

Institute of Marine Science, University of Dar Es Salaam, Tanzania

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| Institutional setting | |
| 1. Name and affiliation | Institute of Marine Science (IMS), University of Dar Es Salaam, Tanzania jointly with the Western Indian Ocean Marine Science Association (WIOMSA) |
| 2. Contact | <p>Address: Institute of Marine Sciences University of Dar Es Salaam P.O. Box 668 Zanzibar Tanzania Email: director@ims.udsm.ac.tz Tel.: +255 24 2230741/2232128 Fax: +255 24 2233050</p> <p>Websites: IMS: http://www.msi.upd.edu.ph/ UDSM: http://www.udsm.ac.tz/ WIOMSA: http://www.wiomsa.org</p> <p>Principal contacts: COE REP, Dr. Alfonse Dubi, Director, email: dubi@ims.udsm.ac.tz Julius Francis, Executive Secretary, WIOMSA, email: julius@wiomsa.org H.H. Hamad, Senior Accountant, Email: hamad@ims.udsm.ac.tz E.A. Turuka, IMS Administrative Officer, email: turuka@ims.udsm.ac.tz Prof. Yunus Mgaya, Dean, FASTechnology, University of Dar es Salaam, Email: ymgaya@ucc.udsm.ac.tz</p> |
| 3. Mandate and background | <p>The institute of Marine Sciences (IMS) of the University of Dar es Salaam was established in 1979. Based on Zanzibar, IMS supports a wide range of marine science and coastal research on both laboratory and field basis.</p> <p>The vision of the Institute is to become a Centre of Excellence in marine science research and training. The Institute's mission is to engage in creation, transmission and evaluation of knowledge in marine sciences through research, training and provision of advisory and public services.</p> <p>The specific objectives of IMS are to:</p> <ul style="list-style-type: none"> • Undertake research in all aspects of marine science including socio-economics and resource management • Provide postgraduate training and, in the future, establish undergraduate training in accordance with the country's manpower requirements • Provide advisory and consultancy services in marine affairs and engage in the exploitation of marine resources • Contribute through research, advice, and direct intervention to Tanzania's food security programmes • Provide Tanzania with the capability and awareness to address problems and issues arising out of the new ocean regime • Contribute significantly to Tanzania's goal of attaining self-reliance in high-level manpower (marine scientists, engineers, technicians) • To create conditions that will enable Tanzania to play its rightful role in ocean affairs, particularly to enable Tanzania to make a meaningful contribution to national, regional and international programmes devoted to the studies of the ocean and their resources. |

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| 4. Regional map | REGIONAL MAP |
| 5. Location | Location of IMS: S 06° 09' 30.9" E 39° 11' 31.1". |
| 6. Local area map | <p>Coral distribution maps are available in electronic format (jpg, GIS). Topographic maps are available in hard copies. Few navigational charts available.</p> <p style="text-align: center;">[Aerial photo of survey sites]</p> |
| 7. Local area description | Pending |
| 8. Major concerns regarding marine resources in the area? | <p>Overfishing and destructive fishing practices are issues of concern in Tanzania. Reef located near urban centres are more affected due to more demand and hence more pressure on the environment and resources.</p> <p>Sedimentation and pollution from land based sources, unsustainable agriculture and unplanned urban industrial and sewage dumping is becoming evident in major towns such as Zanzibar, Dar es Salaam and Tanga.</p> <p>Despite various coral transplantation experiments (e.g. Muhando, 1996-2003, Wagner et al., 1999), coral reef restoration methods have not been demonstrated in the field for local communities to appreciate. Otherwise, everyone is eager to contribute to any activity leading to improvement of the coastal and marine resource base (i.e. environment and its resources).</p> <p>Marine protected areas appear to be ready to start coral restoration activities. Right now various efforts are underway to improve methodology and seek for financial resources.</p> <p>The population of Crown-of-thorn starfish (COTS) on Zanzibar and Dar es Salaam reefs has increased. Coral mortality from COTs predation has now reached an alarming level. The administration of Chumbe Island Coral Sanctuary (CHICOP) has conducted removal operation on reefs under their jurisdiction. Coral mortality in Bawe and Changuu reefs is mainly due to COT predation. Proposals to carry out detailed surveys are underway.</p> |
| 9. Institutional setting (within University) | <p>The Institute of Marine Sciences is a department under the University of Dar es Salaam. IMS is headed by a Director under guidance of a Board, comprised of individuals from the university as well as representatives from different relevant institutions in the country. The guidance provided by the board is submitted to higher university organs for decision and implementation.</p> <p>The Director is responsible to the Vice Chancellor of the University of Dar es Salaam through the Chief Academic officer. The Research Committee of the Institute, composed of all academic members of staff, the Administrative officer, Senior accountant and the Chief Technician, advises the Director on day-to-day running of the Institute and prepares for the decision of the Board on issues related to research and training. The IMS Board deals with all major issues that need university level attention and decisions.</p> |

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| <p>10. Departments</p> | <p>IMS is headed by the Director who is assisted by two Associate Directors, one for Academic and the other for Administration performance. There is also the Administrative Officer who heads the personnel and oversees the daily administrative functioning of IMS. The Director is the Institute's Accounting Officer and is assisted by the Senior Accountant.</p> <p>IMS has four academic departments, each headed by a Head of Department. The departments are:</p> <ul style="list-style-type: none"> • <i>Living resources and Ecology</i>. This includes Fisheries, Ecology and Marine Botany. • <i>Chemical and Environmental Marine Sciences</i>. This includes Chemical Oceanography and Marine Pollution. • <i>Physical and Applied Marine Sciences</i>. This includes Physical Oceanography, Marine Geology and Marine Technology. • <i>Information and Communication Technology (ICT)</i>. <p>The ICT section is charged with overseeing the proper functioning of IMS as a full National Oceanographic Data Center for Tanzania known as the Tanzania National Oceanographic Data Centre (TzNODC). In addition to this, ICT ensures the availability of up-to-date ITs at IMS including reliable Internet connectivity and maintains the LAN. ICT is comprised of other two major units, which are the MEED (Marine Education Extension Development) unit and the GIS unit which is part of the TzNODC</p> <p>National Oceanographic Data Center IMS serves as the Designated National Agency (DNA) for oceanographic data and information (nominated by the Government of Tanzania in 1996). Activities of the DNA are supported through ODINAFRICA (Oceanographic Data and Information Network for Africa) of the IOC of UNESCO with support from the Government of Flanders (Belgium).</p> <p>This Data Centre is a member of the International Oceanographic Data and Information Exchange system (IODE), established in 1961 by the Intergovernmental Oceanographic Commission of UNESCO</p> <p>(http://www.odinafrica.org)</p> |
| <p>11. Financial management and auditing</p> | <p>Financial management at IMS follows financial regulations of the University of Dar es Salaam and the general Government financial and procurement regulations. The University undertakes both internal and external auditing annually. Donor funded projects are also subject to auditing, and in some cases donors appoint their own auditors. IMS maintains separate accounts for recurrent and project funds, in local and foreign currencies. The Director (first category), Administrative Officer and the Senior Accountant (2nd category) are signatories. At least one signatory from each category is required in order to effect any payment.</p> |
| <p>Research</p> | |
| <p>12. Research priorities –</p> | <p>RESEARCH AGENDA IMS's has developed a research agenda to give direction in research planning and execution. It acts as a guide and provides a clear direction and focus in research so that the limited resources that come to the Institute are used efficiently, in line with the University's objective of improving research quality. The research agenda has been developed through a participatory process involving reflecting the different stakeholders in marine science</p> |

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| | research, development and management, including key Government departments and institutions, NGOs dealing with environment, donor partners, and the University of Dar es Salaam. | | |
| 13. Faculty staff | <p>From the early years of inception, IMS has concentrated on staff development and capacity building. There are now 16 academic staff members with 13 Ph.D. holders and 2 Ph.D. candidates.</p> <p>Senior Research Fellow J. P. Shunula, M.Sc. (Dar), PhD (Dar) N. Nyandwi, B.Sc. (Wales), Dr. rer. nat (Bremen) A.M. Dubi, Dip. Ing. PGD (Marine C. Eng.) (Trondheim), Dr. Ing. (Norway) A. N. N. Muzuka, M.Sc. (MUN), PhD (UQAM) D. C. P. Masalu, M.Sc. (Geoph), Dr.Sci. (Geoph) (Tokyo) S. M. Mohammed, M.Sc. (Southampton), PhD (Stockholm)</p> <p>Research Fellow N. S. Jiddawi, M.Sc. (Wales), PhD (Dar) O. U. Mwaipopo, M.Sc. (Dar) M. S. P. Mtolera, M.Sc. (Dar), MSc (Las Palmas), PhD (Uppsala) M. Kyewalyanga, M.Sc. (Dalhousie), PhD (Dalhousie) A. S. Ngusaru, M.Sc. (Dalhousie), PhD (Dalhousie) Y. W. Shaghude, M.Sc. (Southampton), PhD (Stockholm) S. A. Said, B.Sc. M.Sc. (Dar), PhD (Trondheim) C. A. Muhando, M.Sc. (Brussels), PhD (Dar) A. J. Mmochi, M.Sc. (Ryukus)</p> | | |
| 14. Students | <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>MSc Students Thomas BURUDA Dotto SALUM Omari Ali AMIR Ignantio P. SANGA Mariam I. Hamisi Rashid J RASHID Makame K MAKAME</p> </td> <td style="width: 50%; vertical-align: top;"> <p>PhD Students Juma KANGWE Florence Mamboya Amelia Buriyo Omar A. Ali Aviti J. MMOCHI Haji Mwevura HAJI Obeth U. MWAIPOPO Augustine W. MWANDYA Saleh YAHAYA Mustafa A GARU</p> </td> </tr> </table> | <p>MSc Students Thomas BURUDA Dotto SALUM Omari Ali AMIR Ignantio P. SANGA Mariam I. Hamisi Rashid J RASHID Makame K MAKAME</p> | <p>PhD Students Juma KANGWE Florence Mamboya Amelia Buriyo Omar A. Ali Aviti J. MMOCHI Haji Mwevura HAJI Obeth U. MWAIPOPO Augustine W. MWANDYA Saleh YAHAYA Mustafa A GARU</p> |
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| 15. Ongoing research programs | <p>Current research priorities and activities:</p> <ol style="list-style-type: none"> 1. Coral reef monitoring and mapping. Coral settlement and recruitment, Coral transplantation on natural and artificial substrates, resource mapping using GIS techniques, physical alteration and habitat degradation. 2. Seaweed farming. Aimed to help local communities especially women, in poverty alleviation. Research is done to find better and reliable ways of growing the seaweed. Research is also focused on testing the different types of seaweeds to classify them according to their tolerance to various local conditions. 3. Aquaculture. Integrated mariculture system in Zanzibar, Tanzania - Project developed jointly between National Centre for Mariculture of Israel and IMS, initially funded by Germany-Israeli Foundation, GIFRID, presently supported with funding from Sida-SAREC through Marine Science for Management (MASMA) Programme of the WIOMSA. | | |

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| 15. Cont. | <p>4. Sustainable Dolphin Tourism in East Africa. Project undertaken by IMS staff in collaboration with counterparts from Sweden, Mozambique, South Africa. The project has three parts: (i) Investigation of age structure and biology of by-caught dolphins retrieved from fisheries. (ii) Sustainable fisheries (with respect to marine mammals) a investigating the geographical and seasonal occurrence and magnitude of by-catch of dolphins and whales in drift- and bottom set gillnet fisheries in selected coastal areas of Zanzibar. (iii) Sustainable tourism –socio-economic research of the dolphin tourism.</p> <p>5. Seagrass mapping. Project aimed at establishing types, taxonomy, distribution and abundance of sea grasses in Tanzania</p> <p>6. Fisheries stock assessment</p> <p>7. Marine pollution (sources and sinks of pollutants, pollutant transport and dispersal)</p> <p>8. Marine Natural products (of bio-medical value)</p> <p>9. Shoreline changes, sediment transport and estuarine dynamics in the WIO-Region.</p> <p>10. Climate Change</p> |
| 16. Education, course curricula | Training is undertaken via university of Dar Es Salaam |
| Regional collaboration | |
| 17. Regional setting and collaboration through IMS-WIOMSA COE | <p style="text-align: center;">Regional setting and collaboration</p> <p style="text-align: center;"><i>See diagram page 10</i></p> |
| 18. Local / regional partners, linkages to NGOs, government agencies | <p>IMS has a strong network of partners/collaborators for research and exchange of ideas at national, regional and international levels. This is manifested in several ways such as research collaboration, consultancies, representation in boards etc. The following are examples of such networks.</p> <p>1. IMS works closely with the WIOMSA secretariat, who's Executive Secretary is a former director of IMS. IMS staff assists the WIOMSA on short term service contracts.</p> <p>2. IMS is represented on the following national boards and committees:</p> <ul style="list-style-type: none"> • Board of the Fisheries Dept, Zanzibar • Board of Trustees of the Mafia Island Marine Park • National Hydrographic Committee • Menai Bay Conservation Area • Misali Island Conservation Area • Tanzania Coastal Management Partnership • ANCAP-Tanzania |

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| 19. Cont. | <p>3. IMS is represented and/or represents the Government of Tanzania in various regional and international boards and committees, as follows:</p> <ul style="list-style-type: none"> • African Network for Chemical Analysis of Pesticides (ANCAP) • IOC/UNESCO – Executive Council • International Oceanographic Data Exchange (IODE) • Academic Group of Indian Ocean Rim – Association for Regional Cooperation (IOR-ARC; IOR-AG) • Marine Science and Technology in the Indian Ocean Rim – Association for Regional Cooperation (IOR-ARC: IOR-AG) |
| 19. Regional/ international research partners, networks | <p>MS is an active member of Regional and International organizations such as WIOMSA, IOC-UNESCO, UNEP, CORDIO, IUCN, WWF and others.</p> <p>IMS collaborates with scientific institutions such as:</p> <ul style="list-style-type: none"> • The National Environment Management Council (NEMC) • Tanzania Fisheries Research Institute (TAFIRI) • Mbegani Fisheries Development Center (MFDC) <p>Government Departments such as:</p> <ul style="list-style-type: none"> • Fisheries Departments of both Tanzania Mainland and Zanzibar • Departments of Environment, Marine Parks and Reserves Unit • Tanzania Coastal Management Partnership (TCMP), a joint initiative between the National Environment Management Council (NEMC) and the University of Rhode Island/Coastal Resources Center and USAID. <p>IMS works closely in research and training with University Faculties:</p> <ul style="list-style-type: none"> • Faculty of Science (UDSM) • Faculty of Aquatic Sciences and Technology (FAST) • Prospective College of Engineering and Technology (pCET-UDSM) <p>In the Western Indian Ocean region, IMS works closely with national institutions such as:</p> <ul style="list-style-type: none"> • Kenya Marine and Fisheries Research Institute (KMFRI), • University of Mauritius • Eduardo Mondlane University (Mozambique) • University of Cape Town (South Africa) • South Africa’s Council for Scientific and Industrial Research (CSIR) |
| 20. Collaboration with foreign institutions/ scientist | <p>IMS collaborates with several foreign institutions for instance from Israel, Sweden, South Africa, Kenya, Norway, Netherlands, etc. and in particular IMS staff members have collaborative research with scientists/researchers from those institutions. IMS staff also teaches part teaching in various institutions in the WIO-region.</p> <p>Collaborative research programs are supported under bilateral and multilateral agreements, e.g:</p> <ul style="list-style-type: none"> • Sida-SAREC (through partnership with Stockholm University), • ODINAFRICA (Ocean Data and Information Network for Africa – IOC/UNESCO) |

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| <p>21. What other international projects is IMS/Univ. of Dar es Salaam involved in</p> | <ul style="list-style-type: none"> • GEF projects currently engaged in: The African Process for the Development and Protection of the Marine and Coastal Environment in Sub-Saharan Africa, WIOLAB, • USAID – Tanzania Coastal Management Partnership (TCMP) • SIDA- Sida-SAREC Marine Science Bilateral Programme, MASMA • WB - Marine and Coastal Environment Management Project (MACEMP) • GOOS: GOOS-AFRICA, ODINAFRICA III, IOGOOS • IOC: IOC Executive Council, Editor of OCEANPORTAL, Member of IODE Committee, National IOC Focal Point, Tanzania National Oceanographic Data Center |
| <p>22. Student exchange programs</p> | <p>There are a number of formalized student exchange programmes, e.g. with Universities of Nijmegen, Netherlands; Aalborg, Denmark and IMS receives many individual foreign students e.g. from foreign countries such as Sweden, Denmark, Norway, UK, Israel, Kenya, Uganda, USA, joining IMS for short courses or doing part of their research towards their masters or doctorate degrees. Also, most of the masters or doctorate students at IMS enrolls in exchange programmes, working part time at IMS (especially for field or lab research) and the rest in a foreign institution (currently, mostly in Sweden and the Netherlands).</p> |
| <p>23. Linking science to management and policy advise</p> | <p>IMS plays a role in policy setting at the National Level. The Institute has been central in the formulation of various policies related to utilisation, conservation and management of coastal and marine resources, e.g. the <i>Environmental Legislation for Zanzibar and Marine Parks and Reserves Act (1995)</i>. The Institute has co-ordinated and facilitated a variety of local, national and regional workshops, meetings and initiatives aimed at developing and implementing <i>Integrated Coastal Zone Management</i></p> |
| <p>24. Linkages to local or regional NGOs, activities/projects with potential relevance to GEF TR</p> | <p>Involvement in activities with potential relevance for GEF TR:</p> <p>IMS has participated in several national and regional activities/projects that have relevance to the GEF TR project. Examples include:</p> <ol style="list-style-type: none"> 1. Enhanced coral larval settlement and coral transplantation as means of promoting coral replenishment in Tanzania - Coral reefs play an important role in the socio-economy of the coastal communities in Tanzania. However, the ongoing degradation of coral reefs caused by anthropogenic disturbances and by natural processes threatens the existence and contribution of coral reef ecosystems. In order to contribute knowledge towards sustainable management of coral reefs, investigations were conducted: (a) on seasonality in seawater temperature, macro algal abundance and sedimentation rates; (b) on coral larval temporal settlement patterns and how settlement could be enhanced using artificial plates and; (c) on the survival and growth of transplanted coral fragments from different species on degraded reef habitats and on artificial substrates. 2. Monitoring of seawater temperature - This activity of measuring seawater temperature using StowAway Tidbit Temperature Logger tied on a staghorn coral branch at 3-4m deep, was initiated in September 1996 with technical assistance from Canadian International Development Agency (CIDA) and later (1999-2002) financed by Coral Reef Degradation in the Indian Ocean (CORDIO) project. Currently, the activity is financed by the Institute of Marine Sciences. 3. Pollution in coral reefs - Project commenced in 1999 and is ongoing. The project is focused on aspects of biosediment production. |

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| 25. Linkages with GEF TR working groups | Members of BWG has several years working experience with IMS scientist |
| 26. Outreach strategy | Pending |
| 27. Linking TR findings to regional managers and policy makers | IMS has organized several regional and international meetings, conferences and workshops in the past and will continue to play a significant role in influencing regional coastal and marine policies and conventions. |
| 28. Local setting: What relationship does IMS have with the local community? Outreach activities? Engage with fishing communities? NGOs? Is it involved in advising on MPA or no take zones? | <p>IMS has close collaboration with coastal local communities both in Zanzibar and on the Tanzania mainland. IMS has communicated various scientific findings as well as advice on various issues regarding coastal zone management through its Marine Education Extension Development (MEED) unit. The Unit records, edits and distributes video programs and booklets to the media, government and local communities. IMS listens to local community problems and prepares research actions to solve and prevent adverse effects. This is frequently done in the fields of coastal erosion, fisheries and other harvestable resources.</p> <p>IMS has in the past conducted several outreach activities. It was involved in advising the government of Zanzibar on curriculum development that takes care of the coastal environment. Through its MEED unit, IMS has produced various educational videos for the general public and scientific purposes. New and modern equipment have been acquired to improve the quality as well as the capacity to produce more videos in the near future. The recording and editing equipment is all digital.</p> <p>- Since 1978, IMS has been concerned and involved in Fisheries data collection and fisheries management. It has worked with local fishermen as well as the Department of Fisheries, both in Zanzibar and on the Tanzania mainland. Private fishing companies and other NGO has often consulted IMS on technical and scientific opinion regarding coastal zone development (hotel constructions, coastal protection structures) and management (e.g. private owned marine conservation areas). IMS jointly with other partners organised the Year of the Reef Workshop in Zanzibar in 1998. It was also partly involved in the preparation of the Year of the Ocean in Dar es Salaam.</p> <p>- IMS was responsible for almost all ecological surveys leading to the establishment of Marine Protected Areas (Marine Parks and Reserves) and marine management and conservation areas. Mapping and zoning of the distribution of various bio-physical features and resources in MPAs and management areas were done by or in collaboration with IMS. IMS scientific staff are members of Boards of most of the MPAs.</p> <p>- IMS is perceived as an indispensable scientific institution with capacity for research, training and advice in all management issues of the coastal and marine resources and environment. The government and the local authorities shows trust in expertise available at IMS.</p> |
| Laboratory logistics | |

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| <p>29. Research facilities, key facilities and equipment available (for lab and field work) - and highlight what is needed from GEF project</p> | <p>IMS has well equipped chemical and biological laboratories and a specialized laboratory for pesticide research. A technician supervises each laboratory. The Chief Technician is in-charge of all laboratories and technicians.</p> <p>List of equipment:</p> <p><i>Laboratory:</i> Aquarium, Museum, two UV/VIS spectrophotometer, water distillation equipment, a variety of balances (electrical and mechanical), fridges and freezers, pH and macro-electrodes, several types of microscopes of varying complexities, sieving outfits, liquid scintillation analyser, GC, CHN analyser, GIS laboratory and ICT facilities.</p> <p><i>Field Equipment:</i> GPS, grab samplers, corers, echosounders, portable underwater pulse amplitude modulator (PAM), fluorometers, tide gauges, turbidity (SPM) meters, underwater video cameras, underwater nutrient flux monitoring domes, field pH meters, electrodes, Multi-sensor current meters (e.g. RCM 9, full sets of diving equipment including a compressor, 2 sets of photographic equipment and assorted sampling equipment.</p> <p><i>Research vessels and boats</i> IMS provides boat services for sea based research activities conducted by visiting international scientists and students from the University of Dar es Salaam and Sweden.</p> <p>1 fibre glass boat (4 diver + equipment); 1 rubber-dinghy (in need of a new Rubber Coat run by 40 HP outboard engine – malfunctioning at the moment); 1 aluminum boat</p> <p><i>Dive gear:</i> 2 sets in good condition are available, 6 sets are out of order. Note: complete list of required dive equipment pending.</p> |
| <p>30. Training and seminar facilities</p> | <p>Facilities for students and visitors:</p> <ol style="list-style-type: none"> 1. One room for local Masters and PhD students – renovated, accommodates up to 15 students. 2. One room for visiting researcher – renovated, accommodates up to 12 visitors. 3. The IMS library is used as seminar/conference room, comfortably accommodates up to 30 people. <p><i>Museum.</i> IMS has an important natural museum, with a large display collection of marine specimens of fish, algae, marine mammals, seagrasses and mangroves.</p> |
| <p>31. Environmental data being logged at field station?</p> | <ol style="list-style-type: none"> 1. Seawater temperature measured using TidBit automatic logger (since 1997 with few gaps) 2. Coral reef monitoring at five selected sites (coral cover, density of macro-invertebrates and reef fish): Permanent monitoring sites: |
| <p>32. Historical data and other background information on site?</p> | <ol style="list-style-type: none"> 1. Coral species list for Zanzibar reefs 2. Maps of the location of important coral reefs 3. Density of macro-invertebrates (sea urchins, Crown-of-Thorns, Starfish, Lobsters, clams, large Gastropods) on coral reefs |

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| <p>33. Publications/library on COE research and international literature</p> | <p>IMS library - The Institute of Marine Science library supports the research and teaching activities of the Institute. The library covers a wide range of subjects including fisheries, aquaculture, marine research and expeditions, legislating, oceanography, socio-economics, coastal zone management and marine resources.</p> <p>The IMS library is part of the Main Library of the University of Dar Es Salaam and is the Ocean Information Centre for Tanzania; therefore plays a key role in facilitating ocean and coastal research in the country. The library collaborates closely with the Regional Co-operation of Scientific Information Exchange in the Western Indian Ocean (RECOSCIX-WIO) located at the Kenya Marine and Fisheries Research Institute in Mombasa, which is the Regional Dispatch Centre.</p> <p>Most periodicals are acquired through an exchange programme with other organizations and donation from Book Aid (UK). Since 2001, with assistance from International Network for the Availability of Scientific Publications (INASP) and the University of Dar es Salaam main Library, under the Program for the Enhancement of Research Information (PERI) the IMS library has electronic access to many international journals.</p> <p>IMS host an online publications database: http://www.ims.udsm.ac.tz/odinea/index.html</p> <p>RESOURCES AVAILABLE</p> <p>The library collection comprises a wide range of marine sciences related subjects. The collection includes many various publications of international organizations concerned with marine environment such as FAO, UNEP, IOC, WMO, IMO, ICLARM, IUCN etc. The unique part being the collection on Tanzania marine environment and to a lesser extent other countries of the WIO region. On average a total of 150 documents are received per year.</p> <p><i>Books and journals</i></p> <p>The library has more than 3000 books and receives a number journal titles through subscription and donation from Book Aid International.</p> <p><i>Reprints and technical reports</i></p> <p>The library holds more than 2000 reprints and 1500 technical reports from different scientists from within and outside the country. Reports and reprints are not for circulation users can photocopy or use the resource with the library.</p> <p><i>Dissertation and theses</i></p> <p>The University of Dar Es Salaam regulation stipulates that, all graduates from the university must deposit a copy of his/her theses or dissertation to the University main library and the faculty of institute library where the student is based. With this regulation IMS library has managed to collect more than twenty theses from the past students. The theses are held in the special collection of the library.</p> |
| <p>Publications/library cont.</p> | <p><i>Literature search</i></p> <p>Electronic databases are available for use by all library users. This service includes, CD-ROMS, with support from <u>INASP</u>. IMS library users have access to electronic journals from different sources such as EBSCO, Blackwell etc. Library users also have access to <u>ASFA</u> via Internet.</p> |

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| 34. Historical data and papers on BML | <p>Tanzania National Oceanographic Data Centre</p> <p>A meta-database has been developed under the ODINAFRICA project hosting a collection of ocean and coastal data and information, land inking datasets or databases located elsewhere in Tanzania.</p> <p>The meta-database aims to:</p> <ul style="list-style-type: none"> • Inform on existing datasets and documentation in Tanzania. • Provide access to information regarding coastal environment or resources. • Provide a comprehensive list of scientists and institutions holding oceanographic datasets or dealing with collection, analysis dissemination and management of data and information relevant to coastal zone management and research. • Offer scientists a venue to advertise themselves and inform the general community on published and unpublished research findings and the type of research projects being carried out now. • Present information regarding existing, proposed and potential marine protected areas in Tanzania. • Inform about national projects and programs that are ecologically and/or economically sensitive. • Inform about district resource potentials and local initiatives and struggles in coastal and marine environmental and resource utilization and conservation. |
| 35. Internet facilities | IMS has full internet connectivity through a leased line on a shared 256kbps (both upload/download). Connection is OK but may need be upgrading |
| 36. Video-conferencing facilities: | No video conferencing facilities |
| 37. Accommodation | IMS maintains guesthouse accommodating 5 singles or 10 if double occupied. |
| 38. Catering arrangements | No catering services at IMS. Researcher and students make own arrangements for their food requirements. Many restaurants located near IMS. |
| 39. References | |

Regional entities and COE management structure

