of an FMIA exceeds a set figure, the government covers 93% of the amount over the set figure.

Administrative subsidies

Partial government subsidies for administrative and personnel costs are provided to organisations involved in administering the Fishery Mutual Insurance Programme.

Red tide premium subsidies

The government subsidises two thirds of the premiums on special red tide coverage for aquaculture insurance.

Contribution of part of the share capital to AFFCF.

For further details, refer to Annex III.

ANNEX II:

FISHING VESSEL INSURANCE

1. Objectives

Fishing vessel insurance, a part of Japan's national fisheries disaster countermeasure programme is designed to provide an element of stability in the management of fishery operations. Coverage is provided for losses in the event of accidents, as well as unforeseen costs and liabilities incurred in the operation of a fishing vessel. Policies also cover unforeseen loss or damage to products being carried by a fishing vessel.

2. Contracting Procedures

There are three classes of vessel insurance based on the procedure for contracting.

(i) Individual contracts: Individual vessel contracts signed voluntarily;
(ii) Compulsory contracts: All fishing vessels under 100 gross tons registered or operated in each area defined by the governor of the prefecture (these areas usually coincide with the jurisdiction of the FCA) are required to have Basic Vessel Insurance coverage, as well as Owner-operator and Cargo Insurance policies. Currently 98.6% of all vessels insured under the programme fall into this category.
(iii) Group contracts: If more than half the fishing vessels of less than 20 gross tons within a defined area (with a minimum number of 15 vessels) take out a policy for Basic Vessel Insurance as a group, the Federal Government provides premium subsidies equal to half the value of the subsidies obtained under a compulsory contract.

3. Types of Policies

A variety of types of fishing vessel insurance policy are available.

(i) Basic Fishing Vessel Insurance: provides coverage for a fixed percentage against the full loss of or partial damage to the vessel resulting from collision, sinking and other unforeseen accidents. The contract period is one year.
(ii) Owner-operator Insurance: pays a fixed percentage against unforeseen costs and liabilities incurred by vessel owner-operators as a result of the operation of a fishing vessel. Policies are available to cover collision, general damage and also injuries incurred by crewmembers. Collision policies provide a fixed percentage for liability for damage caused to other vessels through collision, including both direct liabilities such as damage to the hull or cargo, and indirect liabilities for loss of income due to lost fishing time. General Damage Policies provide rated value payments against damages caused to the person or goods of a third party. Crew Policies cover damages incurred by crewmembers working on the vessels or sports fishermen on a charter vessel. The contract period for these policies is one year.
(iii) Cargo Insurance: pays a rated value against loss, damage or loss of catch once on board or other cargo items, such as fuel, provisions, bait, etc., due to accidents involving the vessel or equipment failures, including the loss of refrigeration for freezers and other losses involving onboard storage facilities. The term of the policy is one year.

4. Contracted Value

(i) Basic Fishing Vessel Insurance: The full amount required for the construction of the vessel cannot be insured. Normally 80% of the replacement value for construction of a similar vessel is the maximum amount for which insurance policies can be written: this maximum amount is termed the "insurance value." The contracted value is the amount for which an insurance policy is written and cannot exceed the insurance value. The coverage rate is the contracted amount expressed as a percentage of the insurance value.

(ii) Cargo insurance: the contracted value is the contracted unit price of the product covered times the maximum cargo capacity. The formula for the contracted value is:

= (Contracted unit price of the catch or harvest) * (maximum load)

Alternatively, for fuel, food and other supplies, the contracted value is as follows:

= (Contracted unit price of supplies) * (maximum load) * 1/3

The maximum payment is based on the maximum load; actual payment is based on the load carried at the time when a loss occurs. However, when an accident occurs during the return trip, supplies (e.g. provisions, fuel) are not covered.

(iii) Subsidies: government subsidies on premiums are as follows.

	Basic insurance	owner operator insurance		cargo insurance
		Collision	general damage	
non-powered	39%	39%	35%	20%
less than 5t	39%	36%	35%	20%
5-20t	33%	33%	30%	20%
20-50t	23%	23%	20%	15%
50-75t	19%	19%	15%	10%
75-100t	17%	17%	15%	10%

5. Premium Rates

The basic premium rates vary depending on the type of fishing and its displacement measured in GRT. Depending on the age of the vessel, a surcharge is imposed or a discount is given according to formulas given below. Basically, lower rates are charged for newer vessels and higher rates for older vessels.

	Surcharges		**Discounts**	
	Age (years)	Rate (%)	Age (years)	Rate (%)
Wooden boat	7-9	10	0-1	15
	10-12	12	1-2	5
	13-15	15	2-3	4
	16-20	20	3-4	3
Steel boat	10-16	10	0-1	15
	17-23	12	1-3	5
	24-30	15	3-5	4
	30 and above	20	5-7	3

Accident-free discounts are available for vessels of over 5 GRT for their **Basic Fishing Vessel Insurance** coverage, based on the number of years with no claim having been filed.

Number of accident free years	1	2	3	4	5
Discount rate (%)	10	15	20	25	30

In the case of **Cargo Insurance**, the following discount rate is applied.

(i) Accident-free discount

Number of accident free years	1	2	3	4	5
Discount rate (%)	10	15	20	25	30

(ii) Discount for new vessels

Years since construction	0-1	1-3	3-5	5-7
Discount rate (%)	15	5	4	3

6. Structure and Organisation

The fishing Vessel Insurance Programme is organised on a multi-tiered basis, with fishermen's associations and government support. The roles of the four main levels are described below.

Fishermen's Co-operative Associations (FCAs)

The FCAs collect premiums from member fishermen for compulsory insurance policies. A pre-determined percentage of the premium is retained by the FCAs to cover their administrative costs.

Fishing Vessel Insurance Associations (FVIAs)

These associations are the primary contractors for the fishing vessel insurance policies. There are 51 FVIAs, including 47-prefecture level Associations (one for each prefecture) and four specific Fishery Associations (for vessels over 20 gross tons). As of the end of December 1994, these associations employed 525 persons.

The Central Society of Fishing Vessel Insurance Associations

This Central Society, which includes all the FVIAs as members, provides guidance and assistance to the FVIAs and their member fishermen, and also reinsures part of the Vessel Owner-Operator policies held by the FVIAs. The society employed 54 persons at the end of December 1995.

Central Government

The central government has a mandate to perform the following functions for the Fishing Vessel Insurance Programme.

(i) Reinsures and provides back-up insurance for vessel and cargo policies held by the FVIAs, as well as the owner-operator policies reinsured by the Central Society.
(ii) Subsidises part of the cost of premiums for compulsory and group policies.
(iii) Covers part of the operating and administrative costs of the FVIAs and part of the premiums returned to the FCAs, and also pays part of the cost of programmes designed to prevent maritime accidents involving fishing vessels.
(iv) Supervises and audits the financial operations and management of the FVIAs.

7. Eligibility

Eligibility includes fishing vessels covered by the Fishing Vessel Law, and tender vessels owned by Fishermen's Co-operative Associations engaged in the transport of products, fuel, supplies, bait, etc. Only vessels of Japanese registry under 1,000 GRT are eligible for coverage.

8. Government Subsidies

The government subsidises premiums for fishing vessels of less than 100 GRT where coverage is compulsory. The subsidy rate differs according to the size of the vessel, measured in GRT. Rates for the various sizes are given below.

Vessels (GRT)	Basic Fishing Vessel Insurance	Cargo Insurance
Less than 5	39	20
5-20	33	20
21-50	23	15
51-75	19	10
76-100	17	10

ANNEX III:

FISHERIES CREDIT GUARANTEE FUND ASSOCIATION

The Small and Medium-scale Fisheries Credit Guarantee and Insurance Systems (FCGIS) was established in 1952, by means of the enactment of the Small and Medium-scale Fisheries Credit Guarantee Law and the Small and Medium-scale Fisheries Credit Insurance Special Account Law.

1. Mechanism of the Systems

The Small and Medium-scale Fisheries Credit Guarantee and Insurance Systems have three operational sub-systems. The first is the Credit Guarantee System, which provides fishermen with supplemental loan guarantees. The second is the Credit Insurance System, which insures loan repayment through the Japan Agriculture, Forestry and Fisheries Credit Fund (JAFIC). The third is the Loan Insurance System, which provides the Central Bank for Agriculture, Forestry and Fisheries with direct loan insurance by JAFIC for its loans to fishermen. This chapter describes the operation of the credit insurance business undertaken by the Fisheries Credit Guarantee Insurance System. Credit guarantees extended by FCGIS are insured by JAFIC.

(i) Insurance contract

Each Fisheries Credit Guarantee Fisheries Association (FCGFA) signs a contract for comprehensive insurance coverage with JAFIC. This contract establishes the annual value of the coverage purchased.

(ii) Insurance coverage

Each loan guarantee of more than 3 million-yen is insured automatically. Whether or not to insure loan guarantees of less than 3 million yen is left to the discretion of each FCHFA Only 2.4% of total accepted guarantees was 2.4% in 1995 were for loans of less than 3 million yen. Clearly, there is a tendency not to insure the smaller loans; in fact, slightly less than half (49%) of the credit guarantees of less than 3 million yen were insured in 1995.

(iii) Premiums

FCGFAs pay a premium to JAFIC for coverage. The premium rate is designed to generate enough income from premiums and recovered insurance payments to cover system payouts for settlement of insurance claims; the rates are set by Government Order. The current premium rates are shown in the following table. The guarantee fees of each FCGFA are in addition to the premiums listed below.

Insurance premium rates (%)	LT 3 years	3-5	5-10	10-15	Over 15 year
Fisheries modernisation loan	0.35	0.28	0.26	0.25	0.24
Environmental pollution prevention loans and natural disaster relief loans	0.60	0.36	0.34	0.32	0.31
General emergency loan	0.85	0.70	0.68	0.66	0.64
Fisheries enterprise management improvement and promotion loan	0.35	-	-	-	-

(iv) Insurance payment

Once the assignment (subrogation) is made, JAFIC pays settlements to FCGFAs upon their request. insurance payments cover 70% or 80% of the assigned payment, depending on the type of loan. The remaining 30 or 20% is paid out of the FCGFA's own funds. Because they are responsible for part of all payments, FCGFAs have an incentive to conduct their guarantee business in a responsible

fashion. This business includes the investigation and acceptance of credit guarantees, managing liabilities during the guaranteed period and recovery of assigned payments. (Subrogation means that the FCGFA pays up to the amount of its guarantee when a borrower fails to make a payment as agreed and then becomes owner of the debt, which it tries to recover.)

(v) Recovery

Whenever an FCGFA recovers its subjugated payment, 70 or 80% of the recovered money is refunded to JAFIC. The remaining 30 or 20% is used by the FCGFA to offset its part of the subjugated payment that has been made to the lending institution.

ANNEX IV:

LIST OF PARTICIPANTS AND OBSERVERS AT THE REGIONAL CONFERENCE ON INSURANCE AND CREDIT FOR SUSTAINABLE FISHERIES DEVELOPMENT IN ASIA, TOKYO, NIHON UNIVERSITY, 11-15 NOVEMBER 1996

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2. Mr. Jaime Claros Salazar
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   Secretaría Nacional de Agricultura y Ganadería
   Centro de Investigación y Desarrollo Piscícola del Altiplano

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3. Mr. Gabriel Calzavara de Araujo
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   Development Company of Paraiba

India

4. Mr. V. Jalma Rao
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   National Bank for Agricultural and rural Development (NABARD)

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17. Mrs. Norlela Bte Moch Noor
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ANNEX V:

PROGRAMME OF REGIONAL CONFERENCE ON INSURANCE AND CREDIT FOR SUSTAINABLE FISHERIES DEVELOPMENT IN ASIA, TOKYO, NIHON UNIVERSITY, 11-15 NOVEMBER 1996

Monday, 11 November

REGISTRATION AND OPENING CEREMONIES

08.30 – 09.30	Registration of participants
09.30 – 10.00	Opening ceremony
	Welcome address by Mr. Noboru Azami Director Zengyoren (National Federation of Fisheries Cooperative Associations) Tokyo
	Inaugural address by Mr. Masahiro Ishikawa Deputy Director General Fisheries Agency Ministry of Agriculture, Forestry and Fisheries (MAFF) Tokyo
	Welcome address by Dr. Masamichi Hotta Senior Fishery Planning Officer Fishery Policy and Planning Division Fisheries Department Food and Agriculture Organization of the United Nations Rome
	Mr. Zulkifli Mohd. Noor Secretary General APRACA Kuala Lumpur
10.00 - 10.15	Group Photo
10.15 - 10.45	Coffee Break
10.45 - 11.00	Introduction to Conference and Organizational Arrangements by Mr. Masaaki Sato General Manager Cooperative Management Institutionalization Department Zengyoren (National Federation of Fisheries Cooperative Associations) Tokyo
11.00 - 12.30	Session I - Country Status Report on Fisheries Insurance and Credit for sustainable Fisheries Development in Asia

12.30 - 14.00	Lunch
14.00 - 15.30	Session I - continued -
15.30 - 16.00	Coffee Break
16.00 - 17.45	Session I - continued
18.00 - 20.00	Welcome Party at the Restaurant on "B 1" floor of Nihon University

Tuesday, 12 November

09.00 - 12.30	Session II - Fisheries Insurance and Credit Practices in Japan
09.00 - 09.30	Role of Fisheries Cooperatives in Insurance and Credit for Sustainable Development of Fisheries by Mr. Mutsuho Sawamura Chief General Manager Cooperative Management Institutionalization Department Zengyoren (National Federation of Fisheries Cooperative Associations) Tokyo
09.30 - 10.00	Coffee Break
10.00 - 11.30	Fisheries Insurance System (Catch, Aquaculture and Gear) - An Outline of the Japanese Fishery Mutual Insurance Programme - by Mr. Takehiko Nakamura General Manager Planning Department Gyosairen (National Federation of Fishery Mutual Insurance Cooperative Associations) Tokyo
11.30 - 12.30	Accident Insurance System in Fishery Sector - An Outline of the Japanese Fishery Cooperative Insurance in Japan - by Mr. Shinji Nagata Manager Planning Division Planning and Researches Department Kyosuiren (National Mutual Insurance Federation of Fishery Cooperatives) Tokyo
12.30 - 14.00	Lunch
14.00 - 15.00	Session II - continued -

14.00 - 15.00 Fishing Vessel Insurance System
- An Outline of the Fishing Vessel Insurance Programme -
by Mr. Minoru Matsuda
Manager
Planning Division
General Affairs Department
Gyosen Hoken Chuokai
(Central Society of Fishing Vessel Insurance Associations)
Tokyo

15.00 - 15.30 Coffee Break

15.30 - 17.30 Session II - continued -

15.20 - 17.00 Institutional Financial Support to Fisheries
- Overview of Institutional Finance for Fisheries in Japan -
by Mr. Kunio Takahashi
Assistant General Manager
Fishery Division
Co-op. Finance Head Office II
The Norinchukin Bank
(The Central Co-operative Bank of Japan for Agriculture, Forestry and Fisheries)
Tokyo

Wednesday, 13 November

09.00 - 10.00 Session II - continued

09.00 - 10.00 Credit Guarantee System
- The Small and Medium Scale Fisheries Credit Guarantee and Insurance Systems in Japan - by Mr. Katsuma Hanafusa
Director
Planning Division
Fisheries Department
Norin Gyogyo Sin-yo Kikin
(Japan Agriculture, Forestry and Fisheries Credit Fund)
Itopia Yushima Bld.
Tokyo

10.00 - 10.30 Coffee Break

10.30 - 11.30 Session III - Fisheries Insurance and Credit in Developed Countries

10.30 - 11.30 Insurance Schemes for the Norwegian Fishing Fleet
by Mr. Jan-Erik Sverre
Assistant Vice-President
Vesta Insurance
Bergen, Norway

11.30 - 12.30	FAO's Involvement in Credit and the Emerging Importance in Risk Management and Insurance by Dr. Uwe Tietze Fishery Industry Officer Fishery Industries Division Fisheries Department Food and Agriculture Organization of the United Nations Rome
12.30 - 13.30	Lunch
13.30 - 15.00	Session IV - Concluding Session
15.00 - 15.30	Coffee Break
15.30 - 16.00	Closing Ceremony
	Clossing Address by - Mr. Noboru Azami Director Zengyoren (National Federation of Fisheries Cooperative Associations) Tokyo - Mr. Zulkifli Mohd. Noor Secretary General APRACA Kuala Lumpur - Dr. Masamichi Hotta Senior Fishery Planning Officer Fishery Policy and Planning Division Fisheries Department Food and Agriculture Organization of the United Nations Rome

Thursday, 14 November

08.00	Leave Hotel for Study Visit to Shizuoka Prefecture by chartered bus
11.00	Arrive at Shizuoka Central Bldg. Shizuoka city
11.00 - 12.30	Introduction of Shizuoka Prefecture, its fisheries and fisheries insurance Venue: Meeting Room, 5 th floor, Shizuoka Central Bldg. Shizuoka City Attendance: Representatives from the following office and organizations - Fisheries Division of Shizuoka Prefectural Government - Shizuoka Prefectural Federation of FCAs - Shizuoka Prefectural Credit Federation of FCAs - Shizuoka Prefectural Fishery Mutual Insurance Cooperative Association - Shizuoka Prefectural Fishing Vessel Insurance Association
12.30 - 14.00	Lunch

15.00 - 16.30	Visit Shizuoka Fisheries Cooperative Association (a village level FCA) Explanation will be made on the following: - Major activities of Shizuoka FCA - Functions of FCA on fisheries insurance

Friday, 15 November

05.45	Leave Hotel for Fish Market
06.00 - 07.00	Arrive at Numazu Fish Market Co. Ltd. Observation of fish landing and marketing by auction
07.30 - 08.00	Observation of nearby aquaculture facilities
08.30	Arrive back to Hotel
09.30	Leave for Tokyo
12.00	Arrive back to Hotel to Tokyo

ANNEX VI:

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