

INFORMATION RESOURCES FOR SOME SELECTED MARINE AND AQUATIC INSTITUTIONS IN AFRICA

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Abstract

The fishing industry in Africa is based on resources from the marine and to a lesser extent, inland (freshwater) and aquaculture sectors.

Libraries and the information that they provide constitute the building blocks of national development. The collection and dissemination of information is one of the primary tasks of libraries and information centers.

Maintaining an information resource in support of research and management activities in Africa has been costly as such many libraries traditionally cooperate within information networks in order to provide the most cost-effective services to their clients.

This paper focuses on the important role of libraries in promoting and managing fisheries information resources. It provides an overview of the status of some selected libraries or information centers in Ghana, Kenya, South Africa and Tunisia and the products and services they provide. It also highlights the management systems currently in use in carrying out the routine activities in these selected institutions.

GHANA

Marine Fisheries Research Division

The Marine Fisheries Research Division (MFRD) was established in 1962. It is located in Tema in the Greater Accra Region. It is under the auspices of the Ministry of Fisheries.

The Ministry of Fisheries exists to promote sustainable and thriving fishing industry through research, technology development, extension and other support services. It also has the mandate to promote local, sub-regional and international co-operation in fisheries management and development. Further, it co-ordinates and collaborates with other departments and agencies for the enforcement of fisheries laws, regulations and bye-laws.

Artisanal Marine Fisheries

In Ghana, artisanal marine fisheries are the backbone of the fishing industry. The small pelagic fish stocks, which form a large component of the artisanal and marine fisheries in Ghana, cover a wide range of species and are the most abundant marine resources in Ghanaian waters. Four species that are of high economic value are the round sardinella (*Sardinella aurita*) flat sardinella (*S. maderensis*), anchovy (*Engraulis encrasicolus*), and chub mackerel (*Scomber japonicus*).

These species usually account for over 80% of total landings of the small pelagic resources annually. The potential annual yield is about 200,000 Mt (Entsua-Mensah and Virdin, 2005).

The Marine Fisheries Sector in Ghana contributes about 30% of the nation's gross domestic product (GDP) and 50% of the Agriculture GDP.

Fish is the preferred and cheapest source of animal protein and about 75% of total production of fish is consumed locally. Fish is now the country's most important non-traditional export. The country earned over US\$95 million from export of fish and fishery products in 2002 (MOFA 2004).

The Marine Fisheries Research Library

The Library was established in 1968 to perform the role of providing access to domestic and foreign literature in the fishery and related sectors of the economy.

Stock

The library currently houses approximately 7,676 books. The collection covers a wide range of subjects on hydrography, population dynamics, oceanography, marine biology, fishery statistics, fishing gear technology, and stock assessment. It has a collection of grey literature, serials and maps. The collection also includes publications of international organizations concerned with fisheries and the marine environment such as FAO, UNEP, UNESCO-IOC.

Library Software/Databases

The MFRD library uses InMAGIC Software, a fully integrated library automation system which includes circulation, loans, acquisitions, cataloguing and retrieval of information. The library receives Aquatic Biology, Aquaculture and Fisheries Resources (ABAFR) on CD-Rom.

The use of ICT has made information resources accessible on-line in various forms. MFRD has a number of computers with Internet connectivity and as such has access to some electronic resources and services such as African Journals Online (AJOL) and Access to Global Online Research in Agriculture (AGORA).

Library Information Network

Libraries in Africa link with other organizations and networks in order to provide the most cost-effective services to other users, thus ensuring information sharing through

Inter-library Lending and Document Delivery (ILL/DD). MFRD is a member of AFRIAMSLIC and ODINAFRICA.

SOUTH AFRICA

The South African Institute of Aquatic Biodiversity (SAIAB) in Grahamstown is one of the leading aquatic research institutes in Southern Africa.

The Margaret Smith Library

It was established in the late 1960's as a branch library of the Rhodes University as such has access to a number of databases and e-journals. SAIAB's research and partnership activities are serviced by the Margaret Smith Library with its extensive holdings on fisheries, aquaculture and biodiversity.

Stock

The library holds one of the largest multi-media collections of fish publications. It currently has 4,881 books and 1,745 journals. Current journal subscriptions for 2006 stands at 48 titles. It receives 193 journals via Exchange Agreements. It has reprint collections of over 4,000 items dating back to 1842; 40 CD Roms and 28 videos.

Library Software/Databases

It uses the Millennium Software with (Innovative Interfaces)

The Millennium system provides online public access via the Rhodes University Library Electronic Resources Webpage. These are:

- Academic Search Premier (via EBSCO host) which provides full text access to more than 4,500 publications.
- Science Direct which provides full text access to more than 1,800 titles of Elsevier Science journal collections.
- Springer Link which provides access to more than 4,500 full text journals.
- Fish and Fisheries Worldwide Online via Biblioline and CD ROM.
- Access to full text online journals via International Network for the Availability of Scientific Publications (INASP) programme.
- Access to Global Online Research in Agriculture (AGORA)
- Access to African Journals Online (AJOL)

Library Information Networks

Information networks and other regional initiatives are undertaken in the form of national inter-library loans, publications exchange agreements, networking with fisheries institutions in Africa.

The International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC) project, the Z39.50 Distributed Library received 481 serial titles submitted by SAIAB as part of efforts aimed at facilitating international resource sharing among marine and aquatic science libraries.

In 2002, SAIAB worked with FAO in coordinating a pilot project with a core group of libraries in selected fisheries institutions in Africa. The aim of the project was to improve access to information resource sharing capacity between Africa fisheries libraries.

As a follow up, SAIAB hosted a Resource Sharing Workshop in Grahamstown in November 2003 to discuss with participants, ways of collaboration within the network.

KENYA

The Kenya Marine and Fisheries Research Institute (KMFRI) was established in 1979 from the defunct East African Marine and Freshwater Research Organization (EAMFRO). Its main objective is to undertake research into marine and fresh water fisheries, aquatic sciences, biological, chemical, and physical oceanography, limnology, pollution, aquaculture, natural products and marine geology.

KMFRI Library

The Library which was established in 1979 inherited its initial collections from the Eastern African Marine and Freshwater Research Organization (EAMFRO). The KMFRI library is also made up of the Mombasa and Kisumu libraries serving marine and freshwater sectors in the country.

Stock

The library has about 5,000 titles including publications deposited by government, international organizations and other institutions dealing in ocean and marine research world wide. A number of 80 journal titles, pamphlets, periodicals and reprints, videos and ASFA CD Roms are currently available at KMFRI.

Library Software/Databases

InMAGIC, ASFIS methodologies K-LIB, KENDOC, are some of the databases at KMFRI library. The library has access to e-journals through INASP and AGORA. It also installed the Prospero Document Delivery Software thus making document delivery much faster.

Literature services are rendered by KMFRI through:

- AFRILIB- Africa's library Holdings which is a collective catalogue of library holdings in cooperating institutions.
- AFRIPUB – a catalogue of scientific journals, articles and monographs published by African ocean scientist.
- AFRICURRENT – Current Awareness Services, which is an awareness tool based on user's profiles of specific subject interests.
- AFRIDIR – a directory of marine and freshwater professionals in Africa.

Library Information Networks

Regional Co-operation in Scientific Information Exchange in the Western Indian Ocean (RECOSEX-WIO) which was an information project working towards a lasting network

of marine and aquatic institutions in the Western Indian Ocean region, was launched in 1989 with funding from UNESCO-IOC with KMFRI library as host. The main objective of RECOSIX-WIO included providing the necessary bibliographic and scientific literature and promoting communication among marine scientists.

Ocean Data and Information Network for Africa (ODINAFRICA) was launched as a follow-up to the RECOSIX WIO. While RECOSIX- WIO was mainly focused on the Western Indian Ocean, ODINAFRICA covered most of Africa's coastal states. ODINAFRICA aims at enabling all members states:

- to get access to data available in the data centers
- to develop skills for manipulation of data
- to develop infrastructure for archival analysis and disseminate data and information products.

The major impact of these projects is the development and dissemination of marine and coastal information products responding to the needs of a wide variety of user groups using national and regional networks.

KMFRI submitted a total of 32 serial titles to the Z39. 50 Distributed Library to enhance resource sharing activities of IAMSLIC. KMFRI also become an Aquatic Sciences and Fisheries Abstract (ASFA) Input centre ensuring that grey literature is widely disseminated in the Western Indian Ocean region.

TUNISIA

Institut National des Sciences et Technologie de la Mer (INSTM)

The Institut des Sciences et Technologies de la Mer (INSTM) was established in 1924. It is affiliated to the Secretariat d' Etat à a Recherche Scientifique et à la Technologie (SERIT).

The Mission of INSTM consists of:

- conducting contractual research programmes are related directly or indirectly to the sea and its resources: fishing, agriculture, marine environment, sea technologies, oceanography, etc.
- participating in different national, regional and international networks related to the sea.
- contributing to the resolution of problems related to the development of urban and economic activities on the coast as well as in territorial waters.
- transferring its know-how and the results of its research to decision makers, professionals of the sea and scientists.
- helping with decision making processes in issues relating to the sustainable management of the sea and its resources.
- contributing to the diffusion of knowledge and education about marine issues and to raising the public's consciousness for the protection and preservation of the sea and its biodiversity.

INSTM Library

The library is rich into thousands of volumes with several works dating from the 16th century. The library produces information awareness services; announcing lists of new acquisitions, current periodicals, theses and dissertations.

Stock

The INSTM Library has 5,280 books on aquaculture and marine resources. It has 1,156 journal titles and currently subscribes to 30 journals. The library has acquired a total number of 148 videos and CD- Roms, dissertations, theses, reports and sea charts. It has on-line access to journals.

Library Software/Databases

The database used are specialized in the fields of aquaculture, living resources, marine environment and fishing techniques.

InMAGIC, CDS/ISIS and ASFIS methodologies are some of the library software and database used in managing records at INSTIM.

The library puts at the disposal of its readers a certain number of on-line bibliographical tools such as ASFA and Oceanic Abstracts. It also has a computerized catalogue based on the Computerized Documentary Service, Integrated Sets of Information System (CDS/ISIS)

Library Information Network

It is an ASFA input centre, capturing and disseminating literature on aquaculture and marine resources. It is a member of ODINAFRICA, IAMSLIC and EURASLIC.

Conscious of the importance of and the need for undertaking research in coordination with foreign partners, INSTM maintains scientific collaboration with several partners such as FAO's **COPEMED** project for the development of Exploitation of Fisheries in the Western basin of the Mediterranean and the **Medsudmed** project for the follow-up and evaluation of the environmental resources and systems in the straits of Sicily.

CONCLUSION

The importance of aquatic and marine science cannot be over emphasized. It is the knowledge behind the production function of aquatic ecosystem for water, food and the environment. Every planning process that leads to an enhanced development of a nation must be based on reliable and adequate information.

Therefore information resources in both printed and electronic format is essential in libraries and information centers. Facilities such as storage devices, organization, resource sharing, retrieval and management systems, including human resources development are essential in providing access to scientific and technical literature in support of marine and aquatic institutions.

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