THE CURRENT STATUS OF INFIS*

1. Introduction.

It is well recognized that fisheries information service become very essential, especially when there an increasing need of fisheries information science and the rapid development of fisheries technology due to sector as now found in Indonesia within the last decade. For that reason INFIS The Indonesian Fisheries Information System was set up in 1984, to support the development of fisheries industries, especially the small-scale industries in term of transferring of appropriate technology to artisanal fishermen and small-holder fish farmers.

Consistent with the establishment of this information network, a project which is financially supported IDRC was approved and implemented over the last three is Ιt anticipated that the project will years. eventually enable INFIS to increase its acquisitions and its resources for repackaging, processing and disseminating the information required by fisheries extension workers who operate at the provincial and district level, the group leader of fishermen and fish farmers at the lower end of the user scale and researchers who work in the fisheries research the institutes at the higher end of the user scale.

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Evaluation upon the usefulness of information, especially the actual use of the extension manual by the extension agents at the provincial and district level was done annually and it was found that the beneficiaries were extremely enthusiastic and positive about the resource materials that have received. It is a fact that the existence of INFIS have given a good contribution to the national fisheries development, particularly in promoting the transfer of appropriate technology to various target groups and therefore it become more be recognized as a national information network by the Indonesian fisheries communities.

2. INFIS Network.

INFIS as a national information service is a cooperative action among various fisheries institutes in the field of fisheries information processing and dissemination. The main channel of the information flow are the libraries of the respective institutions, with DGF library serving as coordinating library.

Before the establishment of INFIS, these libraries were working independently of each other, there was no linkaged or cooperation among them and each lacked of skilled personnel, up-to-date collection and was poorly organized and utilized.

At the present, 18 small libraries specialized on fisheries were linkaged in the INFIS network. The improvement of management and utilization of the participating libraries was focused on the establishment of the uniform system and procedures. The DGF Library as a coordinating library is responsible to established a coordinated network utilizing the available information in each of the small existing libraries. These libraries are enable to work together toward achieving a common program, of gathering, organizing, repackaging and disseminating literatures to the various target groups.

Through the network, transfer of appropriate technology to the grass-root level significantly increased and it made a strategically significant contribution to the national fisheries development.

3. Training activities.

Training activities become a very necessary component in the INFIS programs, since that the lack of skilled personnel is one of the many constrains faced to develop the national fisheries information service. For that reasons, a series of training have been conducted over the last three years in order to enhance the skill INFIS personnel. The area of the courses covered information and library management, computerized information processing and the preparation of extension materials.

Up to now 21 library staff have been trained in library operation and management, 15 library staff were trained on ASFIS input methodology and 21 extension specialists responsible for the preparation of INFIS manuals have joined a 3 week training workshop on the preparation of extension materials.

To increase the quality of the services, especially the automation of the information processing, a short course was organized for INFIS personnel to introduce the network to concepts relating to information management on microcomputers and exposure on software programs such as dBase III and Mini/Micro CDS-ISIS.

Nevertheless, training opportunities for the staff still have to be strived, realizing the need of skillful personal for strengthening the network to enable the information flow covered all part of the country (27 provinces).

4. INFIS Publications.

In order to promote more rapid dissemination of information through the INFIS network, an INFIS Project which is financially supported by IDRC - the International Development Research Center - was implemented since 1985.

The foremost general objective of the project is to build up the capability of INFIS so that it can effectively respond to the information requirement of the fisheries

workers. The emphasis of the project therefore, is on the re-packaging of current literature in the local languages and into a more simple format to meet the requirements of different categories of fisheries workers.

For the purpose of supporting the activities of the extension specialists, a number of articles selected from fisheries research result was re-packaged into extension manuals. Fisheries research results are usually published in Journal/Bulletin in the form of scientific reports. Consequently, such reports tend to scientifically oriented and in most cases are not readily transferable to the research's end use. Therefore, it is utmost important that those issue should be transformed into manuals/practical hand books, which are easily understood by fishermen/fish farmers. On the other hand, the researchers, in planning their research project, should be aware of the current literature and should have timely access to scientific information produced by other researcher, both Nationally and Internationally. Hence, the flow of information of fishery science and technology have to be increased. INFIS, therefore have a program on the translation of foreign fisheries literature into Indonesian. This include journals articles, seminar papers, research report and other publication. Issued by international and regional agencies as well, such as SEAFDEC, FAO and ICLARM.

Dissemination of fishery information science and technology through the network were significantly increased over the last three years. More then 70.000 copies of INFIS publications, comprises of fisheries extension manual, translated publication, national fisheries bibliography and fisheries abstract, have been distributed widely through out the country. The distribution policy is generally to reach the fisheries development agent namely fisheries administrators, researchers, extension personnel, students and other fisheries institutions both at national and provincial level. Interested persons are also welcome to receive a copy from INFIS input centers.

5. INFIS Data Base.

To enable the DGF-Directorate General of Fisheries as the national vocal point, provide services to the users continuously, the Coordinating Library is responsible to collect all printed materials produced by the Input Centers and the Input Centers is requested to transmit through its library all additional information regularly to Coordinating Library to be circulated through the network. Based on that methodology, the DGF then the provide services to the clienteles in the form of:

- National fisheries bibliography,
- Collective accession list,
- Information searching,
- Exchange information upon request, and
- Photocopying upon request.

All the services mention above still have to be improved through the establishment of INFIS database. An efficient data base management that would provide the INFIS network with flexibility in the manipulation bibliographic record are being developed. Some of the INFIS input centers have already access to microcomputers and have started work on experimenting with database building, using mini/micro CDS-ISIS Software. In the long term period, all the input centers are expected to automate their library operations, send input on diskette to the DGF Coordinating Library and run searchers on the collective INFIS database. A machinereadable database of 1,500 bibliographical records has been established and is at present held at the DGF Coordinating Library. And also a number of INFIS INPUT SHEETS was sent to SEAFIS in Bangkok and ASFIS in Rome, to be filled in their database, in order to linkage INFIS with regional and international fisheries information system.

6. Future Development Programs.

At the present time, an information network has built up upon the strong foundations that have been laid on the national level institutions. INFIS have now the ability to deliver targeted goals in its program in term of information outputs and services.

The next phase, INFIS programs is focused on the strengthening of INFIS network so as to optimized its efforts in organizing, processing and disseminating

fisheries information in order to support the national fisheries development activities throughout the country. This objective will be achieved through the following activities:

a. Widening the network.

To enable the information flow reach all part of the country, the number of input center/participating center in the INFIS network have to be extend. The ultimate is to have at least one Participating Center in each of the 27 provinces.

- b. Improving the quality of INFIS Services through the automation of information processing and retrieval activities of the network.
- c. Fine-tuning the outputs.
 - To produce extension leaflets for the fishermen and fishfarmers as the "down-stream" clientele and code of practice for the "upstreams" clientele e.g. the fisheries technicians who work at the Fisheries Development Centers and are responsible to test the research result to be re-package into extension materials.
 - To continue to produce annual bibliography, translation of importance foreign fisheries articles and extension manuals for the extension workers.
- d. To increase the productivity of personnel in handling information by improving the physical infra-structure of the network.

- e. Reinforcing and extending the information management skills of the INFIS Participating Centers and fostering a continuous staff development capacity within the INFIS network, through intensive training in three specific areas: library and information management; computerized information processing and retrieval; and preparation of extension material.
- f. To develop collaboration with national, regional as well as international organization, to enable the exchange of publications and the linkage of INFIS with regional and international fisheries information systems.
- g. to improve information services in the form of literature searchers and document delivery.

7. Conclusion and recommendations.

- a. The establishment of national information service in fisheries sector, such as INFIS, is very essential for promoting the disseminations of fishery science and technology to the lower end user/the grass-root level.
- b. National information system should be a cooperative action among the national fisheries agencies in the field of fisheries information processing and dissemination and should emphasize its services to the development agent, namely researchers, extension workers and the administrators as well.

c. The role of national fisheries information service can be successfully executed when there is a close collaboration and support from the international as well as regional agencies such as IDRC, SEAFDEC, ICLARM, etc. Therefore it is recommended to promote a coordinating activities among these regional/international agencies in the area of training, exchange of information and strengthening the national information service, especially in the developing countries in this region.

Bibliography.

- 1. Alwinur, 1987. The Indonesian Fisheries Information

 System, A working paper prepared for the

 Advisory Board of ASFA meeting, 1987. Rome
 Italy, 9 pp.
- 2. Alwinur, 1988. Marine Fisheries Information Science in Indonesia, A working paper prepared for the IAMSLIC Annual Conference, October 1988, Miami - Florida, USA, 7pp.
- 3. Directorate General of Fisheries, Ministry of Agriculture Indonesia, 1988. Final Report of INFIS
 Project, 11 pp.
- 4. International Development Research Center, Singapore Regional office, 1988. INFIS Project Proposal phase II, 25 pp.