



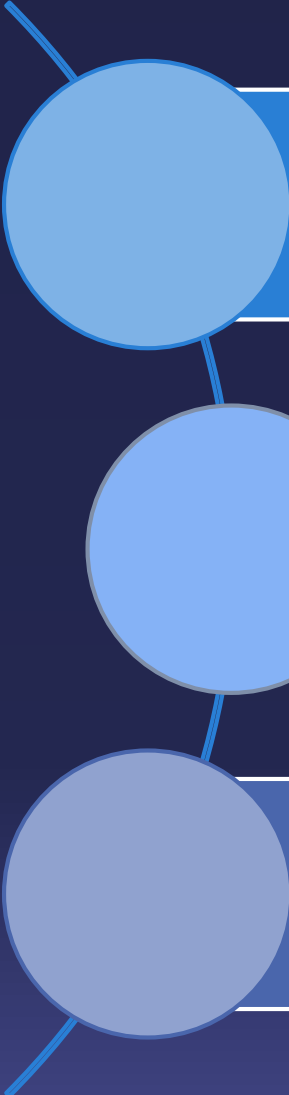
18th Southern African and Islands Hydrographic
Commission (SAIHC) MEETING
Maputo, Mozambique
9th – 12th May 2022

KENYA COUNTRY REPORT

SURVEY OF KENYA HYDROGRAPHY DIVISION

VICTORIA OBURA ob.victoria@gmail.com

Introduction

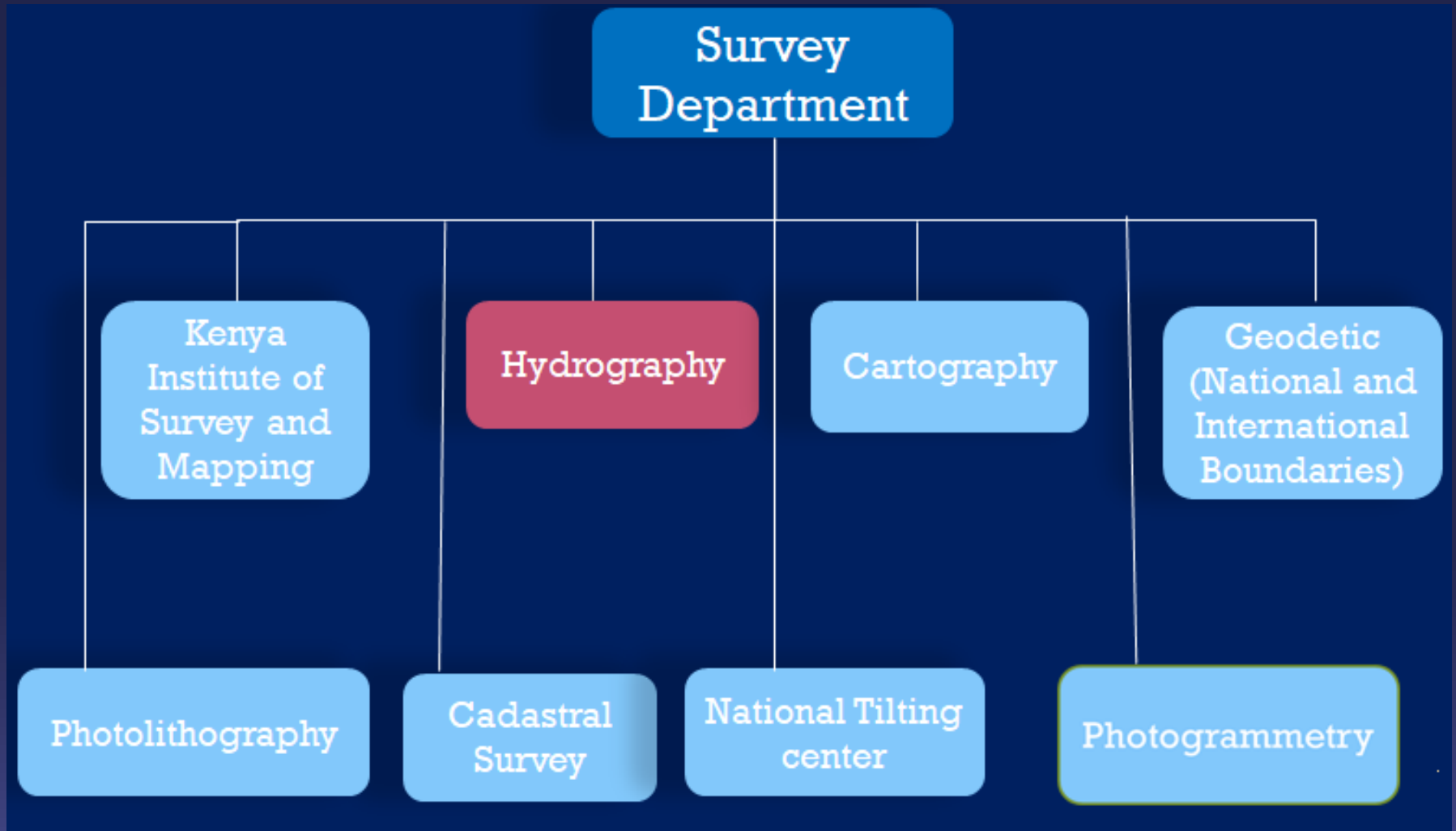


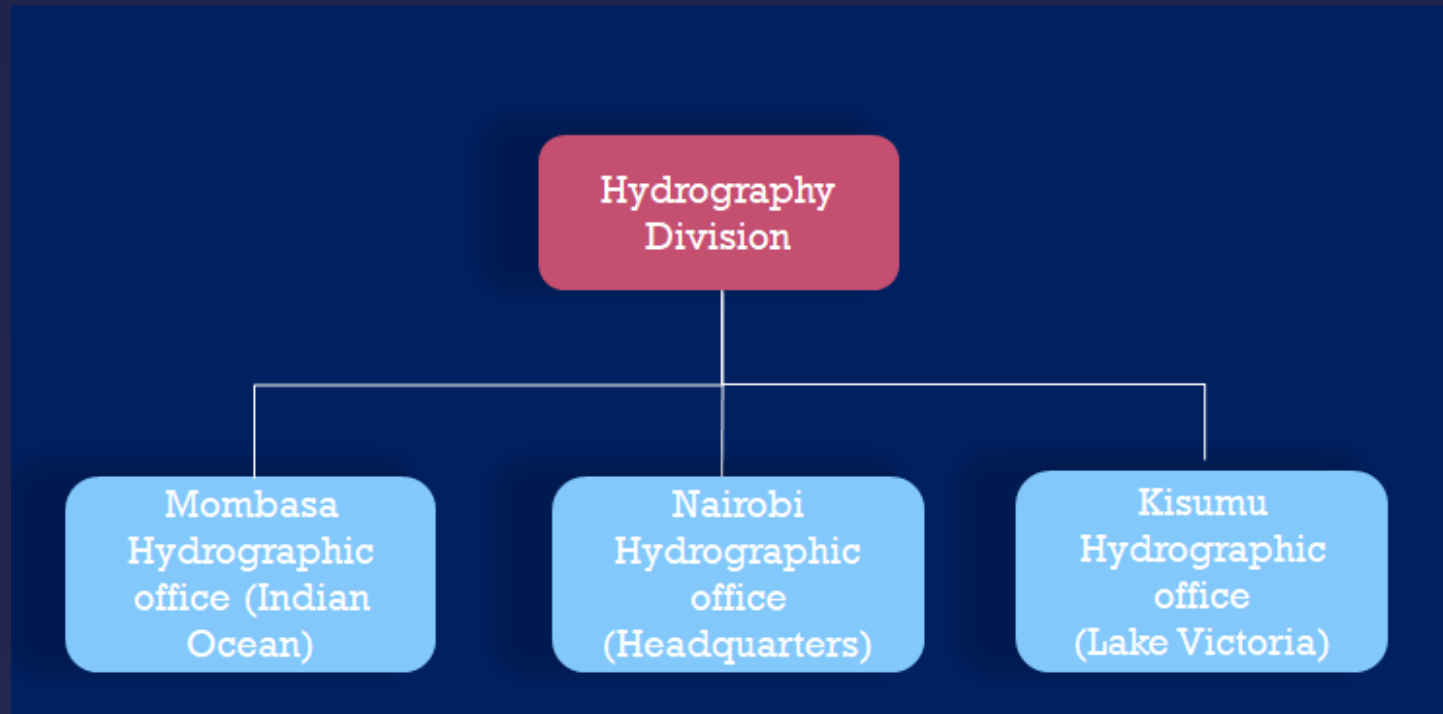
The hydrography office was established on 26th July 1991 by Cabinet as National Hydrographic Office under the Department of Surveys in the Ministry of Lands and the Kenya National Hydrographic and Oceanographic Committee (KNHOC) currently known as the Kenya National Hydrographic and Oceanographic committee (KeNHOC) which became operational in January 2006.

The hydrography division is the 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 working on the review of Survey Act to accommodate IHO requirements.

Office Structure





1 Category A Hydrographer

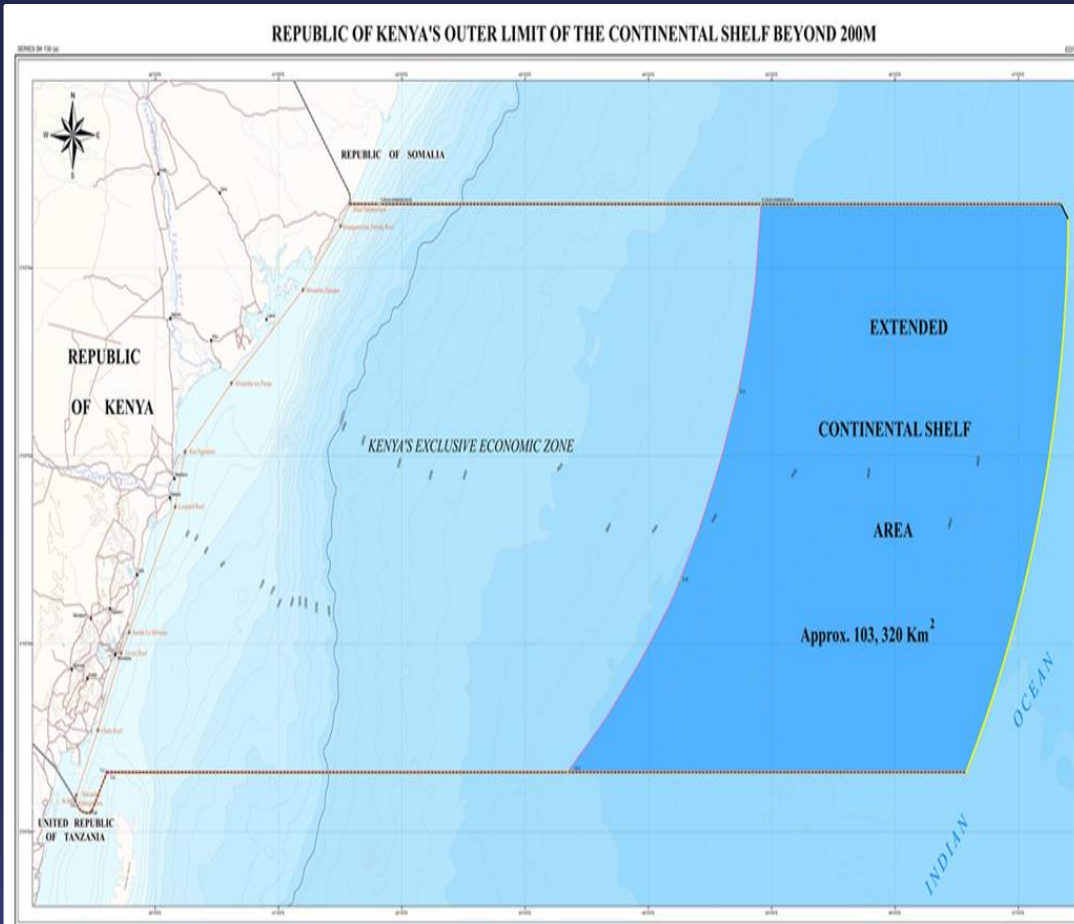
7 Category B Hydrographers

11 Land Surveyors

1 Marine Cartographer

3 Cartographers.

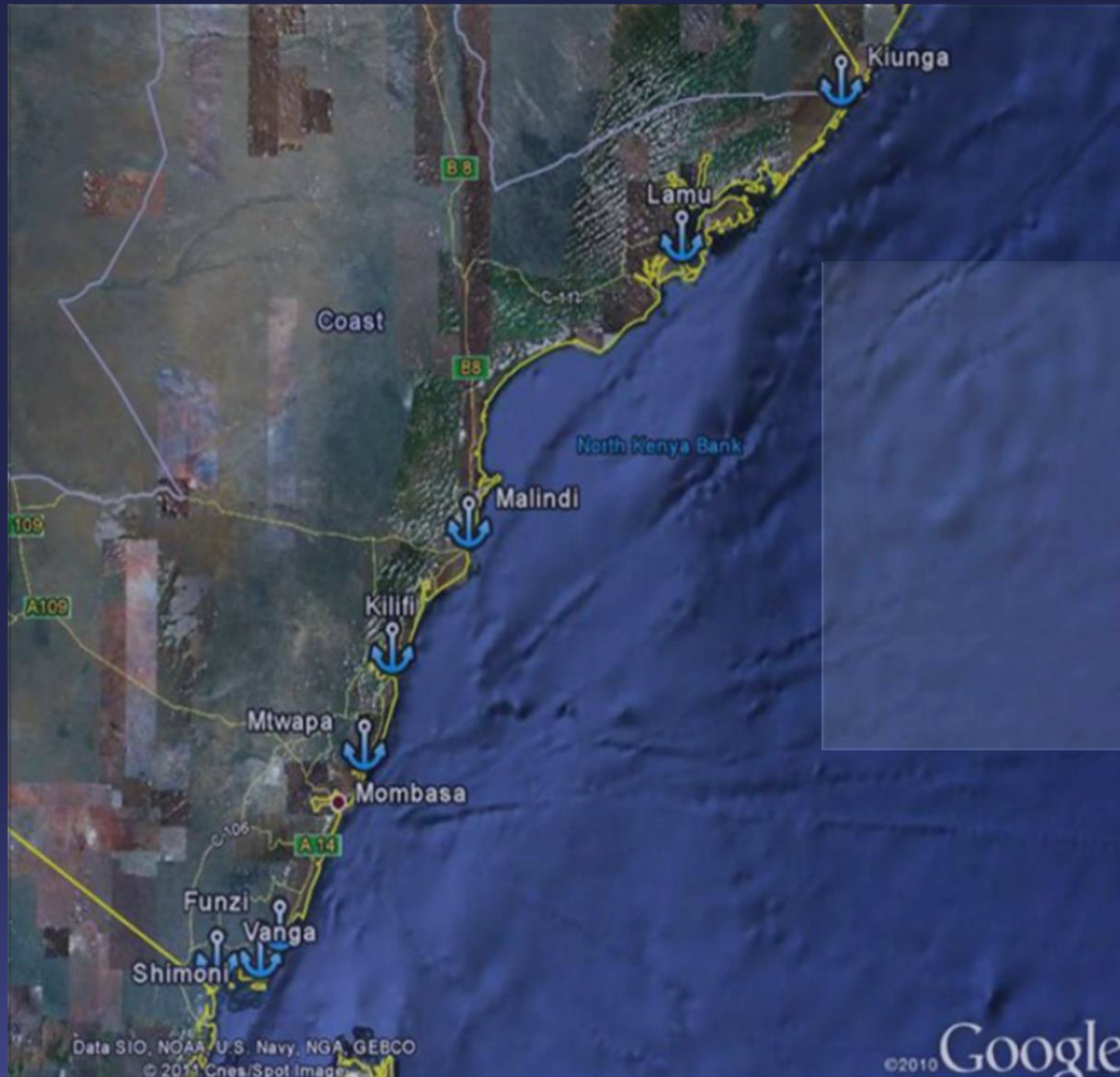
Maritime Zones



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

Ports



Seven ports along the Indian ocean, with Mombasa and Lamu as main ports.

Five other earmarked for expansion (Work already commenced in Shimoni Port by the KPA)

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.

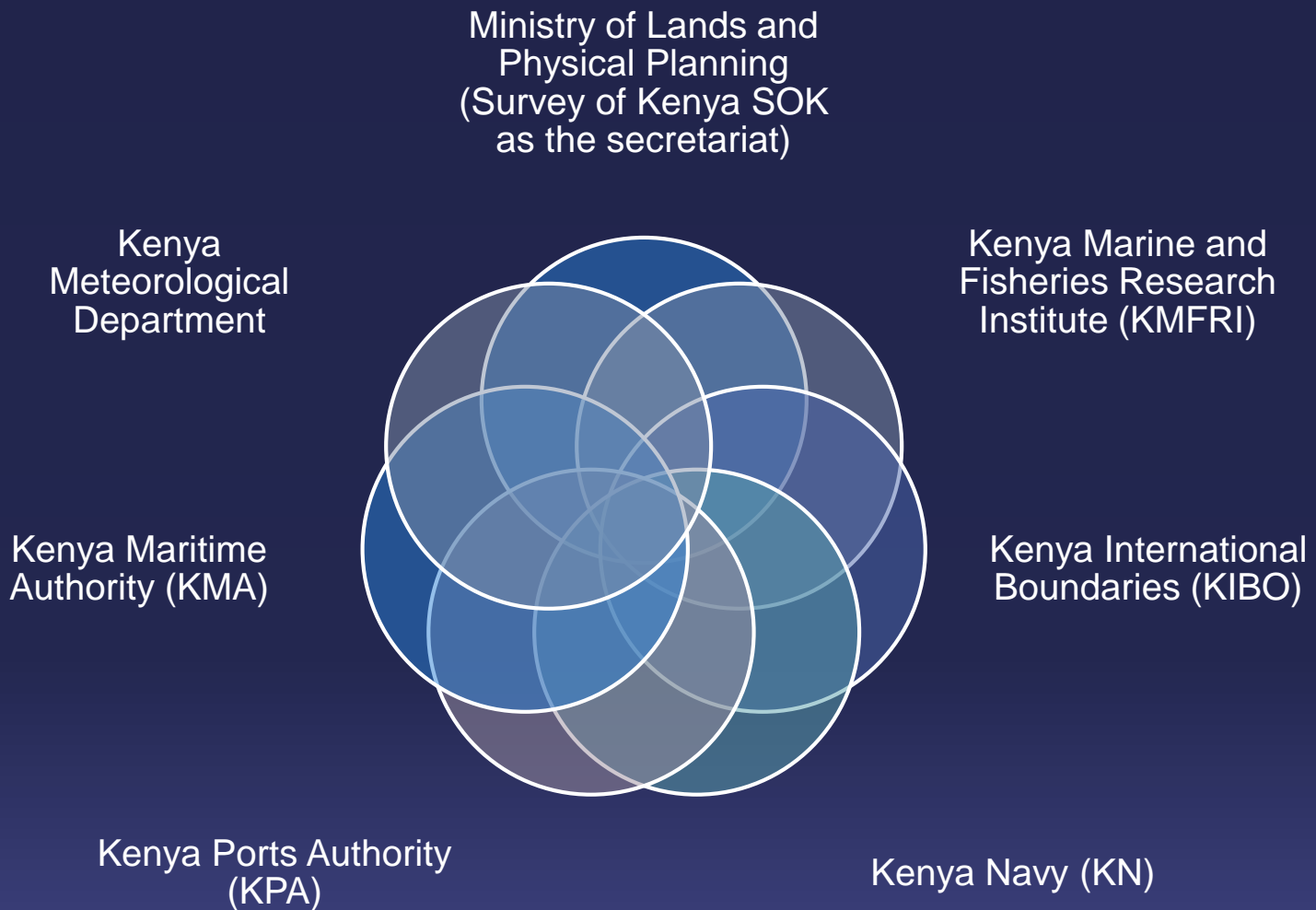
Permanent recording tide gauges installed at: KPA institution two in Mombasa, KMFRI as a member of Global Sea Level Observing System (GLOSS) has one each in Lamu and Kilindini which were donated through IOC- UNESCO, and still monitored by the University of Hawaii as part of GLOSS network.

Collaboration - National multi-agency committee

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.”

KeNHOC Member Institutions



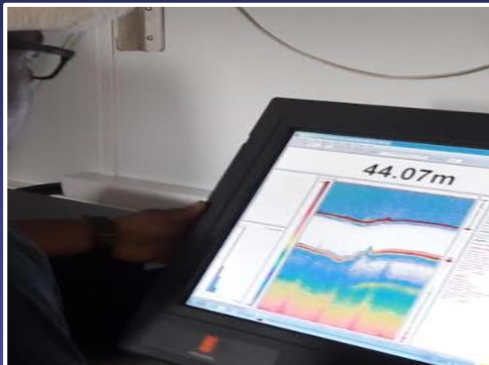
(KeNHOC) Cont'



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:

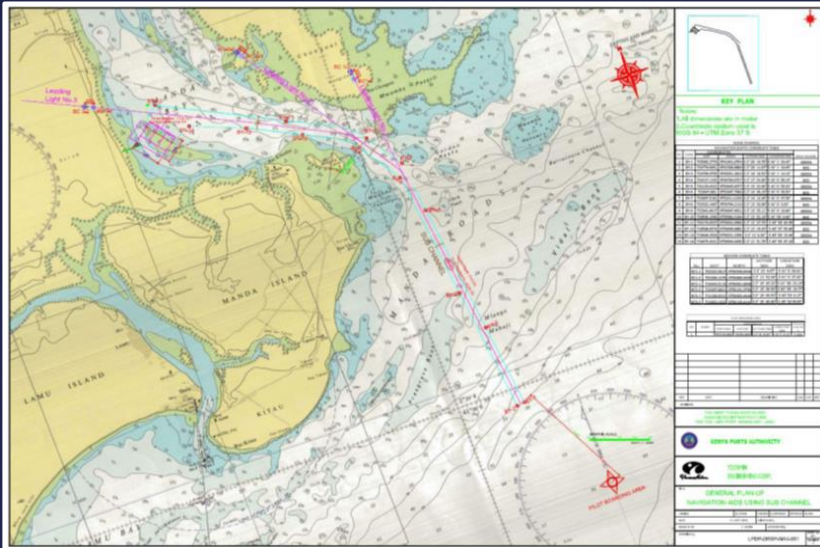
- SBES (EK60, EK80)
- ADCP
- Sediment corers
- Bottom samplers

Surveys Around The Ports

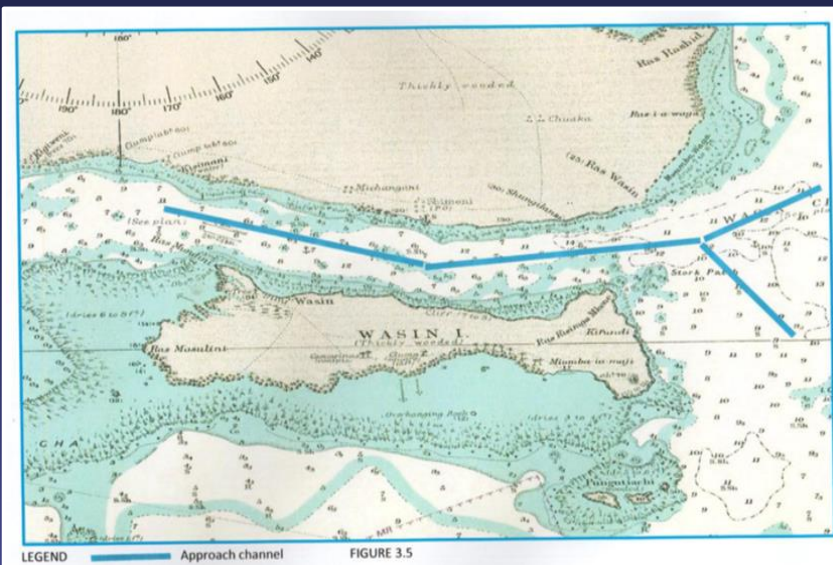


Source: KenHOC Kenya Ports Authority Report

Surveys around the Ports

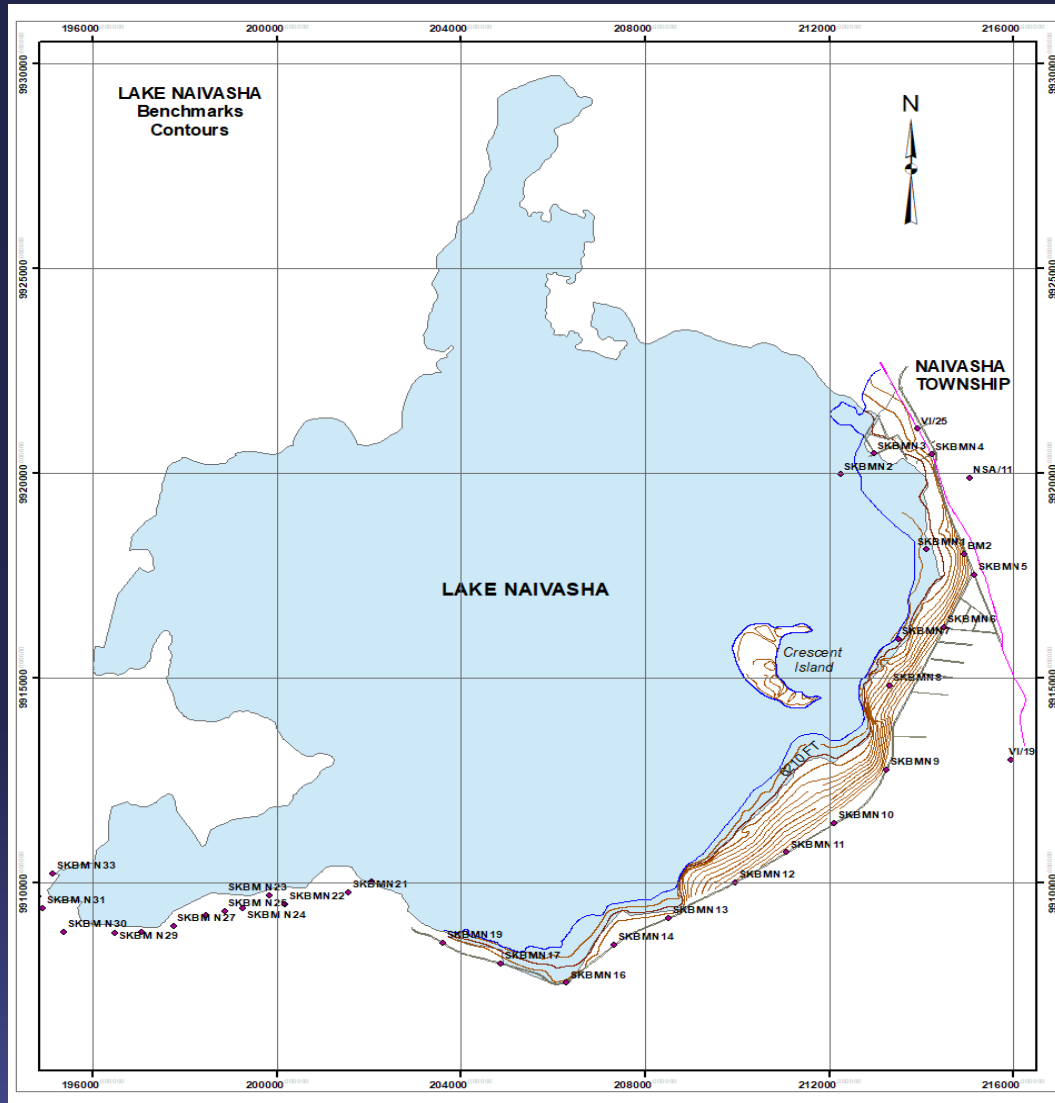


Marked Channel for the new Lamu Port which forms part of Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) corridor project a mega infrastructure connecting East Africa countries.



Approach Channel for the Upcoming Shimoni Port.

Surveys around the Lakes



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

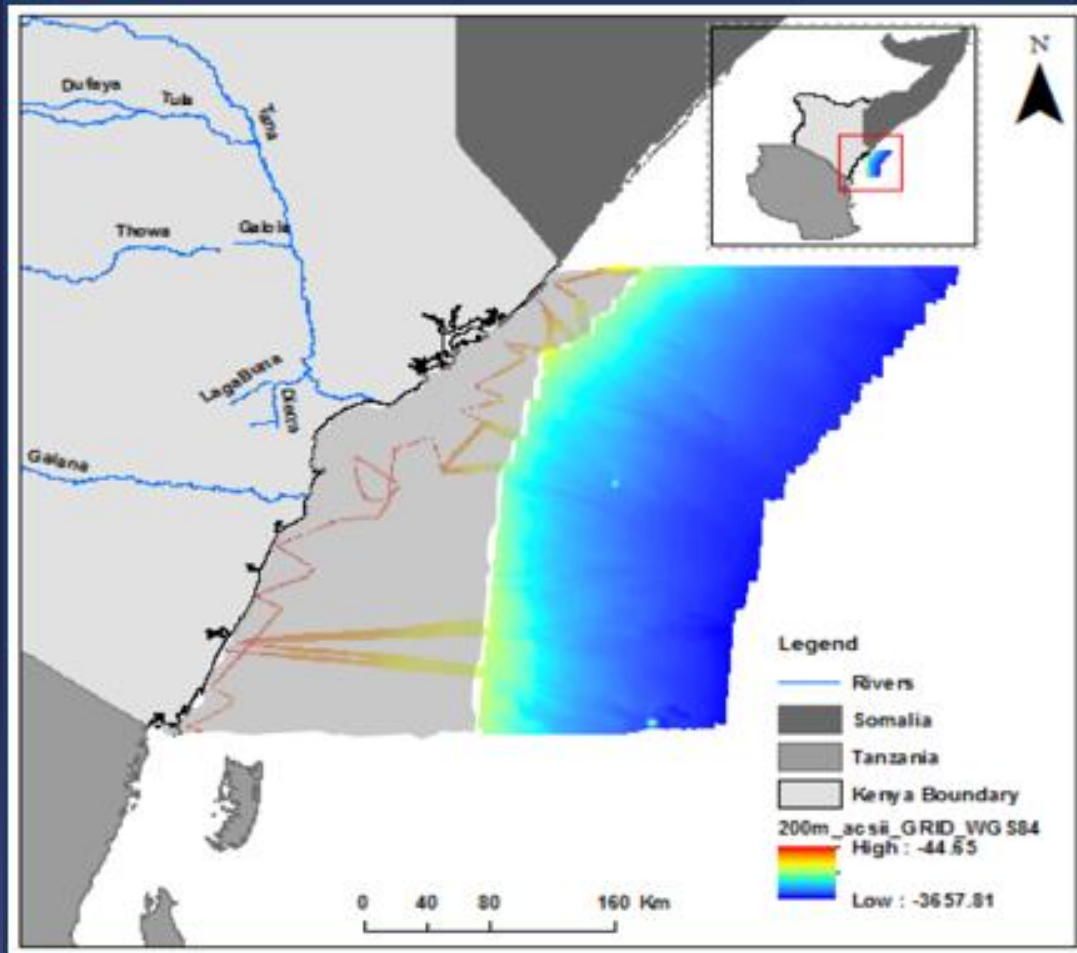
Navigational Charts Covering Kenya Waters

BA Chart INT Chart	Title	Scale	Published Last Updated
238	Ports in Kenya Kilifi and Malindi		23 Sep 1994 NM5418/05
	Entrance to Kilifi Creek	12 500	
	Kilifi Creek and Approaches	25 000	
	Malindi and Approaches	37 500	
616	Approaches to Port Mombasa	50 000	6 Mar 1992 NM4914/12
663	Approaches to Tanga	37 500	28 Aug 1997 NM3455/10
666	Port Mombasa including Port Kilindini and Port Reitz		Ed 2 26 Jan 2012 NM5022/12
	Mbaraki Creek	3 000	
	Port Mombasa including Port Kilindini and Port Reitz	12 500	

BA Chart INT Chart	Title	Scale	Published Last Updated
668	Lamu, Manda and Pate Bays and Approaches		23 Dec 1994 NM2727/11
	Lamu Harbour and Approaches	25 000	
	Lamu, Manda and Pate Bays and Approaches	75 000	
866	Plans in Tanganyika and Kenya		Ed3 24 Nov 1950 NM5353/07
	Moa Bay or Gomani Bay	25 000	
	Wasin Channel	25 000	
	Moa or Gomani Bay to Funzi Bay	50 000	
2949	Mtwara to Lamu	1 000 000	Ed1 21 Jul 2005 NM4596/12
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

Mapping Efforts In Kenya

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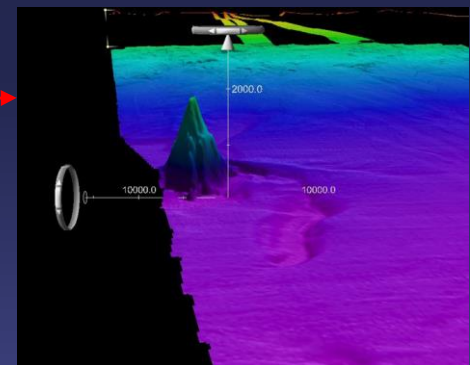
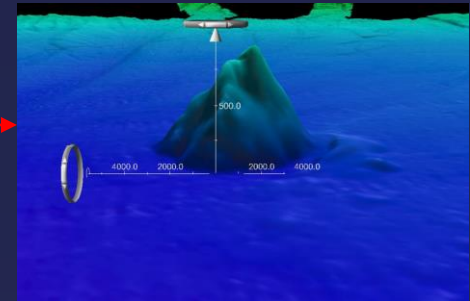
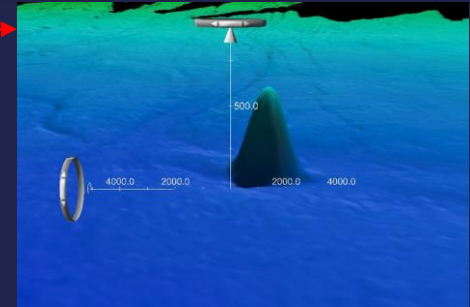
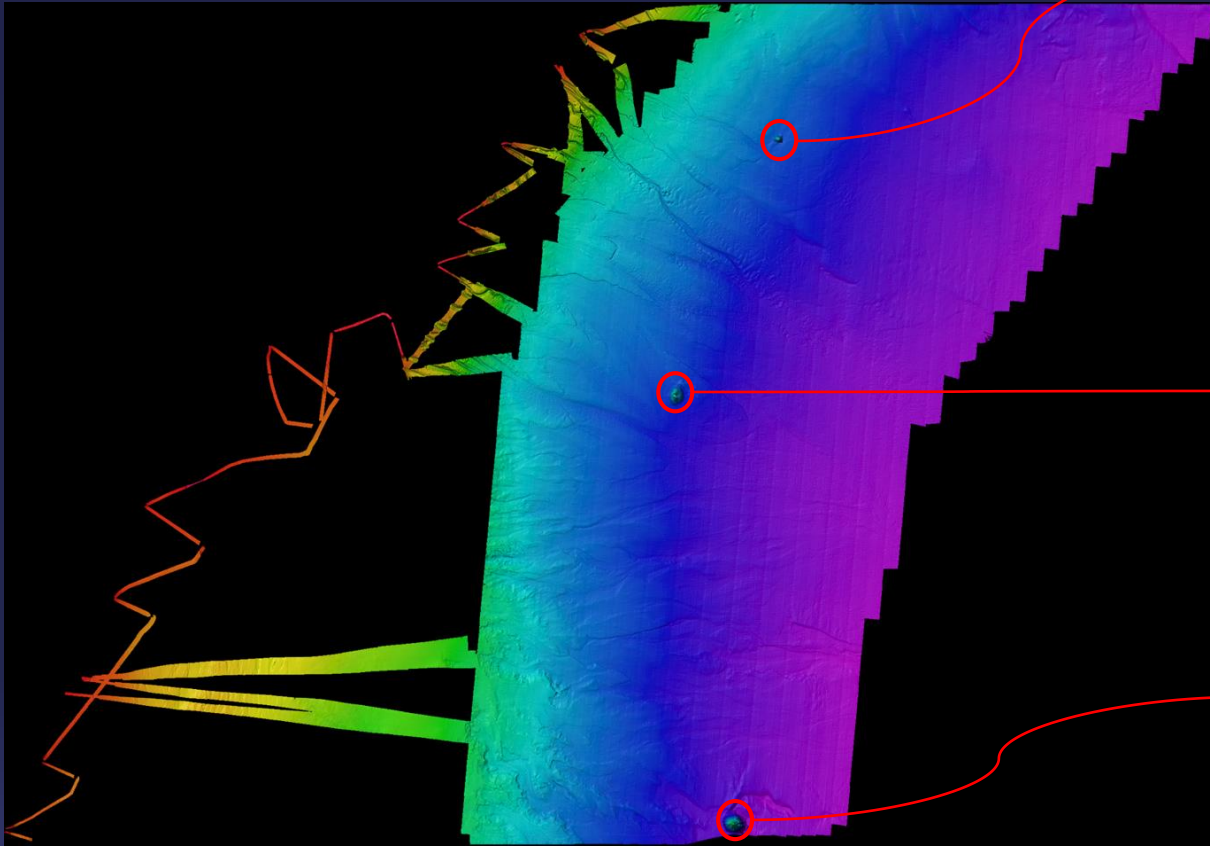
The MBES survey was done in 2007 under Kenya's UNCLOS project to delineate its outer continental shelf.

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

Data also forms part of the GEBCO Grid.

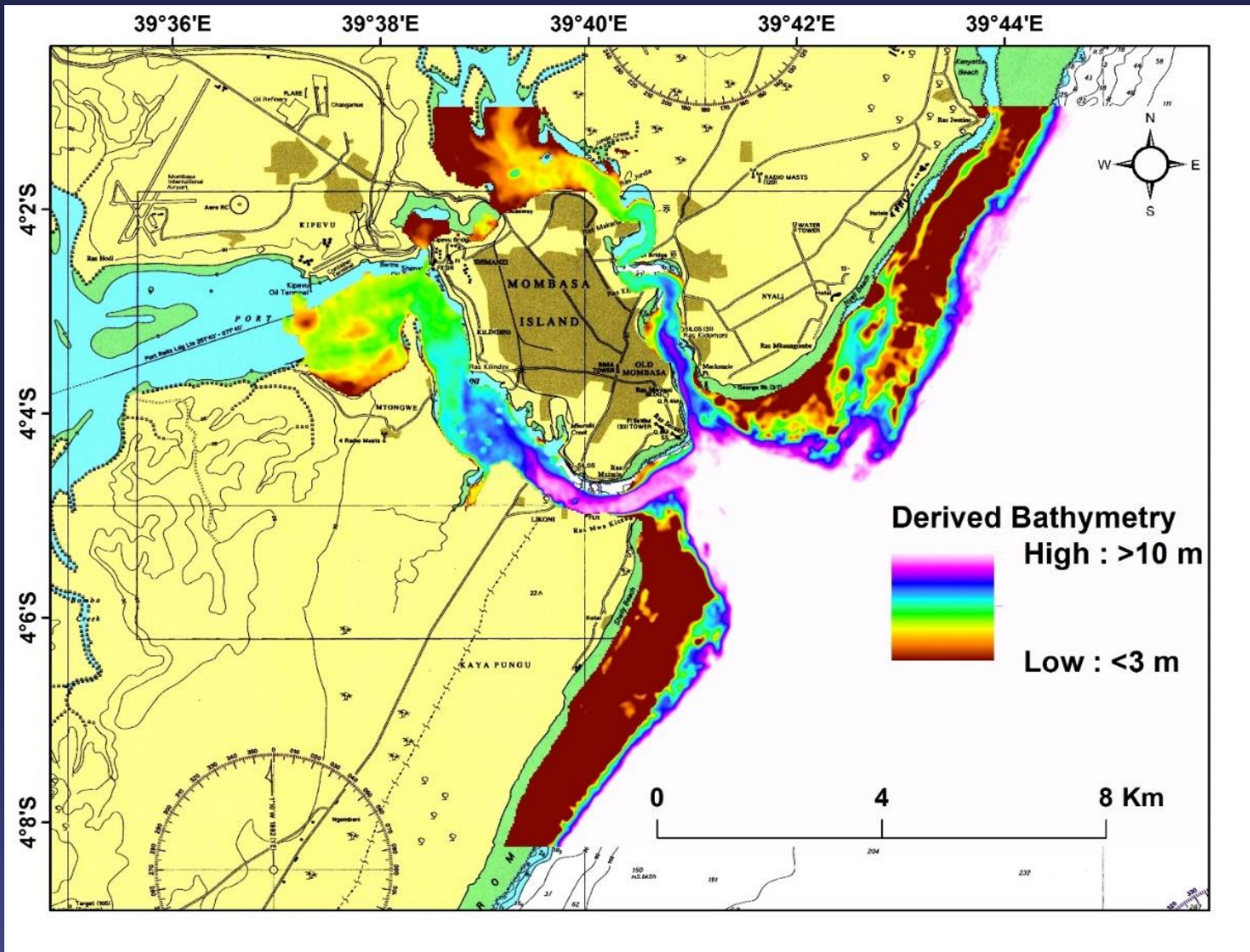
Undersea Features

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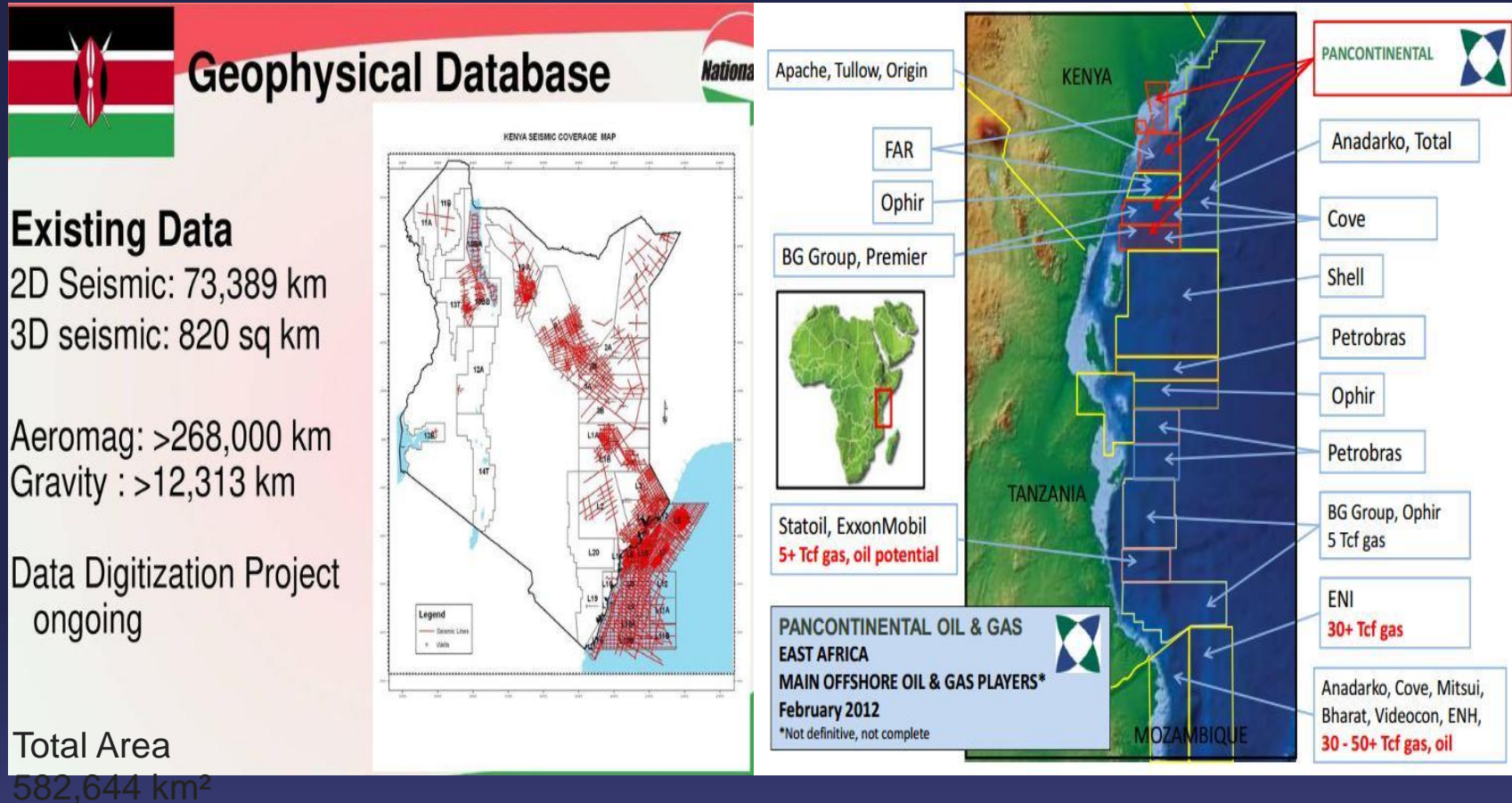
Source: Kimeli A.

Mapping Shallow Water Using SDB



Source: Kimeli et al., 2018

Offshore Geological And Mineral Surveys



Source: National oil corporation

Challenges

Key challenge has always been funding – Cost implication on equipment acquisition, data collection, training.

Coping with the rapid technological advancements in the Hydrosatial field taking place especially in the developed countries.

Opportunities

Inter-Institution partnership (through MoU and KeNHOC)

.Regional Initiatives (Seabed 2030, SAIHC, AGL&RSC)

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 to 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/>

An aerial photograph of a tropical island. The island is covered in dense green vegetation and is surrounded by a shallow lagoon with a sandy beach. The water transitions from a light turquoise near the shore to a deeper blue further out. A coral reef is visible as a lighter, textured area in the water. The sky is filled with white, fluffy clouds. The text "MUITO OBRIGADAS" is centered over the image in a bold, italicized, black font.

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