Purcell, S.W. Managing sea cucumber fisheries with an ecosystem approach. Edited/compiled by Lovatelli, A.; Vasconcellos M. & Yimin. Y. *FAO Fisheries and Aquaculture Technical Paper.* No. 520. Rome, FAO. 2010. 157 pp.

Sea cucumbers are important resources for coastal livelihoods in more than 40 countries and most of the harvests are processed then exported to Asian markets. Sadly, widespread overexploitation of wild stocks risks biodiversity loss and the long-term viability of fisheries. Spawned from an FAO international workshop of experts, this document presents a "roadmap" to guide fishery managers in choosing appropriate regulatory measures and management actions for sea cucumber fisheries. It elaborates on their use, limitations and modes of implementation, with Examples and lessons learned from various fisheries. Sea cucumber fisheries differ greatly in the scale of the fishing activities, status of stocks and the capacity of the management agency. Consequently, some management measures will be appropriate in some fishery scenarios but not others. Achieving sustainable management of sea cucumber fisheries requires an ecosystem approach to fisheries (EAF), precautionary regulations, improved enforcement and stronger commitment of fishery managers and policy makers.
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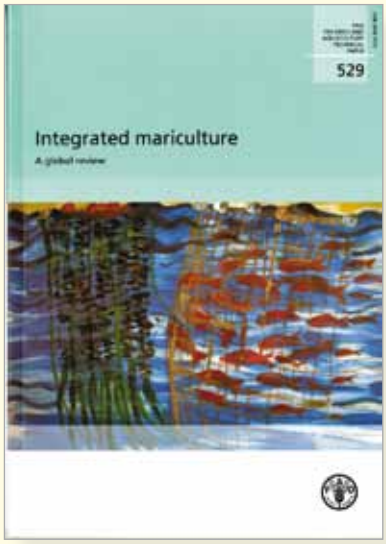

Soto. D. (ed.) Integrated mariculture: a global review: *FAO Fisheries and Aquaculture technical paper.* No. 529. Rome, FAO. 2009. 183 pp.

This technical paper provides a comprehensive review of current integrated mariculture practices around the world in three papers covering temperate zones, tropical zones and one semi-enclosed ecosystem, the Mediterranean Sea. Integrated mariculture includes a diverse range of co-culture/farming practices, from integrated multitrophic aquaculture to the more specialized integration of mangrove planting with aquaculture, called aquasilviculture. Modern integrated mariculture systems must be developed in order to assist sustainable expansion of the sector in coastal and marine ecosystems thus responding to the global increase for seafood demand but with a new paradigm of more efficient food production systems. Successful integrated mariculture operations must consider all relevant stakeholders into its development plan, there is also a need to facilitate commercialization and promote effective legislation for the support and inclusion of integrated mariculture through adequate incentives particularly considering the reduction of environmental costs associated to monoculture farming. Bioremediation of fed aquaculture impacts through integrated mariculture is a core benefit but the increase of production, more diverse and secure business and larger profits should not be underestimated as additional advantages.
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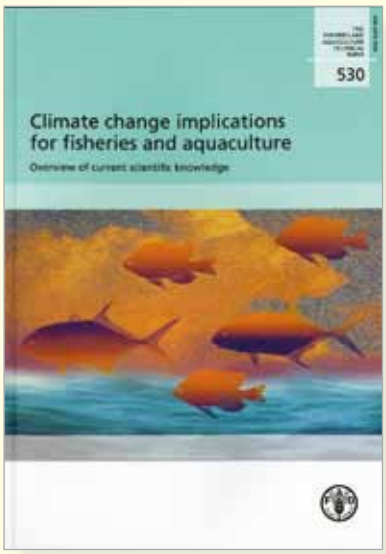
Doris.Soto@fao.org



Cochrane, K.; De Young, C.; Soto, D. & Bahri, T. (eds.). Climate change implications for fisheries and aquaculture: overview of current scientific knowledge. *FAO Fisheries and Aquaculture Technical Paper.* No. 530. Rome, FAO. 2009. 212 pp.

This document provides an overview of the current scientific knowledge available on climate change implications for fisheries and aquaculture. It contains three technical papers that were presented and discussed during the Expert Workshop on "Climate Change Implications for Fisheries and Aquaculture" (Rome, 7–9 April 2008). A summary of the workshop outcomes as well as key messages on impacts of climate change on aquatic ecosystems and on fisheries- and aquaculture-based livelihoods are provided in the introduction. The first paper addresses climate variability and change and their physical and ecological consequences on marine and freshwater environments. The second paper tackles the consequences of climate changes impacts on fishers and their communities and reviews possible adaptation and mitigation measures that could be implemented. Finally, the third paper addresses specifically the impacts of climate change on aquaculture and reviews possible adaptation and mitigation measures that could be implemented.
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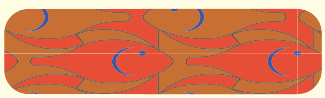

Rana, K.J.; Siriwardena, S. & Hasan, M.R. Impact of rising feed ingredient prices on aquafeeds and aquaculture production. *FAO Fisheries and Aquaculture Technical Paper*, No. 541. Rome, FAO. 2009. 63 pp.

The present technical paper investigates and evaluates the underlying reasons for the recent dramatic rise in prices of many of the commodities commonly used in aquafeed production and its consequences for the aquafeed industry, with particular reference to Asia and Europe. This paper also discusses issues related to availability and access to land and water resources, and the impact of other sectoral users of these resources on the direction of aquaculture in terms of production systems and the species produced. In view of increase in competition for land and water in major aquaculture producing countries in Asia, there will inevitably be increasing pressure to improve aquaculture productivity through intensification by using more of commercial feeds than farm-made feeds. Because of the increasing prices of ingredients, the prices of commercial compound aquafeeds may increase further and the shortfall in their local supply will compel imports. Among the ingredients, fishmeal and fish oil are highly favoured in aquafeeds and are under increasing pressure caused by limited supplies and increasing prices. Considering these factors, this paper also points out initiatives which search for substitution of fishmeal and fish oil to position the industry to meet the challenge of securing aquafeed for sustaining aquaculture. A brief overview of coping strategies to strengthen national capacity to address aquafeed supply and to mitigate rising aquafeed ingredient prices in terms of policies, research and private sector and farmers' initiatives are given.
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Aguilar-Manjarrez, J.; Kapetsky, J.M. & Soto, D. The potential of spatial planning tools to support the Ecosystem approach to aquaculture. FAO/Rome. Expert Workshop. 19–21 November 2008, Rome, Italy. *FAO Fisheries and Aquaculture Proceedings.* No.17. Rome, FAO, 2010, 176 p.

Attention is presently turning to the processes, methods and toolsthat allow practical implementation of the ecosystem approach toaquaculture (EAA). This will require the use of various tools andmethodologies, including environmental impact assessments andrisk analysis. Ecosystem-based management involves a transitionfrom traditional sector-by-sector planning and decision-makingto the more holistic approach of integrated natural resourcemanagement at different scales and for ecosystems that crossadministrative boundaries. An essential element for theimplementation of the EAA will be the use of spatial planningtools including Geographic Information Systems, remote sensingand mapping for data management, analysis, modelling anddecision-making. These proceedings focus on the status and processof implementing these tools which, in turn, necessitate thedevelopment of capacity building, training and promotion ofspatial planning among decision-makers and technical staff. Thedocument is organized in two parts. The first, the workshop report,deals with the background of the EAA effort and the genesis of theworkshop. Most importantly, it captures the salient contributions ofparticipants from their formal presentations and general discussions.The main conclusions of a review of the status and potentialof spatial planning tools, decision-making and modelling inimplementing the EAA are also included. The review itself,along with an abstract, forms the second part.
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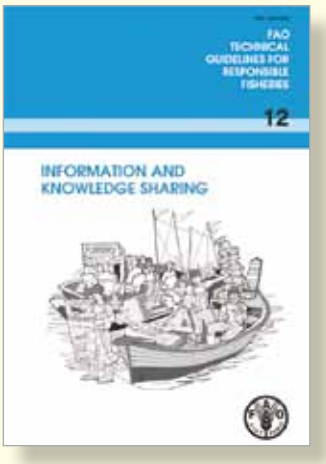
Russian versions of:
FAO Fisheries Department. Aquaculture Development. 1. Good aquaculture feed manufacturing practice. *FAO Technical Guidelines for Responsible Fisheries.* No. 5, Suppl. 1. Rome, FAO. 2001. 47 p.

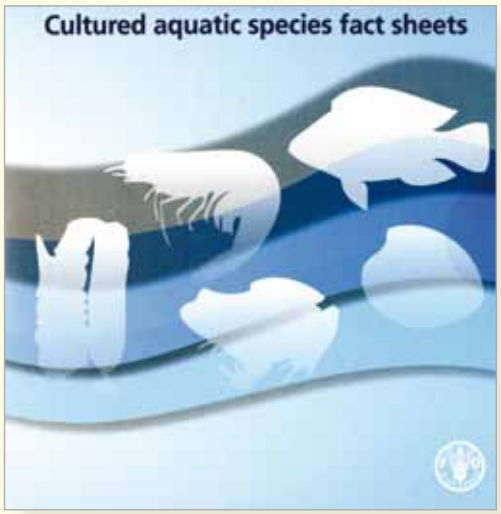
FAO Fisheries Department. Aquaculture Development. *FAO Technical Guidelines for Responsible Fisheries.* No. 5. Rome, FAO. 1997. 40 p.

The French and Spanish versions of:
FAO. 2008. Aquaculture development. 5. Genetic resource management. *FAO Technical Guidelines for Responsible Fisheries.* No. 5, Suppl. 3. Rome, FAO. 2008. 125p.

FAO. 2009. Développement de l'aquaculture. 3. Gestion des ressources génétiques. FAO Directives techniques pour une pêche responsable. No. 5, Suppl. 3. Rome, FAO. 160 p.

FAO. Desarollo de la acuicultura. 3. Gestión de recursos genéticos. *FAO Orientaciones Técnicas para la Pesca Responsable.* No. 5, Supl. 3. Roma, FAO. 2009. 148 p.





FAO. Information and knowledge sharing. *FAO Fisheries Technical Guidelines for Responsible Fisheries.* No. 12. Rome, FAO. 2009. 97 p. (Available also in Chinese, French and Spanish) .

These guidelines expand upon the information and knowledge aspects referred to throughout the 1995 FAO Code of Conduct for Responsible Fisheries. They highlight the issues involved for individuals and organizations to have access to the information they need and, as importantly, to share their own information and knowledge with others. The issues can be as diverse as information policy frameworks and information and communication technology infrastructure, each contributing to the essential flow of information between stakeholders. Particular attention is paid to the needs of developing countries, many of which continue to express concern that the lack of access to timely, relevant and accurate information is a serious constraint to the implementation of the Code. The resources and skills required for the creation, production, dissemination and availability of information and knowledge, its effective use and sharing by the present generation as well as its preservation for the future are often underestimated or even overlooked when new activities are being planned. These guidelines focus on information and knowledge sharing and the urgent need to address those areas which continue to constrain implementation of the Code.

For further information on the FAO Technical Guidelines for Responsible Fisheries Series, please contact :
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This CD-ROM contains 50 cultured aquatic species fact sheets produced by the Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations. The fact sheets are written in simple technical language and focus on the practical aspects of aquaculture, from seed supply to farming systems including harvesting techniques and marketing issues. All fact sheets are available in five FAO languages (Arabic, Chinese, English, French and Spanish), divided by groups of species and easily accessible through an introductory page and printable. The CD-ROM content is also available online at: ftp://ftp.fao.org/FI/DOCUMENT/aquaculture/CulturedSpecies/index.htm
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FAO Aquaculture publications 1999-2008

This USB pen drive contains a new FAO collection, produced by the Aquaculture Service of the FAO Fisheries and Aquaculture Department, consisting of all FAO aquaculture publications prepared during the decade 1999-2008. The collection has been prepared for the "Global Conference on Aquaculture 2010" (09-12 June 2010 in Bangkok, Thailand).
More than five hundred publications related to aquaculture, including CD-ROMs, web-based products and newsletters have been published and distributed worldwide during that time, in both hard and electronic versions and in various FAO official languages. All these publications have been assembled on this USB pen drive in order to make them easily available, printable and searchable to all users.
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