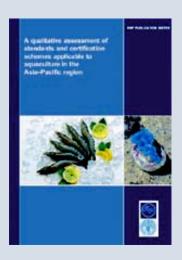
## Aquaculture and Aquaculture-related publications







Valbo-Jorgensen, J.; Thampson, P.M. Cultured-based fisheries in Bangladesh: a socio-economic perspective. *FAO Fisheries Technical Paper*. No. 499. Rome, FAO. 2007. 41 pp.

Fisheries policy in Bangladesh is still trying to get to grips with the major dilemmas of maximizing benefits from natural resources while ensuring an acceptable degree of equity in the distribution of benefits and protecting the ecosystems that support the resources. During the twentieth century Bangladesh adopted one sided production oriented policies in the agricultural sector to feed its rapidly growing population. This strategy included increasing fish production, then in decline mainly as a result of environmental degradation brought about by the expansion of agriculture. The solution was to develop aquaculture and later to promote culture based fisheries and large scale stocking in the floodplains and beels (lakes) that previously sustained capture fisheries. Although fish production per se in many cases may have increased as a result of this type of intervention, benefits have not been socially and environmentally sustainable. This document reviews and discusses the development of culture based fisheries and community based fisheries management in Bangladesh with regard to socio economic impacts as well as environmental effects and biodiversity loss.

Secretan, P.A.D.; Bueno, P.B.; van Anrooy, R.; Siar, S.V.; Olofsson, Å.; Bondad-Reantaso, M.G.; Funge-Smith, S. Guidelines to meet insurance and other risk management needs in developing aquaculture in Asia. *FAO Fisheries Technical Paper.* No. 496. Rome, FAO. 2007. 148 pp.

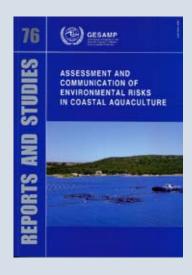
This documents contains the Guidelines for action to meet insurance and other risk management needs in developing aquaculture in Asia. These guidelines an outcome of a joint FAO, Network of Aquaculture Centres in Asiapacific (NACA) and Asia-Pacific Rural and Agricultural Credit Association (APRACA) Regional Workshop on the Promotion of Aquaculture Insurance in Asia, held in Bali, Indonesia, from 30 April to 2 May 2007. the workshop was hosted by the Government of Indonesia, Directorate General for Aquaculture, and attended by policy-makers and international experts form the rural finance, insurance and aquaculture sectors from both the region and elsewhere, The document also contains the Report of the Regional Workshop and two background papers produced for the workshop.

Corsin, F.; Funge-Smith, S. & Clausen, J. A qualitative assessment of standards and certification schemes applicable to aquaculture in the Asia–pacific region. FAO. 2007. 98 pp.

Recent years have seen markets becoming increasingly stringent towards the quality of food products. Initially, quality criteria addressed mainly food safety issues. However, in response to the concerns expressed by many non-governmental organizations and other stakeholders, product quality increasingly began to include criteria related to environmental and socio-economic sustainability. This trend can also be observed in fisheries and aquaculture products. Sustainability and corporate social and environmental responsibility were key topics discussed at the 2007 Seafood Summit and are likely to play a greater role in the sector. There is a notable difference between agriculture and fisheries commodities, especially as fisheries products are often much more diverse than those of agriculture in terms of both commodities and production systems. Requirements for quality criteria and the need to cope with this diversity have led, over the past few years, to an overwhelming proliferation of certification schemes. Many countries in Asia have expressed concern about the potential impact that these certification schemes may have on the supply chain, especially those of smallscale producers. This document reviews the voluntary standards and certification programmes applicable to the aquaculture sector in the Asia-Pacific region.







Bartley, D.M.; Brugère, C.; Soto, D.; Gerber, P.; Harvey, B. (eds).FAO/WFT Expert Workshop. Comparative assessment of the environmental costs of aquaculture and other food production sectors: methods for meaningful comparisons. 24-28 April 2006, Vancouver, Canada. FAO Fisheries Proceedings. No. 10. Rome, FAO. 2007. 241 pp.

The global food production sector is growing. In many areas farming systems are intensifying. This rapid growth has in some cases caused environmental damage. In acknowledgement of the potential for adverse environmental impacts from food production, the first session of the FAO Committee on Fisheries' Sub-Committee on aquaculture recommended "undertaking comparative analyses on the environmental cost of aquatic food production in relation to other terrestrial food production sectors". These proceedings include review papers describing methods for such comparisons s well as the deliberations of their authors, a group of international experts on environmental economics, energy accounting, material and environmental flows analysis, aquaculture, agriculture and international development discussed during the FO/WFT Expert Workshop on Comparative Assessment of the Environmental Costs of Aquaculture and Other Food Production Sectors, held in Vancouver, Canada, from 24 to 28 April 2006.

Lovatelli, A.; Phillips, M.J.; Arthur, J.R.; Koji Yamamoto (eds). FAO/NACA Regional Workshop on the Future of Mariculture: a Regional Approach for Responsible Development in the Asia-Pacific Region. 7-11 March 2006, Guangzhou, China. *FAO Fisheries Proceedings.* No. 11. Rome, FAO. 2008. 325 pp.

Aquaculture in the Southeast Asian region has been growing steadily over the last few decades, requiring more space to accommodate it. The search for additional areas to expand the aquaculture industry as a whole and the identification of new farming species of commercial value to satisfy the growing local and export markets are pushing the sector in some countries to broaden activities in the sea, including further offshore where more space is available and where, to a lesser extent, competition is currently not so intense. The Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Network of Aquaculture Centres in Asia-Pacific (NACA) organized the regional workshop entitled "The Future of Mariculture: A Regional Approach for Responsible Development in the Asia-Pacific Region" on 7-11 March 2006. The workshop was conducted in collaboration with the Ministry of Fisheries of the People's Republic of China and the Guangdong Ocean and Fisheries Administration. The workshop was convened in response to requests from FAO and NACA Member countries to identify key trends and issues affecting mariculture growth in the Asia-Pacific region and to strengthen regional collaboration for future responsible development of mariculture.

GESAMP (IMO/FAO/UNESCO-IOC/UNIDO/WMO/IAEA/UN/UNEP Joint Group of Experts on Scientific Aspects of Marine Environmental Protection) 2008. Assessment and communication of environmental risks in coastal aquaculture. Rome, FAO. *Reports and Studies GESAMP* No. 76: 198 pp.

This GESAMP study focuses environmental risk assessment and communication in coastal aquaculture. To support effectively an open and transparent approach to sustainable resource use, risk assessment and communication must be able to fit within a broader social, economic and environmental decisionmaking framework. The communication aspects become paramount in enabling sustainable development in that type of decision-making environment. This publication presents a set of objectives, goals, methodologies and a checklist for assessment and communication of environmental risks which may be associated with coastal aquaculture. It is structured to improve risk communication and to ensure that risk assessment is a scientific exercise in predicting environmental change. A set of six case studies is also presented to illustrate the use of the environmental risk assessment methodologies in coastal aquaculture. examples of environmental interactions span a range of cultured species from fin fish to molluscs and shrimp. The type of effects studied includes effects on carrying capacity, phytoplankton, kelp, benthic fauna, the genome of wild fishes and salinisation of soils.

Report of the fourth session of the Regional Commission for Fisheries. Jeddah, Kingdom of Saudi Arabia, 7–9 May 2007. [Bilingual version English/Arabic]. FAO Regional Office for the Near East. Report of the fourth session of the Regional Commission for Fisheries. Jeddah, Kingdom of Saudi Arabia, 7–9 May 2007. FAO Fisheries Report. No. 847. Rome, FAO. 2007. 48p. [Bilingual version English/Arabic]

The fourth session of the Regional Commission for Fisheries (RECOFI) was held in Jeddah, Kingdom of Saudi Arabia, during the period 7 to 9 May 2007. It was attended by delegates from seven Members of the Commission and by observers from international, regional and national fishery bodies and institutions. The meeting was organized to evaluate the progress of intersessional activities relating to recommendations of earlier sessions, address regional fisheries and aquaculture issues of concern and review plans for short- and medium-term activities. The Commission endorsed the work plan of its Working Group on Aquaculture (WGA), stressed the importance of developing and implementing national plans of action to prevent, deter and eliminate illegal, unreported and unregulated (IUU), fishing noted the increasing importance of fish food safety, and urged RECOFI Members and FAO to increase their efforts in improving fisheries information systems and methods of reporting of stock status in the region. In examining its role, responsibilities and future challenges, the Commission decided to expand its current Working Group on Statistics to a wider Working Group on Fisheries Management. Further, the Commission made recommendations concerning the organizational arrangements for its next session, agreed on its programme of work and adopted its budget for 2007-2008.

APFIC regional consultative workshop certification schemes for capture fisheries and aquaculture. Ho Chi Minh City, Viet Nam, 18-20 September 2007. RAP publication 2007/26. FAO. 2007. 38 pp.

This Workshop is contributing to the ongoing process of transforming the Asia-Pacific Fishery Commission (APFIC) into a consultative forum for APFIC members and organizations working in the region. The 29th Session of the APFIC recommended that, as one of its two major work themes in 2007-08, APFIC should focus on standards and trade in the fishery sector as one of the emerging issues in the region. In particular, the member countries specifically requested APFIC to review the costs and benefits ssociated with certification schemes for fisheries and aquaculture in the APFIC region. This regional consultative workshop was convened in response to this recommendation. The APFIC secretariat and the cohosting government Viet Nam convened the Regional Consultative Workshop in Ho Chi Minh City from 18 to 20 September 2007, with the objective of evaluating the potential for capture fisheries and aquaculture certification schemes and issues relating to their sustainability and implementation in the region.

It is recognized that fisheries and aquaculture certification could offer tangible benefits to APFIC member countries. However, this report concludes that a number of issues should be addressed for certification to contribute effectively to the sustainable development of fisheries and aquaculture in the region. It is crucial that there is considerable regional involvement in certification, especially on issues related to small-scale operations which are so important for the region. It is recommended that a higher degree of harmonization and equivalence of certification schemes should be explored. The number of certification schemes is increasing and this can potentially bring up the cost for both producers and consumers. The costs and benefits should be evenly distributed along the value chain. The report specifically notes that the producers should not bear the costs associated with certification alone. Governance and takeholder involvement is crucial to ensure not only good certification schemes but a sustainable development of the sector. A final point is the need for capacity building at both regional and national levels.

For the future development of both fisheries and aquaculture, especially in the Asia–Pacific region, it is crucial to ensure the involvement of small-scale fisheries and farmers as they represent a significant factor.

In Asia alone 12 million people are directly employed in aquaculture.

Rana, K.J. Regional review on aquaculture development. 6. Western-European region – 2005. FAO Fisheries Circular. No. 1017/6. Rome, FAO. 2007. 56 pp. Contains a CD-ROM

FAO regularly conducts global and regional reviews of aquaculture status and trends, most recently during 2005 and 2006. The present regional synthesis for Western-Europe provides an overview of major issues and trends in the aquaculture sector. Stagnating capture fisheries and soaring demand for seafood products in Europe have spurred the expansion of aquaculture in this region. In 2003 farmed finfish accounted for 62 percent in volume and 79 percent of value while farmed molluscs accounted for 38 percent and 21 percent of volume and value, respectively. The expansion between 1994 and 2003 was dominated by marine finfish production particularly of Atlantic salmon in Norway (71 percent), United Kingdom (19 percent) and Faeroe Islands (10 percent). Seabass and seabream farming in Greece, Turkey, Spain, Italy and France in 2003 accounted for 95 percent of production. The increased production and supply of fish was accompanied by falling farmgate prices triggering restructuring of the industry, as well as substantial increases in volume of the key finfish species. The review confirms features of a maturing aquaculture industry including specialization, increasing skills professionalism, diversification of technology and products, efficient production, vertical integration and development. market The growing environmental and social awareness and recognition of consumer and food safety preferences by the industry and the public sector are contributing to good farm management and governance measures which are enabling effective efforts towards sustainable development and responsible practices in aquaculture.