



**19th Southern African and Islands Hydrographic Commission
(SAIHC) MEETING
Mauritius
28th – 31st August 2023**

KENYA COUNTRY REPORT

KENYA NATIONAL HYDROGRAPHIC OFFICE

By; WELDON MARITIM

1. Introduction



The hydrography office was established on 26th July 1991

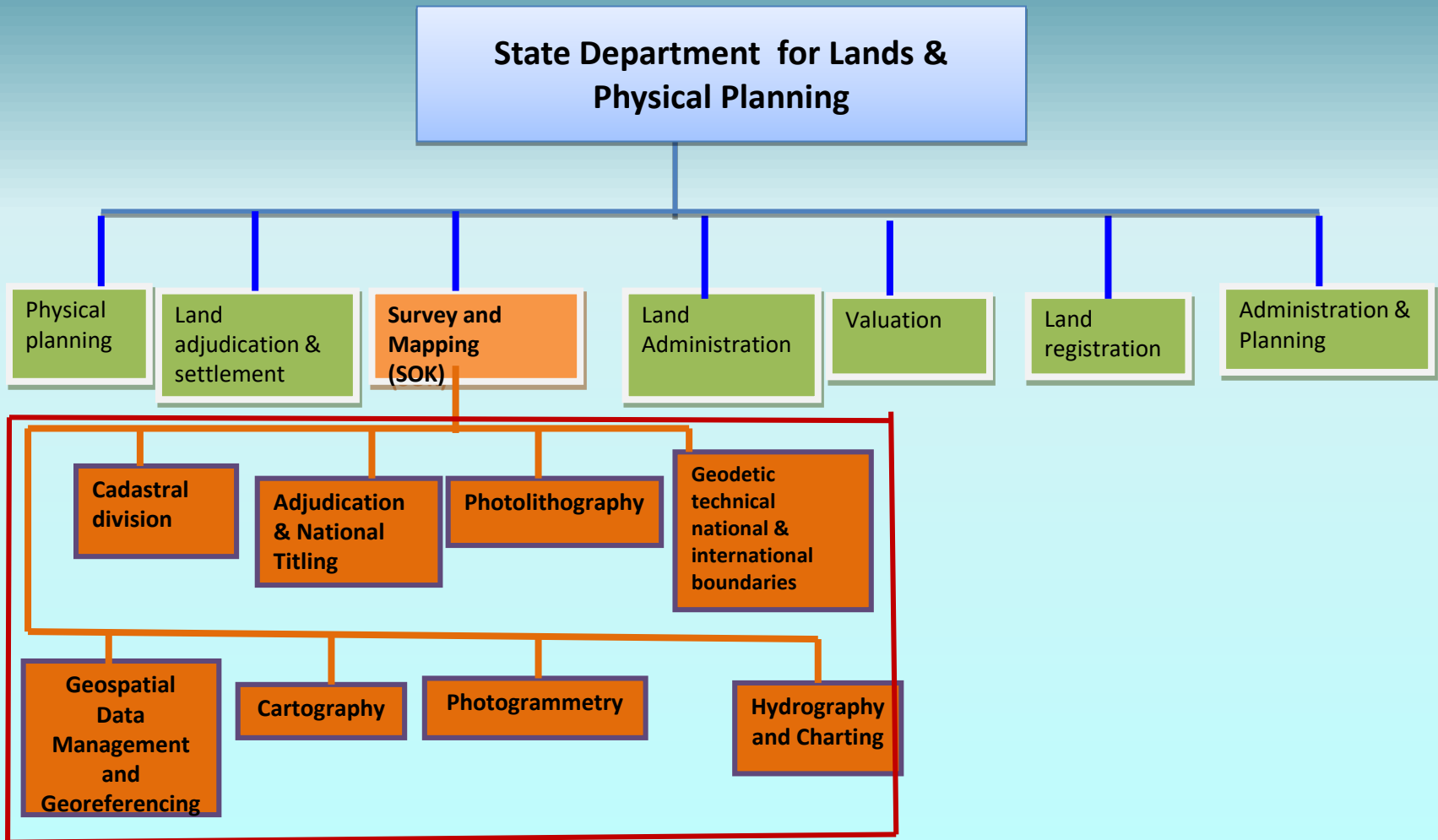
It is domiciled in the Department of Surveys , State Department for Lands and Physical Planning

It hosts the Kenya National Hydrographic and Oceanographic Committee (KeNHOC) whose meetings are held bi-annual

The hydrography office is the National custodian of all bathymetric and nautical charts of the country ensuring the country's compliance with international conventions and standards of hydrographic surveys.

Kenya is the 95th Member State of IHO and working on the legal framework to domestic that of IHO

2. ORGANISATIONAL STRUCTURE



3. Hydrography and Charting



Offices

Nairobi Hydrographic Office is the headquarters
Mombasa hydrographic office serves the coastal region
Kisumu hydrographic office serves the Lake region



Staff Strength

1 Category A Hydrographer
7 Category B Hydrographers
7 Land Surveyors
1 Marine Cartographer
3 Cartographers.

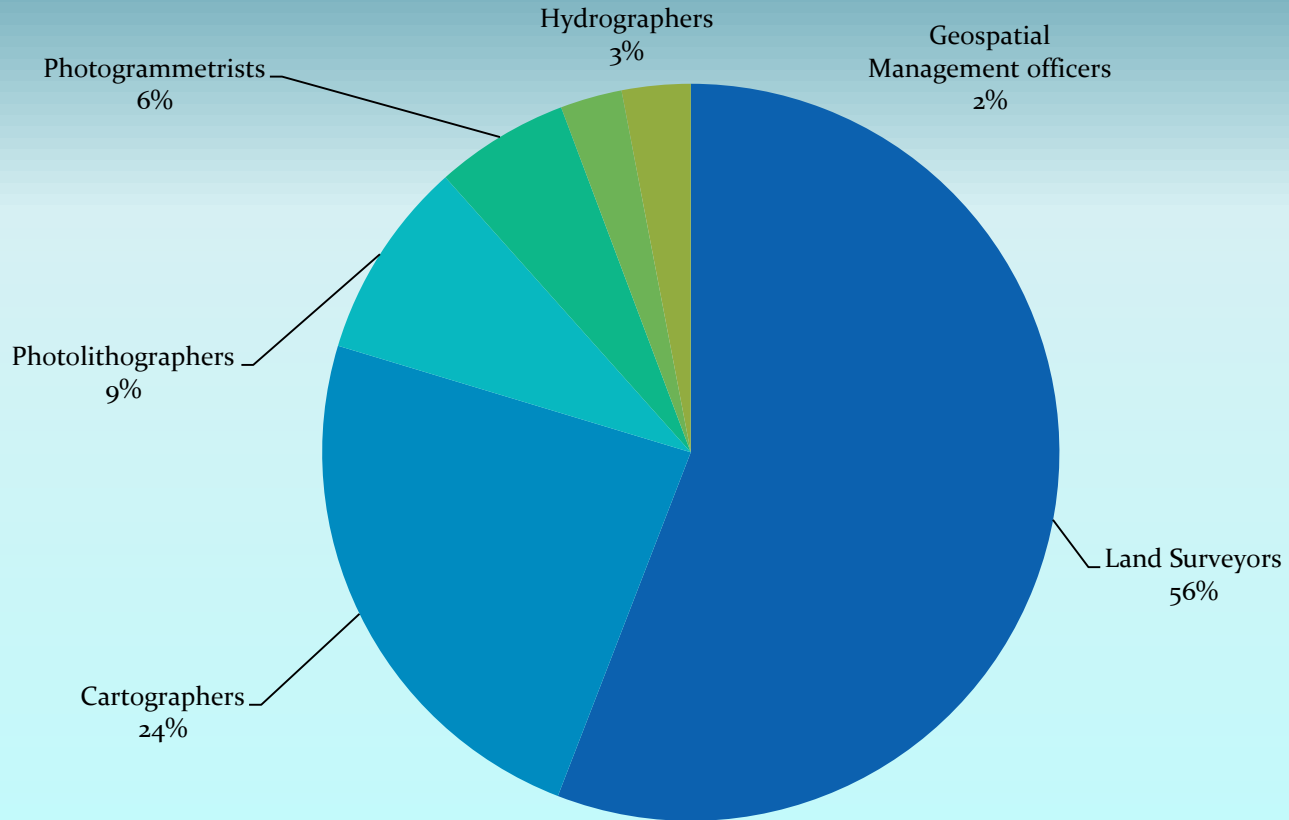


Collaboration

National – with other MDAs
International - IHO, SAIHC, RCMRD

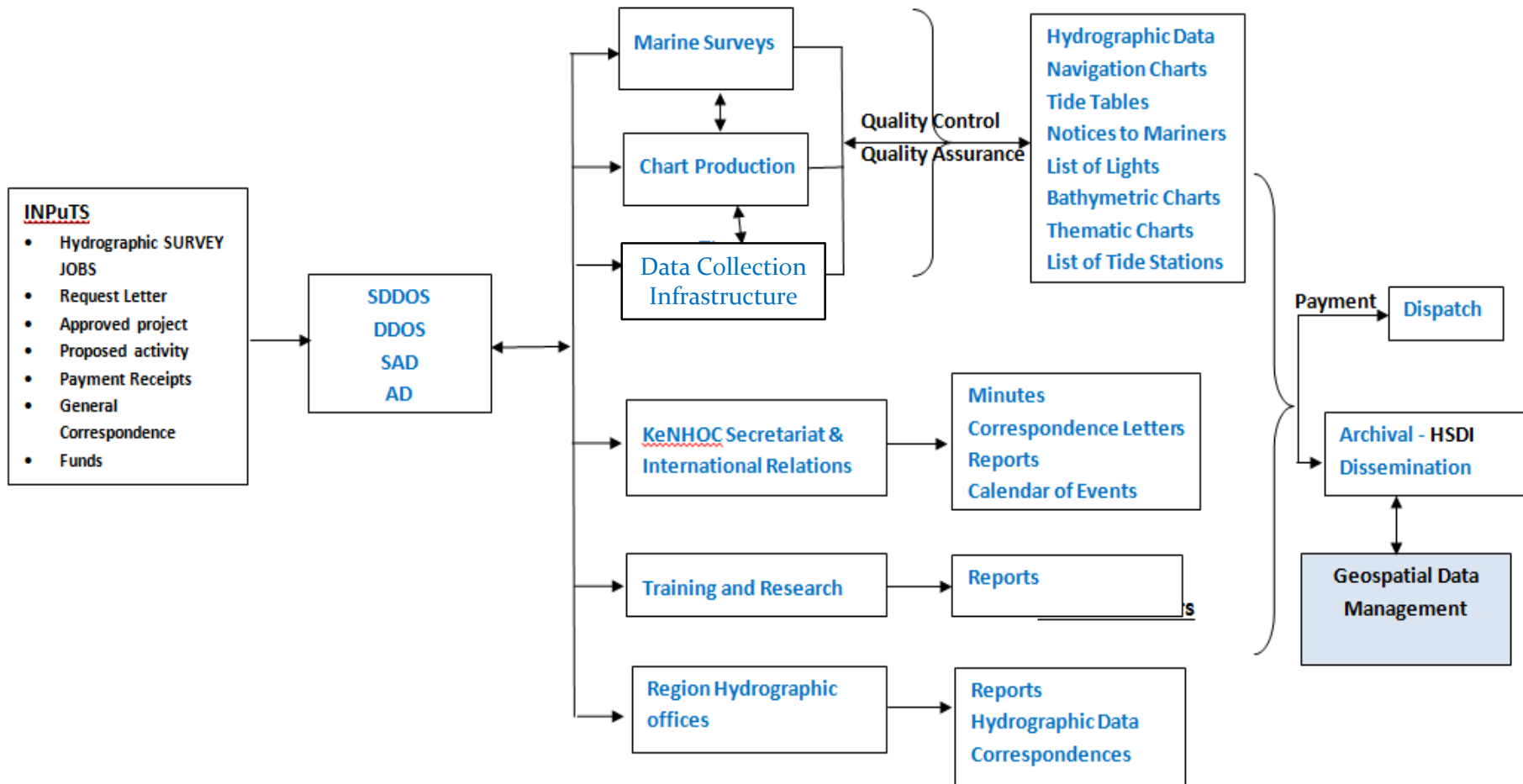
4. STAFF STRENGTH FOR SOK

TECHNICAL STAFF

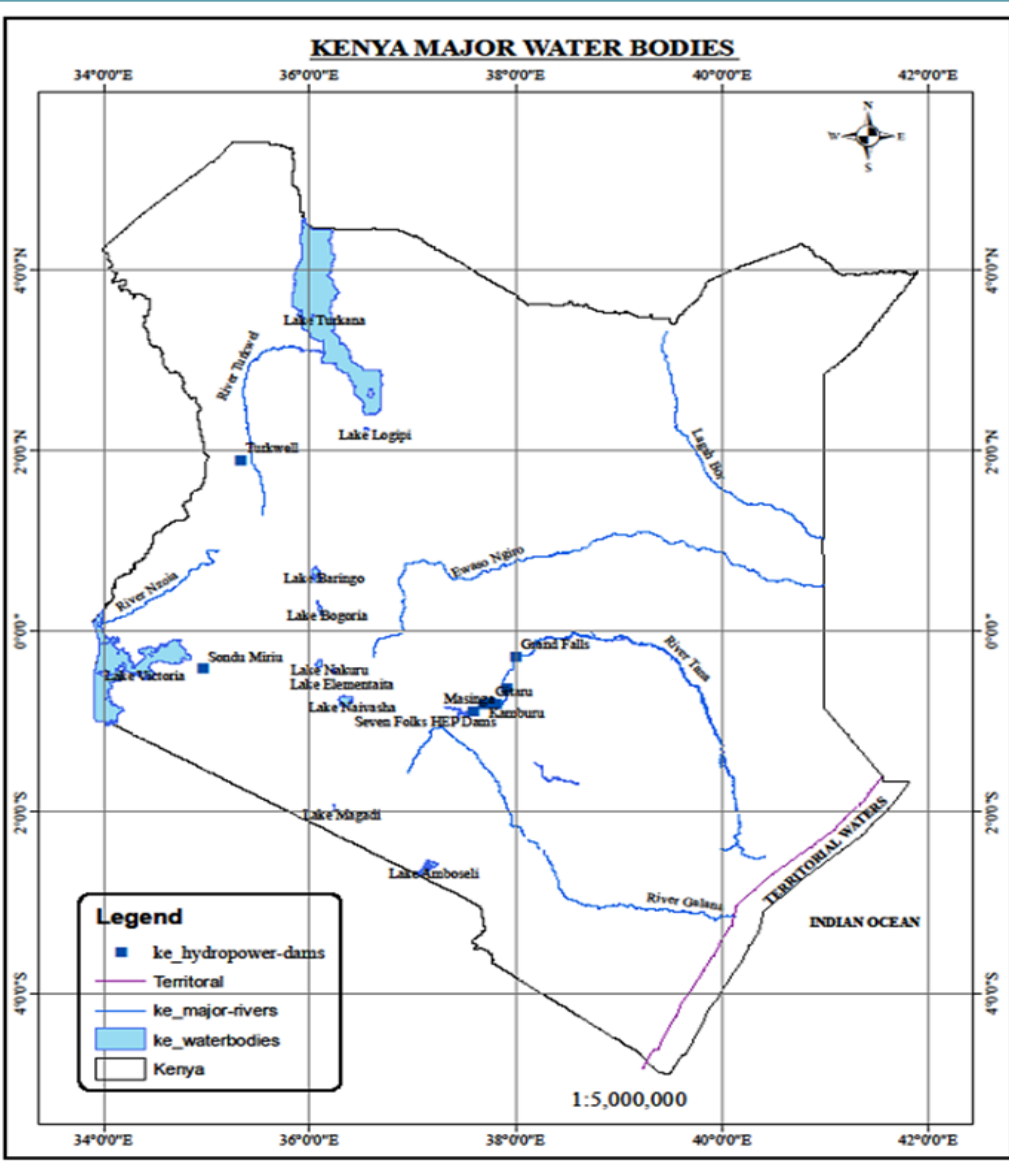


5. WORK FLOWS

HYDROGRAPHY DIVISION WORKFLOWS



6. Kenya Inland Waters

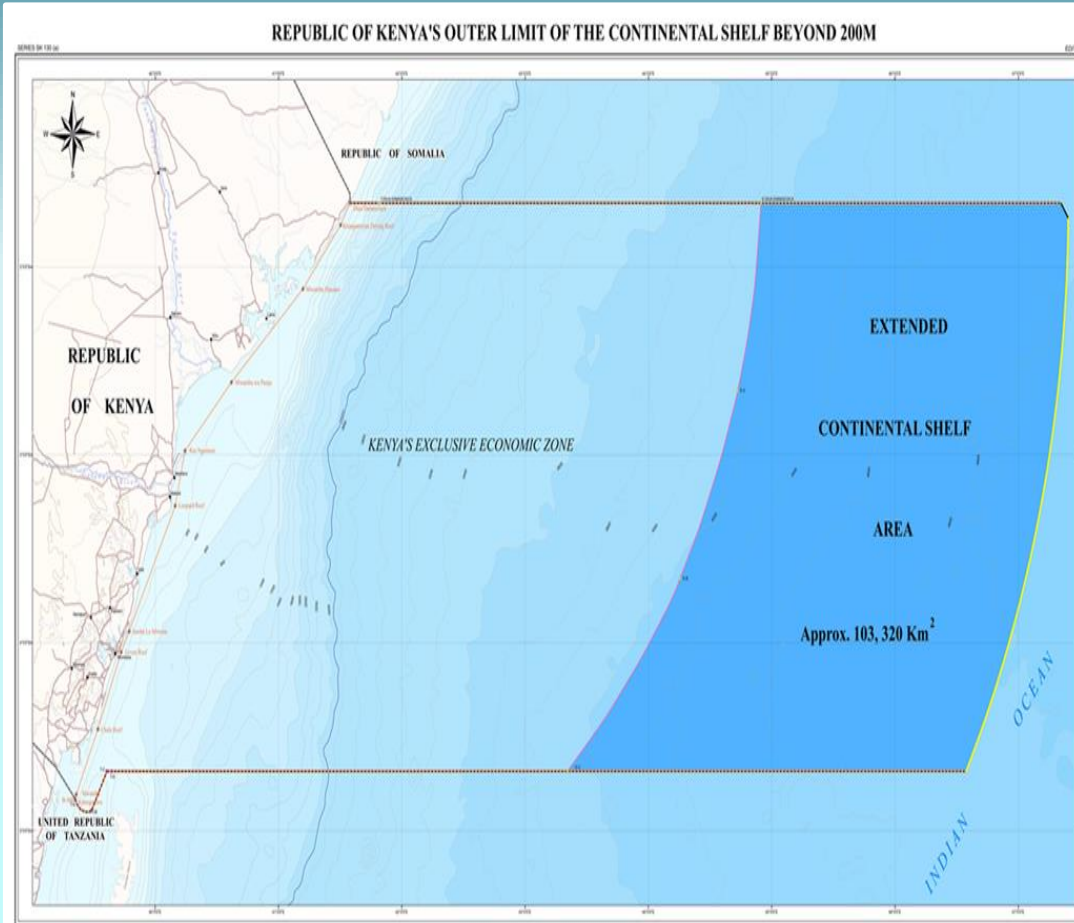


Kenya has a coastline stretching approximately 536 km of the Indian Ocean.

Lake Victoria the 2nd largest freshwater lake in the world (shared by Kenya, Uganda and Tanzania)

Eight major lakes along the rift valley.

7. Maritime Zones



The Kenyan Exclusive Economic Zone (EEZ) covers approximately 142,000 km² with potential extension of its continental shelf beyond the 200nm by approximately 103,302 km² from a continental shelf survey that was done in 2007.

Source: Survey of Kenya

8. Infrastructure

The United Kingdom Hydrographic Office is the Primary Charting Authority that does publication, maintenance and distribution of all nautical charts (paper, raster and electronic charts) on behalf of Kenya through a Memorandum of Understanding.

The hydrographic survey division currently has 1 Category (CAT A) hydrographer, 7 (CAT B) hydrographers and 1 CAT B nautical cartographer. The Kenya Ports Authority and Kenya Marine and Fisheries Research Institute each have 1 CAT A hydrographer while the Kenya Navy has 12 CAT B hydrographers.

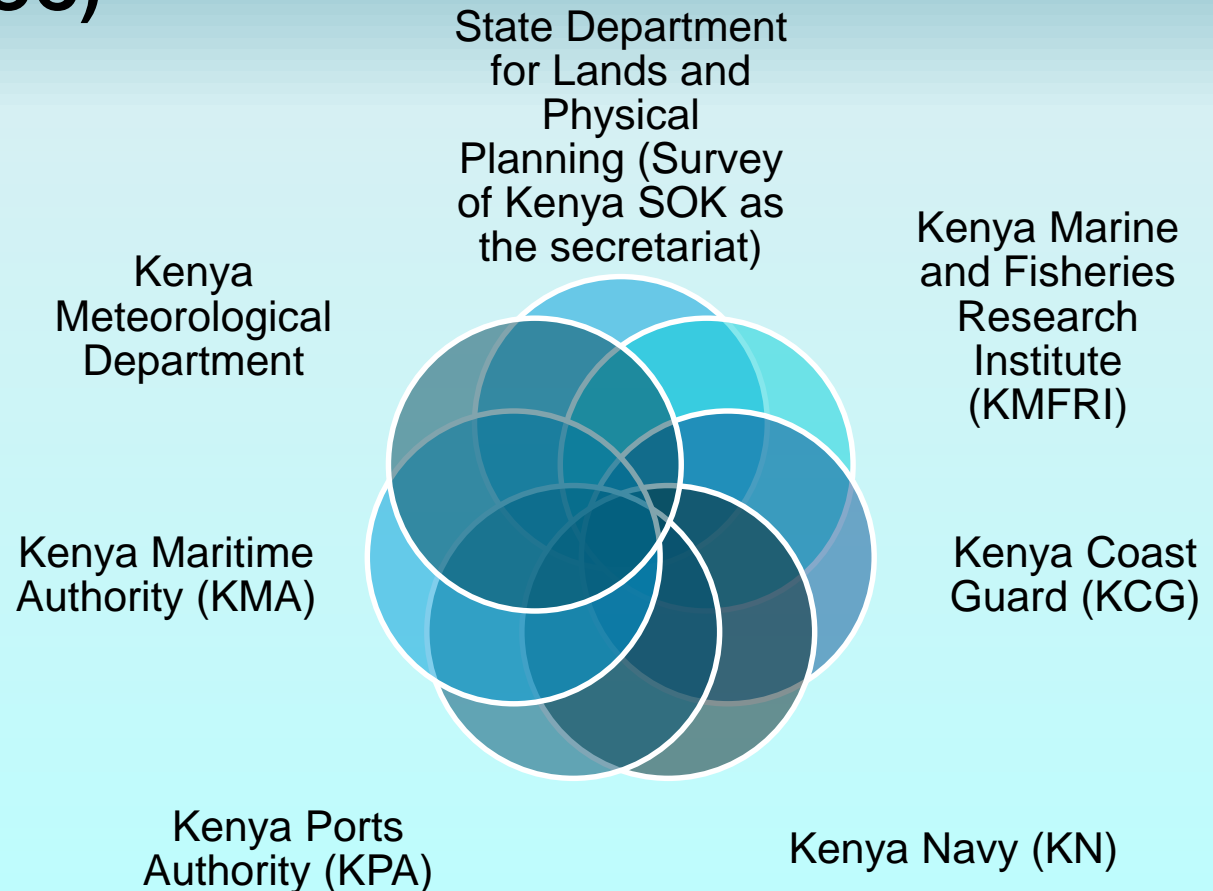
The SOK hydrography office is equipped with a Knudsen Single beam Echo sounder, RTK GPS'S, sets of digital levels and staves, four portable tide gauges and a recently acquired survey launch that must be accessorized to work.

Permanent recording tide gauges installed at: KPA institution two in Mombasa, KMFRI as a member of Global Sea Level Observing System (GLOSS) has one each in Lamu and Kilindini which were donated through IOC- UNESCO, and still monitored by the University of Hawaii as part of GLOSS network.

9 National Collaboration

Kenya National Hydrographic and Oceanographic Committee (KeNHOC)

Mandate: "...spearhead coordination of hydrographic services in all different Government Departments and Agencies in the country among other responsibilities and its members to be drawn from key government institutions offering hydrographic services."



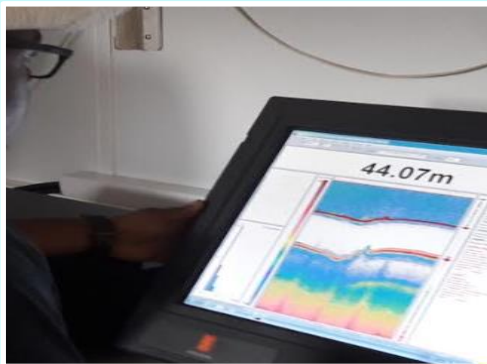
Collaboration Cont'



KMFRI has a research vessel RV-Mtafiti (currently main research vessel in Kenya) which was a donation from Belgium Government in 2014. Several launches have been done but mainly on biological and physical oceanography expeditions.



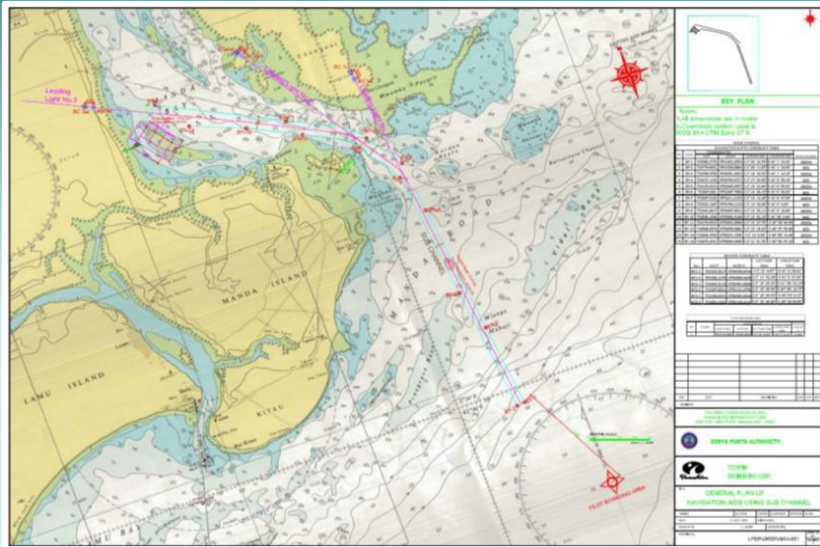
Members from different government agencies have taken part in various cruises in data collection that fits their specific use.



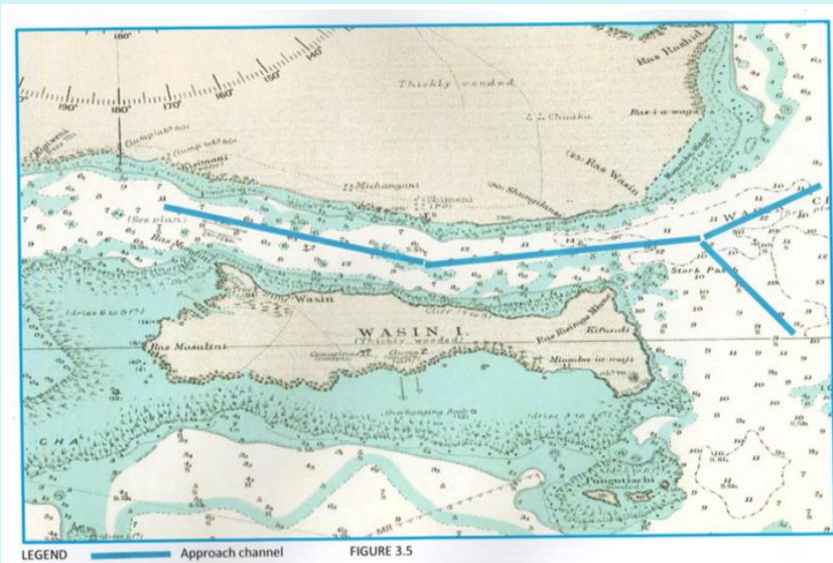
Equipment on board:

- SBES (EK60, EK80)
- ADCP
- Sediment corers
- Bottom samplers

10 Surveys around the Ports

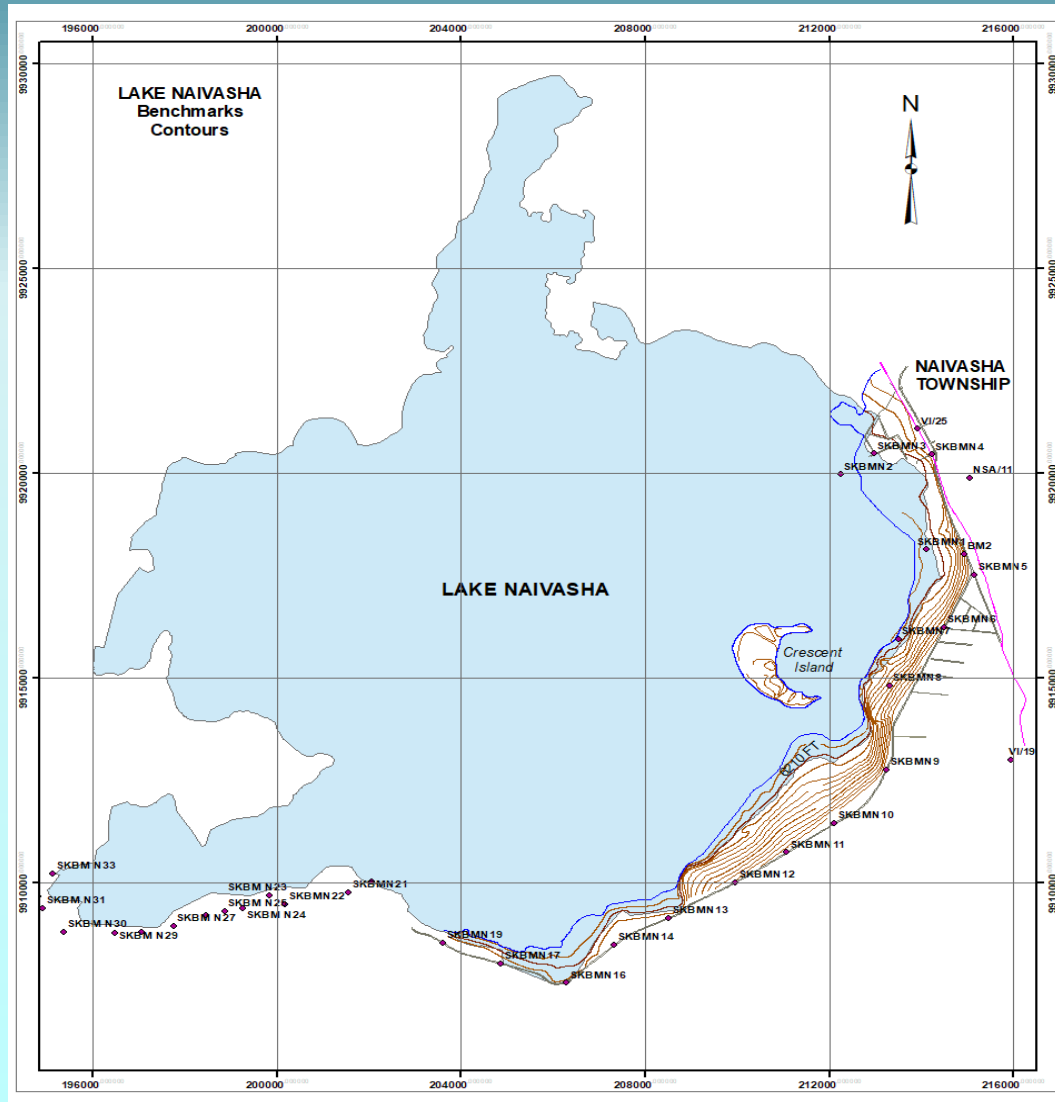


Marked Channel for the new Lamu Port which forms part of Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) corridor project a mega infrastructure connecting East Africa countries.



Approach Channel for the Upcoming Shimoni Port.

11 Surveys around inland waters



Surveying shore of Lake Naivasha towards mitigating ecological disasters due to lake water level rise.

1st phase carried out in 2019, 2nd phase carried out in March 2022

Lake Victoria



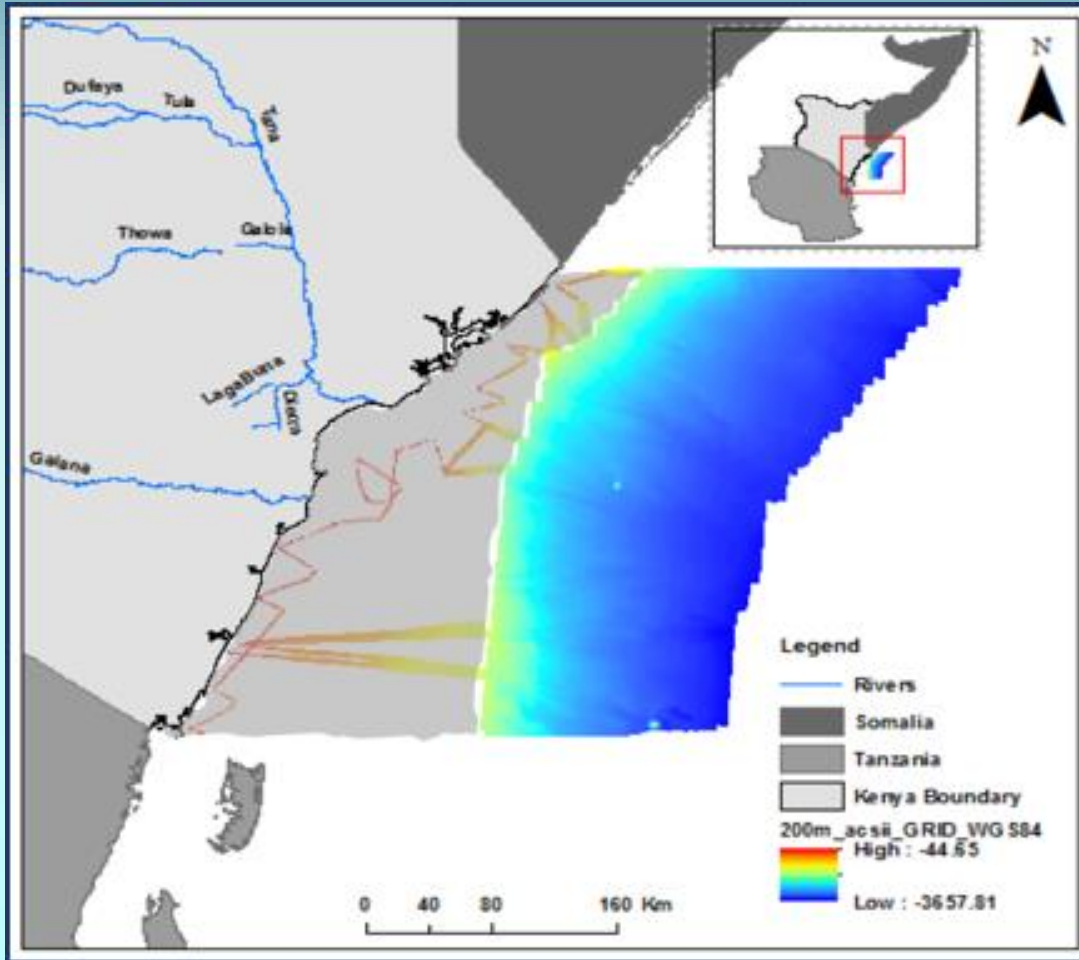
Port and vertical controls; Cadastre for fish ponds; water level gauges; search and rescue establishment.

Source: KeNHOC Kenya Ports Authority Report

12 Navigational Charts Covering Kenya Waters

BA Chart INT Chart	Title	Scale	Published Last Updated	BA Chart INT Chart	Title	Scale	Published Last Updated
238	Ports in Kenya Kilifi and Malindi		23 Sep 1994 NM5418/05	668	Lamu, Manda and Pate Bays and Approaches		23 Dec 1994 NM2727/11
	Entrance to Kilifi Creek	12 500			Lamu Harbour and Approaches	25 000	
	Kilifi Creek and Approaches	25 000			Lamu, Manda and Pate Bays and Approaches	75 000	
	Malindi and Approaches	37 500		866	Plans in Tanganyika and Kenya		Ed3 24 Nov 1950 NM5353/07
616	Approaches to Port Mombasa	50 000	6 Mar 1992 NM4914/12		Moa Bay or Gomani Bay	25 000	
663	Approaches to Tanga	37 500	28 Aug 1997 NM3455/10		Wasin Channel	25 000	
666	Port Mombasa including Port Kilindini and Port Reitz		Ed 2 26 Jan 2012 NM5022/12		Moa or Gomani Bay to Funzi Bay	50 000	
	Mbaraki Creek	3 000		2949	Mtwara to Lamu	1 000 000	Ed1 21 Jul 2005 NM4596/12
	Port Mombasa including Port Kilindini and Port Reitz	12 500		2968	Lamu to Cadale (Itala)	1 000 000	10 Apr 2003 NM1486/10
				3310	Mafia Island to Pemba Island	350 000	28 Aug 1997 NM4540/12
				3361	Pemba Island to Lamu	350 000	Ed 2 22 Aug 2002 NM3455/10
				3362	Lamu to Kismaayo	350 000	28 Aug 1997 NM791/08

13 Mapping Efforts In Kenya

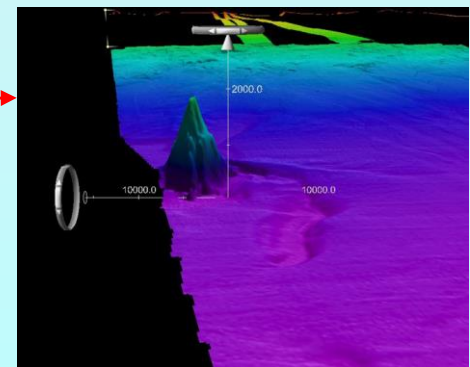
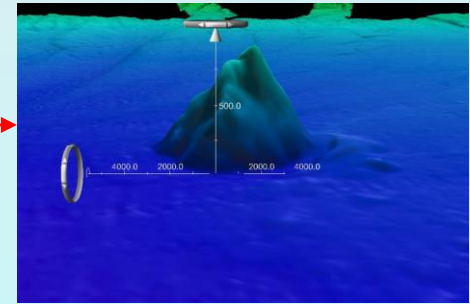
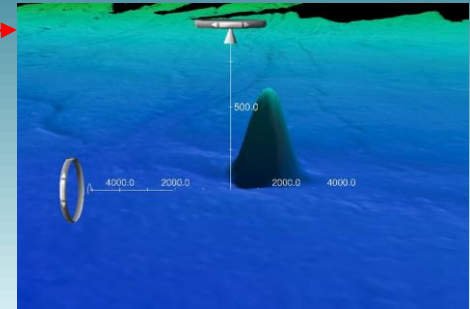
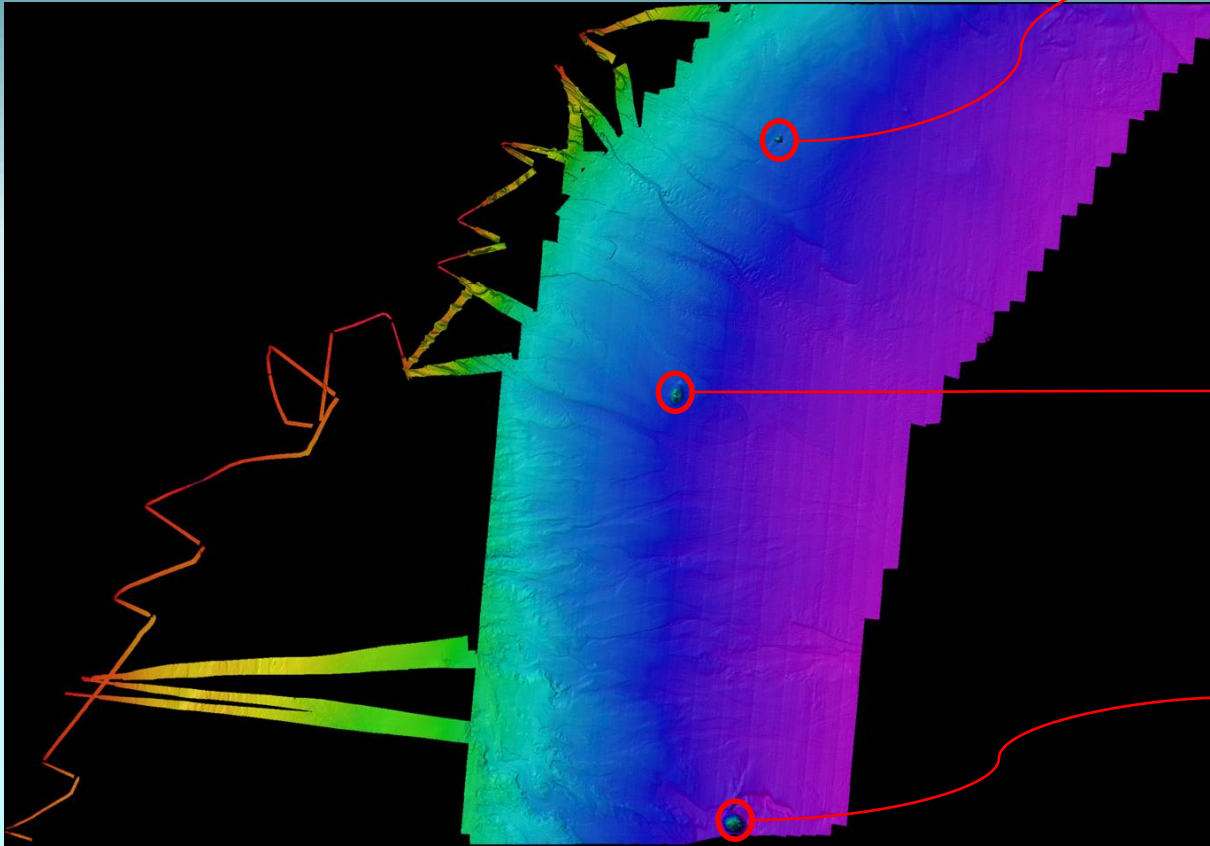


The MBES survey was done in 2007 under Kenya's UNCLOS project to delineate its outer continental shelf.

Support Kenya's submission to CLCS/UNCLOS for extension of its EEZ

Data also forms part of the GEBCO Grid.

Undersea Features



Source: Kimeli A.

14 Progresses And Initiatives

Kenya becomes the 95th member of the International Hydrographic Organization (IHO).

July 2021

Hosting the UN Decade of ocean science for Africa and adjacent Island states.

January 2020

Kenya hosted the First Global Blue Economy Conference

November 2018

Kenya together with Portugal co-host the UN Conference to Support the Implementation of Sustainable Development Goal 14

June-July 2022

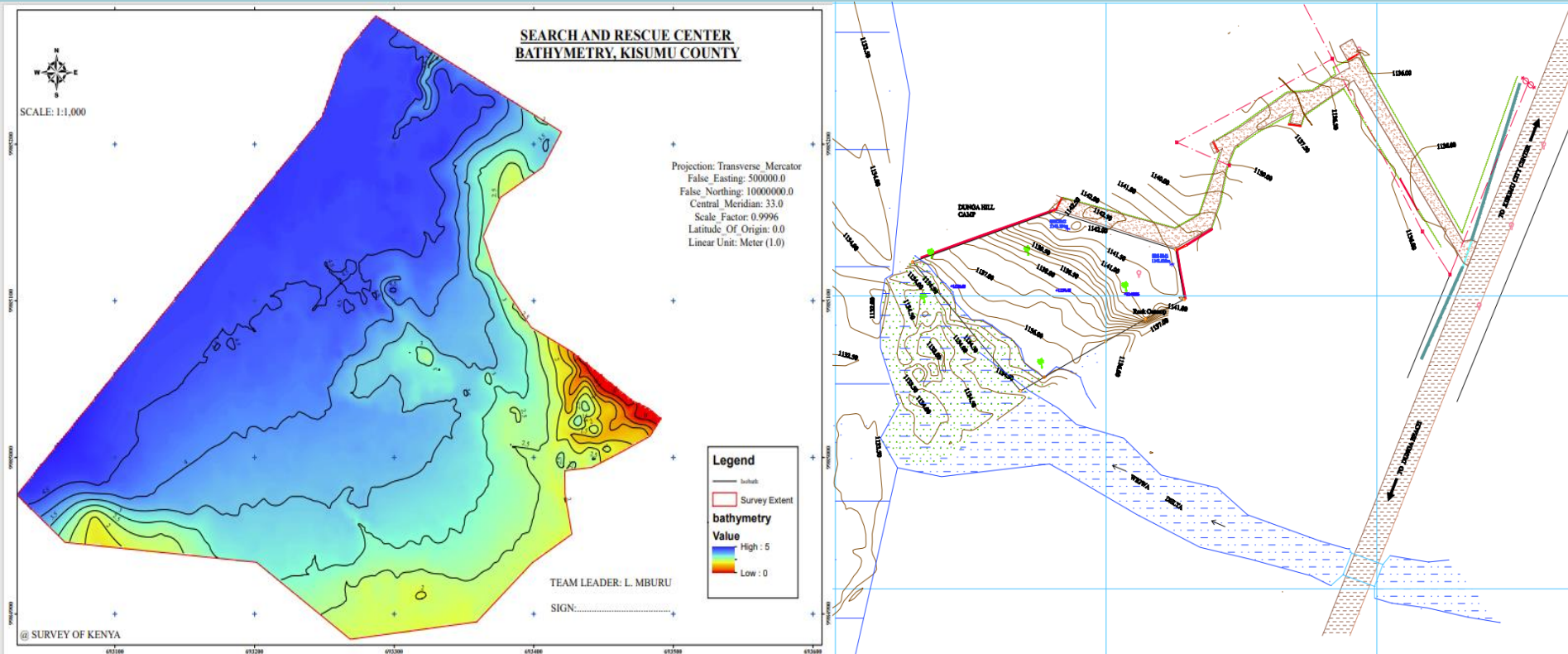
<https://ihr.iho.int/articles/state-of-hydrography-survey-in-kenya-towards-hydrospatial-data-infrastructure/>

15 Survey and Mapping Search and Rescue Center on the shore of Lake Victoria



Single Beam survey complemented by terrestrial bathymetry

Survey and Mapping Search and Rescue Center; Bathy and Topo Map

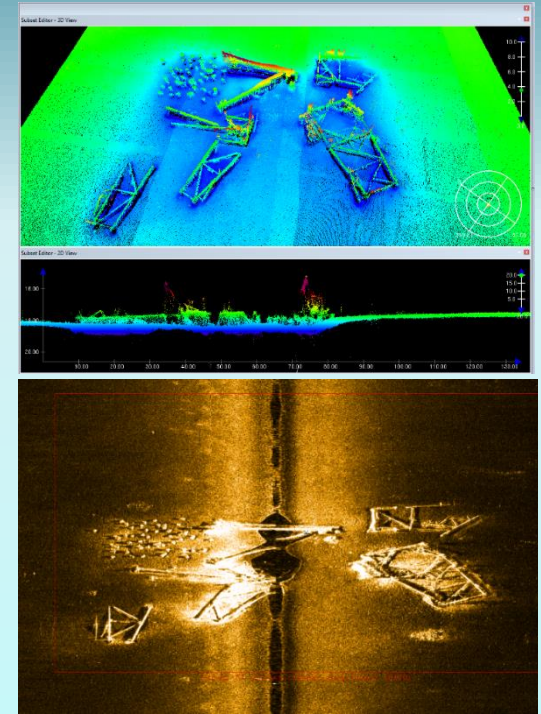


16 Capacity Building



- a) Mr. Anthony Waiyego representing Kenya at UKHO for Marine cartography training
- b) Miss. Victoria Obura from Kenya among participants at IALA World Wide Academy training on IALA Risk Management Toolbox

Capacity Building Cont.'

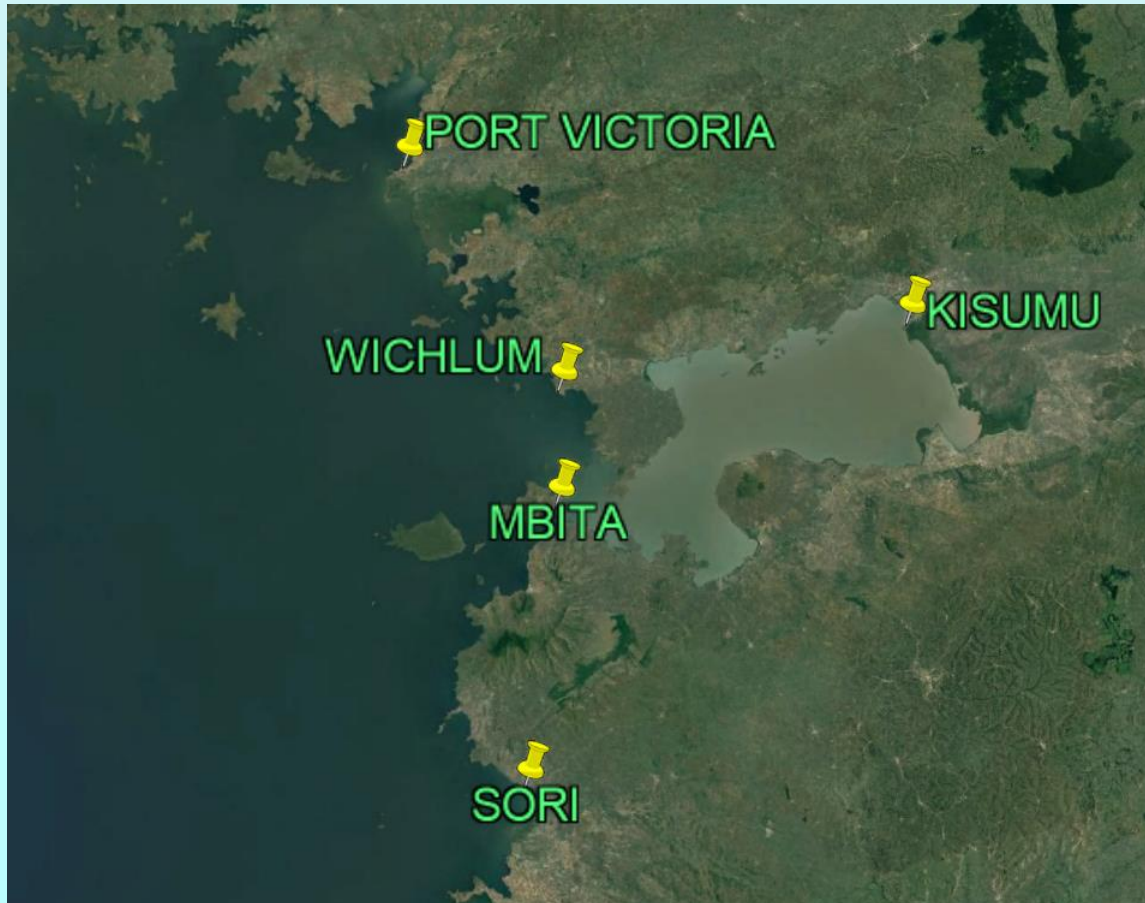


Miss Obura beneficiary of IHO Empowering women in hydrography project on board Thomas Jefferson Mapping offshore Galveston.

17. Upcoming Programs

Survey and mapping of ports around Lake. Victoria funded by Trademark East Africa

Survey and mapping of the four remaining search and rescue centers



Upcoming Programs cont'

- Capacity Development
- Completion of survey for L. Naivasha
- Mapping of Aids to Navigation in Lake Victoria
- Strengthening of MDAs collaboration
- Enhanced cooperation



Thank You