Performance of Libraries in Fisheries Educational Institutes

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History of the Fisheries Education in India

In India the fisheries sector lays great emphasis on developing fisheries education to produce professionally competent personnel. However, prior to Independence, the importance attached to fisheries as a whole was far from satisfactory. In 1947 the Government of India started two adhoc educational and training programmes one in Calcutta for Freshwater fisheries and the other at Mandapam camp (Tamil Nadu) for Marine Fisheries. The Fisheries Education committee (1959) headed by late Dr N K Panickkar, recommended to set up two national levels

Institutes. One of them, the Central Institute of Fisheries Education, at Bombay was started in 1961 with FAO\UNDP aid. This institute was to impart postgraduate diploma level fisheries education to district level fisheries officers deputed by various State governments. The other the Central Institute of Fisheries, Nautical and Engineering Training was established in 1963 at Cochin (Kerala) to train personnel for the fast expanding mechanized marine fishing sector. In the same year a Marine Products Processing Training Center (MPPTC) was established at Mangalore under the Indo-Japanese collaboration programme for imparting postgraduate diploma training in fish processing technology. The polytechnics in the States of Tamil Nadu, Kerala and Andhra Pradesh took up a postgraduate diploma and certificate level training in Fisheries Technology and navigation.

Fisheries Colleges under State Agricultural Universities

The University of Agricultural Sciences of Karnataka State for the degree courses of BFSc, M FSc and PhD started the professional fisheries education at the University level in India in 1969 with the establishment of the country's first Fisheries College in Mangalore. The success of Mangalore Fisheries College prompted the establishment of more than 10 fisheries colleges in various States that offer BFSc, M FSc and PhDs programmes affiliated to the State Agricultural Universities.

ICAR, Central and State Government Institutes

The fisheries research under the Indian Council of Agricultural Research is presently being carried out by the eight research institutes which concentrate on exploitation of various aquatic resources from freshwater, brackish water, coldwater, coastal and marine ecosystems and on harvest and post harvest technologies and an exclusive Deemed University for fisheries education. Among these eight institutes, CIFE, CMFRI, CIFA and CIFT offer DFSc (CIFE only), MFSc/MSc, PhD degree programmes in mariculture, freshwater and marine capture fisheries and fisheries technology. The Indian Institute of Technology, Kharagpur, West Bengal offers M Tech. Course with the specialisation of Aquaculture Engineering and IIT, Madras offer M Tech Ocean Engineering.

Fisheries Education in other Academic Universities

The Annamalai University in Tamil Nadu offers courses for MSc and PhD degrees in Marine Biology from 1960 onwards and in Aquaculture from 1995 onwards. It is the country's first Centre of Advanced Study in Marine Biology under UGC. The Department of Marine Biology and Oceanography was organised in 1938 at Trivandrum by the erstwhile University of Travancore. It was renamed as School of Marine Sciences under CUSAT is conducting MSc and PhD degree courses in Industrial fisheries, marine biology, marine geology and oceanography from 1962 onwards. The University of Udaipur, Rajasthan offers MSc course in Limnology and Fisheries. Further several Universities all over the country offer courses in Fisheries, Fishery Biology or Ichthyology as a special subject in MSc (Zoology). However, the degrees awarded are under the faculties of Zoology, Marine Biology, Marine Sciences or Bio-sciences. Similar facilities for doctoral research are also available in many of the central fisheries Institutes. For the courses at NIO, Goa the degrees are being awarded by the universities where the students register themselves.

Fisheries Educational Institute Libraries

In 1957, the First Joint Indo-American Team on Agriculture Research and Education headed by Dr

Ralph R Shaw, Professor of Scientific Management and Library Science, Rutgers University (USA) and assisted by Dr D B Krishna Rao, Librarian, ICAR Library recommended for improvements in the collection and services by the ICAR Institutes' Libraries. The second Joint Indo-American Team in 1967 made 69 recommendations for the improvement of Agricultural University Libraries and the libraries in all the ICAR Institutes including Fisheries Institutes and highlighted the need for a National Agricultural University Library. The Agricultural Library survey and study Team set up in 1972 by the ICAR recommended for further improvement of Indian Agricultural Libraries.

Apart from the above, the Fisheries Education Committee of the Agriculture Commission (1976) and the Committee of Plenary Session on the Symposium, Seminar (1996) and Workshop on Fisheries Education and Training (1988, 1991) have strongly recommended to establish Laboratories, Libraries and other infrastructural facilities at all the institutes and colleges imparting fisheries education and highlighted the need of their immediate upgradation and modernization.

Present Scenario

At present all fisheries colleges, ICAR Fisheries Research Institutes, State and Central Fisheries and Oceanography Institutes and Traditional University Departments have libraries of their own and efforts have been made to make collection of books and periodicals and made data bases of their specific areas for the development of fisheries education and training in India.

The fisheries educational institute libraries have the primary role of providing facilities first for teaching and also for the research needs of their students and staff. Most of the fisheries and allied Departments of the traditional university libraries are attached with University main library therefore the expected data are not included for this purpose.

Sharing of Information Resources and Development

The users access to the required information on any person at any time and from any part of the world is the motto of the library resource sharing. The ICAR fisheries institutes, fisheries colleges and the departments of the traditional Universities were established at different regions of the country at different times for the development of human resources in oceanography and fisheries science. Since these institutes are under different bodies, the current collaboration and collection development has not gone to the level expected and is still limited to sharing of photocopies or lending books, periodicals on inter library loan.

Self-sufficiency remains only imaginative, because of insufficient funds and information explosion. The skyrocketing costs of periodicals and books in every discipline and even the richest libraries cannot afford to subscribe to all of them, to fulfill the user demands and inflation impelled libraries towards resource sharing. For effective functioning of sharing of information sources, a realistic approach has to be worked out in collection development, networking, etc., and taking into consideration the present information, communication and computing infrastructure as well as psychosocial aspects of fisheries manpower and users.

Collection Development

The fisheries colleges, institutions and departments have some unique and specialised departments such as Aquaculture Engineering at Indian Institute of Technology, Kharagpur or Mariculture at Central Marine Fisheries Research Institute, Fisheries Technology at CIFT, Cochin where aquaculture, oceanography, marine biology, etc., of these departments are common. Apart from core books and journals essential for teaching, other books and journals should not be duplicated.

In the case of information and communication support for research, a committee could be constituted to assess the strengths and interests of each institute and to arrive at core areas to be pursued by each institute, college and university departments as follows:

- Standard rules and regulation should be made for shared collection in case of more than one Institute active in the same area.

- Every month a list of recommended books of each institutes may be communicated to other institute and the committee of libraries will examine the duplicates and identify the potential institute for purchasing each approved book.

- The institutes can share books/periodicals on inter library loan by designating a common system.

The subscription procedure of journals involves more planning due to the specialization of their publication and advance payment of huge amount of

subscription in foreign exchange. At present eventhough we face a scarcity of funds, a lot of duplication takes place in subscribing to journal. This duplication should be avoided. To implement the above views, the participants need to have a compatible computer for CDROM subscription of different databases at different areas in fisheries to eliminate duplication effectively.

CIFE, CMFRI andCIFA have stopped purchase of some serials due to the budget crisis. The traditional university departments and fisheries colleges have reduced subscription to journals. They mostly depend on ICAR Fisheries Institute Libraries. According to the CMFRI Library survey, the BSc (Aquaculture), MSc (Fisheries and related subject), B.F.Sc/M.F.Sc and Ph.D students from traditional universities and college of fisheries visit the library every day.

When compared with ICAR Fisheries Institutes most of the fisheries colleges started during eighties have poor library collections (Figs.1 and 2).

Proposed Model of Advisory Body

For the benefits of resource sharing, collection development and networking of libraries of the ICAR fisheries institutes, fisheries colleges and oceanography and fisheries department of the universities, need the following advisory committee with functions viz. Policy making, selection of books, information service, computer/network information system, union catalogue/holdings, to clear the conflicts and other disputes between the participating institutions.

Advisory Committee

i.   Vice Chancellor (National Fisheries University)

ii. One Director (ICAR Fisheries Institutes) – On rotation

iii. One Dean (Fisheries Colleges) – On rotation

iv. One Head/Director (Traditional Universities) – On rotation

v.   All Head/Librarians (Participating Libraries)

vi. Few members (Subject Specialists) -On rotation

vii. One Expert (Library Profession). – On rotation

viii.One Computer/Network Analyst (Participating Institutes) – On rotation

ix. Students representative (One each from the Fisheries colleges, ICAR Fisheries institutes and traditional universities)

Book Collection
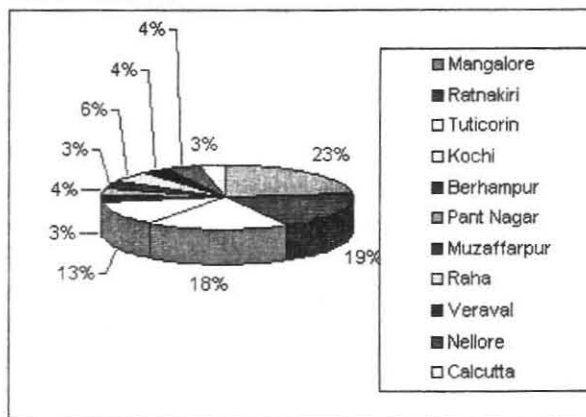
Bound Periodicals
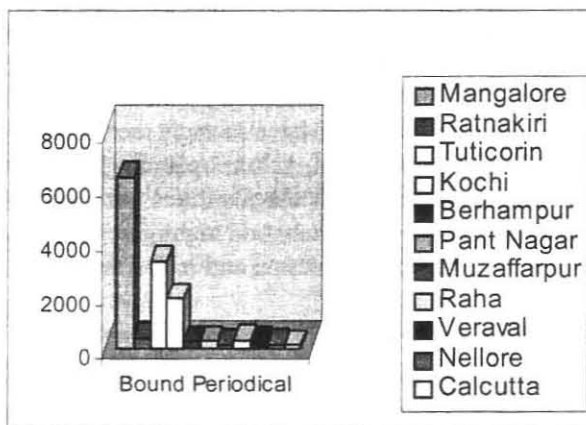
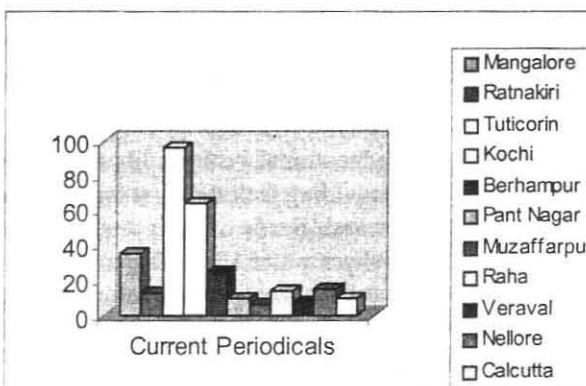**Subscription to Current Periodicals**

Fig. : 1   Collection Development of Fisheries College Libraries.

Fisheries Institutes Networking Systems in India

NICMAS

NISSAT's National Information Center for Marine Science (NICMAS) was setup at National Institute of

Book collection

Periodicals Bound Volumes

Subscription to Periodicals - ICAR Fisheries Institutes and Fisheries Colleges
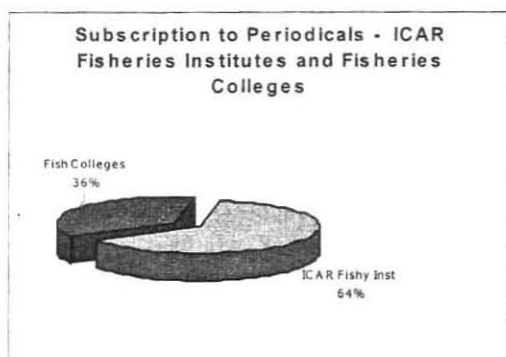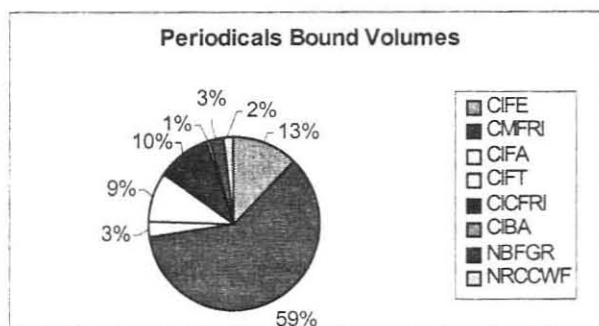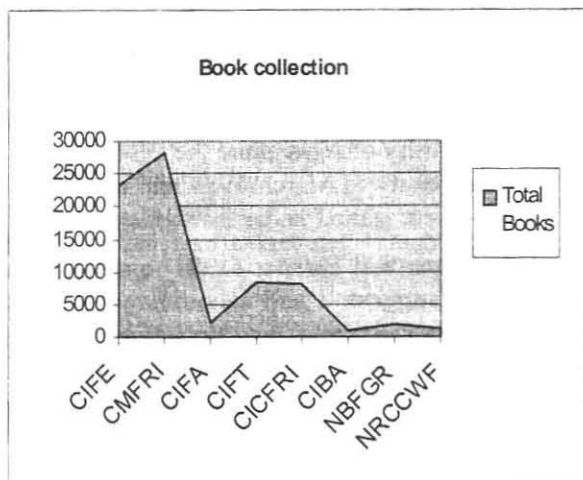

Fig. 2: Collection Development of ICAR Fisheries Research Institute Libraries

Oceanography (NIO), Goa in 1996 and it has taken initiation to develop in the field of marine science with the main objectives of :

- Information searching on international database consisting of ASFA, Current Contents.
- Procure as well as produce databases on National Union Catalogue of scientific serials in India.
- OPAC- On line search for all documents

- A complete database on the publication of NIO Scientists.
- NICMAS is also compiling bibliographies, directories and prepare reports on specified topics.
- To provide photocopies, routine searches on the latest literature etc.

ARIS

National Agricultural Research Project (NARP) for the Agricultural Research Information System (ARIS) includes the eight ICAR Fisheries Institutes, all State Agricultural Universities using computer networks for information. Incidentally, the INFLIBNET Center of UGC has drawn up an ambitious action plan to provide VSATs to over 200 Universities. Now all ICAR Fisheries Institutes, College of Fisheries, Traditional University Departments of Fisheries are being electronically connected and have Internet E-Mail facility. They are also encouraged to create Local Area Networks (LAN) in their campuses.

ARIS has four information modules namely: ARPIS, ARFIS, ARMIS, and Agricultural Research Library Information System (ARLIS) including Fisheries and Oceanography.

Agricultural Research Library Information System (ARLIS)

Using the enhanced connectivity the NARP II project would improve online access by Indian scientists in the ICAR and SAU system under ARLIS to create the following databases:

- International databases and scientific literature
- New Databases on Indian Agricultural and Socio-economic Research and Development.
- External databases accessible through the world wide web
- Subscription to some technical and scientific journals
- The acquisition of reference materials in CD-ROM to be made available
- Creation of more and more CD-ROM Libraries at centralized place accessible to all concerned.

Problems in Fisheries educational institute Libraries

Fisheries Colleges, ICAR Fisheries Institutes and Departments of the Traditional Universities Libraries in India are characterized by a bewildering variety of

differences of all kinds like Size, Organization and affiliation:

- There is lack of Central Libraries and inter library co-ordination (Focal Point).
- Lack of academic and administrative authority on the part of the Chief Librarian.
- Lack of trained Technical Staff in College of Fisheries
- There are gaps in library collections, shortcomings in technical service and inadequate budgets.
- Persons without required professional qualifications head many of the libraries and also some of them who have the required qualifications, experience etc. have no status in their organization.
- Majority of these libraries is housed in rooms not designed for library purpose in the main buildings of the Colleges/Institutes/Departments.

## Need for National Fisheries University and its Library

To avoid such hurdles and difficulties Shetty and Salian (1986) have reviewed the present system of training and education in fisheries in India and pointed out the importance of a National Fisheries University and suggested, "Not to take hasty action in this regard. Instead of straightaway converting any of the existing institutions into a Centre of Fisheries University, the target may be approached step by step. What could be done is to upgrade the best existing fisheries education centre into a 'Deemed University' to convert it into a Central University after building up all the required infrastructure and staff facilities". As a result of these recommendations presented at the International Seminar, after three years based on a commitment made by the ICAR and Ministry of Agriculture the CIFE became a Deemed University in March 1989 and new course programmes were started under its own charter.

Sreekrishna and Biradar (1991) and Alikunhi (1996) have suggested and recommended that a Central Fisheries University should be set up to maintain standards in respect of course content, duration etc., throughout the country for similar courses run by different organizations.

The university could also be entrusted with the responsibility of ensuring adequacy and skill of teaching staff, library and adequate infrastructure facilities. Creation of such a University Library will go a long way in ensuring standard and quality of fisheries education in the country.

All the components of the fisheries and related subjects that come from the gateway of network are very useful to fisheries education. The Deemed University Library should have the status of National Fisheries Library and it should act as the centralized co-ordinating agency for the major functions for Networking of these libraries and to create a National Fisheries Educational Institute Libraries Networking System (NAFELNET) (Fig.3) that are necessary to make them function as effective units of the institutes offering proper support to their teaching and research activity
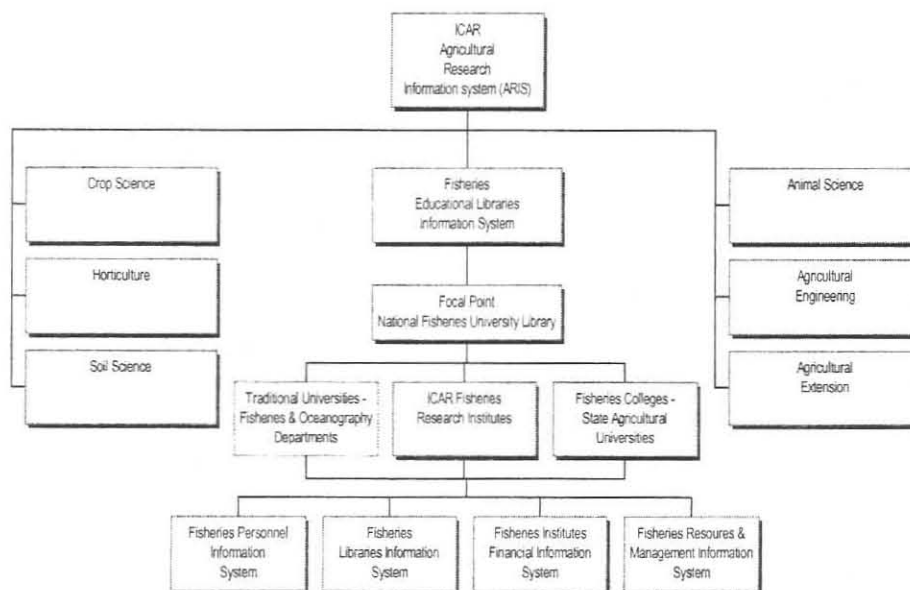
Proposed Model of National Fisheries Educational Institutes' Libraries Networking System

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subunits. For example, Criterion-2, Teaching, Learning and Evaluation, may be divided into (a) matters relating to admission and remedial and bridge courses, (b) range of teaching-learning process and use of new technology, (c) innovations in examinations, (d) recruitment and faculty development programmes, (e) conference, workshop, publications, etc., and (f) performance monitoring and appraisal. The total score of 100 could be distributed among the subgroups depending on the relative importance, before finalizing the weighted score of the Criterion. This will enhance objectivity. The language of the Peer Team Report should unambiguously reflect the overall standing of the institution.

Each member should be made to write parameter-wise pre-visit report and Grading particularly identifying strength and weakness and the same be endorsed by the team coordinator to the NAAC Office as part of the record.

There should be adequate time for finalizing the report and grade. Some time the team is found rushing through the process for catching the next flight. The NAAC office should have an Appraisal Committee for scrutinizing the report and Grade before presenting to NAAC-Executive Committee.

It is desirable to create a system of structured Feedback to be obtained in confidence from the institution as well as from each member of the peer team on the visit and the assessment exercise to be used by NAAC for overcoming the deficiencies and strengthening the assessor-training programme. Similarly, grievance should be reported to NAAC Appeal Committee instead of airing them in public.

Probity and relevance of accreditation process and the level of accreditation have assumed importance since some of the Universities in the country have decided to confer the status of permanent affiliation on those institutions which have been accredited with Grade B and above.

NAAC needs to be more sensitized to the reactions of the community on issues of accreditation. The Meta Evaluation should be more focused and made a continuous process. In the absence of a proactive revision to accreditation exercise, the quality education movement will score on numbers but may be lost on grounds of credibility and acceptability.

Higher education will no longer be a closed or subsidized sector once the GATS come into full play. Every institution will have to work for creating and sustaining quality and relevance in respect of all NAAC criteria. NAAC has become synonymous with quality in higher education and it is indeed the collective responsibility of all stakeholders to ensure that NAAC spreads its wings. The issues discussed above should be treated as an open and transparent feedback to check gray areas so as to ensure excellence, efficiency and equity in higher education. ❏