PART 4

Appendices

FAO Project and Technical Workshop on
Environmental Impact Assessment and Monitoring in Aquaculture

Appendix 1

Appendix 1 provides the Terms of Reference for preparation of four regional and one special case studies on EIA and monitoring in aquaculture, under project FAO/JPN/TF-GCP/936: Towards sustainable aquaculture: Selected issues and guidelines; Component 2: EIA and monitoring in aquaculture.

TERMS OF REFERENCE FOR REGIONAL CASE STUDIES IN FOUR REGIONS

Background and scope

Component 2 – "**EIA and monitoring in aquaculture**" of the FAO Project "Towards sustainable aquaculture: Selected issues and guidelines" envisages two major activities (see *Annex 1* for Description of the Project's Component 2). The First Activity foresees the:

- Compilation, review and synthesis of existing EIA and environmental monitoring procedures and practices in aquaculture.

Four Regional Case Studies will cover the compilation and review of existing EIA and environmental monitoring procedures and practices in aquaculture in selected countries of the four Composite Regions. The selection of the following countries is based primarily and pragmatically on their total aquaculture production volume and share in a given region, a preferred focus on major aquaculture commodities (e.g. salmon, tilapia, trout, catfish, sea bass, gouper, shrimp, carps, bivalves, etc), and assumed availability of and access to sufficient information in the countries, as follows:

Africa:	Egypt, Nigeria, Mozambique, South Africa, Uganda, (others: Madagascar, Tanzania, Zambia);
Asia/Oceania:	China, Australia, India, Indonesia, Japan, Malaysia, Philippines, Thailand, Viet Nam (others: Bangladesh, Sri Lanka, South Korea)
Europe/NorthAmerica:	Czech Republic, France, Greece, Hungary, Italy, Netherlands, Poland, Spain, Turkey, UK, and Canada/ United States of America
Latin America:	Brazil, Colombia, Cuba, Ecuador, Honduras, Mexico

For each country covered the focus of study will be on the top three aquaculture species/commodities produced.

The author is informed that a special case study is being undertaken separately with respect to EIA and environmental monitoring in cage aquaculture of salmon in Canada, Chile, Ireland, New Zealand, Norway, UK and United States of America. The Terms of Reference for this study are attached for information and reference by the authors of the regional studies (see Annex 2).

A synthesis report will be prepared once these four regional case studies and the special salmon cage aquaculture study are finalized.

Specific tasks for the author of the Regional Case Study in [the region given]

Each Regional Case Study will give special consideration to four areas related to EIA and monitoring in aquaculture including : (1) the requirements; (2) the practice, (3) the effectiveness and (4) suggestions for improvements.

The author of the Regional Case Study in *[the given region]* will compile and review existing EIA and environmental monitoring procedures and practices in aquaculture in the countries highlighted in section (1) Background and Scope, and in particular undertake the following tasks:

Checking the requirements

1. Compile and review the regulatory / legal requirements of (1) conducting and presenting EIA studies/statements before establishment and operation of aquaculture farms, and (2) conducting and presenting EIA studies/statements during operation of a given aquaculture farm (i.e. those EIA studies/statements that are required in licences/permits which have to renewed, or which may regulate conditions for expansion, intensification, etc);
2. Compile and review the regulatory / legal requirements of regular conduct and presentation of environmental impact monitoring efforts during the operation of a given aquaculture farm (the emphasis here is on regularly conducted environmental monitoring efforts);
3. Compile and review the soft-law based , recommended practices and procedures for EIA and environmental monitoring measures, as mandated by voluntary instruments such as codes of practice, best practice guidelines, certification schemes, etc, as and where existing;

Checking the practice

4. Record and describe the methodologies and procedures (environmental assessment and monitoring methods, sampling techniques, data recording/interpretation, etc) applied for the EIA and monitoring efforts used, the personnel and expenses involved, and the difficulties and constraints in implementing such EIA studies and recurrent environmental monitoring efforts

Checking the effectiveness

5. Appraise the efficiency and effectiveness of existing EIA and monitoring requirements and practices, as stipulated in both obligatory and voluntary instruments, with particular emphasis on :
   (a) the technical appropriateness of the application and conduct of EIA and monitoring methodologies in such studies;
   (b) the use (by investors, producers, regulators, etc) of generated data and information for improved performance in aquaculture site/system selection, farm development, operation and management;
   (c) assessment, control, maintenance or improvement of environmental quality (parameters, standards, objectives) in a given environment (site, location, habitat, ecosystem), as used and affected by a given aquaculture development with a view to appraising the effective outcome of the EIA and monitoring efforts (assessing the actual effect – positive, nil, negative - on the given environment of such efforts). In other words, how is it ensured that these EIA studies are actually meaningful and effective for protection of the environment (does it make a difference to have these EIAs, for example to prevent from eutrophication?).;
   (d) use of generated information for improved management, in particular response and enforcement measures (required adjustments by producers in response to monitoring results vis-à-vis established thresholds) – verification and validation of results;
   (e) the existence of feedback mechanism and regular revision and review of the legal requirements for EIA and monitoring procedures and practices of a prevailing EIA system for aquaculture;

(f) the general perception of stakeholders (producers, environmental and other NGOs, scientists, etc) about the effectiveness of the requirements.

Suggesting possible improvements

6. With regard to findings and conclusions on the above, identify and discuss technical/scientific, financial, social and jurisdictional/legal issues (constraints, problems) and suggest areas and opportunities for possible improvements, (eg. adjustments/modifications of existing EIA & monitoring requirements and practices), needs for capacity building, competency development, and for collaboration between producers, producer organizations, EIA & monitoring experts, regulators, NGOs, certifiers, etc.

For the purposes of the above tasks, the author will compile relevant information as may be available in sources such as the scientific literature, professional & trade journals, grey literature, internet, regulatory authorities, industry associations, aquaculture or fisheries societies, environmental organizations, individual experts.

Expected Output

The author will write (using MS WORD and other supporting MS software) a comprehensive review paper in English, including tables, graphs, etc., providing all available references and sources to documentation including that published on the internet. The document will include abstract, summary, and contents as per above listed specific tasks. The author will acknowledge all contacted persons and institutions providing substantial input to the Study. The author will follow and apply FAO editorial and publishing guidelines to the expected document.

TERMS OF REFERENCE FOR SALMON AQUACULTURE CASE STUDY IN SALMON PRODUCER COUNTRIES

Background and scope

Component 2 – "**EIA and monitoring in aquaculture**" of the FAO Project "Towards sustainable aquaculture: Selected issues and guidelines" envisages two major activities; 1) Compilation, review and synthesis (based on desk studies) of existing EIA and monitoring procedures and practices in aquaculture and 2) Identification - through scoping/ranking case studies and a technical seminar - of environmental assessment approaches and methodologies most suitable to different production systems, commodities and environments.

The present terms of reference involve the First Activity which includes the following subcomponents:

a) Four Regional Case Studies will cover the compilation and review of existing EIA and environmental monitoring procedures and practices in aquaculture in selected countries of the four Composite Regions. The selection of the following countries is based primarily and pragmatically on their total aquaculture production volume and share in a given region, a preferred focus on major aquaculture commodities (e.g. salmon, tilapia, trout, catfish, seabass, gouper, shrimp, carps, bivalves, etc), and assumed availability of and access to sufficient information in the countries, as follows:

Africa:	Egypt, Nigeria, Madagascar, South Africa, (others: Tanzania, Uganda, Zambia);
Asia/Oceania:	China, Australia, India, Indonesia, Japan, Malaysia, Philippines, Thailand, Viet Nam (others: Bangladesh, Sri Lanka, South Korea)

Europe/NorthAmerica:	Czech Republic, France, Greece, Hungary, Italy, Netherlands, Poland, Spain, Turkey, UK, and Canada/United States of America
Latin America:	Brazil, Colombia, Cuba, Ecuador, Honduras, Mexico

For each country covered the focus of study will be on the top three aquaculture species/commodities produced.

b) A special case study on EIA and environmental monitoring in cage aquaculture of salmon in Canada, Chile, Ireland, New Zealand, Norway, UK and United States of America.

A synthesis report will be prepared once these four regional case studies and the special salmon cage aquaculture study are finalized.

Specific tasks for the author of the Salmon Farming Case Study (SALEIA)

SALEIA will give special consideration to four areas related to EIA and monitoring in including: (1) the requirements; (2) the practice, (3) the effectiveness and (4) suggestions for improvements.

The author of the SALEIA will compile and review existing EIA and environmental monitoring procedures and practices in salmon farming in the countries highlighted in section (1) Background and Scope, and in particular undertake the following tasks :

Checking the requirements

7. Compile and review the regulatory / legal requirements of (1) conducting and presenting EIA studies/statements before establishment and operation of salmon farming, and (2) conducting and presenting EIA studies/statements during operation of a farm (i.e. those EIA studies/statements that are required in licences/permits which have to be renewed, or which may regulate conditions for expansion, intensification, etc);
8. Compile and review the regulatory / legal requirements of regular conduct and presentation of environmental impact monitoring efforts during the operation of a farm (the emphasis here is on regularly conducted environmental monitoring efforts);
9. Compile and review the soft-law based , recommended practices and procedures for EIA and environmental monitoring measures, as mandated by voluntary instruments such as codes of practice, best practice guidelines, certification schemes, etc, as and where existing;

Checking the practice

10. Record and describe the methodologies and procedures (environmental assessment and monitoring methods, sampling techniques, data recording/interpretation, etc) applied for the EIA and monitoring efforts used, the personnel and expenses involved, and the difficulties and constraints in implementing such EIA studies and recurrent environmental monitoring efforts

Checking the effectiveness

11. Appraise the efficiency and effectiveness of existing EIA and monitoring requirements and practices, as stipulated in both obligatory and voluntary instruments, with particular emphasis on :
    (g) the technical appropriateness of the application and conduct of EIA and monitoring methodologies in such studies;
    (h) the use (by investors, producers, regulators, etc) of generated data and information for improved performance in aquaculture site/system selection, farm development, operation and management;

(i) assessment, control, maintenance or improvement of environmental quality (parameters, standards, objectives) in a given environment (site, location, habitat, ecosystem), as used and affected by a given aquaculture development with a view to appraising the effective outcome of the EIA and monitoring efforts (assessing the actual effect – positive, nil, negative - on the given environment of such efforts). In other words, how is it ensured that these EIA studies are actually meaningful and effective for protection of the environment (does it make a difference to have these EIAs, for example to prevent from eutrophication?).;
(j) use of generated information for improved management, in particular response and enforcement measures (required adjustments by producers in response to monitoring results vis-à-vis established thresholds) – verification and validation of results;
(k) the existence of feedback mechanism and regular revision and review of the legal requirements for EIA and monitoring procedures and practices of a prevailing EIA system for salmonfarming;
(l) the general perception of stakeholders (producers, environmental and other NGOs, scientists, etc) about the effectiveness of the requirements.

Suggesting possible improvements

12. With regard to findings and conclusions on the above, identify and discuss technical/ scientific, financial, social and jurisdictional/legal issues (constraints, problems) and suggest areas and opportunities for possible improvements, (eg. adjustments/ modifications of existing EIA & monitoring requirements and practices), needs for capacity building, competency development, and for collaboration between producers, producer organizations, EIA & monitoring experts, regulators, NGOs, certifiers, etc.
13. Provide a synthesis Table or other format for comparative analysis of the countries included regarding requirements, practice and effectiveness

For the purposes of the above tasks, the author will compile relevant information as may be available in sources such as the scientific literature, professional & trade journals, grey literature, internet, regulatory authorities, industry associations, aquaculture or fisheries societies, environmental organizations, individual experts.

Expected Output

The author will write (using MS WORD and other supporting MS software) a comprehensive review paper in English, including tables, graphs, etc., providing all available references and sources to documentation including that published on the internet. The document will include abstract, summary, and contents as per above listed specific tasks. The author will acknowledge all contacted persons and institutions providing substantial input to the Study. The author will follow and apply FAO editorial and publishing guidelines to the expected document.

Appendix 2

Description of Project Component 2: Environmental Impact Assessment and Monitoring in Aquaculture, within Project FAO/JPN/TF-GCP/936: Towards sustainable aquaculture: Selected issues and guidelines.

[2] B.1 PROBLEMS TO BE ADDRESSED: THE PRESENT SITUATION

Aquaculture is a significant and continuously growing food production sector. In many cases it provides income, employment and can significantly contribute to supply of much needed protein and food security in general. However, in many cases aquaculture practices have also caused negative effects, including social, economic and environmental impacts. The result in many cases has been that serious concerns have been expressed about the overall environmental sustainability of aquaculture practices, and strong criticism had been voiced against aquaculture developments.

A key issue in this context is to provide adequate and generally accepted information about the environmental impacts of aquaculture operations. Generating and regularly updating technical and scientific information about ecological effects of given aquaculture operations, within an administrative and legal framework for environmental assessment and management of aquaculture, will in many cases ensure that aquaculture operations are better managed and that such information about better environmental management of aquaculture operations will reach and convince the general public about the benefits and costs of aquaculture developments.

Given the importance of environmental impact assessment and monitoring in aquaculture, the FAO Questionnaires on Progress in the Implementation of the CCRF in its section on aquaculture do include questions to FAO member states regarding the existence and development of procedures for environmental impact assessment and monitoring. The responses by FAO Members States so far indicate that there is a wide range of diverse types of EIA and monitoring procedures, and that the extent of development, implementation and effectiveness of such EIA and monitoring procedures, where existing, also varies form country to country.

In many cases, EIA and monitoring procedures in aquaculture do not exist, are not sufficiently developed or implemented, and often appear to be inadequately designed to provide key information on changes in the ecological features of the specific environments sustaining given aquaculture practices. Often, there are little or no efforts to ensure regular monitoring of environmental performance and environmental outcomes of aquaculture farm management measures, after the completion and submission of the EIAs required for the establishment of aquaculture farms.

[2] B.2 EXPECTED SITUATION AT THE END OF THE ASSISTANCE PROJECT

The project component on Environmental Impact Assessment and Monitoring in Aquaculture will address key issues of environmental assessment and monitoring in aquaculture with view to generate strategic advice and technical guidance information for use in policy-making, capacity-building and training in the sector. Special attention will be given to different aquaculture farming systems, different environments and different socio-economic contexts of development, with particular consideration of special circumstances and requirements of developing countries.

[2] B.3 TARGET BENEFICIARIES OF THE PROJECT

The immediate beneficiaries will be technical, legal and planning staff in management and scientific institutions as well as private sector and other non-governmental stakeholders concerned with sustainable aquaculture development. Intermediate beneficiaries will be policy-makers as well as trainers, fish farmers and resource managers who will have a better understanding of how to evaluate and select most appropriate environmental impact assessment and monitoring methods in aquaculture. Ultimate beneficiaries will be society once such approaches and methods are applied regularly, efficiently and cost-effectively.

[2] B.4 STRATEGY

This project component will commission a series of reviews and desk studies on current practices and experiences of environmental assessment and monitoring in aquaculture. These papers will be used in a technical seminar for analytical comparison and scoping of environmental assessment approaches and methodologies most suitable to different production systems, commodities and environments. All review papers, desk studies and recommendations from the seminar will be published for dissemination to and use by beneficiaries.

[2] B.5 INSTITUTIONAL ARRANGEMENTS

This project component will operate from the FAO Headquarters in Rome with the involvement of the following FAO technical services FIRI (lead unit), FIPL, LEGN and Regional and Sub-Regional Offices, and selected partner institutions, as appropriate.

[2] B.6 RELATIONSHIPS WITH OTHER PROGRAMMES

The project should take cognisance of and cooperate with the following projects and parties: The involvement of other programmes is not planned.

[2] C. DEVELOPMENT OBJECTIVE

The longer-term development objective is the contribution to improved and effective environmental assessment and management of aquaculture resulting from the regular, efficient and effective application of EIA and monitoring approaches and methods.

[2] D. OBJECTIVES, OUTPUTS AND ACTIVITIES

[2] D.1 MEDIUM-TERM OBJECTIVE

To facilitate and enable policy makers and other project beneficiaries to develop and implement improved environmental assessment and management plans in aquaculture, based on improved understanding of how to evaluate and select most appropriate environmental impact assessment and monitoring methods in aquaculture

[2] D.2 IMMEDIATE OBJECTIVE

This component will target the following immediate objective:

- To develop of a global overview, including comparison and synthesis, of existing procedures and methodologies of environmental impact assessment and monitoring in aquaculture.

[2] D.3 OUTPUT AND ACTIVITIES

The following output and two major activities will be undertaken to achieve the above objective:

Output 2: Global overview and analysis of existing procedures and methodologies of Environmental Impact Assessment and Monitoring in aquaculture.

Activity 2.1. Compilation, review and synthesis (based on desk studies) of existing EIA and monitoring procedures and practices in aquaculture (based on CCRF Questionnaire responses and other sources of information)

Activity 2.2. Identification - through scoping/ranking case studies and a technical seminar - of environmental assessment approaches and methodologies most suitable to different production systems, commodities and environments.

Appendix 3

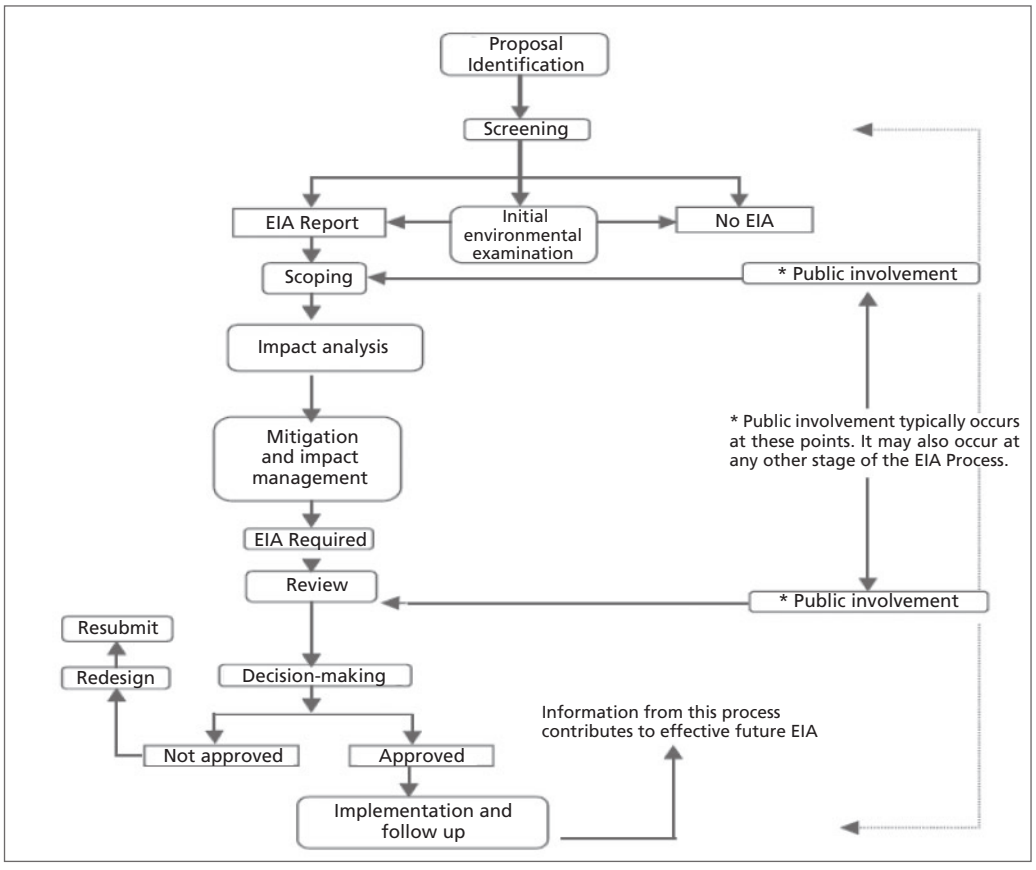
USE OF KEY TERMS[1]

There are numerous definitions of key terms such as "environmental impact assessment" (EIA), "monitoring", and "strategic environmental assessment" (SEA). Only a small number of examples of definitions of these key terms are presented herebelow as found in a few national and international sources. In addition, two related useful online databases are suggested for further information and research:

ECOLEX is a database providing the most comprehensive, global source of information on environmental law. ECOLEX is operated jointly by FAO, IUCN and UNEP.
http://www.ecolex.org/start.php

FAOLEX is a comprehensive and up-to-date computerized legislative database, one of the world's largest electronic collections of national laws and regulations on food, agriculture and renewable natural resources. FAOLEX is operated by FAO's Legal Office.
http://faolex.fao.org/faolex/

The following diagram provides a generalized EIA process flow chart.



Source: Sadler, B. and McCabe, M. (Eds). 2002. UNEP Environmental Impact Assessment Training Resource Manual, Second Edition. Geneva, United Nations Environment Programme, Economics and Trade Branch. 561 p.
http://www.unep.ch/etb/publications/EIAMan2editionToc.php

[1] Compiled by Elena Irde and Uwe Barg, FAO Aquaculture Management and Conservation Service, Rome, 2008.

(1) Examples of definitions of EIA and monitoring as found in national legislation

Country	Definition of term	Source
Canada	"*Environmental assessment*" means, in respect of a project, an assessment of the environmental effects of the project that is conducted in accordance with this Act and regulations. http://laws.justice.gc.ca/en/c-15.2/text.html *Environmental assessment* is a process to predict the environmental effects of proposed initiatives before they are carried out. An environmental assessment: (i) identifies possible environmental effects; (ii) proposes measures to mitigate adverse effects, and (iii) predicts whether there will be significant adverse environmental effects, even after the mitigation is implemented. http://www.ceaa.gc.ca/012/002/CEAA-Overview_e.pdf	Canada. 2002. Canadian Environmental Assessment Act (1992, c. 37). (as amended in 2003) Canadian Environmental Assessment Agency. 2003. What is environmental assessment?, pp 5-6. In Canadian environmental assessment act. An overview. 43 pp
China	The *environment impact assessment* claimed in This Law refers to the method and system of conducting analysis, forecast and evaluation of the possible environment impact brought about by the implementation of plans and construction projects, putting forward the strategy and measures to prevent or reduce the adverse impact on environment, and carrying out follow-up monitoring. http://faolex.fao.org/docs/texts/chn40204.doc	China. 2002. The Law of the People's Republic of China On Environmental Impact Assessments (2002)
Kenya	*Environmental impact assessment* means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment; *Environmental monitoring* means the continuous or periodic determination of actual and potential effects of any activity or phenomenon on the environment whether short-term or long-term; http://faolex.fao.org/docs/texts/ken41653.doc	Kenya. 2000. Environmental Management and Co-ordination Act, 1999. (2000)
United Republic of Tanzania	*Environmental impact assessment* means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment; Environmental monitoring means the continuous or periodic determination of actual and potential effects of any activity or phenomenon on the environment whether short-term or long-term; http://faolex.fao.org/docs/pdf/tan71740.pdf	United Republic of Tanzania. 2005. Environmental Impact Assessment and Audit Regulations, 2005 (G.N. No. 349 of 2005)
Uganda	*Environmental impact assessment* means a systematic examination conducted to determine whether or not a project will have any adverse impacts on the environment; *Environmental monitoring* means the continuous determination of actual and potential effects of any activity or phenomenon on the environment whether short-term or long-term; http://faolex.fao.org/docs/texts/uga8957.doc	Uganda. 1995. National Environment Statute, 1995 (Statute No. 4 of 1995)
United States of America	*Environmental impact assessment* was first formally established in the United States of America in 1969 by the National Environmental Policy Act and has since spread, in various forms, to many other countries (Glasson, Therivel and Chadwick, 2005). (...) All agencies of the Federal Government shall (A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment; (B) identify and develop methods and procedures (...) which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations; (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on: (i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. (...) http://epw.senate.gov/nepa69.pdf	Glasson, J., Therivel, R., Chadwick, A. 2005. Origins and development, In Introduction to environmental impact assessment: principles and procedures. Third Edition, Routledge, Oxford. 423 pp United States of America. 2000. The National Environmental Policy Act of 1969 (Public Law 91-190), as amended through Dec.31, 2000. Sec. 102 (2). 9 pp.

(2) Examples of definitions of EIA, monitoring, and strategic environmental assessment as found in international guideline publications.

Country	Definition of term	Source
IAIA	*Environmental impact assessment*: The process of identifying, predicting, evaluating and mitigating the biological, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made. http://www.iaia.org/modx/assets/files/PrinciplesofIA_web.pdf)	IAIA. 1999. Principles of environmental impact assessment best practice, International Association for Impact Assessment. 4pp.
UNEP	*EIA* is a systematic process to identify, predict and evaluate the environmental effects of proposed actions and projects. This process is applied prior to major decisions and commitments being made. A broad definition of environment is adopted. Whenever necessary, social, cultural and health effects are considered as an integral part of EIA. Particular attention is given in EIA practice to preventing, mitigating and offsetting the significant adverse effects of proposed undertakings. *EIA* is the systematic, reproducible and interdisciplinary identification, prediction and evaluation, mitigation and management of impacts from a proposed development and its reasonable alternatives. (from glossary) *Monitoring*: activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends). (from glossary) *Strategic environmental assessment*: a formal process of systematic analysis of the environmental effects of development policies, plans, programmes and other proposed strategic actions. This process extends the aims and principles of EIA beyond the project level and when major alternatives are still open. (from glossary). http://www.unep.ch/etb/publications/EIAMan2editionToc.php	Sadler, B. and McCabe, M. (Eds). 2002. UNEP Environmental Impact Assessment Training Resource Manual. Geneva, UNEP. 561 pp.
FAO	*EIA*: a tool used to identify and assess the potential impacts of a proposed project (or activity), evaluate alternatives, and formulate appropriate mitigation, management and monitoring measures (generally in the form of an environmental management plan). *Strategic environmental assessment*: a tool that promotes the incorporation of environmental considerations "upstream" from a project-specific environmental assessment into policy and programme formulation. ftp://ftp.fao.org/docrep/fao/007/x4005e/x4005e00.pdf	FAO. 1999. Environmental impact guidelines. FAO Investment Centre Guidelines No.1: 12 pp.
European Communities	The environmental impact assessment will identify, describe and assess in an appropriate manner, in the light of each individual case (…) the direct and indirect effects of a project on the following factors: • human beings, fauna and flora, • soil, water, air, climate and the landscape, • the inter-action between the factors mentioned in the first and second indents, • material assets and the cultural heritage. http://ec.europa.eu/environment/eia/full-legal-text/85337.htm A *(strategic) environmental assessment*, (…) shall be carried out for plans and programmes (…) which are likely to have significant environmental effects (… plans for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC, or plans have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC). http://ec.europa.eu/environment/eia/pdf/030923_sea_guidance.pdf	Council of the European Communities. Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment. Article 3. European Parliament and Council of European Communities. Directive 2001/42/EC on on the assessment of the effects of certain plans and programmes on the environment. Article 3.
IUCN	An *Environmental Impact Assessment (EIA)* is a preventive policy tool that is now well established worldwide. It is a process that is aimed at producing early and adequate information about the likely environmental consequences of certain plans and projects, and proposing alternatives as well as measures to mitigate harm. A *Strategic Environmental Assessment (SEA)* is a process to estimate the environmental impacts of legislation, policies, plans and programmes. http://cmsdata.iucn.org/downloads/fs10.pdf	IUCN - The World Conservation Union.Water and environmental impact assessment. Water Law Series - Issue 10.

This publication includes four regional reviews on EIA and monitoring in aquaculture in Africa, Asia-Pacific, Europe, Latin America and North America, a special study on EIA as applied to salmon aquaculture, as well as a global review and synthesis which draw on the findings of the review papers, covering information from more than 35 countries. It contains the Report of the Technical Workshop on EIA and Monitoring in Aquaculture held in September 2008. In practice most aquaculture is small scale and is not subject to EIA or rigorous monitoring. Where EIA is applied there is mixed experience. Several weaknesses were identified, including lack of consistency in assessment; lack of appropriate standards; lack of integration between levels and divisions of government; inadequate or ineffective public consultation; lack of assessment skill and capacity; limited follow-up in terms of implementation and monitoring; and excessive bureaucracy and delays. There is limited implementation of monitoring requirements arising from EIA environmental management plans, and limited analysis, reporting and feedback of farm level and wider environmental monitoring programmes into both farm and sector-level management. More emphasis needs to be placed on environmental management frameworks which can address the environmental issues associated with large numbers of small scale developments – including strategic environmental assessment, risk analysis, management plans for waterbodies and/or groups of farms, monitoring and response procedures. Generally, the key to more effective use of both EIA and monitoring procedures will be to nest them within a higher level strategic planning and management framework.

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