

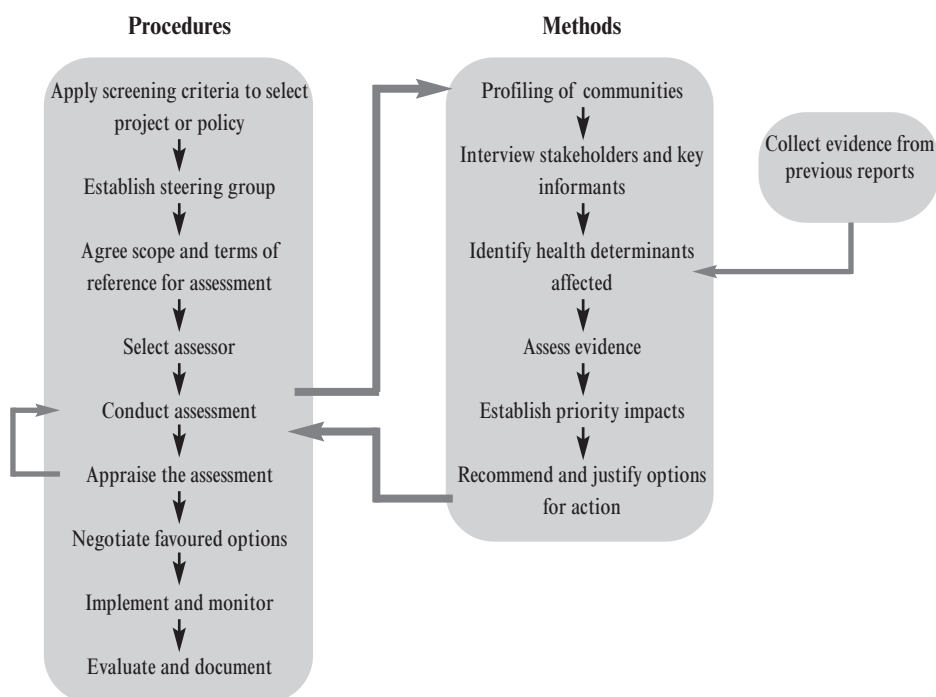
## Annex 3

# Health impact assessment

Health impact assessment (HIA) is an instrument for safeguarding the health of vulnerable communities in the context of accelerated changes in environmental and/or social health determinants resulting from development. WHO/ECHP (1999) defined HIA as “A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.” A health impact is a change in health risk reasonably attributable to a project, programme or policy. A health risk is the likelihood of a health hazard affecting a particular community at a particular time. As a rule, assessments are prospective, but they can be retrospective. Retrospective assessments measure and record what has happened, while prospective assessments facilitate development planning and help to predict the consequences of a future project based on available evidence (WHO, 2000).

### Procedures and methods

In Figure A3.1, the sequence of essential HIA procedures is presented, with an indication of when each method is applied. Effective HIA requires health hazards, risks, determinants and potential impacts to be defined and monitored (WHO, 2001). Implementation of HIA procedures should be done in such a way as to involve all relevant stakeholders — especially the local communities that will be impacted.



**Figure A3.1**  
Procedures and methods of HIA (from WHO, 2000)

When policy and procedure have been established, the actual assessment can take place. It consists of inferring changes in health determinants that are reasonably attributable to the project and that could affect each stakeholder community during

each stage of the project. The changes, taken together, produce health outcomes or changes in health status. These are expressed in a minimum of three ranks: no change, increased health risk and increased health enhancement. Quantification is generally difficult, either because the data are lacking or because there are no known functional relationships between cause and effect. Research is needed to improve the predictive models for other health concerns.

The best forecast of what will happen is the history of what has happened with similar waste-fed aquacultural activities in comparable regions (WHO, 2000).

The assessment would start by collecting baseline data on waste use in aquaculture and health risks over a period of at least two years prior to final agreement on project design. This will provide a profile of the existing communities, their environment, seasonal changes in health risks and the capabilities of their institutions. The data collection would be repeated after the project was operational, and the difference would provide a record of health impact and its likely causes. The record would add to the available knowledge base and improve the assessment of future projects.

The objective of an HIA is to present evidence, infer changes and recommend actions to safeguard, mitigate and enhance human health. The inferences may not always be founded on extensive data, but they must be persuasive (WHO, 2000). The output should be a public health action plan to be implemented by the project proponent in close collaboration with the health authorities.

### **Management of health risks and enhancements**

The final stage of the assessment is to recommend and budget socially acceptable measures to safeguard, mitigate and promote human health (WHO, 2000). The most important principle for health promotion is dialogue between project proponents, health professionals and stakeholder communities at the planning stage. The technical recommendations for managing health risks are diverse. A broad classification is:

- appropriate health regulations and enforcement;
- modifications to project plans and operations;
- improved management and maintenance;
- supportive infrastructure, such as the installation or improvement of wastewater and excreta treatment and use facilities;
- timely provision of accessible health care, including diagnosis and treatment;
- special disease control operations;
- individual protective measures;
- health education;
- redistribution of risk through insurance schemes.

## References

- WHO (2000). *Human health and dams, the World Health Organization's submission to the World Commission on Dams (WCD)*. Geneva, World Health Organization (Document WHO/SDE/WSH/00.01).
- WHO (2001). *Health impact assessment (HIA), report of an inter-regional meeting on harmonization and mainstreaming of HIA in the World Health Organization and of a partnership meeting on the institutionalization of HIA capacity building in Africa, Arusha, 31 October – 3 November 2000*. Geneva, World Health Organization.
- WHO/ECHP (1999). *Gothenburg consensus paper, 1999 — Health impact assessment: main concepts and suggested approach*. Brussels, European Centre for Health Policy, World Health Organization Regional Office for Europe (<http://www.phel.gov.uk/hiadocs/Gothenburgpaper.pdf>).