

REPUBLIC OF MOZAMBIQUE

**INSTITUTO NACIONAL DE HIDROGRAFIA E NAVEGAÇÃO
NATIONAL INSTITUTE OF HYDROGRAPHY AND NAVIGATION
(INAHINA)**

NATIONAL REPORT

TO THE

**8th SOUTHERN AFRICA AND ISLANDS HYDROGRAPHIC COMMISSION
(SAIHC) CONFERENCE**

WALVIS BAY NAMIBIA, 06-07 SEPTEMBER 2011

INTRODUCTION

This report describes the main technical activities and developments carried out by the National Institute of Hydrography and Navigation (INAHINA), a national Hydrographic Office responsible for the safety of navigation in Mozambican waters. It covers the period between September 2009 and September 2011 in these following areas: Hydrography, Cartography, Oceanography, Aids to navigation and Capacity building.

1. Hydrographic office: General

INAHINA is a public institution under Ministry of Transport and Communications, which is responsible for hydrographic surveying, chart production, aids to navigation, and physical oceanography in Mozambican waters.

2. Surveys

The port entrances of Maputo and Beira has been surveyed as part of routine depth monitoring. At this moment INAHINA is involved hydrographic surveys for the production of a new nautical chart of Beira. This activity is hoped to be finalized by December 2011.

3. Charts and Publications

The production of nautical charts is one of the main tasks of INAHINA. Throughout the period in question it was produced a chart of Maputo bay, which references can be found in annex A. Another activity includes an update of Beira port, one of the most demanded Mozambican ports and ongoing hydrographic surveys at the Beira channel aiming the production of a new nautical chart of Beira port.

4. Lighthouses

It was registered an improvement of maritime signalization in the access channel to the port of Beira, where the number of luminous buoys along the channel was increased from 17 before to 25 luminous buoys now, including an opening of a new port in the Tupito zone and the rehabilitation of Ponta Caldeira lighthouse, in the access channel to Moma port, North of Mozambique.

5. Oceanographic activities

INAHINA has produced annually the tide table in order to aid the navigation. Studies for knowledge of physic properties of sea water are carried out in Maputo bay.

Other studies for oceanic, littoral and estuarine dynamic were conducted to aid the assessment of environment impact.

Oceanographic data has been processed in compass of ODINAFRICA Project. In this stage of project Atlas Marine for Mozambique has been preparing that engage base map, hydrosphere, biosphere, atmosphere, human environment parameters.

6.1 Tide Gauge Network

There are four tide gauge stations operational along the Mozambican coast, namely Maputo, Inhambane, Nacala and Pemba. Under the Gloss project, INAHINA is operating two-radar tide gauge stations at Inhambane and Pemba. Processing, quality control and archive are done regularly, including studies of oceanic water proprieties, which includes the determination of physical/chemical parameters, such as temperature, salinity and density.

7. New equipment

The inadequacy and state of the equipment are one of the biggest problems at INAHINA. The equipment currently in use is mostly obsolete and inoperative, requiring, therefore, an urgent intervention for their replacement or reconditioning. Recently, with support of UNESCO, INAHINA received survey hydrographic equipment which includes a set of positioning GPS – Hemisphere R100 and a mini sounder Knudsen.

6. Capacity Building

The capacity building is a key to develop capacities in the HO of the countries engaged on the hydrographic activities, mainly in the developing countries. With support and cooperation with HO of countries such as Portugal (IHPT), Norway (NHO) and South Africa (SANHO), Mozambican technicians from INAHINA have received training opportunities in several areas. Examples of collaboration with these countries include:

- The visit of two IHPT experts to train INAHINA technicians from the Oceanographic Services in the field of analysis and processing of current data and data quality control for the cartographic production, in 2010;
- One technician, from the Aids to Navigation Services, received training in maritime signalization, in 2010 also in IHPT;
- From the Cartography Department one technician have been trained in marine cartography with regard to the ENC production, in SANHO 2010. In 2011 one technician took part of the Course on Marine Cartography, under the auspices of IHO CB project, in Taunton, UK.,
- Upgrading on diving has been conducted annually for INAHINA's technicians in South Africa.

However INAHINA still have a long way in the field of capacity building. Efforts are being made to ensure that more technicians benefit for this type of actions in a systematic way. While is recognized the importance of capacity building actions to the HO is also important refer that equipments are also important to ensure that after training technicians can apply acquired skills.

Annex A

List of navigational charts produced between September 2009 to September 2011

Activity	Period	National number	INT number
Production of Maputo bay chart	2010	16201	7581
Update of Beira port chart	2011	16304	7632
Update of Beira Approach	2011	16203	7631