

THE UNITED REPUBLIC OF TANZANIA

**NATIONAL REPORT TO THE 7TH
SOUTHERN AFRICAN AND ISLANDS
HYDROGRAPHIC COMMISSION**

TO BE HELD IN

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1.0 HYDROGRAPHIC OFFICE**

The United Republic of Tanzania is a Maritime State of the Indian Ocean with approximately 223,000 square kilometers of its Exclusive Economic Zone (EEZ) and a coastline length of about 1,500km. Along the coast of the main land there are three off lying big Islands namely Zanzibar, Pemba and Mafia, also there are many small Islands. In addition it has extensive inland maritime areas such as Lake Victoria, Lake Tanganyika and Lake Nyasa. There are three major harbours and six minor ones. Also there are several Lake Ports.

Hydrographic survey activities fall under two Ministries as detailed below:

- The Ministry of Lands, Housing and Human Settlements development, in which there is a Hydrographic Surveys Section within the Surveys and Mapping Division headed by the Assistant Director Hydrographic Surveys. The Ministry is responsible for land and hydrographic surveys in the country. At the moment there are no hydrographic survey vessels although there are three staff with Category "B" hydrographic qualifications within the Ministry. Also the Ministry provides secretariat for the National Hydrographic Committee.
- The Ministry of Infrastructure Development, through Tanzania Ports Authority (TPA) with responsibility to manage all Tanzania main land Sea Ports and Lake Ports. Basically, TPA's broad functions are to promote the effective management and operations of sea and inland water ways ports, secure the provision of services in relation to loading and unloading of Cargo, develop and manage the port infrastructure and maintain ports safety and security. TPA has a Hydrographic Section which deals with hydrographic matters, with its principal functions as follows:-
 - Hydrographic surveys in seaports and inland water ways ports on Lakes Victoria, Tanganyika and Nyasa.
 - Maintenance and improvement of Marine Navigational Aids in seaports, coast and inland water ways ports.
 - Dredging to maintain depths at channels and berths in seaports and inland water ways ports.
 - Notices to mariners and Oceanographic studies

Zanzibar Ports Corporation is the Authority responsible for Ports in Zanzibar and Pemba.

2.0 SURVEYS

2.1 Hydrographic Surveys carried out by TPA

TPA carried out Hydrographic surveys at the following Sea and Lake Ports:

- **Sea Ports:-**

- Dar es Salaam
- Tanga
- Lindi
- Mbegani (Bagamoyo)

The purpose of the hydrographic surveys at Dar es Salaam, Tanga and Lindi Ports was to ascertain siltation built-up and dredging requirements. At the moment a contractor has been engaged to carry out maintenance dredging at Dar es Salaam and Tanga Ports.

Considerations are being taken to establish a new port at Mbegani village near Bagamoyo town, about 60 Km to the North of Dar es Salaam. However, hydrographic survey results have revealed that extensive capital dredging works would be required. Also geotechnical investigations have been carried out to assess soil conditions and a consultant will be employed soon, to look into the possibility of establishing the Port at Mbegani.

- **Lake Ports:-**

- Lake Victoria Ports:
Hydrographic surveys were carried out at Mwanza North and Mwanza South Ports in order to assess maintenance dredging requirements.
- Lake Tanganyika Ports:
Surveys were carried out at Kigoma Port and it was established that the Port requires maintenance dredging. At present debris removal is in progress at the Port to be followed by dredging operations.
- Also surveys have been carried out at five ports along Lake Tanganyika coast line with a view to construct jetties. With reference to the hydrographic survey results, these jetties will be constructed at Lagosa, Kalya, Karema, Kirandu and Kipili Ports.

2.2 Surveys carried out by Contracted Companies

- **East African Community Surveys:-**

The East African Community contracted Ms Marin Matteknik (MMT) AB Company of Sweden to carry out hydrographic surveys for the Ports of Kisumu, Port Bell and Mwanza on Lake Victoria. The bathymetric data will then be used to compile navigational charts. The next phase will be to conduct hydrographic surveys for navigational routes of the respective Ports.

- **Delineation of the Continental Shelf:-**

The Government of the United Republic of Tanzania and the Government of the Kingdom of Norway on 17th of June 2008, signed a two years Agreement on Development Cooperation to provide funds to the Tanzania Delineation of the Continental Shelf project. Part of the funds was used to procure a special marine vessel which carried out all the undersea research.

The project aimed to delineate the outer limits of Tanzania's continental shelf outside the Exclusive Economic Zone (EEZ), so as to claim the right to explore and exploit non-living and mineral resources on the sea-bed and sub-soil of the extended continental shelf adjacent to the EEZ in accordance with the United Nations Convention on the Law of the Sea (UNCLOS) Article 76.

Norway provided assistance in the process of the collecting, compiling, processing and analyzing hydrographical and geophysical presented to the United Nations as evidence in support of Tanzania's claim that her continental shelf stretches beyond the 200 nautical miles of the current EEZ.

The project was implemented by the Ministry of Lands, Housing and Human Settlements development, in which the United Republic of Tanzania has presented a Provisional Submission to the UN Commission on the Limits of the Continental Shelf.

- **Offshore Seismic Surveys:-**

In March 2008 Seismic surveys were conducted in Zanzibar and Mafia Channels, also in February, 2009 Seismic surveys were carried out in Pemba Channel, North and South of Tanga. Both surveys were co-coordinated by Tanzanian Petroleum Development Corporation (TPDC) for search of oil, but no bathymetric data have been received for the purpose of updating Admiralty charts.

2.3 Equipment

There is one Hydrographic Survey boat and Buoys Tender Vessel.

Hydrographic Survey equipment comprises of the following:-

- Hydrostar 4300 Hydrographic Echo sounder
- DSM 12/212 & TRMTALK 450s Trimble, Differential Global Satellite positioning system (DGPS).
- Hewlett Packard Hydrographic survey computer with HYDROpro and Navigation software.
- A3 MP 5000 series plotter.
- A0 Hp 800 plotter

2.3.1 New Lighthouses

New four GRP Lighthouses fitted with solar lighting systems have been erected for safety of navigation at the following locations:

- Ras Kanzi Lighthouse (South of Dar es Salaam)
- Niororo Lighthouse (Niororo Island)
- Fanjove Lighthouse (Fanjove Island)
- Rukyira Lighthouse (Rukyira Spit – Kilwa approaches)

2.3.2 Procurement of new Navigation Buoys

Fourteen new navigation buoys with solar lighting system have been ordered and will be deployed as follows:

- 6 Buoys at Mtwara Port
- 3 Buoys at Dar es Salaam Port
- 3 Buoys a Tanga Port
- 2 Buoys at Mafia Channel

Also eight buoys with solar lighting system have been ordered for deployment at the Port of Kigoma.

2.4 New Ships

TPA has acquired a new Dismountable Cutter Suction Dredger to be used for maintenance dredging at Lake Ports, at the moment the dredger is carrying out dredging activities at Kigoma Port on Lake Tanganyika. When

the dredging work will be completed at in Lake Tanganyika, the dredger will then be dismantled and transported by train to Mwanza to continue with dredging projects on Lake Victoria.

2.5 Problems encountered

Vandalism of solar lighting systems on navigation buoys is still the main problem.

3.0 CHARTS AND PUBLICATIONS

a) Charts

At present we do not produce chart, ENCs, RNCs, INT chart or National paper charts. Usually we send all hydrographic data to the United Kingdom Hydrographic Office for update of the existing Admiralty charts and subsequent production of new editions.

b) Publications

We do not produce any publications.

4.0 MARITIME SAFETY INFORMATION

In March, 2009, the new Dar es Salaam Port Control Tower was inaugurated by the IMO Director General. Maritime Safety Information (MSI) infrastructure consisting of GDMSS and VTS systems have been installed In the Tower, and there is NAVTEX within GMDSS which receives only does not transmit. The services cater for A1 and A2. The MSI is administered by the Surface and Marine Traffic Regulatory Authority (SUMATRA).

5.0 CAPACITY BUILDING

In November, 2007, Tanzania Ports Authority was offered Technical Assistance through the International Hydrographic Organization (IHO), to attend a "Maritime Safety Information (MSI) Training Course" which was held at the "Escola Superior das Ciencias Nauticas", in Maputo (Mozambique). Also in November 2008, TPA was offered a place to send a candidate to attend an IHO Multibeam Course which was held at the National Hydrographic School of Goa (India). The courses were very useful to Tanzania and we highly appreciate the IHO Technical Assistance to our country.

It is anticipated that a regional project may take place, which will involve eight countries of the region. The project is known as "The Maritime Highways Project" – West Indian Ocean Maritime Electronic Highway and Coastal and Marine Contamination Prevention Project. During this project it is hoped that modern hydrographic surveys will be undertaken in Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and Tanzania. On completion of this project Tanzania will benefit in capacity building.

5.1 Personnel

The TPA's Hydrographic Section has three experts, one Marine Aids to Navigation Solar Power Technician, two Hydrographers, One with Category "A" and one with Category "B". Also there are nine Sailors who work with the three experts as a team.

6.0 S – 55

The status of Hydrographic Surveying and Nautical Charting in the United Republic of Tanzania, still the same as provided in the questionnaire in January, 2004.

7.0 OCEANOGRAPHIC ACTIVITIES

We do not undertake GEBCO/IBC's activities.

There are two tide gauges in the country, one is at Dar es Salaam Port and the other is at Zanzibar Port.

The Zanzibar tide gauge is connected to the University of Hawaii network in which tidal data is sent via satellite.

In July 2009 The Intergovernmental Oceanographic Commission (IOC) of UNESCO donated some sea level measuring equipment to the Tanzania Ports Authority and the Tanzania Surveys and Mapping Department. The equipment is a gift to the two organizations and is to be installed in the Port of Mtwara. The (IOC) is coordinating the development of the Indian Ocean Tsunami Warning System (IOTWS) and the Global Sea Level Observing System (GLOSS), in which the equipment will be used.

8.0 CONCLUSIONS

The United Republic of Tanzania requires urgent capacity building in Marine Infrastructure, in order to cope with modern shipping requirements in seaports and inland water ways ports for Safety of Navigation and preservation of the Environment.