

PART 2

Proceedings and recommendations of regional workshops on credit and microfinance needs for sustainable use of inland fishery resources and poverty alleviation

1. Regional Workshop on Microfinance and Credit Programmes in Support of Responsible Inland Capture Fisheries Practices for Sustainable Use of Inland Fishery Resources

26-30 APRIL 2004, KUALA LUMPUR, MALAYSIA

1.1 PURPOSE

The *Regional Workshop on Microfinance and Credit Programmes in Support of Responsible Inland Capture Fisheries Practices* (the Kuala Lumpur Workshop) was the first of two workshops organized by FAO in 2004 and 2006 in partnership with the APRACA, the Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia Pacific Region (INFOFISH), the Fisheries Development Authority of Malaysia (LKIM), the Department of Fisheries of Malaysia, the Agricultural Development Bank of Malaysia, the China Society of Fisheries, the East China Sea Fisheries Research Institute and the Chinese Academy of Fishery Sciences. The purpose of this first workshop was to bring together representatives of national fisheries administrations and financial institutions as well as representatives of regional organizations concerned with the development, management and financing of fisheries in Asia, with the aim of exploring the scope for increasing technical and financial support to responsible inland capture fisheries development and conservation in Asia. The workshop was the first of its kind with an exclusive regional focus on inland capture fisheries development and finance. It contributed to three bi-annual outputs of the FAO Fisheries Department: RA232A1 – Promotion of responsible inland fisheries and aquaculture; RA232A2 – Increased contribution of aquaculture and inland fisheries to food security; and RA233A2 – Sustainable development of small-scale fisheries.

1.2 WORKSHOP PARTICIPATION AND PROGRAMME

The Kuala Lumpur workshop was jointly organized by FAO, INFOFISH and APRACA, and co-hosted by the Department of Fisheries and LKIM and the Agricultural Development Bank of Malaysia. Thirty-one participants attended from fisheries administrations and financial institutions from China, India, Malaysia, Thailand, Cambodia, Myanmar, Indonesia, Viet Nam and from the Southeast Asian Fisheries Development Center (SEAFDEC). The countries represented at the workshop accounted for almost half of the world's capture fisheries production from inland waters in 2001. (The list of workshop participants is shown in Annex 1.)

The programme of the workshop (shown in Annex 2) consisted of four parts. The first part consisted of key technical presentations that provided background information and country presentations by representatives of fisheries administrations and research institutions. The key technical presentations included a presentation by the Secretary-General of APRACA on his organization's experience with microfinance

programmes in agriculture and fisheries, and a presentation by the General Manager in charge of fisheries and aquaculture finance at the National Bank for Agriculture and Rural Development (NABARD) of India on experiences with fisheries credit management in Asia and Africa and on lessons to be learned for inland fisheries.

Key technical presentations by FAO officers participating in the workshop elaborated on FAO's strategies for the promotion of responsible fishing practices, the role of microfinance and credit for inland fisheries development, and the rehabilitation and conservation of the aquatic environment, as well as on institutional and policy constraints to domestic fish marketing. A representative of INFOFISH provided an overview of the latest trends in fish processing and trade in Asia with special emphasis on inland water fish products.

The country presentations of fisheries administrators and researchers from Malaysia, Indonesia, Myanmar, Cambodia, India, Thailand and Viet Nam focused on the constraints to and opportunities for credit and microfinance support to responsible inland capture fisheries.

The second part of the workshop consisted of country presentations of representatives of financial institutions from Malaysia, Indonesia, Myanmar, Cambodia, India, Thailand and Viet Nam, who gave their views on the constraints to and opportunities for credit and microfinance support to responsible inland capture fisheries.

A field trip to the Tasik Bera Lake in Pahang State constituted the third part of the programme. The participants heard a presentation on the management of the lake and on conservation measures, and had discussions with members of an NGO and a local government unit that manage the lake.

The fourth and final part of the programme consisted of working group and plenary sessions, where the conclusions, recommendations and follow-up proposals were formulated, discussed and adopted.

1.3 WORKSHOP PROCEEDINGS

The opening ceremony of the workshop was addressed by Dr S. Subasinghe, Director of INFOFISH, Dr U. Tietze, FAO, Mr Benedicto Bayaua, Secretary-General of APRACA and Mr Mohd. Nor Hassan, Deputy Director-General of the Fisheries Development Authority of Malaysia.

The presentation on FAO's strategies for the promotion of responsible fishing practices and the role of microfinance and credit provided an overview of the Organization's mandate and strategic framework on its major programme on fisheries and on the related medium-term strategic objectives. It was highlighted that the reduction of food insecurity and rural poverty, the promotion of sustainable rural livelihoods and a more equitable access to resources are major strategies within the FAO's strategic framework for 2000 to 2015. Attention was drawn to the fact that the UN General Assembly Resolution 52/194 of 18 December 1997 acknowledged the important contribution that microfinance programmes have made to poverty eradication and empowerment of the poor. The presentation continued by identifying the most important credit needs in small-scale fisheries and elaborating on appropriate credit policies and procedures for meeting these needs. In conclusion, it was pointed out that in the case of fishers, the alleviation of poverty is an important precondition for their participation in efforts to rehabilitate and conserve the aquatic environment and fishery resources, and for their participation in the implementation of the Code of Conduct for Responsible Fisheries.

The Secretary-General of APRACA provided an overview of how his organization works and how rural financial markets in Asia function, including informal financial intermediaries such as middlemen and traders. He stressed the need for financial institutions to provide innovative rural financial products and services that meet their clients' needs. This can be achieved by linking banks with groups of rural clients, and

focusing on savings and on particular groups of clients and sectors such as inland fisheries. In this connection, he invited the workshop participants to look into the design of workable financial systems for fishing communities that involve all key financial and development actors in a most efficient and effective manner. As far as fishing communities are concerned, the need for financial empowerment leading to the ownership of community-based microfinance institutions was stressed, as was the building of community assets.

The presentation on FAO's strategies for inland fisheries development and the rehabilitation and conservation of the aquatic environment concentrated on inland fisheries development and highlighted the importance of inland capture fisheries in the Asian region, where about 50 percent of the global catch from inland capture fisheries is produced by the eight countries attending the workshop. Attention was drawn to the various environmental threats that can have a negative impact on fisheries and to the need to mitigate them. Reference was made to the FAO Code of Conduct for Responsible Fisheries (CCRF) and the related Technical Guidelines, in particular, FAO Technical Guidelines for Responsible Fisheries No.6 on Inland Fisheries, emphasizing that the consideration of environmental aspects of fisheries is well-anchored in the CCRF and the Technical Guidelines. It was stressed that in addition to providing microfinancing and credit for traditional investments in the inland capture fisheries sector, for example, for the modernization or replacement of fishing craft and gear, equipment for on-board preservation and handling of fish, financing institutions and funding agencies should consider providing funds for project components designated for habitat conservation or improvement and follow or adopt policies that incorporate comprehensive and sound environmental impact assessments.

These key technical presentations were followed by country presentations of fisheries administrators and researchers from Malaysia, Indonesia, Myanmar, Cambodia, India, Thailand and Viet Nam on the constraints to and opportunities for credit and microfinance support to responsible inland capture fisheries.

The presentation of the NABARD representative on the lessons to be learned for inland fisheries finance familiarized the workshop participants with the experiences of microfinance and credit programmes of various small-scale fisheries development projects in African and Asian countries. The factors that contributed to the success of these programmes were identified, the most important of which were: appropriate planning; well-defined procedures and systems; participatory management; use of simple forms; a simple and flexible approach towards achieving objectives combined with a high degree of monitoring, control and evaluation during project implementation; involvement of professionals in all stages of the project cycle; and a high degree of staff commitment.

The presentation by INFOFISH highlighted the increasing importance of products from freshwater inland fisheries in the regional trade of fish and fish products. An overview was provided of the commercially most important products made from catfish, freshwater prawn, carp, tilapia and eel.

The presentation on institutional and policy constraints to domestic fish marketing discussed various macro-economic policies and how they affect inland fisheries: poverty reduction policies, exchange rate policies, fiscal and investment policies, monetary policies, good governance-promoting policies, legal policies and fishery sector-related marketing policies. Examples were provided of supply-side interventions and transformation interventions. Institutional constraints to the marketing of fish were highlighted, such as the lack of: services at the national level to provide up-to-date market information; institutions that allow fishery sector stakeholders to access credit services in support of their fish marketing activities; services for training fisherfolk and those involved in fish marketing, preparing business plans, and in carrying out financial and economic feasibility studies; government investment in research and development

that focuses on new processing and marketing techniques; and insurance cover for fish marketing activities. Further constraints include complicated regulations and difficult administrative procedures to obtain permits.

At the end of his presentation, the speaker suggested that more information was needed on the importance of inland fisheries for the livelihoods of the poor. Investments in fish marketing infrastructure and market information services are required to reduce losses in quality, add value and generate more benefits for the sector. Awareness should be raised among public and private sector stakeholders of international developments and processes on fisheries management and trade, and on institutional constraints in research and development. It was emphasized that provision of market information, capacity building, and access to credit and insurance will require more public and private sector investments. It was further suggested that governments should put more effort into simplifying administrative procedures and regulatory requirements for those involved in inland fisheries and marketing.

1.4 CONCLUSIONS, RECOMMENDATIONS AND FOLLOW-UP

The discussions following the country presentations and the deliberations of the working groups convened at the end of the workshop concluded that there is ample scope for increasing technical and financial support to responsible inland capture fisheries development and rehabilitation in Asia. This sector has been neglected in the past when attention was focused on offshore marine capture fisheries and aquaculture development, but is now receiving more attention by national governments and regional organizations.

Three working groups were formed on a geographical basis to formulate the conclusions and recommendations of the workshop and to identify the constraints to and opportunities for developing inland capture fisheries, rehabilitating and conserving the inland freshwater aquatic environment, and for supporting these efforts through microfinance and credit programmes. Working Group 1 consisted of participants from China and India; Working Group 2, participants from Cambodia, Myanmar and Malaysia; and Working Group 3, participants from Viet Nam, Thailand and Indonesia.

The workshop participants observed that inland fishery resources in the region are noted for their variety, biodiversity, rich ecological heritage and production potential. It was further noted that rivers and floodplains are the prime source of fish germplasm and thus crucial for the conservation of fish biodiversity. Millions of fishers and their families depend on rivers and floodplains for their livelihoods. It was also observed that the present level of fish production from inland waters was below the potential, in many cases due to low priority given to the sector by government and investors.

The main threats to sustainable inland fisheries were identified as: the reduction of survival space and modification of habitat of fish and aquatic organisms; deforestation, pollution of water bodies and the aquatic environment; overfishing and destructive fishing practices; and local conflict in the management and utilization of migratory fish stocks and water bodies. Additional main threats were the lack of capital needed for the development and rehabilitation of inland fisheries and, related to this, the lack of the awareness of financial institutions of the investment and credit needs of inland fisheries.

Other constraints to a proper and sustainable utilization of inland waters include: short-term leasing policies of open water bodies, inadequate conservation measures; inadequate and/or malfunctioning of infrastructure for fish hatching and nursing; inadequate infrastructure for post-harvest handling and marketing; inadequate data on current and potential levels of exploitation of water bodies; inadequate financial assistance, investment support and credit supply to inland fisheries; and exploitation of fishers and primary producers by traders.

The working groups also identified measures that could be taken to overcome the constraints and move towards a sustainable use and rehabilitation of inland fishery resources. These include, *inter alia*: improving habitats in rivers, floodplains and other inland waters; facilitating fish migration through retrofitting dams with fish passes and by constructing appropriate fish passage facilities when new dams are built; conserving wetlands; training and socially mobilizing fishers and their associations; upgrading skills of extension workers; and improving infrastructure with regard to hatchery and nursery units, landing centres, transportation, marketing, cold storages and ice plants. Other measures were: implementing effective microfinance programmes; creating civil society organizations such as SHGs and their federations to reduce the negative influence of traders and middlemen; increasing active participation of inland fishers in the use and management of inland fishery resources; introducing insurance facilities for fisheries assets and life insurance facilities for fishers; improving access to investment credit and working capital credit facilities; and introducing long-term leasing policies for publicly owned open water bodies to encourage investment and sustainable development inputs and efforts.

With a view to counter the threats to inland waters and fisheries and take advantage of opportunities for sustainable inland fisheries development and rehabilitation, close cooperation between stakeholders, local management authorities and government bodies and financial institutions responsible for financing agriculture and fisheries was deemed crucial. In order to advance this cooperation and to initiate pilot activities at the national level, a number of case studies were proposed by the working groups and in plenary to be carried out as follow-up to the workshop. The case studies should be conducted jointly by fisheries administrations and financial institutions in close cooperation with local stakeholders and management authorities, and should focus on a particular water body, i.e. a lake, river or reservoir, with potential and need for rehabilitation and development. The case studies should identify the action that needs to be taken for a comprehensive rehabilitation and development of the water body, as well as the role and responsibility of each actor.

In the concluding plenary session of the workshop, it was proposed to review the findings of the case studies at a second workshop and to formulate guidelines based on the recommendations of the case studies. The second regional workshop was held in Beijing, China from 14 to 17 February 2006. The proceedings and recommendations of the second regional workshop are described in Part 2 of this report and the case studies are presented in Part 3.

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ANNEX 2. PROGRAMME OF ACTIVITIES

Day and time	Session/Chair/Presenter
Day 1 – Monday, 26 April 2004	
9.00-9.45	Opening ceremony <ul style="list-style-type: none"> • Welcome address by Dr S. Subasinghe, Director, INFOFISH • Address by Dr U. Tietze, FAO • Address by Mr B. Bayaua, Secretary-General, APRACA • Opening address by Mr. Mohd. Nor Hassan, Deputy Director-General, Fisheries Development Authority of Malaysia
9.45-10.00	Refreshments
	Chair: Dr S. Subasinghe, Director, INFOFISH
10.00-10.40	<i>FAO's strategies for the promotion of responsible fishing practices and the role of microfinance and credit</i> , by Dr U. Tietze, FAO Fishery Industry Officer
10.40-11.20	<i>APRACA's experience with microfinance programmes in agriculture and fisheries</i> , by Mr. B. Bayaua, Secretary-General, APRACA
11.20-12.00	<i>Inland fisheries development and the rehabilitation and conservation of the aquatic environment</i> , by Mr. G. Marmulla, FAO Fishery Resources Officer
12.00-12.30	Group photograph
12.30-13.30	Lunch break
13.30-15.30	Opportunities for the promotion of responsible inland capture fisheries practices. Country presentations by representatives of national fisheries administrations: <ul style="list-style-type: none"> • Malaysia • Indonesia • Myanmar • Cambodia
15.30-15.45	Tea break
	Chair: Dr D.P.S. Chauhan, Deputy Commissioner, GOI
15.45-17.45	Continued: <ul style="list-style-type: none"> • China • Thailand • Viet Nam
19.00-21.00	Dinner reception by the Director of INFOFISH
Day 2 - Tuesday, 27 April 2004	
9.00-9.45	Continued: <ul style="list-style-type: none"> • India
	Chair: Dr Son Koun Thor, Chairman and President, Rural Development Bank of Cambodia
9.45-10.30	<i>Experiences of fisheries credit management of field projects in Africa and Asia – lessons to be learned for inland fisheries finance</i> , by Mr M.A. Upare, General Manager, NABARD
10.30-10.45	Tea break
10.45 - 11.15	<i>Latest trends of fish processing and trade in Asia</i> , by Mr Tarlochan Singh, INFOFISH
11.15-12.00	<i>A case study on institutional and policy constraints to domestic fish marketing in Asia</i> , by Mr R. van Anrooy, FAO Fishery Planning Analyst

12.00-13.00	Lunch break
	Chair: Mr B. Bayaua, Secretary-General, APRACA
13.00-15.30	Constraints to and opportunities for credit and microfinance support to responsible inland capture fisheries – country presentations by representatives of financial institutions <ul style="list-style-type: none"> • Malaysia • Indonesia • Myanmar • Cambodia • India
15.30-15.45	Tea break
15.45-18.00	Continued: <ul style="list-style-type: none"> • Thailand • Viet Nam
Wednesday, 28.4.2004	
7.00-18.00	Field visit to Tasik Bera Lake. Discussions with stakeholders, NGO and local government representatives
Thursday, 29.4.2004	
	Chair: Ms Hajah Mahyam Mohd Isa, SEAFDEC
9.00-10.00	Plenary session on formulation of workshop recommendations and identification of topics for country-specific case studies
9.00-10.30	Formation of working groups and selection of chairpersons and rapporteurs
10.30-10.45	Tea break
10.45-12.30	Working group sessions
12.30-14.00	Lunch break
14.00-16.00	Continuation of working groups
16.00-16.15	Tea break
16.15-18.00	Formulations of working group recommendations and reports
Day 3 – Friday, 30 April 2004	
	Chair: Mrs S. Sundari, General Manager, Bank Rakyat Indonesia
9.00-10.30	Plenary session – presentation and discussion of working group reports and recommendations
10.30-10.45	Tea break
10.45-11.45	Continuation of plenary session
11.45-12.15	Closing ceremony

2. Regional Workshop on Guidance for Credit and Microfinance Programmes in Support of Sustainable Use of Inland Fishery Resources and Poverty Alleviation

14-17 FEBRUARY 2006, BEIJING, CHINA

2.1 PURPOSE

The Regional Workshop on Guidance for Credit and Microfinance Programmes in Support of Sustainable Use of Inland Fishery Resources and Poverty Alleviation was a follow-up to the Kuala Lumpur Workshop. One of the recommendations of this earlier workshop was for fisheries administrations and financial institutions to conduct case studies in close cooperation with stakeholders and management authorities, with a focus on the action that needs to be taken for a comprehensive rehabilitation and development of particular water bodies. In addition, the previous workshop proposed the documentation of success stories and positive examples of how inland fisheries had been rehabilitated and developed in a sustainable way, in close cooperation with financial institutions, stakeholders and fisheries administrations, and the development of guidelines for improving the provision of microfinance and credit services to the inland capture fisheries.

The workshop was held at the Beijing Guangxi Plaza, Beijing and attended by 44 participants from Cambodia, India, Indonesia, Malaysia, Myanmar, Thailand, Viet Nam and China. (The list of participants is shown in Annex 1.) The objectives of the workshop were to: review the case studies and success stories; discuss the constraints to and opportunities for the development and sustainable use of inland fisheries; and formulate recommendations and guidelines for credit and microfinance programmes in support of the sustainable use of inland fishery resources and poverty alleviation.

2.2 PARTICIPATION AND WORKSHOP PROCEEDINGS

The opening ceremony was attended by the Vice-Director of the Bureau of Fisheries of the Ministry of Agriculture of China, the FAO Representative in China, the Director of the East China Sea Fisheries Research Institute, the Secretary-General and the Director of the China Society of Fisheries. Case studies were presented by participants from China, Myanmar, India and Cambodia. Several inland fisheries development success stories from China and Malaysia were also presented. Representatives of member institutions of APRACA gave presentations on their financial institutions' programmes in the fisheries sector. Two working group sessions were organized: a working group on the constraints to and opportunities for the sustainable use of inland fishery resources, and a working group to discuss draft guidelines for meeting credit and microfinance needs in inland fisheries development and conservation in Asia, which had been prepared by the organizers of the workshop. The draft guidelines were based on the case studies and success stories that had been written up following the

recommendations of the Kuala Lumpur Workshop. (The programme of the Beijing Workshop is attached as Annex 2.)

Opening of workshop

Dr Ping Zhuang of the East China Sea Fisheries Research Institute called the workshop to order and welcomed the workshop participants, both foreign and national. He then introduced the speakers at the opening ceremony. Mr Liu Zheng, Vice-Director of the Fisheries Bureau of the Ministry of Agriculture of China, warmly welcomed the workshop participants on behalf of the Fisheries Bureau of China. The speaker referred to the beginning of the Chinese New Year and the recently concluded Tet festival, and wished all participants good health. Mr Liu Zheng stressed that while increasing inland fisheries production was an important goal in China, any increase should be achieved in an environmentally sustainable manner. He noted that in recent years, great progress has been made in Chinese inland fisheries. He said that the sector plays an important role in ensuring food supplies and food security, and in increasing the income of farmers and fishers. He added that rapid industrialization, continued growth of the population, and overexploitation of water resources are limiting the development of Chinese inland fisheries. The main threats to sustainable inland fisheries are: the reduction of survival space and modification of habitats for fish and aquatic organisms; pollution of water bodies and the aquatic environment; the degeneration of fish germplasm; and local conflicts in the management and utilization of migratory fish stocks. Other main threats are the lack of capital needed for the development and rehabilitation of inland fisheries and, related to this, the lack of awareness among financial institutions of the investment and credit needs of inland fisheries.

Mr Liu Zheng informed the participants of the workshop that the Chinese Government had adopted a series of measures to ensure a sustainable development of fisheries. As early as February 1979, the State Council of China had issued regulations for the protection of the breeding of aquatic resources. Later, the Chinese Government enacted the Law of the People's Republic of China on the Prevention of Water Pollution (1984), the Law of the People's Republic of China on Fishery (1986) and its revision (2000), the Law of the People's Republic of China on Environmental Protection (1989), and Regulations of the People's Republic of China on the Protection of Wild Animals (1993). All these laws and regulations form the framework within which inland fisheries can be developed sustainably. He then referred to the Yangtze River, known as the "Mother River of China", and the efforts of the Chinese Government to protect its fishery resources. He added that the Chinese Government is concerned about the use of inland fish stocks and will make more efforts to promote environmentally friendly production for poverty alleviation. Mr Liu Zheng asked the workshop participants to join efforts to improve cooperation towards sustainable development of fisheries in the Asia-Pacific region and to jointly strive towards the global aim of responsible fisheries development. At the end of his speech, he wished all participants a pleasant stay in Beijing and a successful workshop.

Dr Nouredin Mona, FAO Representative for China, DPR Korea and Mongolia, warmly welcomed the participants on behalf of FAO. He thanked the China Society of Fisheries for hosting and supporting the workshop. Dr Mona mentioned FAO's long-term strategy and referred to the major programme on fisheries. He said that fisheries should be at the top of the global agenda. He stressed that the sustainable development of inland fisheries is very important for improving the livelihoods of fishers living in inland areas in Asia. He argued that inland fisheries need support from governments, financial institutions, international organizations and non-government organizations (NGOs) in sustainable development. He hoped that the workshop would come up with specific recommendations and assured that FAO would fully support the development of inland fisheries in China and elsewhere.

Dr Susana Siar, on behalf of the FAO Fisheries Department, welcomed the participants and thanked the collaborating institutions. She mentioned that the mission of the FAO Fisheries Department is to facilitate and secure the long-term sustainable development and utilization of the world's fishery resources, which entails: (i) meeting global and national food security; (ii) alleviating poverty and sustaining livelihoods; and (iii) contributing to national and international trade. She also stated that one of the major activities of the FAO Fisheries Department is the formulation of guidelines and extension materials for micro-enterprise and microfinance development in support of poverty alleviation in small-scale fishing communities, and the pilot-testing of these materials in close cooperation with fishing communities, fisheries development agencies and NGOs. She added that the regional workshop provides an opportunity to formulate recommendations and guidelines for credit and microfinance in support of a sustainable use of inland fishery resources and poverty alleviation that would be useful to many countries in Asia.

The last speaker in the opening ceremony was Prof. Chen Xuezhong, Director of the East China Fisheries Research Institute of the Chinese Academy of Sciences. He extended his welcome to all of the guests and his appreciation for their attendance. In view of the current status of inland aquatic resources and environment, the Chinese Government has adopted a series of strategies based on its fisheries development policy to ensure the sustainable development of the fishery industry and to protect and rehabilitate fishery resources, fisheries ecology and the aquatic environment. He mentioned that China is one of the countries with the largest freshwater areas in the world, having 6.84 million ha of rivers, 24 000 lakes and 83 000 reservoirs, which provide vast spaces for the development of inland fisheries. He noted also that Chinese inland fisheries have developed greatly since adopting policy reform and opening up to the outside world. By 2004, Chinese freshwater aquatic production was estimated at 21.34 million tonnes, which amounted to 43.5 percent of China's total fish production. Preliminary statistics for 2005 suggest that the freshwater aquatic production had increased further to 22.41 million tonnes, which is equivalent to 43.9 percent of the nation's total aquatic production. From these figures he concluded that inland fisheries have become a major component of the fishery economy and is an important source of high-quality protein resources for people living in China's inland areas. The speaker then highlighted some research achievements and illustrated how they were used in policy formulation, planning and implementation by the government. Prof. Chen Xuezhong concluded his address by expressing his hope that the workshop would contribute to a sustainable and harmonious development of the inland fisheries sector in Asia, and wished all participants a pleasant stay in Beijing.

Presentations – Day 1

The workshop proceedings commenced with a presentation on the background and objectives of the workshop by Mr Gerd Marmulla, Fishery Resources Officer of FAO Rome. The speaker referred to the existing documentation on credit and microfinance in marine fisheries and aquaculture, and the lack of information on credit and microfinance in inland fisheries. He then summarized the outcome and recommendations of the Kuala Lumpur Workshop, and its follow-up. At the end of his presentation, Mr Marmulla introduced the agenda of the Beijing Workshop, which was adopted without changes by the participants. He announced that Mr Benedicto Bayaua of APRACA had been so kind as to accept the invitation to act as Chair on the first day of the workshop.

Mr Benedicto Bayaua opened the plenary session on the presentation of country case studies and invited Dr Xie Yingliang of the East China Sea Fisheries Research Institute to present his joint paper with Dr Zhu Decheng entitled *The potential for inland fisheries development and rehabilitation, and supporting credit and microfinance*

programmes at Lake Luoma, China. (The full paper is included in Part 3.) The speaker referred to the ecology of Lake Luoma and its location, environment, precipitation, freshwater fish and shrimp species, aquatic plants, production potential and capture fisheries trends. He then highlighted the constraints to further development of inland capture fisheries in Lake Luoma such as: the low educational level of fishers, which hampers the implementation of management measures, droughts; pollution; illegal, unregulated and unreported (IUU) fishing practices; and the increase in numbers of mostly non-motorized fishing vessels and in fishing activities, which results in overfishing.

Dr Xie Yingliang continued his presentation by highlighting the rapid growth of aquaculture in the lake, which commenced in 1986, and then turned his attention to finance and credit aspects related to inland fisheries regulations and management. He analysed the problems encountered by the Agricultural Development Bank of China and by rural credit cooperatives in the provision of credit to the inland fisheries sector, and government policies on microcredit in support of rural development. The speaker explained the system of loan cards used in microcredit schemes in rural areas, the conditions to be met before a loan is approved, loan assessment methodologies, credit rating and interest rates.

He also discussed the *Action Plan for the Sustainable Development of Inland Fisheries (2004-2010)*, which includes measures such as:

- the protection of aquatic plants and benthic organisms;
- the ban of boats with snail suction machines;
- limitation of the number of sand excavation vessels;
- closure of the fishing season from 1 March to 1 June;
- establishment of year-round closed areas for fishing;
- improved enforcement of management regulations;
- introduction of fishing licences and fishing quotas;
- intensification of stock enhancement;
- moderation of aquaculture development;
- guidance of fishers on exploitation and management matters;
- training programmes for fishers;
- provision of finance and credit for sustainable fisheries and aquaculture.

Dr Xie Yingliang then elaborated on the financing of fisheries activities and fisheries research. The speaker concluded his presentation by highlighting that fees are currently collected from the lake resource users, which are used for the enhancement of the lake's fishery resources.

In the discussion that followed the presentation, questions were raised on how fishers earn their livelihoods when the fishing season is closed or some areas are closed for the whole year. The presenter responded that the protection of breeding areas was necessary and that fishers moved their operations to other parts of the lake that were open to fishing. Other questions concerned the logistics of collecting fees from resource users and using them for fishery resources enhancement. Dr Xie Yingliang explained that fishery resources enhancement fees were calculated and collected annually based on the tonnage of the fishing vessel, and in the case of fish farmers, in relation to the income obtained from fish farming. In response to other questions, the speaker explained the adopted borrowers' credit rating system and how it estimates their capacity to repay loans.

The afternoon session of the first day of the workshop commenced with a presentation by Ms Nu Nu Aye from the Myanmar Agricultural Development Bank, and Mr Khin Maung Win of the Department of Fisheries of Myanmar, on institutional credit and microfinance in Myanmar, with special reference to the livelihoods at Lake Inlay, Southern Shan State. (Their joint paper is shown in Part 3.) Ms Nu Nu Aye started her presentation with an overview of the livelihoods of the fishers of Lake

Inlay, the morphology and the state of the water resources of the lake, and biological information. She mentioned that the lake is also important as a tourist site and for aquatic weeds production. A discussion of the fisheries management at the lake followed, emphasizing that management started as early as 1918.

The presentation continued with an overview of microcredit in Myanmar. Past and present lending activities of various formal credit suppliers to fishers of the lake were described, including those of the Myanmar Agricultural Development Bank (MADB) and the Myanmar Livestock and Fisheries Development Bank (MLFDB). The speaker then discussed the microfinance project, *Sustainable Micro-finance to Improve the Livelihoods of the Poor*, implemented in 2003. To date, the project has provided over 138 000 poor households with microfinance services and the loan repayment rate is about 95 percent. Main outcomes of the project were increased incomes of the poor, the empowerment of women, and the creation of sustainable microfinance schemes in the country. Ms Nu Nu Aye then referred to various NGO-supported credit and microfinance programmes in the country. She concluded her presentation with a reference to current opportunities for inland fisheries development, which include fine-tuning laws and regulations, increasing cooperation between stakeholders in microfinance, and increasing the number of bank branches in rural areas.

The discussion that followed the presentation focused on the coverage of the credit programmes in Myanmar, on the problems of securing the required funds for microfinance schemes, and on exports of aquatic products from Myanmar to China.

The second presentation of the afternoon session by Dr P.V. Dehadrai from the Centre for Sustainable Aquaculture and Fisheries in India discussed management challenges regarding riverine fisheries and fishers in India. (His paper can be found in Part 3.) In his presentation, the speaker focused on the potential for inland fisheries development and the rehabilitation of fisheries along the Ganga River system. Dr Dehadrai identified the main problems of the Ganga's fisheries as: pollution from domestic waste and industries; conflicts regarding ownership and use of the water resources; high fishing effort and exploitation levels; and the limited coordination between the various state governments of the territories where the Ganga River flows. The speaker highlighted the poverty situation of inland fishers, particularly their lack of income during the monsoon season.

He then turned his attention to ongoing initiatives to rehabilitate the ecology of the Ganga River system, and to improve the management of its fishery resources and the livelihoods of the rural poor living along the river. He advocated a cluster approach to development in which initiatives would focus first on small clusters of villages and later be replicated elsewhere.

Dr Dehadrai went on to discuss sources of microfinance and credit. He pointed out that the National Bank for Agriculture and Rural Development (NABARD) refinances the largest microfinance programme in the world. He also mentioned that the Fisheries Cooperatives Federation (FishCopFed) has insured more than 1.3 million fisherfolk in India and that insurance cover gives them better access to institutional credit and microfinance. The speaker identified a variety of alternative livelihood opportunities for fishers with the potential to generate additional and alternative income. He stressed that fisheries management and development cannot be separated from credit and microfinance, and that fishers needed microfinance support to adjust themselves to fisheries management regulations that affect their livelihoods. He drew on the experiences of successful microfinance programmes in India that had adopted this approach using groups of villages to create centres of hope for future replication of good management practices along the entire Ganga River system.

The speaker ended his presentation by highlighting the important role that women play in inland fisheries and their good track record as borrowers and participants in microfinance programmes.

The discussion following his presentation centred on the cluster approach proposed by the speaker to rehabilitating ecology and fisheries along the Ganga River system. Questions were raised on how a river basin commission functions and on how to improve it in light of present problems and conflicts concerning jurisdictions and communication.

Credit and Microfinance Programmes in Inland Capture Fisheries in West Bengal and Assam was presented by Mr Upare of NABARD (see Part 3). He began by giving an overview of the microfinance system in India. He discussed partnerships with commercial banks, NGOs, cooperatives and rural banks. The speaker explained the functioning of SHGs in support of inland fisheries and the role of national cooperative development corporations. Mr Upare gave examples from Orissa State of the success of a self-help group (SHG) in credit and microfinance programmes that integrate fisheries with other activities. He emphasized the importance of reducing risk by diversifying economic activities. The speaker then identified key elements of successful microfinance mechanisms, which included:

- group formation (homogenous groups, voluntary savings, group composition by gender, mutual agreement on the use of the funds);
- clear and comprehensive procedures for extending bank finance to SHGs, NGOs and other financial intermediaries;
- availability of proper support services, including fisheries extension services;
- establishment, use and maintenance of management information systems (MIS).

Mr Upare ended his presentation with some recommendations, which included expansion of the microfinance movement, formation and involvement of SHGs and fisher associations and groups, development of micro-enterprises, support from international organizations for pilot projects in inland fisheries microfinance, and strengthening of databases.

The issue of savings mobilization was given greatest attention in the discussion that followed the presentation. It was emphasized that compulsory savings were needed for SHGs before providing access to groups to credit as a learning element. The waiving of stamp duties of one percent of the total loan amount for poor borrowers was brought up in the discussion, and it was mentioned that some Indian states already waive the stamp duty in the case of poor borrowers. The issue was raised on availability of loans for alternative livelihoods development, including for the introduction of new technologies. It was argued that banks are more hesitant to provide credit since risks involved in the use of new technologies are not always known. Also discussed were the pros and cons of providing loans to individual members of SHGs through group lending compared to providing individual loans with joint liability.

The last presentation of the first day of the workshop was delivered by Mr Heng Sotharith of the Department of Fisheries of Cambodia, entitled *Increasing Inland Fisheries Production and Livelihood Security in Cambodia through Fishery Policy Reform and Aquaculture Development – Prospects and Constraints* (see Part 3). Mr Sotharith provided an overview of the current status and trends in inland fisheries development in his country, referring to the contribution of inland fisheries to the economy, the latest fisheries reforms, national fisheries policy and current fisheries management practices. He mentioned that a new fisheries law is being prepared and will be issued soon.

Mr Sotharith then gave an overview of fisheries in Cambodia, fishing gears and techniques, production in marine and inland water bodies, species caught, the fishing lot system and the reduction in the number of fishing lots, the establishment of community fisheries and their role in the co-management of fishery resources, and the constraints to inland fisheries development. The speaker continued by listing the needs for microfinance in inland aquaculture development. His presentation concluded with emphasis on the important linkages between aquaculture and inland capture fisheries.

Examples included fish not wanted for human consumption to be used for aqua feeds, and job creation in aquaculture, which would reduce pressure on inland capture fishery resources and should be supported through microfinance schemes.

The concept of co-management, as promoted by the Mekong River Commission, was one of the topics discussed following the presentation. It was argued that co-management is only possible when fishers and their communities at large know the value of the environment and the fishery resources in the area under their management. This would allow them to find a better balance between the use of the natural resources by current and future generations.

Presentations and working group sessions – Day 2

Prof Huang Shuo Lin, Vice-President of the Shanghai Fisheries University, chaired the second day of the workshop, which focused on success stories and experiences with microfinance in fisheries. The first presentation was the success story of inland fisheries development and rehabilitation, and supporting credit and microfinance programmes at Lake Taihu by Dr Xie Yingliang (see Part 3). Lake Taihu is one of the five largest freshwater lakes in China, occupying 0.4 percent of the total land area of the country. It belongs to three provinces – Jiangsu, Zhejiang and Anhui. Dr Xie Yingliang divided the main constraints to inland fisheries at Lake Taihu into ecological and environmental constraints, on the one hand, and social and economic constraints, on the other hand. The main ecological and environmental constraints are as follows:

- Dams and sluice gates constructed along the rivers and lakes in the basin of Lake Taihu in the 1950s and 1960s led to a decline in stocks of migratory species and species that depend on shorter intra-river movements for the successful completion of their lifecycle.
- Much of the shallow water areas along the lake had been enclosed and separated from the lake for cultivation in the 1960s and 1970s, which resulted in the decline of stocks of fish and shrimp that spawn and grow there.
- Destructive fishing gear and methods brought about the decline of large and mid-sized fish and a proportional increase of the percentage of young fish as well as a decrease in the average size of fish.
- The environment and ecology of the lake area has deteriorated.

The speaker identified the social and economic constraints as follows:

- Wastewater from industrial and agricultural activities affected the yield and water quality in the lake, which is also important for tourism.
- Trawling, the main fishing gear used in the lake, had a negative influence on the rehabilitation of benthos in the open water areas of the lake.

Dr Xie Yingliang identified the following main measures to overcome constraints to inland fisheries development at Lake Taihu as follows:

- enhancement of fish stocks through the stocking of lake waters;
- establishment of seasonal conservation zone for spawning;
- expansion of closed fishing season;
- eventual ban and restriction of the use of harmful fishing gear and methods;
- enforcement of the system of fishing licences;
- comprehensive development of fishery industry;
- a combination of capture fisheries with fish farming.

The speaker went on to explain the history of fisheries management at Lake Taihu and the role of the various organizations and institutions involved, such as the Fisheries Management Committee (FMC). He also explained the system of resource user fees: fees are collected from fishers and fish farmers in order to fund inland fishery resources enhancement.

The speaker concluded his presentation with an overview of the various sources of credit and microfinance that are available to fishers and fish farmers and that help

them finance capital investments and working capital expenditure required for taking up fish farming, acquiring responsible fishing gear and expanding fish marketing and processing.

The discussion that followed the presentation revolved around the functioning of the FMC. It was explained that FMCs have been established at large lakes in China which, among other things, formulate policies for the collection of resource use fees from fishers and fish farmers. An FMC is usually composed of representatives of the Provincial Fisheries Bureau, fishers, and other local government agencies. He pointed out that the manager of the FMC is always from a government agency. It was also asked if children of fishers follow their parents' occupation. The speaker's response was that many do, but that some pursue higher education and choose professions other than fishing or fish farming.

The next presentation was given by Ms Mahyam Mohd. Isa of Malaysia on the successful involvement of local communities in conservation programmes of Malayan Mahseer in River Kinabatangan of Sabah. (Her joint paper with Mr Jephrrin Wong is provided in Part 3.) In the State of Sabah, the Department of Fisheries recognized the urgency to address the problem of the decline in the numbers of freshwater fishes, which has affected the livelihoods of rural communities. The Fisheries Department adopted two strategies to address the problem, namely, introducing freshwater pond culture and encouraging rural communities to restore the riverine fishery resources through a community-based fisheries resource management system locally called the *Tagal* System.

Ms Mahyam's presentation highlighted some of the work carried out by local communities in conserving and restoring the Malayan Mahseer, one of the endangered freshwater species of River Kinabatangan, through the *Tagal* community-based fisheries resource management system. The presentation described how the *Tagal* system works, its present status in Sabah, strategies to make the system sustainable, and the activities of the Sabah Fisheries Department. The Sabah Fisheries Department's plan to promote ecotourism in *Tagal*-managed areas to generate new income for the community with credit and microfinance support for the necessary investments was discussed.

The *Tagal* system is a smart partnership between community and government with the Department of Fisheries of Sabah as the lead agency for protecting, reviving, conserving and managing riverine fishery resources in the state. To participate in the *Tagal* system, each community must traditionally exploit at least one deep pool where it manages and controls its fishery resources under the leadership of its headman. The state fisheries officers and district officers act as consultants of the *Tagal* committee. The community and the Department of Fisheries have specific roles to play in the *Tagal* system. In *Tagal*-managed water bodies, the fishery is divided into three zones: a red zone, which is exclusively meant for conservation and where no fishing is allowed; an orange zone, where fishing is restricted and where the revenue from a part of the catch is used to finance the *Tagal* management system; and a green zone, where fishing is allowed all year round under strict regulations. Only mesh sizes of over 75 mm, hook and lines and castnets are allowed to be used.

According to Ms Mahyam Mohd Isa, the *Tagal* system has succeeded and revived many previously depleted riverine fishery resources in the upstream rivers of Sabah, especially with regard to indigenous fish species such as *Ikan Pelian Kelah* / Mahseer (*Tor spp.*). As of 1 August 2005, 212 villages in Sabah have practised the *Tagal* system along 107 rivers. The system is now well known and many other states in Malaysia are keen to replicate it.

The speaker pointed out that the sustainable development of inland fisheries in Malaysia is hampered by a lack of innovative financial instruments. Most financial institutions are less inclined to finance agricultural and food production due to higher risk and longer repayment periods. Instead, they are more inclined to financing large

commercial projects such as oil palm plantations, forestry and logging and agro-based manufacturing industries, such as rubber processing, palm oil processing, wood products, food, beverages and tobacco. The government can provide limited resources only.

Presently, financial support for inland fisheries in Malaysia comes mainly from commercial banks, finance companies, merchant banks, the Federal Land Development Authority (FELDA), Sabah Development Bank, the Agriculture Bank of Malaysia (Bank Pertanian Malaysia – BPM) and Bank Rakyat, as well as from farmer, fisher and other agro-based organizations. BPM's microcredit programme was launched on 3 June 2003 after the announcement of an economic package by the Prime Minister on 21 May 2003. The scheme started with an initial capital injection of RM200 million from the government and will be increased to RM500 million when the fund for the scheme has been finally raised. The scheme was offered to small-scale entrepreneurs in agriculture-related projects including fisheries for investments in production, processing and marketing. The maximum loan size was RM20 000 (US\$5 263) with an interest rate of 4 percent per annum and a loan repayment period of up to four years. By October 2003, RM188.6 million (US\$49.6 million) had been disbursed to borrowers with an outstanding loan balance of RM174.1 million (US\$45.8 million). The loan repayment rate is presently 92 percent.

This presentation was followed by three others from representatives of APRACA member institutions: the Bank for Agriculture and Agricultural Cooperatives (BAAC) of Thailand, Bank Rakyat Indonesia and Agribank of Viet Nam. The presentations gave an overview of the rural credit and microfinance operations of these banks in the fisheries and inland fisheries sector. Past achievements and constraints were highlighted and strategies for the future were elaborated on.

Mr. Arun Lertwilai of BAAC gave an overview of the history and role of his bank, which is the major source of credit and microfinance for farmers and other rural entrepreneurs in Thailand. The bank has flexible and client-oriented lending programmes and procedures, and lends to individuals and groups as well as to cooperatives and associations. Joint liability of groups is one of the collaterals accepted by BAAC. The speaker pointed out that BAAC is applying a credit rating to borrowers that encourages proper use and repayment of loans, and provides interest rate incentives to those with a high credit rating. It not only provides credit for investment and working capital purposes, but also for consumption, health, housing, education and other needs.

BAAC also caters to inland fisheries. In 2004, lending to inland fisheries alone (i.e. mainly to inland aquaculture) accounted for 5.75 percent of the bank's total lending for agriculture, which amounted to US\$215 million. Loans are mainly provided for freshwater shrimp and fish farming. Ninety percent of BAAC's inland fisheries clients are small-scale fish farmers and fishers. Past constraints to lending in the inland fisheries sector were identified as environmental and marketing problems.

As far as future lending for inland fisheries is concerned, the speaker pointed out that BAAC is planning to expand and improve its lending activities. The expansion will take place in the framework of the *Seafood Bank Project*. Within this framework, the bank cooperates with the Department of Fisheries of Thailand to promote responsible and environment-friendly aquaculture practices in order to improve the quality and safety of fish products, cater to new and more remunerative markets including export markets, and reduce the cost and increase the revenue of fish farming operations. The bank is also preparing standard technology and credit packages for different types and sizes of fish and shrimp farms in order to guide investors and to standardize the appraisal of loan applications, including the assessment of the environmental impact of proposed projects.

Mr. Lertwilai of BAAC concluded his presentation with the success story of the Ban Sang Organic Freshwater Shrimp Farmer Group of Prachinburi Province, Thailand.

With credit support from BAAC and technical advice from the Department of Fisheries of Thailand, the group grows shrimp using exclusively organic feed and fertilizers, and organic substances for pond preparation and disease prevention and control. Following this success story, BAAC is now funding 41 other organic freshwater shrimp farms, each of which took a loan of US\$18 800 to meet capital investment and working capital requirements. The shrimp farms are all operating profitably and in an environmentally friendly and sustainable manner.

Mr Achmad Chairul Ganie of Bank Rakyat Indonesia (BRI) began his presentation with an overview of the recent history and organizational structure of his bank, the biggest agricultural bank in Indonesia, with an extensive branch network in rural areas. He pointed out that Bank Rakyat Indonesia has recently undergone a radical reorganization and has now become a profitable and efficient financial intermediary with a large microfinance programme that caters to the rural poor.

The speaker explained that prior to the reorganization, the bank had provided loans to small-scale inland fish farmers and fishers through large commercial companies under its *nucleus-plasma* programme. The large companies were considered a nucleus that channeled the bank's fund to the fishers and fish farmers and guaranteed the loan. The fishers and fish farmers, considered "plasma" were in turn obliged to sell their production to the company through which the loan was channeled.

The speaker pointed out that the nucleus-plasma programme had not worked satisfactorily. The bank encountered difficulties in supervising and monitoring its lending operations and many of the companies through which the loans were channeled had financial and management problems and could not effectively guarantee the loans. There were also conflicts between nucleus and plasma, which hampered the proper use of loans and their repayment.

After its reorganization, the bank started to lend directly to individual fishers and fish farmers at the village level, which were organized into microfinance groups. Consequently, the proper use of loans and their repayment improved drastically. Lending is accompanied by compulsory savings schemes. Each group receives training and elects four to nine office bearers including a head, an accountant, a cashier and a teller. The bank provides up to IDR3 million without collateral and up to IDR50 million with collateral. Lending procedures are simple, timely and flexible, and include: registration of a loan application; a site visit and interview of the loan applicant; an appraisal of the loan application; an evaluation of the proposed collateral, if any; preparation of a loan disbursement and repayment schedule that is compatible with the cash flow of the proposed economic activity; and the signing of a loan agreement. The maximum period between the registration of a loan application and the decision on whether the application is approved or rejected is only seven days.

The speaker pointed out that in addition to inland fisheries, BRI also disburses loans to fishers in coastal fishing communities. This is carried out within the Coastal Community Empowerment Programme of the Indonesian Government. Funds are provided from the budget of the Department of Marine Affairs and Fisheries, which cooperates closely with BRI. The programme is designed to empower coastal communities and ensure their participation in the management of coastal and aquatic resources, develop entrepreneurship and provide microfinance support for small-scale enterprise development, income generation and poverty alleviation.

Loans under this programme are also provided through cooperatives to their members. The presenter concluded his presentation by sharing the success stories of the fishing communities of Baharu, Sahuda, Muhtar and Harnah.

Mr Nguyen Viet Tuc of Agribank, the Vietnam Bank for Agriculture and Rural Development, introduced his bank as the leading commercial bank in Viet Nam, which is owned by the Vietnamese Government. The speaker highlighted important economic, demographic and geographic characteristics of his country and pointed

out that most enterprises and businesses are micro and small-scale enterprises. These enterprises play a crucial role in the economic development of the country and an important social role by providing employment and income in rural areas contributing to food security and poverty alleviation. The speaker pointed out that the fisheries industry shows an average annual growth of 5.3 percent.

Mr Nguyen Viet Tuc continued his presentation with an overview of Agribank. Between 1997 and 2005, the bank enjoyed an average annual growth rate of 30 percent. It now has 2002 branches and transaction offices, an 80 percent market share of the formal and semi-formal credit market, and total fund resources of VND12.3 billion. Sixty percent of the loan portfolio goes to households and individuals, 29 percent to small and medium-sized enterprises, and 11 percent to state-owned enterprises. Loan recovery is considered good.

The speaker identified the reasons behind the good performance and growth of his bank as: the use of simple lending procedures; the expansion of the branch network; the introduction of mobile banking units and group lending; the close cooperation with local governments and mass organizations (including the Vietnam Farmers' Union and the Vietnam Women's Union) in loan disbursement and loan recovery; the introduction of credit rating and classification of borrowers; and the provision of loans without collateral. Regarding the latter, it was highlighted that criteria for loan appraisal were the feasibility of the proposed project or enterprise, the repayment capacity of the borrower and his credit-worthiness. Ownership of assets was only of secondary importance.

The speaker then turned his attention to fisheries lending, which had increased from VND3 363 billion in 2000 to VND12 096 billion in 2005. Sixty-eight percent of this lending had gone to households and individuals, 22 percent to small and medium enterprises and 10 percent to state-owned enterprises. Fifty-nine percent of the total fisheries lending was short-term, while 41 percent was medium and long-term. The speaker estimated that in spite of the increase in lending for fisheries and aquaculture, the bank met only half of the actual demand of this sector for medium and long-term loans. The bank tries to mobilize additional funds from foreign and domestic sources to overcome this constraint. He pointed out that while fisheries and aquaculture could be very profitable, there were also many risks involved. Major constraints were identified as inadequate vocational training opportunities for those involved in fisheries and aquaculture, and in many areas, inadequate processing, transportation and marketing facilities.

Mr Nguyen Viet Tuc concluded his presentation by explaining that a future expansion of lending to fisheries and aquaculture had to go hand in hand with training and technical guidance in fish farming, processing, distribution and export marketing methods and techniques.

The presentations of representatives of APRACA member institutions were followed by a presentation of Mr Raymon van Anrooy, Fishery Planning Analyst at FAO headquarters, on the linkage between microfinance and insurance in inland fisheries. The speaker started his presentation by identifying major risks affecting inland capture fisheries and its development, and by explaining how insurance can contribute to sustainable inland fisheries development. He listed a range of insurance services that could be of support to inland capture fisheries, focusing on loan and vessel insurance. He then listed the main constraints to and opportunities for the development of insurance services. The opportunities include, among others:

- enhanced regulation and better governance of inland fisheries, together with the drive for better inland fisheries management, which should reduce risks;
- evidence that the organizational level of fishers in groups, cooperatives and associations is increasing in some Asian countries, making it easier to reach fishers;

- increased awareness among fishers of the benefits of insurance services through products from life and health insurance companies, causing a potentially higher demand for other insurance services;
- the expansion of communication technologies (internet and cell phones) in rural areas, which decreases costs of communicating with insurance policy-holders, including fishers;
- the introduction of mutual fisheries insurance schemes in more Asian countries following the successful Japanese example;
- innovations in fishing techniques and equipment, which tend to decrease the risks of poor catches such as the use of fish finders and the Global Positioning System (GPS).

Mr van Anrooy continued by explaining already existing and potential linkages between microcredit and insurance in fisheries, such as loan insurance to guarantee that the credit institution is repaid even in case of disasters, and the inclusion of insurance premiums as a percentage of loans for fishing vessels and gears. The speaker also highlighted that through insurance services, major natural disasters affecting fisheries may be made more visible to governments, thus assisting fishers in obtaining financial support and compensation for losses from them, making it easier to repay loans. The speaker then went on to emphasize the important role that fishery cooperatives, SHGs and associations can play in providing microfinance and insurance services.

He added that there is a great similarity of services between credit and insurance institutions. He argued that they could work together in demand and needs assessments, the promotion and marketing of services, the use of common agents and representatives at the village level to increase the spread of services, sharing costs of administrative networks, and carrying out joint capacity building and training of agents and representatives. Mr van Anrooy mentioned, however, that such joint activities are unfortunately rare in the Asian region, especially as far as services for inland capture fisheries are concerned.

The speaker ended his presentation with some recommendations for those involved in providing financial and technical services to the inland fisheries sector. These included: the need for awareness raising and capacity building in inland fisheries insurance among fishers, fisheries extension officers and insurance companies; the need for policies and regulations in support of fisheries insurance development; increased collaboration between microfinance, credit, insurance and fisheries institutions in the fields of data and information exchange; the use of existing networks of agents to reach out to inland fishers; and the need to develop and promote risk management measures for inland capture fisheries.

The afternoon session commenced with a presentation of Mr Chen Daqing, Vice-President of the Yangtze River Fisheries Research Institute, on ecological fisheries development and microcredit support at Zhangduhu Lake. The speaker provided an overview of fish production and fisheries management at the lake. He pointed out that from 1992 to 2002, the lake was managed by the State Fish Farm. The fish production method was extensive fish culture by stocking and the natural growth of fish, supplemented by fishery resources enhancement. The actual fish farming in the lake was carried out by individual households under contract with the State Fish Farm.

The speaker went on to identify the main constraints to a sustainable development of inland fisheries at Zhangduhu Lake as: the poor educational level of fishers resulting in a lack of understanding of management needs and requirements; the eutrophication and pollution of the lake's water caused by an excessive use of fertilizers; increasing fishing pressure; and the separation of the lake from the Yangtze River. Other main constraints were the reduction of the diversity of the fish fauna in Zhangduhu Lake, with the fish population dominated by stocked fish species and a larval recruit population basically dependant on stocking, and difficulties of obtaining credit and finance for various fishery-related purposes.

A description of actions taken to rehabilitate the ecology and fishery of the lake followed, which was supported by substantial funding from the World Wide Fund for Nature (WWF). Actions included efforts to: re-link the Yangtze River with Zhangduhu Lake; reduce the use of fertilizers for aquaculture; protect aquatic plants; enforce and expand closed fishing seasons; establish conservation zones that are closed to fishing year round; introduce fishing licence regulations and fishing quotas; eliminate harmful fishing gears, intensify stocking of the lake with madrine fish, Chinese bream, silver carps, bighead carp, grass carp, black carp; and limit the development of cage culture.

The speaker also mentioned training, micro-enterprise and alternative livelihood development programmes as well as credit programmes for fishers, which were implemented as part and in support of the above measures. This included training and extension programmes in support of growing bamboo and lotus plants in ponds, tea production and processing, vegetable and mulberry tree plantation, silkworm cultivation and other alternative livelihoods. Fishers were also oriented towards culturing high-quality and high-price fishes such as wuchang fish and huangshang fish, in a sustainable and environmentally friendly manner.

Mr Chen Daqing then explained the principles that guided the micro-credit and revolving fund programmes that were introduced for fishers at the lake by the World Wide Fund for Nature, local banks and governments. He elaborated on the purposes for which credit was available, borrowers' responsibilities and credit ratings, repayment modalities and periods, and on loan use supervision. Loan repayment was reported as satisfactory.

The speaker concluded his presentation by pointing out the success of the credit programmes, which have enabled fishers to take up alternative livelihood activities, reduce fishing and fish farming pressure in the lake, and adapt sustainable fishing and fish farming measures. Further, they have motivated fishers to more actively participate in fisheries management and comply with fisheries management regulations.

The last presentation was given by Mr Benedicto Bayaua, Secretary-General of APRACA. The speaker commenced his presentation by an overview of the general characteristics of rural fishing communities and of the external and internal factors that influence these characteristics, such as globalization, coastal tourism, water pollution, overfishing and the use of harmful fishing methods and chemicals.

This was followed by an explanation of the general principles of rural finance and the role of the government and private sector. The speaker highlighted the need for community asset creation in fishing communities as a precondition for improving their access to institutional credit.

Governments should:

- create a policy environment conducive to rural finance;
- provide technical assistance and institution-building resources to rural financial institutions;
- provide the necessary resources for infrastructure support in rural areas;
- support research and development activities in the fishery sector;
- implement measures and issue regulations and legislation;
- facilitate the provision of social services for poor fishing communities.

The private sector was also seen as source of funds for capacity building of rural financial institutions and of technical assistance and expertise. The presentation continued by elaborating on the role of groups in rural credit and savings mobilization programmes, the process of group formation, and capacity building and training. The roles played by NGOs, reputable voluntary organizations, SHGs and rural financial institutions in these processes were explained. The speaker also touched upon collateral substitutes, compulsory and voluntary savings.

The presentation continued by drawing the attention of the audience to an emerging driver of change in rural finance – the transformation of NGOs into microfinance

institutions (MFIs). Examples were provided of how clients such as fishing communities can graduate to mainstream banking through value-addition carried out by individual or group enterprises and through new marketing linkages to domestic and export markets.

The speaker concluded that rural credit and microfinance suited the needs of fisherfolk and that credit must go hand in hand with training and extension support. He also stressed that rural credit should always be accompanied by savings. The speaker further stressed that rural financial institutions should tailor their financial services to the needs of fishing and fish farming communities by better and more realistic information-gathering, better and more useful monitoring schemes, and by a better and more focused compilation of success factors. The Secretary-General of APRACA concluded his presentation by narrating two success stories of microfinance service provision to fisherfolk in Thailand.

Working group session 1: constraints to development and sustainable use of inland fishery resources

After the break, the participants divided into three working groups to discuss the constraints to the development and sustainable use of inland fisheries, and to identify opportunities for improving the management and development of inland fisheries. Group 1 was asked to concentrate on riverine systems, Group 2 on lakes and reservoirs, and Group 3 on floodplains. The working groups were requested to divide the constraints and opportunities into: (i) legal/policy; (ii) institutional; (iii) resources, environment and management; (iv) production (capture techniques/technologies); (v) investment, credit and insurance; (vi) marketing/processing and (vii) infrastructure constraints.

Working group session, conclusions and recommendations – Day 3

Mr Upare was requested to chair the third day of the workshop, which started with each group's presentation of their output, as summarized below.

Issues, constraints to and opportunities for the development and sustainable use of inland fisheries

Issues	Constraints	Opportunities
<i>Riverine systems</i>		
Legal/policy	<ul style="list-style-type: none"> • Lack of decisions by governments on priorities; • Lack of uniform code of conduct for the management of riverine fishery resources; • Lack of suitable laws and rules for riverine fisheries management; 	<ul style="list-style-type: none"> • Mainstreaming of fisheries into national development policy frameworks;
Institutional	<ul style="list-style-type: none"> • Lack of coordination between the various institutions supporting fisheries; • Lack of administrative and legal powers of institutions involved in fisheries; • Lack of independent fisheries management authorities; management authority often embedded within agriculture and rural development administration; • Limited staff capacity and funds available for inland fisheries within fisheries administrations compared to aquaculture and marine fisheries; inland fisheries cooperatives largely not efficient and often not delivering the services required by members; 	<ul style="list-style-type: none"> • Better coordination of institutions concerned with fisheries; • Institutional programmes to include capacity building and social welfare measures;

Issues	Constraints	Opportunities
Resources, environment, management	<ul style="list-style-type: none"> • Suitable apportioning of water resources for fisheries not done – the agricultural sector dominates water use; • Indiscriminate release of pollutants and effluents from agriculture; deteriorated water quality from industry and domestic sources; • Little attention paid to biodiversity conservation and habitat restoration; • Lack of application of concept of river basin management commissions; • Lack of protected areas and biosphere reserves in riverine systems for conservation of biodiversity; • Lack of enforcement of rules and regulations under fisheries acts; 	<ul style="list-style-type: none"> • Habitat restoration and maintenance of water quality of riverine systems; • Co-management and other participatory management modalities;
Production	<ul style="list-style-type: none"> • Gradual decline of fish production in riverine systems; • Several fish species becoming endangered; • Commercially important species declining rapidly and catches dominated by low-value fish species; • IUU fishing and destructive fishing practices; • Lack of technological innovation in inland fisheries; • Anthropogenic pressure on riverine ecosystems and degradation of ecosystems through damming, water abstraction, deforestation of catchment areas, pollutants and other activities; • Increase of inland fishers through the rural poor taking up fishing; 	<ul style="list-style-type: none"> • Establishment of user rights of river resources for long-term uses; • Investment in research and development of fish capture technologies;
Investment, credit, insurance	<ul style="list-style-type: none"> • Lack of investment by governments in riverine fisheries development; • Credit and insurance programmes with few success stories, limited, and on a pilot scale only; • Lack of collateral for accessing credit schemes; 	<ul style="list-style-type: none"> • Investment, credit and insurance services to be directed to the poor; • Initially subsidized insurance schemes to be introduced, focusing on the poorest;
Marketing, processing	<ul style="list-style-type: none"> • Poor market linkages in inland capture fisheries sector; • Lack of innovation in product development of inland fisheries products; • Limited bargaining power of inland fisherfolk; 	<ul style="list-style-type: none"> • Measures to increase access of fishers to credit for fish marketing and processing;
Infrastructure	<ul style="list-style-type: none"> • Lack of landing centres with support facilities, such as ice plants, cold storage, communication and transport facilities; • Limited processing facilities near landing sites; 	<ul style="list-style-type: none"> • Post-harvest infrastructure to be given priority;
Lakes and reservoirs		
Legal/policy	<ul style="list-style-type: none"> • Weak laws and regulations, particularly on fishing operations; • More emphasis on aquaculture; none on capture fisheries; 	<ul style="list-style-type: none"> • FAO Code of Conduct for Responsible Fisheries (CCRF); • CCRF Technical Guidelines on fishing operations and fisheries management, which are available and can be followed; • Well-established institutional framework on fisheries policy that can provide support;
Institutional	<ul style="list-style-type: none"> • Lack of coordination in a multi-agency approach; • Multiple use of water sources; 	<ul style="list-style-type: none"> • Available funds for appropriate coordination of agencies; • Available, experienced staff for coordination and proper management of water resources;

Issues	Constraints	Opportunities
Resources, environment, management	<ul style="list-style-type: none"> Habitat destruction; Overexploitation of resources; Spread of invasive alien species; Rapid biodiversity loss; IUU; 	<ul style="list-style-type: none"> Laws and regulations; Constant dialogue and stakeholder consultation; Enabling environment for community-based management strategies; Established research institutions; Experienced staff;
Production	<ul style="list-style-type: none"> Use of small mesh sizes; Use of destructive fishing gears; Lack of awareness about sustainable use of resources; 	<ul style="list-style-type: none"> Laws and regulations; Frequent stakeholder consultation; Involvement of community in management of resources;
Investment, credit, insurance	<ul style="list-style-type: none"> Reluctance of financial institutions; Low priority for investment by government; Lack of insurance services; High risk; 	<ul style="list-style-type: none"> Existence of well-established financial institutions; Strong back-up from NGOs; Limited funds available;
Marketing, processing	<ul style="list-style-type: none"> Unorganized marketing system; Lack of processing facilities; Lack of awareness about sustainable use of resources; 	<ul style="list-style-type: none"> Availability of minimal infrastructure and facilities; Availability of labour; Availability of experienced staff; Established marketing associations, groups, companies;
Infrastructure	<ul style="list-style-type: none"> Lack of infrastructure due to remoteness; Limited funds; Low priority area; Minimal facilities; Poor road and communication networks; 	<ul style="list-style-type: none"> Established institutional framework; Available labour force; Experienced staff;
Legal/policy	<ul style="list-style-type: none"> Weak conservation; Conflicts among local governments; 	<ul style="list-style-type: none"> Ecologically- and ecosystem-friendly; General guidelines and standard on fish species and sizes; Long-term lease (10 to 15 years);
Floodplains		
Institutional	<ul style="list-style-type: none"> Inadequate coordination; Inadequate data and statistics; Differences between institutions and local governments; Differences between policies; Conflicts between marine and inland fisheries; Relocation of fish farmers; 	<ul style="list-style-type: none"> Creation of new employment; Limited resources with low population pressure facilitating management and the provision of training and technology; Improvement of efficiency;
Resources, environment, management	<ul style="list-style-type: none"> Depletion of resources; Environmental degradation; Pollution; Loss of habitats; Reduction of area; Lack of authority to enforce regulations; 	<ul style="list-style-type: none"> Improvement of environment through policies that reduce pollution;
Production	<ul style="list-style-type: none"> Unsophisticated technologies for capturing fish; Destruction of nets; Financial problems due to lack of information; 	<ul style="list-style-type: none"> Investment in more sophisticated fishing technology;
Investment, credit, insurance	<ul style="list-style-type: none"> Higher risk and less income compared to other fishery sectors; 	<ul style="list-style-type: none"> Government policy promoting lending to fisheries sector;
Marketing, processing	<ul style="list-style-type: none"> Lack of information on marketing systems; Problem of freshwater fish processing; Poor processing technology; 	<ul style="list-style-type: none"> Easy access to information via internet;
Infrastructure	<ul style="list-style-type: none"> Ports and roads in rural areas; Storage problems; Lack of transport facilities for live fish. 	<ul style="list-style-type: none"> Infrastructure financing for vessels, transportation.

Working group session 2: guidelines for meeting credit and microfinance needs in inland capture fisheries development and conservation in Asia

After the morning break, the participants returned to their working groups to discuss draft guidelines for meeting credit and microfinance needs in inland capture fisheries development and conservation in Asia, which had been prepared by the organizers of the workshop. Each group was asked to discuss designated chapters and make modifications, additions and revisions to the draft text; which was prepared based on the case studies shown in Part 3 of this publication and following the FAO Guidelines on Microfinance in Fisheries and Aquaculture. The working group outputs were presented after the lunch break. (The final text of the guidelines as amended by the working groups is provided in Part 1.)

2.3 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were discussed and agreed on by the participants during the concluding plenary session.

- Inland waters are important for food security, livelihoods and income generation of large populations in Asia and for biodiversity.
- Inland waters have many uses competing with each other, and often the fisheries sector has very little influence in decision-making regarding their use. The inland fisheries sector often receives insufficient attention in national fisheries policy frameworks and in general national development plans.
- Rehabilitation of the inland aquatic environment for natural fish production should be done in conjunction with microfinance programmes. Microfinance alone would not solve the problem of poverty in fishing communities.
- Microfinance benefits the poor by increasing income-earning opportunities, securing livelihoods, decreasing vulnerability, and empowering beneficiaries, especially women. To date, microfinance for inland fisheries has been primarily directed towards aquaculture activities. Inland capture fisheries as well as processing and marketing of inland fisheries products have received little attention from microfinance schemes in the region.
- A clear distinction should be made between inland capture fisheries and aquaculture. A monitoring system for microfinance and credit should be established that distinguishes between inland capture and aquaculture, as well as other subsectors. At present, it is not possible to measure the contribution of microfinance towards improving the livelihoods of inland capture fishers.
- It is still not easy for small-scale fishers in many Asian countries to access credit. This is generally not a result of limited availability of funding, but lack of information on the needs of fishing communities. Moreover, there is a lack of awareness among fishing communities about microfinance services.
- There is a lack of timely dialogue and coordination among the various international, national and local institutions supporting and/or impacting on inland fishery resources. An integrated multi-stakeholder approach to inland fisheries development and management is generally lacking. Public-private partnership arrangements are emerging in the management of some dams and reservoirs in Asia.
- It has been noticed in several Asian countries that dams are particularly deleterious to fisheries because they interrupt the longitudinal migration of fish.
- International agreements and guidelines such as the CCRF, the CCRF Technical Guidelines and the Convention on Biological Diversity (CBD) relevant to inland fisheries development are often not complied with at the national level. It was recognized that inland capture fisheries concerns are given a low priority in international fora.

- Co-management was presented as a feasible option in saving inland fish species from extinction and in restoring fish populations. Microfinance is considered a means to strengthen community-based or co-management systems.
- Many microfinance and insurance schemes directed towards inland fisheries can still be regarded as being in a pilot phase. Success stories and formulas have not yet been widely disseminated.

The following recommendations were discussed and agreed on by the participants during the concluding plenary session. The participants resolved to include a preamble to the draft guidelines for meeting credit and microfinance needs in inland capture fisheries development and conservation in Asia, which were discussed in the working groups. They also agreed to attach the guidelines to the workshop recommendations.

National governments

- Inland capture fisheries should be mainstreamed into national economic development policy frameworks.
- A fishery finance policy framework should be put in place in support of sustainable inland fisheries development. Lending to the inland capture fisheries sector should be encouraged.
- Appropriate financing mechanisms for inland capture fisheries should be devised.
- Rehabilitation and restoration of the inland aquatic environment for natural fish production and improvement of water quality should be done in parallel with microfinance.
- International agreements and guidelines, e.g. the CCRF, the CCRF Technical Guidelines and the CBD relevant to inland capture fisheries development should be complied with and enforced.
- The necessary infrastructure should be put in place in support of inland capture fisheries production and post-harvest activities.
- Capacity-building and skills enhancement programmes should be designed and implemented for poor inland capture fishers.

Financial institutions

- A monitoring system for microfinance and credit disbursements should be established that distinguishes between inland capture and aquaculture or other subsectors.
- Financial institutions are encouraged to reach out to inland fishing communities and facilitate access of poor fishers to microfinance and insurance services.
- The guidelines for meeting credit and microfinance needs in inland capture fisheries development and conservation in Asia should be followed and implemented.
- Microfinance institutions should design services that are tailored to the needs of poor inland fishers.
- Small regular savings promoting economic empowerment should be a built-in component of microfinance programmes.

International/regional organizations and donors

- FAO should take an advisory role in inland fishery resources management, and encourage and assist national governments in establishing river basin commissions to ensure that institutional arrangements in all areas of the river under different administrative jurisdictions are consistent and non-conflicting.
- Fishing communities and their associations need access to loans for the rehabilitation of fish habitats and fish stock enhancement. International and regional institutions such as FAO and APRACA should act as catalysts to encourage financial institutions to make loans available for such purposes.

- Donors and international financial institutions should assist the inland capture fisheries sector through the provision of guarantee funds in support of the implementation of inland fisheries management measures.
- International and regional institutions should act as facilitators between microfinance institutions and the fisheries sector.
- A regional or international workshop should be organized to bring all stakeholders from various sectors together to discuss the effects of dams on fish and fisheries.
- A regional workshop should be organized on the promotion of inland capture fisheries and aquaculture insurance in Asia.
- International and regional organizations and donors should promote capacity building and skills enhancement in microfinance for poverty alleviation and the sustainable use of inland capture fishery resources.

Fishers

- Fishers should organize themselves to take better care of their interests at all levels. Their organizations, associations and SHGs can act as financial intermediaries and guarantors of loans from microfinance institutions. Fishers should take responsibility for the sustainable management and well-being of inland fishery resources and fishers.

Non-governmental organizations

- NGOs should strengthen their role in creating awareness on inland capture fisheries and the ecosystem in which fisheries activities take place, and in promoting dialogue among the different stakeholders at international and national levels for better management and development of the sector.
- NGOs can play a crucial role in all capacity-building and training aspects related to community-based management of inland fishery resources, the formation and operation of SHGs and producer associations, management of microfinance programmes, as well as in technical training related to development of small and medium-scale fishery enterprises.

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ANNEX 2. PROGRAMME OF THE BEIJING WORKSHOP, 2006

14 February 2006	
8.00	Registration
9.00	Opening ceremony Welcome addresses by representatives of the Fisheries Bureau, Ministry of Agriculture, China; the FAO Representation in China; the Fisheries Department, FAO Rome; the East China Sea Fisheries Research Institute and the Chinese Academy of Fishery Sciences Introduction of participants
11.00	Break
11.15	Background and objectives of the workshop, by Mr Gerd Marmulla, Fishery Resources Officer, FAO Rome
11.30	<i>Presentation of country case studies</i> Chair: Mr Benedicto Bayaua Rapporteur: Mr Raymon van Anrooy China: Dr Xie Yingliang/Zhu Decheng: <i>The potential for inland fisheries development and rehabilitation and supporting credit/microfinance programmes at Lake Luoma</i>
12.15	Lunch
14.00	Myanmar: Ms Nu Nu Aye/Mr Khin Maung Win: <i>Institutional credit and microfinance sources in Myanmar with special reference to livelihoods in Lake Inlay, Southern Shan State</i>
14.45	India: P.V. Dehadrai: <i>Management challenges regarding riverine fisheries and fishers in India</i>
15.30	Break
15.45	India: Mr M.A. Upare: <i>Credit and microfinance programmes on inland capture fisheries in West Bengal and Assam State, India – a case study</i>
16.30	Cambodia: Mr Heng Sotharith: <i>Increasing inland fisheries production and livelihood security in Cambodia through aquaculture and supporting credit/microfinance programmes – risks and prospects</i>
15 February 2006	
9.00	Chair: Mr Huang Shuo Lin Rapporteur: Ms Susana V. Siar China: Dr Xie Xiangling/Yan Xiaomei: <i>A success story of inland fisheries development and rehabilitation, and supporting credit/microfinance programmes at Lake Taihu</i>
9.45	Malaysia: Ms Hjh Mahyam Mohd Isa: <i>Successful involvement of local communities in conservation programmes of Malayan Mahaseer in River Kinabatangan of Sabah State</i>
10.30	Break
10.45	Presentations from APRACA member institutions on credit and microfinance programmes in Indonesia, Viet Nam and Thailand
11.30	Mr Raymon van Anrooy, FAO Rome: <i>Linkages between microfinance and insurance in inland fisheries</i>
12.00	Discussion
12.15	Lunch
14.00	Mr Chen Daqing: <i>Ecological fisheries development and micro-credit at Zhangdu Lake</i>
14.30	APRACA: Mr Benedicto Bayaua

15.30	Break
15.45	Working group session: constraints to and opportunities for the development and sustainable use of inland fisheries
16 February 2006	
9.00	Chair: Mr Upare Rapporteur: Mr Gerd Marmulla Presentation of working group reports
10.30	Break
10.45	Working group session: Recommendations and guidelines for credit and microfinance programmes in support of the sustainable use of inland fishery resources and poverty alleviation
12.30	Lunch
14.00	Presentation of working group reports
15.00	Break
15.30	Discussion and finalization of workshop conclusions
16.00	Discussion on and finalization of recommendations and guidelines for credit and microfinance programmes in support of sustainable use of inland fishery resources and poverty alleviation
16.30	Closing session: closing remarks by representatives of the East China Sea Fisheries Research Institute and the FAO Fisheries Department
	17 February 2006
8.30	Field visit

ANNEX 3. WELCOME ADDRESSES

Welcome address of Mr Liu Zheng, Vice-Director of the Bureau of Fisheries of the Ministry of Agriculture of China

Ladies and gentlemen, dear friends,

Having just celebrated the biggest Chinese festival, the Spring Festival, Chinese people all over the world are still immersed in a festive atmosphere of peace, harmony and happiness. In such a favourable atmosphere, we gather here in Beijing for the opening ceremony of the FAO Regional Workshop on Guidance for Credit and Microfinance Programmes in Support of Sustainable Use of Inland Fishery Resources and Poverty Alleviation. First, please allow me, on behalf of the Bureau of Fisheries of the Ministry of Agriculture of the People's Republic of China, to extend my heartfelt congratulations on the convening of this workshop. I would also like to warmly welcome all the participants and guests, wishing all of you good health and a Happy New Year.

As a mainstay of agriculture, the fisheries sector plays an important role in ensuring food security and improving the quality of life of the community. For a long time, countries in the Asia and the Pacific region have made remarkable achievements in advancing fisheries development. But we are still facing some big problems and challenges imposed by nature, the economy and social factors. We should attach great importance to strengthening cooperation and joining efforts to improve the overall status of inland fisheries.

China is an important country for both the production and the consumption of fish products. In order to ensure a sustainable development of fisheries, the Chinese Government has always geared itself towards improving fish products and increasing the income of fishers. Over the years, we have persistently adhered to the fisheries development policy of giving priority to aquaculture, paying equal attention to raising, harvesting and processing fish and ensuring that development takes place in accordance with local conditions. By adjusting our production in response to markets and actively advancing the adjustment of the structure of the fishery industry, we have developed the capacity of fish production and enhanced the management of fishery resources, ecology and the environment, and aquatic product quality and safety, as well as the import and export trade. For many years, Chinese fisheries and the fisheries economy have maintained a positive trend of development.

In 2004, Chinese aquatic production amounted to 49.02 million tonnes, including 21.34 million tonnes of inland products. Regarding inland aquatic products, the capture fisheries production reached 2.42 million tonnes, representing 11.34 percent of the total, while the inland aquaculture production was 18.92 million tonnes, representing 88.66 percent of the total. Classified by species groups, finfish production was 18.93 million tonnes, crustacean production, 1.53 million tonnes, and the shellfish production, 0.53 million tonnes. Chinese imports and exports of aquatic products amounted to 5.41 million tonnes, with a total value of US\$10.2 billion.

Being among the countries with the largest inland water areas, China's inland water area is 18.38 million ha, covering 1.8 percent of our total land area. Of the total Chinese inland water areas, rivers cover 7.65 million ha and account for 39 percent of the total inland water area. There are 24 000 natural lakes, covering 7.14 million ha and accounting for 42.4 percent of the total inland water area; 83 000 reservoirs with an area of 2.11 million ha, representing 11.9 percent of the total water area; and ponds with a total area of 1.48 million ha, which occupy 13.8 percent of the total inland water area. China owns abundant inland water aquatic resources, including 709 species and

58 subspecies of freshwater fishes, 64 species of migratory fishes and some crustacean, shellfish and amphibian resources.

Great progress has been made over the years in Chinese inland fisheries, which play an important role in ensuring food supplies and food security, by increasing the income of fish farmers and fishers. But with the rapid development of industrialization, continuous growth of the population and overexploitation of water resources, there are still some limiting factors to their development. The main threats to sustainable inland fisheries development in Asia were identified as: the reduction of survival space and the modification of the habitats of fish and aquatic organisms; pollution of water bodies and aquatic environment; the degeneration of fish germplasm; local conflict in the management and utilization of migratory fish stocks. Other main threats were the lack of capital needed for the development and rehabilitation of inland fisheries, and related to this, the lack of awareness of financial institutions of the investment and credit needs of inland fisheries.

In view of the current status of Chinese inland aquatic resources and environment, the Chinese Government has adopted a series of measures to ensure sustainable development of fisheries. The State Council has issued regulations for the protection of aquatic resource breeding in the form of a protocol drafted by the Ministry of Fisheries in 1964 and put into practice in February 1979. Later, the Chinese Government enacted the Law of the People's Republic of China on the Protection of Water Pollution (1984), the Law of the People's Republic of China on Fisheries (1986) and its revision (2000), the Law of the People's Republic of China on Environmental Protection (1989) and Regulations of the People's Republic of China on the Protection of Wild Animals (1993).

Yangtze River, known as the "Mother River of China", has a total length of 6 300 km and flows through ten provinces of the country. In order to protect and rehabilitate fishery resources in Yangtze River, the Chinese Government has implemented regulations regarding closed fishing seasons in the river on the basis of trials conducted in the spring of 2002. Fishing is not allowed from 1 January to 30 April upstream of the Gezhou Dam and from 1 May to 30 June downstream of the Gezhou Dam. At the same time, stocking programmes were expanded. Other management measures are: controlling the efficiency of fishing boats and fishing efforts; managing fishing licences; introducing closed seasons in large rivers and lakes; monitoring the environment and water pollution; rehabilitating river and lake ecology and environment; protecting aquatic plants and animals; breeding and releasing important aquatic species; and setting up protective measures for species in severe danger. All these measures play important roles in protecting the ecology and environment of inland fisheries, conserving and enhancing aquatic resources, promoting the sustainable utilization of inland fishery resources, and increasing the income of fishers.

Officials of the Fisheries Department of FAO, the General-Secretary of APRACA, and government officials, and fisheries and finance experts from India, Malaysia, Cambodia, Myanmar, Viet Nam, Thailand, Indonesia, and inland fishery management leaders and experts from China have been brought to Beijing through the convening of this workshop. All of us gather together here to discuss matters of common concern. This will also give us an opportunity to learn from our guests and provide insights in the development of Chinese inland fisheries.

I believe that the fisheries departments of countries in the Asia and the Pacific region will attach greater importance to the sustainable utilization of inland fishery resources after this workshop. The Chinese Government has always been concerned with sustainable utilization of inland fishery resources and the increase of income of inland fishing communities. Many programmes for developing the rural economy and improving farmers' income were implemented to sustain agriculture and fisheries through policy and financial measures in order to solve the problems of our country's

rural areas, agriculturists and farmers. China strives for even greater achievements by promoting a healthy environment, building a harmonious society and further developing its inland fisheries with support from FAO and through the joint efforts of the countries in Asia and the Pacific region.

Dear friends, ladies and gentlemen!

Let us join hands and make joint efforts to improve cooperation in the development of fisheries in the Asia and the Pacific region and to achieve the global aim of fisheries development. At the same time, I wish everyone a pleasant stay in Beijing. I also wish the workshop a complete success!

Thank you!

Welcome Address of Dr Nouredin Mona, FAO Representative in China, DPR Korea and Mongolia

Mr Chairman, distinguished guests, ladies and gentlemen,

Good morning!

On behalf of FAO, I have the privilege to warmly welcome you to this Regional Workshop on Guidance for Credit and Microfinance Programmes in Support of Sustainable Use of Inland Fishery Resources and Poverty Alleviation. I should like to express our appreciation to the China Society of Fisheries for generously hosting and co-sponsoring this workshop.

FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. Achieving food security for all is at the heart of FAO's efforts. The reduction of food insecurity and rural poverty, and the promotion of sustainable rural livelihoods and more equitable access to resources are major strategies within FAO's strategic framework for 2000 to 2015. Strong and poverty-focused fisheries development is one of the contributors to the successful implementation of these strategies. FAO's major programme on fisheries aims to promote sustainable development of responsible fisheries and to contribute to food security.

Fish is a key ingredient in the global menu, a vital factor in the global environmental balance and an important basis for livelihoods worldwide. In Asia, fish is a source of "rich food for poor people" and can play an important role in improving people's food security and nutritional status. It needs to be placed where it belongs – high on the global, regional and national agenda, and integrated into thinking, action and policies at the highest levels by all nations.

Inland fishery resources in the region are noted for their variety, biodiversity, rich ecological heritage and production potential. As this region produces almost half of the world's total capture fisheries production from inland waters, inland fisheries have the potential to contribute even further to pro-poor growth and poverty reduction in several ways: through local enterprise development, and regional and international trade.

In less than 50 years, the world's average per capita consumption of fish has almost doubled. As the overall demand for an adequate supply of fish continues to increase, we are forced to face the fact that this level of demand may not be met. Trying to meet it may cause long-term, irreversible damage to the environment and limit the future options of many people.

Asian countries have been working hard to improve regional cooperation and national capacities to develop a more integrated approach to managing inland fishery resources. There is still a tremendous scope for increasing technical and financial support to responsible inland capture fisheries development and rehabilitation in Asia. In particular, increased capital input and financial institutions' awareness of

the investment and credit needs of inland fisheries are deemed crucial. Cooperation between stakeholders, local management authorities and government bodies and financial institutions should be strengthened.

This workshop is organized to facilitate this process. In the next four days, the distinguished participants will exchange their experiences, views and ideas. It is my wish that the workshop will result in specific and pragmatic recommendations for national governments, financial institutions, stakeholders and fisheries administrations.

Before I conclude, I would like to thank you all on behalf of FAO for accepting our invitation to participate in this workshop. I also wish that your deliberations will be successful and I can assure you of FAO's full support to further your country programmes on inland fisheries development.

I wish a pleasant stay to all foreign friends and wish the workshop the best of success.

Thank you.

Welcome address of Dr Susana Siar, Fishery Industry Officer, FAO Rome

Distinguished participants in this regional workshop, ladies and gentlemen,

Good morning! On behalf of the Fisheries Department and my colleagues who are present here today, I would like to express our warm appreciation to the China Society of Fisheries and the East China Sea Fisheries Research Institute for organizing this workshop and providing excellent arrangements.

The mission of the FAO Fisheries Department is to facilitate and secure long-term sustainable development and utilization of the world's fishery resources and aquaculture. By these we mean: meeting global and national food security objectives; alleviating poverty and sustaining livelihoods; and contributing to national and international trade. FAO implements its fisheries mission through a range of different but interrelated activities, such as information dissemination, objective and neutral policy advice, methodology development and adaptation, technology transfer, technical assistance and capacity building.

One of the major activities of the FAO Fisheries Department is the formulation of guidelines and extension materials for micro-enterprise and microfinance development in support of poverty alleviation in small-scale fishing communities and the pilot-testing of these materials in close cooperation with fishing communities, fisheries development agencies and NGOs. Since 1989, the FAO Fisheries Department has been providing guidance on credit programmes for fishing communities with the publication of *Management guidelines for revolving loan funds and credit programmes for fishing communities* (Dorsey, Ryhanen and Tietze, 1989). The importance of microfinance as a crucial development tool for poverty reduction was reinforced with the passage of the United Nations General Assembly Resolution 52/194 on 18 December 1997, which noted that in many countries, microcredit programmes have succeeded in generating productive self-employment by providing access to small capitals for people living in poverty.

Experiences of microfinance institutions have shown that there is a demand among the poor for savings, deposit, insurance and loan services, and when they do obtain access to these, they are able to save and repay their loans. Microfinance has made a difference in the lives of many poor women, whose engagement in micro-enterprises has led to increased well-being for their families and a sense of empowerment. Microfinance provides livelihood options for many fishing households and helps reduce their vulnerability.

Beginning in 2002, the FAO Fisheries Department has organized regional workshops with the objective of drawing conclusions from recent experiences with microfinance

programmes in fisheries and aquaculture in Asia. In December of last year, the Executive Committee of the Asia Pacific Rural and Agricultural Credit Association, which is represented here today, and representatives from the Agriculture and Fisheries Departments of FAO and APRACA, and work together in areas of common concerns, one of which is in the field of microfinance for fishing communities. This regional workshop is devoted to credit and microfinance programmes in support of the sustainable use of inland fishery resources and poverty alleviation.

In many countries, inland fisheries are important for providing food and income for many households dependent on fishing and post-harvest activities. At the 26th Session of the Committee on Fisheries in March 2005, it was observed that inland fisheries need to be accorded greater attention, and proposed that specific policy interventions in support of these fisheries should be identified. This regional workshop gives us the opportunity to formulate recommendations and guidelines for credit and microfinance in support of the sustainable use of inland fishery resources and poverty alleviation, which would be useful to many countries in Asia.

My colleagues and I are looking forward to the active participation of everyone and to lively and fruitful discussions during these four days. Thank you very much for your attention.

Welcome address of Prof. Chen Xuezhong, Director, East China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences

Honoured guests from FAO, dear fishery colleagues, dear leaders, ladies and gentlemen,

As a Chinese saying goes: "A new year starts with spring." It is at the time of the Chinese lunar festival season that we gather here in Beijing to hold the opening ceremony of the *FAO Regional Workshop on Guidance for Credit and Microfinance Programmes in Support of Sustainable Use of Inland Fishery Resources and Poverty Alleviation*. On behalf of our host, I would like to take this opportunity to extend my warm welcome to all participants of this workshop and all guests, and wish you good health and all the best.

Dear participants, in recent years, the Chinese fishery output has increased rapidly under the leadership and care of the government. Aquatic production has increased by ten percent annually, with its value accounting for 11 percent of the gross output value of agriculture. The rapid development of fisheries has met the market's needs and its products play a major role in enriching people's dietary patterns, ensuring food security and agricultural development, and increasing the income of farmers and of the fishing community. We owe all these achievements to the strong support from our government, the progress of fishery science and technology, and also to the wide international exchanges and cooperation in the field of fishery science and technology.

As one of the countries with the largest freshwater areas, China owns 6.84 million ha of river areas. There are 24 000 lakes and 83 000 reservoirs, which provide vast spaces to develop inland fisheries. Chinese inland fisheries have developed greatly since the adoption of the policy of reform and opening up to the outside world. By 2004, Chinese freshwater aquatic products totalled 21.34 million tonnes, accounting for 43.5 percent of the total aquatic production. Preliminary statistics show that these products totalled 22.41 million tonnes in 2005, which accounted for 43.9 percent of the nation's total aquatic products. Inland fisheries have become a main component of the fisheries economy and provide high-quality protein resources for people living in the interior parts of the country. But there are still detrimental factors in Chinese inland

fisheries development, for example, cases of an unreasonable utilization of inland water and aquatic resources, overfishing driven by profit motives, as well as negative effects of overfishing on biological diversity and germplasm protection, and of aquaculture on genetic biodiversity and on the ecology. We should solve these problems from the viewpoint of scientific development, with a pragmatic and realistic attitude and through scientific research.

In light of the current status of inland aquatic resources and environment, the Chinese Government has adopted a series of strategies based on its fisheries development policy to ensure the sustainable development of the fishery industry while following the principle of sustainable development, and protecting and rehabilitating fishery resources, ecology and the environment. In recent years, the Ministry of Agriculture has taken measures relating to the waters of Yangtze River and other big inland lakes based on scientific research, such as: a seasonal ban on fishing in big rivers and lakes; restrictions of the power and fishing efficiency of fishing vessels; the introduction of catch quotas; the limiting of fishing effort in keeping with natural growth; and regeneration of stocks.

At the same time, measures have also been taken by setting up and implementing management mechanisms and action plans to monitor and rehabilitate ecology and the environment, to increase the value of and enhance important aquatic resources, and to protect rare and endangered species from threats. Through implementing these measures and plans, obvious achievements have been made, which in turn have strongly promoted a healthy and sustainable inland fisheries development and increased both the current and future potential income of the inland fishing community.

Dear friends, we feel it is an honour for our institute to host this workshop for FAO here in Beijing together with the China Society of Fisheries. We feel happy to gather here with officials of the Fisheries Department of FAO, the Secretary-General of APRACA and all the experts from both home and abroad to discuss issues of common concern and exchange ideas. As a national institution engaged in fishery research, we take it as our responsibility to carry out measures to protect natural resources and to implement sustainable management measures and responsible fishing practices. I believe that the advanced experiences from the participating countries will greatly benefit the development of inland fisheries in our country. I also believe that under the care and direction of FAO and through the combined efforts of all the experts participating in this workshop, the inland fisheries of Southeast Asian countries will certainly look forward to a harmonious and healthy development.

To end my speech, I wish the workshop a complete success and also wish all participants a pleasant stay in Beijing!

Thank you!