

are given in a separate article (p.20), while Information emerged as a top priority for aquaculture development in subSaharan Africa and is noted as a priority area in Latin America (see below).

## Aquaculture in SubSaharan Africa

A study and workshop entitled Aquaculture Development and Research Needs in Sub-Saharan Africa was carried out by the Fisheries Department, FAO, as a contribution to SIFR in the identification of demand-led research priorities, and to provide a framework and focus for FAO's aquaculture programs in the region.

The exercise was planned in 1992 and completed in June 1993, as a collaborative effort of the FAO Fisheries Department, the FAO-executed ALCOM Project and the Economic Commission for Africa. Financial support was provided by the collaborating parties and DG XII of the Commission of the European Communities (CEC).

Studies were prepared for 12 countries: Cameroon, Central African Republic, Congo, Ivory Coast, Kenya, Madagascar, Malaŵi, Nigeria, Rwanda, Tanzania, Zambia and Zimbabwe.

The study was carried out by a senior resource person from each participating country, according to an annotated procedural outline prepared by the FAO. Individual country studies were implemented with the guidance of two external consultants, for East and West Africa, respectively. The consultants prepared a synthesis of the study results at the conclusion of the exercise. The combined report:



- identified common development constraints that could be resolved through research at the national, subregional and regional levels;
- (2) recommended mitigating research; and
- (3) presented research project outlines (Action Plan) for identified subregional and regional research needs, for implementation through research networks.

The draft final report was reviewed by the combined national study teams at a special session of the FAO Committee on Fisheries for Africa (CIFA) Working Party on Aquaculture, in Harare, Zimbabwe, on 13-17 September 1993.

The study recommended nine regional research programs. Seven are aimed at resolving aquaculture development constraints linked to development priorities. Two others were proposed by FAO to respond to needs arising outside the national reviews (identified by \* in the list below). The nine programs and their priority ranking are:

### Priority 1

- Aquaculture Information Centers
- Socioeconomics of Aquaculture and Target Groups
- Production Indicators for Aquaculture
- Pond Fertilization and Fish Feeds
- Fish Broodstock Improvement and Management

#### **Priority 2**

- Small Waterbody Fisheries Enhancement
- Aquaculture in Irrigation Canals\*
  Priority 3
- Culture of Indigenous Fish Species
- Marine Aquaculture\*
  These programs were validated by

the countries at the Second Session of the Working Party on Aquaculture of CIFA. At present they are in the form of project ideas and will require further discussions with the donors within the framework of SIFR.

# Aquaculture in Latin America

FAO used the same methodology (except that consultants could not be used due to lack of funds) in a study of aquaculture development needs in 19 countries of Central and South America. A synthesis of national reports was discussed at the Sixth Session of the Working Party on Aquaculture of COPESCAL in Colombia, 12-16 July 1993. The proposed research program would be implemented through the establishment of networks of national centers and lead centers as in the case of subSaharan Africa. The identified priorities for research in Latin American aquaculture are:

- Marine shrimp culture-biotechnical constraints; economic analysis; and evaluation of environmental impact
- Diversification of production identification of new species
- Extensive forms of aquaculture fisheries enhancement in and improved management of coastal lagoons
- Rural aquaculture production packages for higher income farmers
- Pathology and nutrition mainly in the context of shrimp farming
- Information priority support area because of poor dissemination of research information in the region.

# Aquaculture in North Africa and Asia

FAO is conducting a similar study covering the northern African countries. This is expected to be completed by the end of 1994.

An organizational meeting for the Asian study was held in Bangkok, February 1994. It was decided that national committees, incorporating public, academic and private sectors, would be formed and organized subregionally.

## Postharvost Fisheries in Asia

A study and workshop project to identify demand-led research priorities in the postharvest area is being implemented by the Fisheries and Aquatic Resources Group of the UK-based Natural Resources Institute. Agencies collaborating in this activity include the Commission of the European Communities, FAO and the Central Institute of Fisheries Technology, Kochin, India. Participating countries include China, Laos, India, Indonesia, Malaysia, Maldives, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam.

The workshop was held at Kochin on 10-12 March 1994. We will publish details when they become available.

Sources: SIFR Bulletins of 11 and 26 January 1994; FAO Aquaculture Newsletter, April 1994.





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