

African Ocean: A case for renaming the WIO

Historic, Legal & Scientific Perspective

By

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Maritime Study Forum

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Introduction

The continent of Africa has often been ignored in the realm of strategic affairs. This ignorance stems from the colonial plunder imposed on the cradle of humanity by European powers during the infamous “scramble for Africa”. Not only did the European empires try to impose their cultural values and core beliefs on the rest of the world but also their world view. When they were inevitably forced out of their former colonies, they left behind their colonial baggage in the form of norms, culture and world view.

As mentioned earlier, Africa has long been sidelined by the strategic community. The case of the maritime domain is no different. The continent of Africa which was once the pivot of marine travel, operated and managed by both eastern and western sailors has now become a sideshow. Historically the ocean at the eastern coast of the African continent was called by different names like Erythrean Sea, Mare Rubium, Eastern Ocean as well as Oriental Ocean. Afterwards by colonial process it was branded as the Indian Ocean and now it’s being called the Western Indian Ocean. The latest name of Western Indian Ocean is asserted to be colonial baggage left behind by European powers in their bid to redefine the world while pursuing hegemonic ambitions.

However in the modern day and age, we see that the borders of these great oceans are being rearranged by many international organisations as well as state organisations. The so called Indian Ocean is a case in point, with a split between the Indo Pacific and the Western Indian Ocean or WIO. This casestudy is an academic attempt to define the WIO in the context of the significant historical, legal and scientific relation to the eastern coast of Africa.

This case study is a summarized version of the reasons which highlight the Western Indian Ocean as a distinct entity which shares the longest coastline with the African continent. For all the legal, scientific, historic reasons stated herein this study provide the basis that now is the right time to give this Ocean region it true representative name which is **African Ocean**. The name **African Ocean** highlights its significant linkage with the African continent that has been underplayed for millennia by the European colonial and imperial powers.

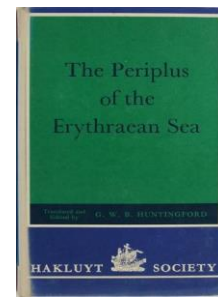
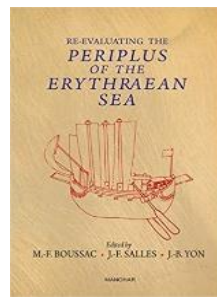
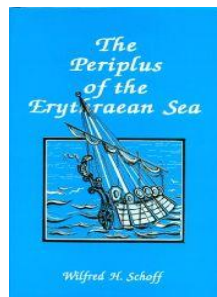
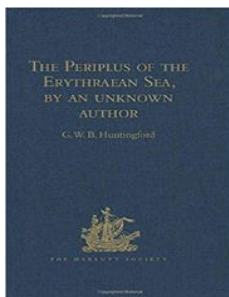
Chapter I

Different Names of the Western Indian Ocean: A Review

Since time immemorial the world is connected via maritime routes. Sailing and navigation is among the oldest professions of humankind. Ships and boats have been used for commerce, trade, wars and explorations etc. Even before invention of compass and maps people would use to navigate in oceans and seas for different purposes. In the absence of compasses, proper maps and navigational tools the sailors and adventures got their guidance from Periplus accounts of other peoples. Normally Periplus is a written account containing possible available information about the ports and coastal landmarks in order and with approximate intervening distances, that the captain of a vessel could expect to find along a shore. In that sense the Periplus was a type of log, Periplus used to be great source of navigation, geography and many related information which was useful for the navigators. Now, for us Periplus is considered as a bona fide source of history especially regarding the old historical names of places, ports seas and oceans etc.

Periplus of Erythraean Sea There are many Periplus known throughout history. Greeks, Romans, Persian and Chinese, almost every nation that had interest in navigation and maritime would have a Periplus of its own and when required would acquire support from the Periplus of other nations too. They were translated into many languages and with each translation, new information was also added by the translators and other navigators according to their knowledge and experiences.

The Periplus of the Erythraean Sea or Red Sea was written by an unknown Greek of the Hellenistic or Romanized Alexandrian writer in the first century CE. It provides a shoreline itinerary of the



Red (Erythraean) Sea, which started at the port of Berenice which is an ancient seaport of Egypt on the west coast of the Red Sea. It is situated about 825 km south of Suez and 260 km east of Aswan in Upper Egypt. The manuscript contains many historic names of the place like, the Horn of Africa was called, "the Cape of Spices," and modern day Yemen was known as the "Frankincense Country", the Sindh region of Pakistan is also mentioned in the Periplus, along with southwestern regions of India.

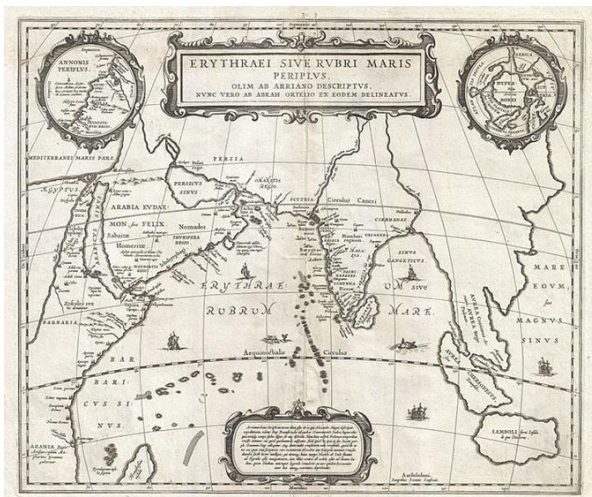
The Periplus of the Erythraean Sea originally in Greek has been translated by many European writers in different languages. Some have written its commentary too and now it possesses historical relevance.

The text has been attributed to different dates between the first and third centuries, but a mid-first century date is now the most commonly accepted. Although the author is unknown, but it is clearly a first-hand description by someone familiar with the area and is unique in providing accurate information and insights into what the ancient European world knew about the lands around the Western Indian Ocean (WIO). For centuries after, the European used the same Periplus for navigation into Asian and Western Indian Ocean. So much so that with the commencement of the so called era of exploration by the Europeans, their cartographers and geographers started making maps within which they borrowed the names of the places, ports, sea and oceans from that Periplus. One such name which is the most relevant with this study is the Erythraean Sea or the Erythraean Ocean.

Maps depicting Erythraean Sea

Ever since the Periplus was written till the advent of era of exploration by the Europeans, the geographers and cartographers used the name of Erythraean Sea to depict the Western Indian Ocean. Even much after that the same name had been used to identify that Ocean notably till the struggle been European Power to colonialize the African continent began, the era which is infamously known in the history as “Scramble for Africa”.

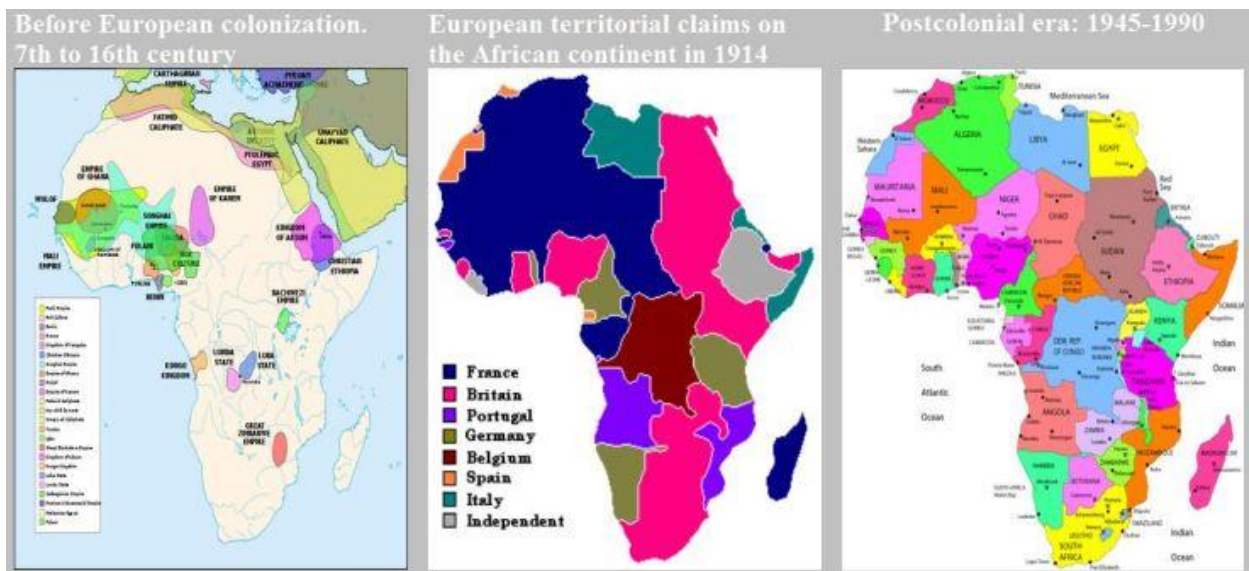
In a map published by J. Janssonius in 1658 the present day Western Indian Ocean (WIO) is referred to as Erythraei Sive Rvbri Maris or Mare Erythraeum (in English, Erythraean Sea). J. Janssonius was the most authentic cartographer of that era. He was a Dutch cartographer and publisher who lived and worked in Amsterdam in the 17th century.



Scramble for Africa

With the establishment of few posts at the coast line of African continent the process of colonization of African nations and ultimately African continent by the European empires started in 16th Century AD. That process finally resulted in the Scramble for Africa after the Berlin Conference in the 19th century.

The notorious term “Scramble for Africa” referred to the occupation, division, and colonization of African territory by European powers. The main motivation factors behind the occupation through colonization of other nations and territories can be delineated through 3Cs factor, Civilization, Christianity and Commerce.



The Scramble for Africa and subsequently the Berlin Conference 1886 has deep socio-political impacts over each and every nation of Africa much of which is the root cause of many conflicts, unrests, upheavals resulting into famine and even genocides in the African continent. Although the Berlin Conference 1886 ended the wars among the colonial powers, we see that the imperial and colonial motivations among them persisted. One such area, which is the most relevant to our study, is the geographical and cartographical mentioning of those areas and territories.



Maps served many purpose for the colonial powers in Africa especially in nineteenth century. They were the instruments and representation of different power in different areas including the sea and the oceans. Through the use of colors, blank spaces, boundary lines, names and nomenclatures of the territories and oceans etc. the cartographers contributed in empire building, demarking the area of influence, conquests and colonization of Africa. Maps, being both instruments and the representation of power, were employed by those cartographers whilst doing their ingenious work in reference to Africa. Predominantly and habitually, the cartographers would completely disregard the actual subject matter of their work i.e., Africa as they viewed the continent from their respective interest and prejudices.

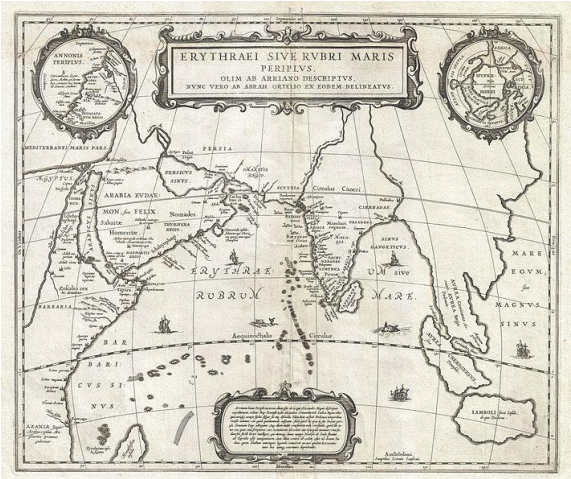
The most obvious victim of such predispositions kept by European cartographers were the oceans surrounding the African continent. Since many centuries, the ocean on the western shores of the continent was known as the Ethiopian ocean and the mass of water on the eastern coast of the African continent was recognized by the Europeans as the Erythraean Sea. The Ethiopian Ocean was transmogrified into the Atlantic Ocean and the name Erythraean Sea which was used for the present day Western Indian Ocean was interchangeably used by many different names such as:

1. Mare Rubium
2. Oriental Ocean
3. Oriental of Indian Ocean
4. Eastern Ocean
5. Eastern or Indian Ocean
6. Indian Ocean
7. Now, Western Indian Ocean

Notably, none of the above mentioned term contained any reference of African continent or any of its coast line area despite it has the longest coastline of African continent. Perhaps from the view point of colonial powers, the African continent was not a single entity or that referring the ocean to Africa did not serve any of their expansionist or hegemonic designs.

The Nomenclature of Western Indian Ocean (WIO) over the course of history:

The Ocean, which at present is known as Western Indian Ocean was called Mare Erythraeum (in English Erythraean Sea). The most authentic cartographic account in this regard is of Johannes Janssonius (1588, Arnhem – buried July 11, 1664, Amsterdam) (born Jan Janszoon, in English also Jan Jansson) was a Dutch cartographer and publisher who lived and worked in Amsterdam in the 17th century.ⁱ In a map published by J.Janssonius in 1658 the present day Western Indian Ocean (WIO) is referred to as Erythraei Sive Rvbri Maris.



The Western Indian Ocean had been referred to as Erythraean Ocean by European cartographers and geographers.

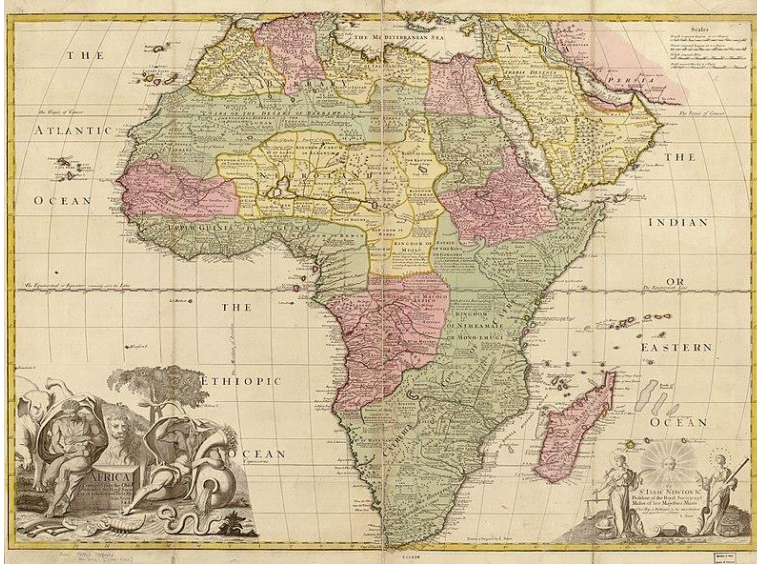


Gradually the cartographers started referring to the same Ocean as Eastern Ocean too, mainly due to the “discovery” of African continent by the European colonial powers.



Some other cartographers separated the Eastern Ocean from Indian Ocean by drawing a longitudinal line.

In a 1747 map, the Ocean on the east of Africa is referred to as the Eastern Ocean.



Subsequently, it was the British Empire which, for political and administrative reasons, started including this Ocean also in Indian Ocean to mark its hegemonic boundaries in the sea along the coastline of its colonies which were mainly governed from Bombay Presidency and initially they used to write both the names of Eastern Ocean and Indian Ocean both for this (WIO) ocean region and thus so they used the conjunction “or” between the names.

After that the European cartographer stopped using the reference of African continent to this ocean and used only one name mainly for colonial administrative and political reason. As by then India was absolutely and unequivocally under the British control and they successfully ousted the French and Portuguese long ago from the Indian sub-continent with the only exception of Goa port city. While the British were still in a tug of war with the other colonial powers especially the French.



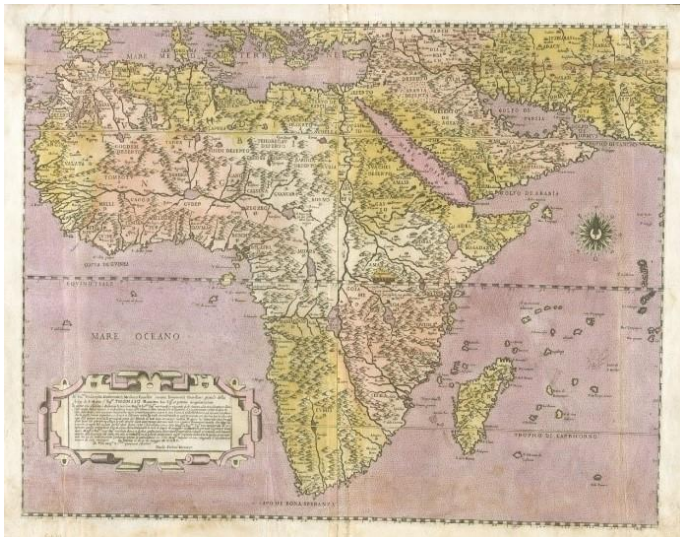
The British did not want to leave any reason ground for the French to encroach any farther eastwards in the Ocean. By labeling the Erythrean or Eastern Ocean as Indian Ocean the British succeeded in their strategy. Although there was and is no logical reason to associate this region as part of Indian Ocean.

Chapter 2

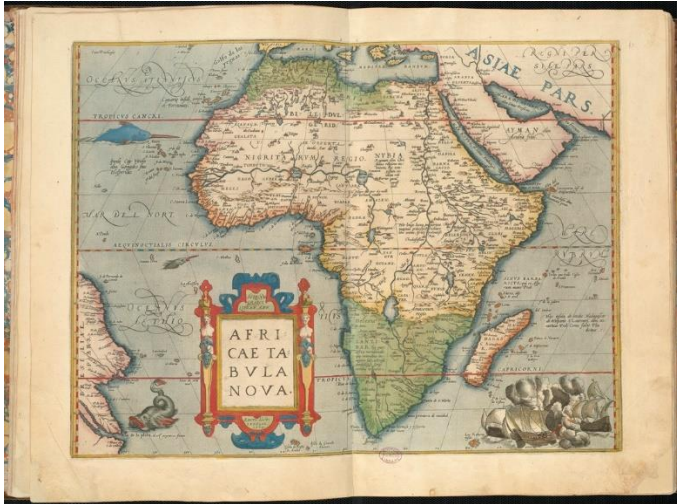
A list of maps is placed following showcasing the names used by many cartographers over history for the WIO. Another significant database for maps depicting different names of WIO can be found in the database compiled by Southwestern University



Cartographer: Paolo Forlani
Name of Ocean: Orientalis
WIO: Orientalis
Date: 1562
Published: Venice



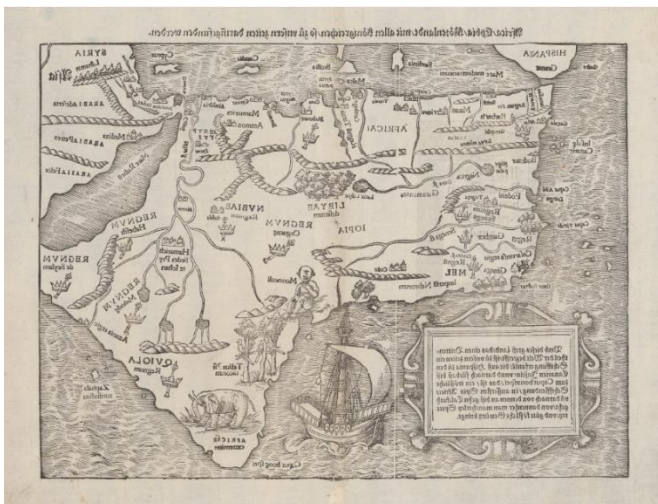
Cartographer: Paolo Forlani
Name of WIO: Orientalis
Date: 1562
Published: Venice



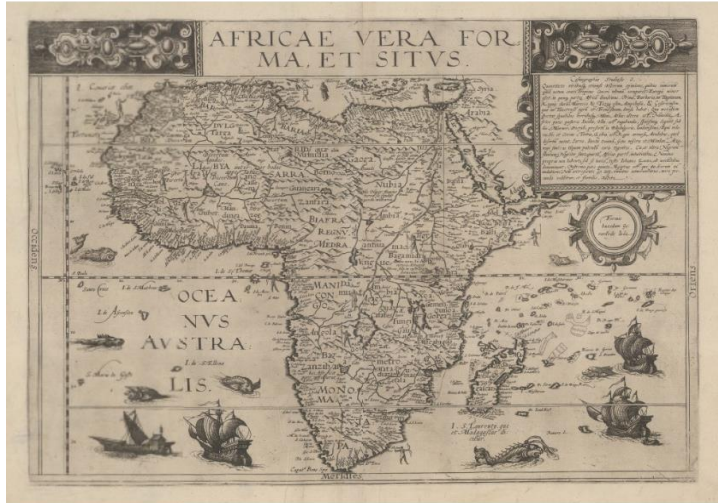
Cartographer: Paolo Forlani
Name of Ocean: Orientalis
WIO: Orientalis
Date: 1562
Published: Venice



Cartographer: Johann Baptist Homann
Name of Ocean: Orientalis
WIO: Orientalis
Date: 1707
Published: Nurnberg



Cartographer: Sebastian Munster
Name of Ocean: No mention
WIO: No mention
Date: 1578



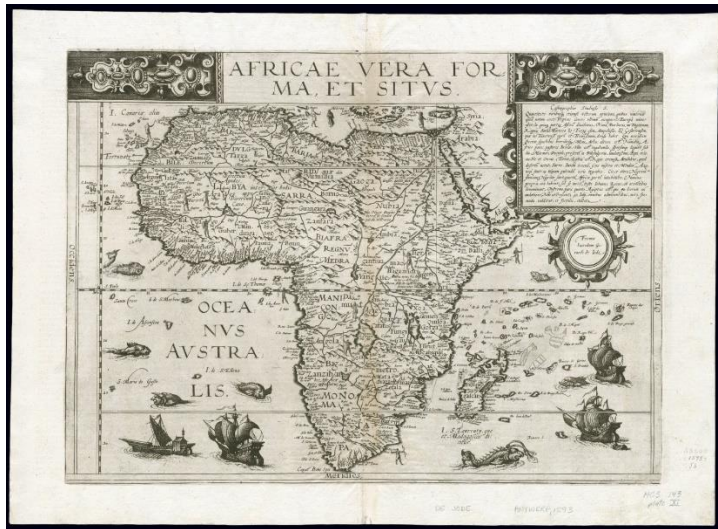
Cartographer: Cornelis De Jode

Name of Ocean: Ocean

WIO: Orientalis/Mare Arabicum et Indicum

Date: 1593

Published: Leiden



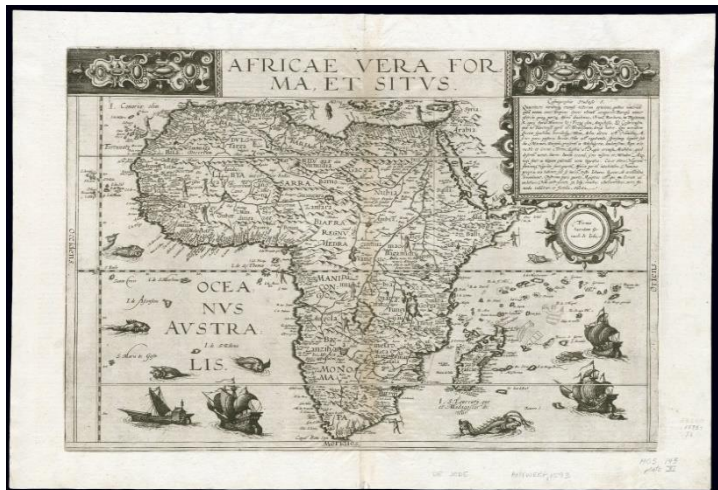
Cartographer: Gerard De Jode

Name of Ocean: No

WIO: Mention

Date: 1593

Published: Antwerp



Cartographer: Abraham Ortelius

Name of Ocean: Mare

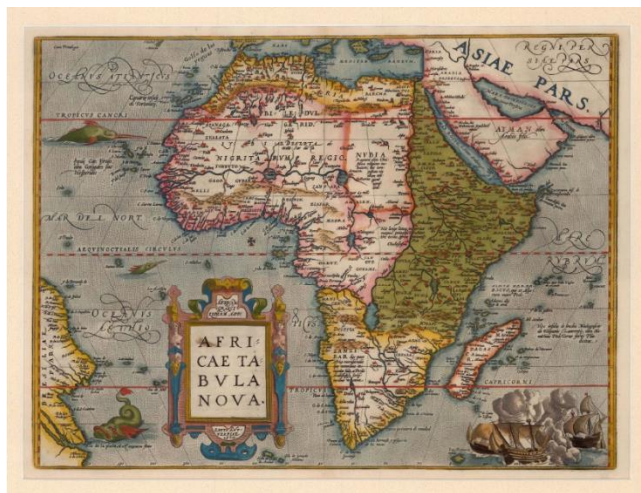
WIO: Rubium

Date: c. 1595

Published: Antwerp



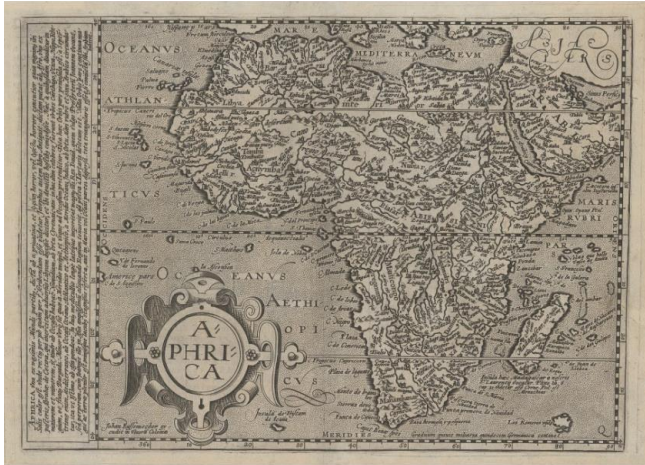
Cartographer: Abraham Ortelius
Name of WIO: Mare Rubium
Date: c. 1595
Published: Antwerp



Cartographer: Abraham Ortelius
Name of WIO: Mare Rubium
Date: c. 1595
Published: Antwerp



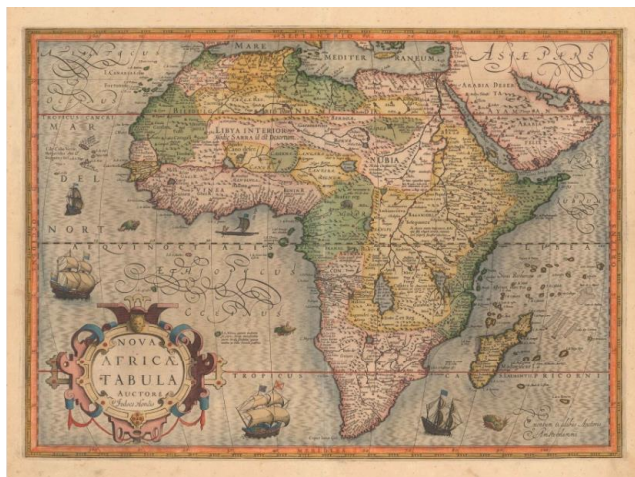
Cartographer: Abraham Ortelius
Name of WIO: Erythraeum Sea
Date: c. 1597
Published: Amsterdam



Cartographer: Matthias Quad
Name of Mare
WIO: Rubium
Date: c. 1600
Published: Cologne



Cartographer: Heinrich Bunting
Name of Ocean
WIO: Orientalis
Date: c. 1600
Published: Magdeburg



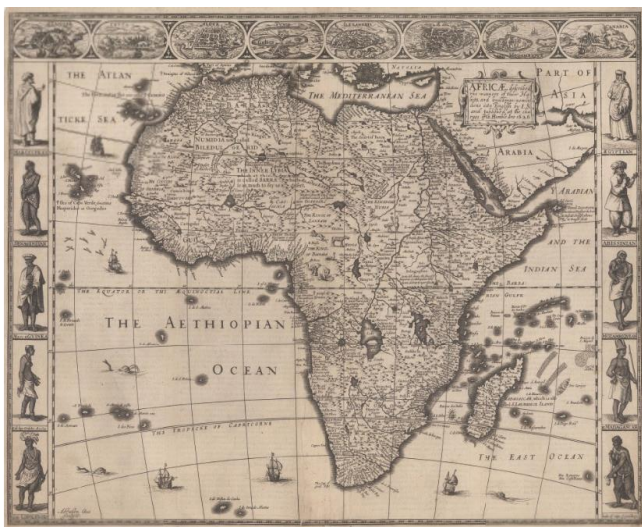
Cartographer: Jodocus Hondius
Name of Mare
WIO: Rubium
Date: 1611
Published: Amsterdam



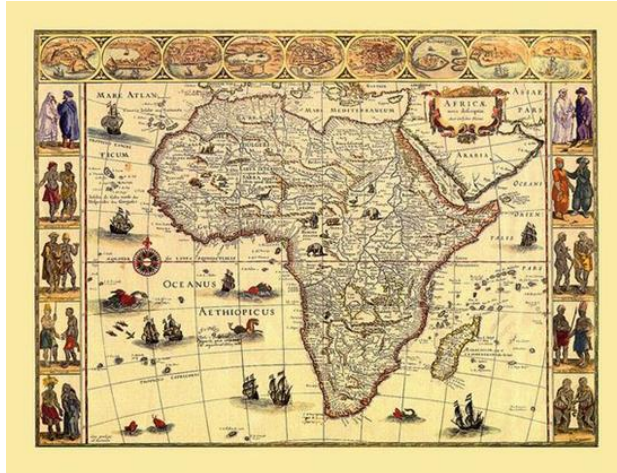
Cartographer: Mercator
Hondius
Name of Mare
WIO: Rubium
Date: 1619
Published: Amsterdam



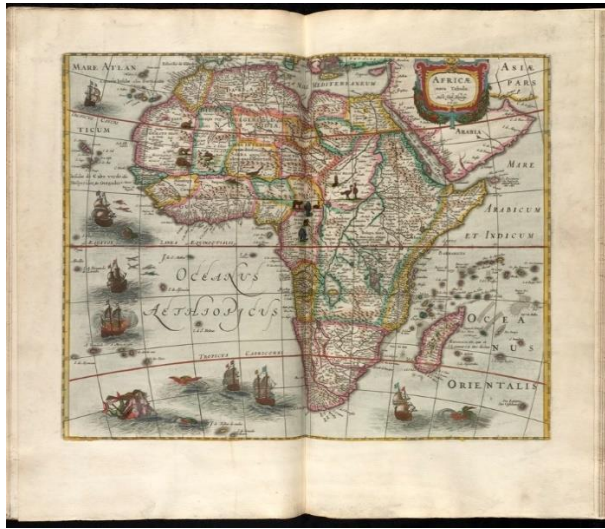
Cartographer: Samuel
Purchas
Name of Mare
WIO: Rubium.
Date: 1625
Published: London



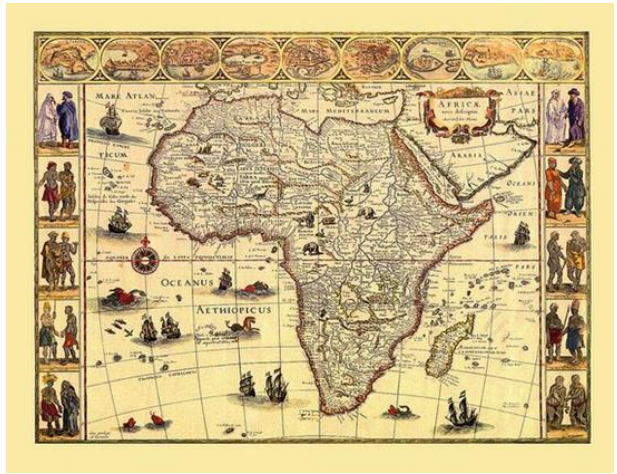
Cartographer: John Speed
Name of The East
WIO: Ocean/
Arabian & the
Indian Sea
Date: 1627
Published: London



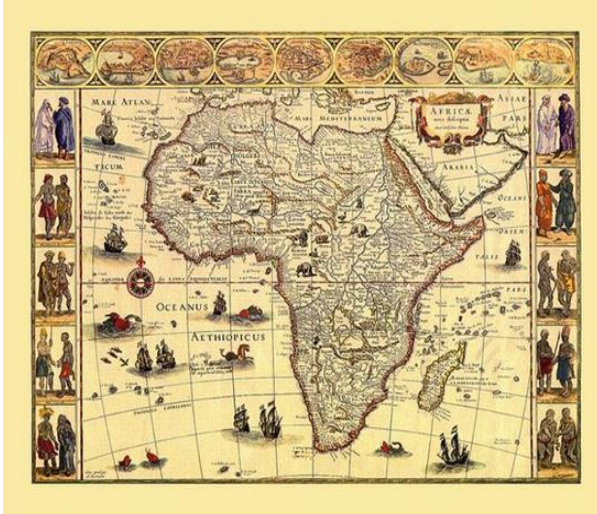
Cartographer: Willem Janszoon Blaeu
Name of Ocean: Orientalis
WIO: Orientalis
Date: 1630
Published: Amsterdam



Cartographer: Hendrik Hondicus
Name of Ocean: Ocean Arabicum et Indicum
WIO: Orientalis/Mare Arabicum et Indicum
Date: 1631
Published: Amsterdam



Cartographer: Jodocus Hondicus
Name of Ocean: Ocean
WIO: Orientalis
Date: 1633
Published: Amsterdam



Cartographer: Jodocus Hondicus

Name of Ocean

WIO: Orientalis/Mare
Arabicum et
Indicum

Date: 1633

Published: Amsterdam



Cartographer: Willem Janszoon
Blaeu

Name of Ocean Orientalis

WIO:

Date: 1635

Published: Amsterdam



Cartographer: Willem Janszoon
Blaeu

Name of Ocean Orientalis

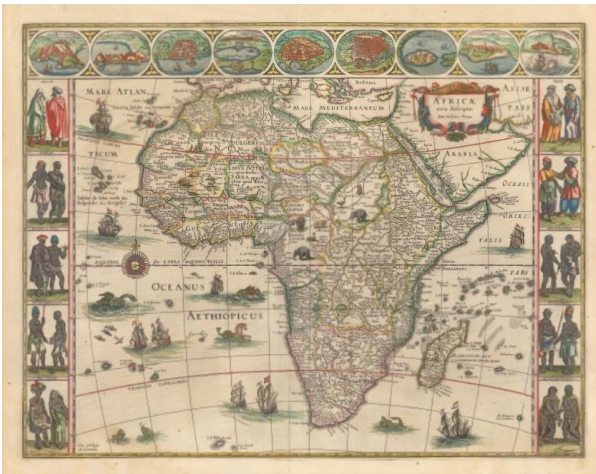
WIO:

Date: 1635

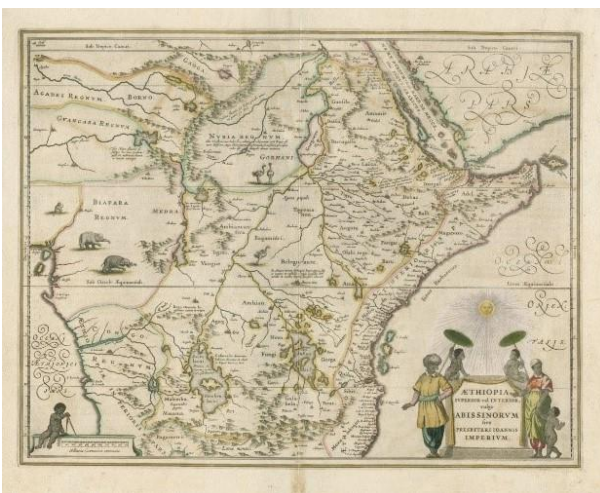
Published: Amsterdam



Cartographer: Jan Jansson
Name of Mare Orientale
WIO: Sive Indicum
Date: 1640
Published: Amsterdam



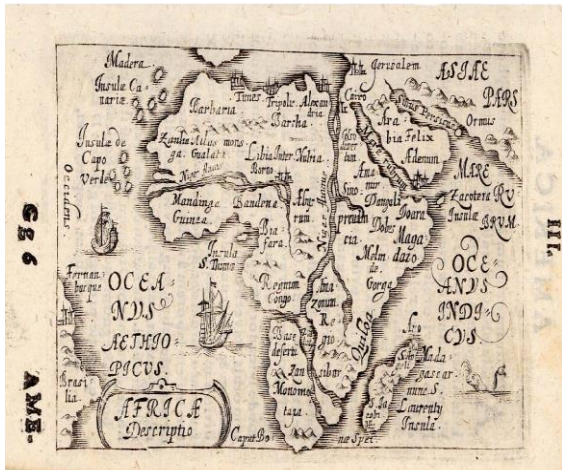
Cartographer: Willem & Jan Blaeu
Name of Ocean Orientalis
WIO:
Date: c. 1650
Published: Amsterdam



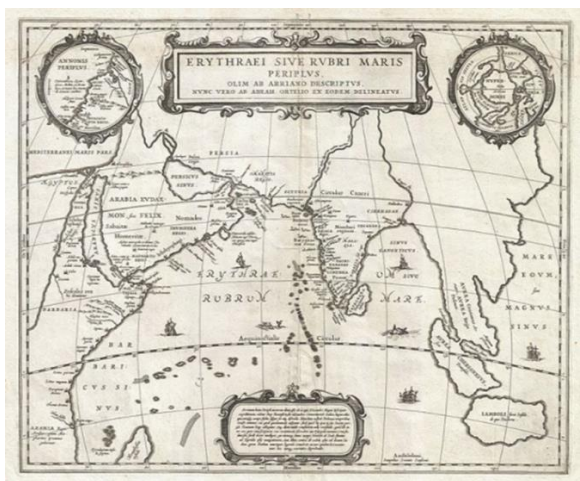
Cartographer: Joan Blaeu
Name of WIO: Ocean Orientalis
Date: c. 1650
Published: Amsterdam



Cartographer: Henricus Hondius
Name of WIO: Ocean Orientalis/
WIO: Mare Arabium et Indicum
Date: 1652
Published: Amsterdam



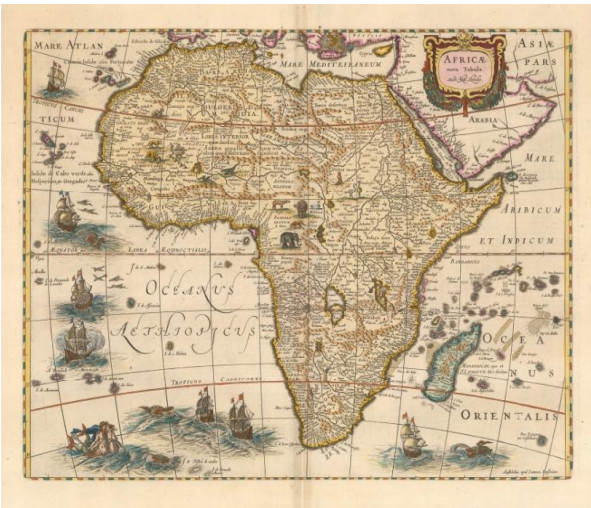
Cartographer: Gabriel Bucelin
Name of WIO: Mare Rubium &
WIO: Oceanus Indicus
Date: 1658
Published: Ulm



Cartographer: Jan Jansson
Name of WIO: Erythraen Sea
Date: 1658
Published: Amsterdam



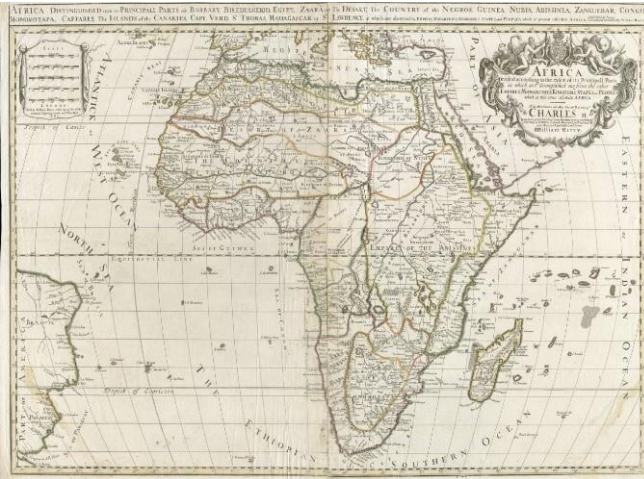
Cartographer: Anne Seile
Name of WIO: The East Ocean/
Arabian & the Indian Sea
Date: 1663
Published: London



Cartographer: Roger Rea
Name of WIO: The East Ocean/Y
Arabian and the Indian Sea
Date: 1662
Published: Amsterdam



Cartographer: Jacob van Meurs
Name of WIO: Ocean Orientalis
Date: c. 1668
Published: Amsterdam



Cartographer: William Berry
Name of WIO: Eastern or Indian Ocean
Date: c. 1680
Published: London



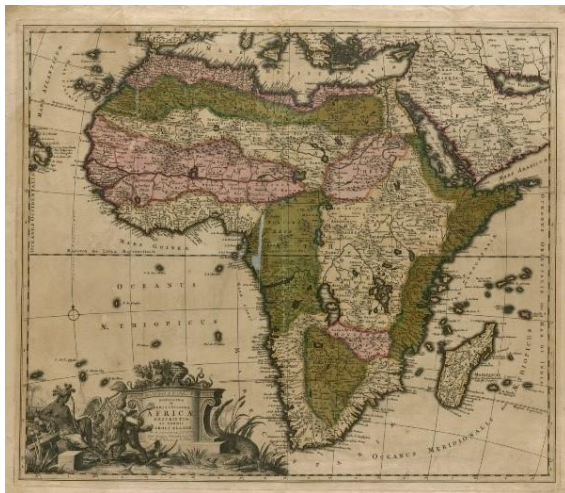
Cartographer: Fredrick De Wit (Fredrick the White)
Name of WIO: Ocean Orientalis
Date: c. 1680
Published: Amsterdam



Cartographer: Nicolaes Visscher
Name of WIO: Ocean Orientalis
Date: c. 1690
Published: Amsterdam



Cartographer: Nicolaes Visscher
Name of WIO: Ocean Orientalis
Date: c. 1690
Published: Amsterdam



Cartographer: Carel Allard
Name of WIO: Ocean Meridionale Aethiopicus
Date: c. 1690
Published: Amstelobataviz



Cartographer: Vincenzo Coronelli
Name of WIO: Oceano Meridionale Etiopico
Date: 1691
Published: Venice



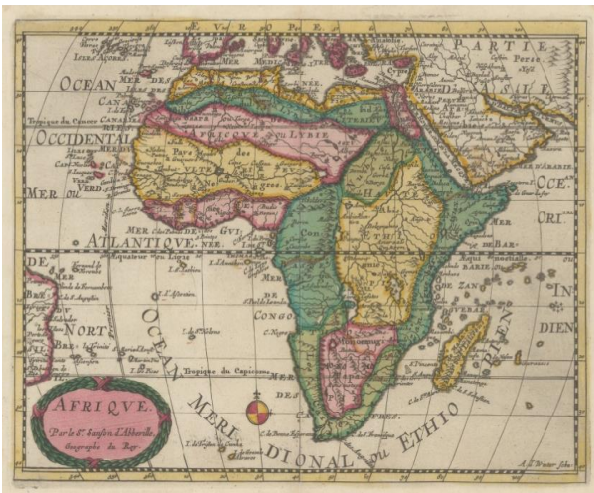
Cartographer: Philipp Cluver

Name of Ocean

WIO: Orientalis

Date: 1697

Published: Amsterdam



Cartographer: Nicolas Sanson

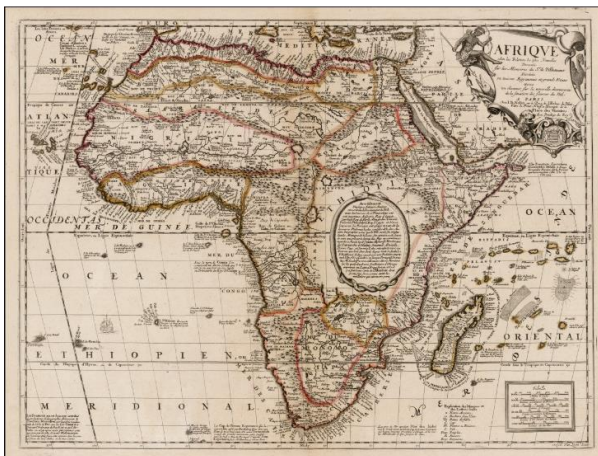
Name of Oceanus

WIO: Meridionalis
sive

Eathiopticus

Date: 1700

Published: Amsterdam



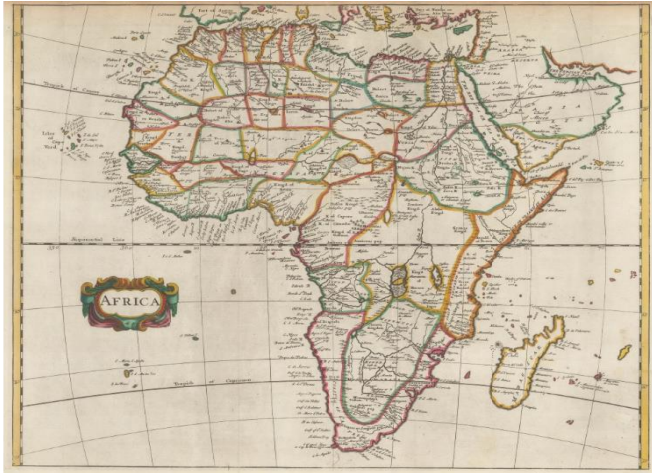
Cartographer: Jean Baptiste Nolin

Name of Ocean

WIO: Orientalis

Date: 1704

Published: Paris



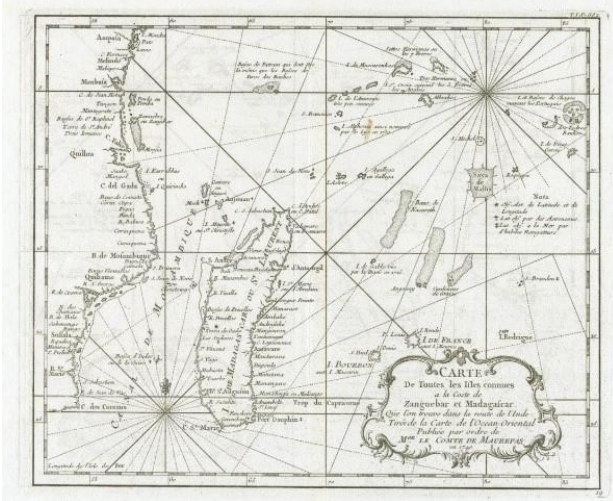
Cartographer: John Harrison
Name of WIO: No Mention
Date: 1705
Published: London



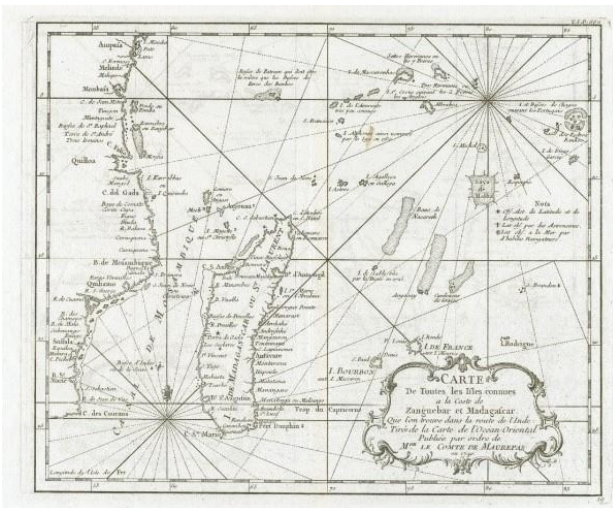
Cartographer: Herman Moll
Name of WIO: The Eastern or Indian Ocean
Date: 1710
Published: London



Cartographer: Johann Mathias Hase
Name of WIO: Ocean Orientalis
Date: 1732
Published:



Cartographer: Jacques
Nicolas Bellin
Name of L'Océan
WIO: Orientale
Date: 1740
Published: Paris



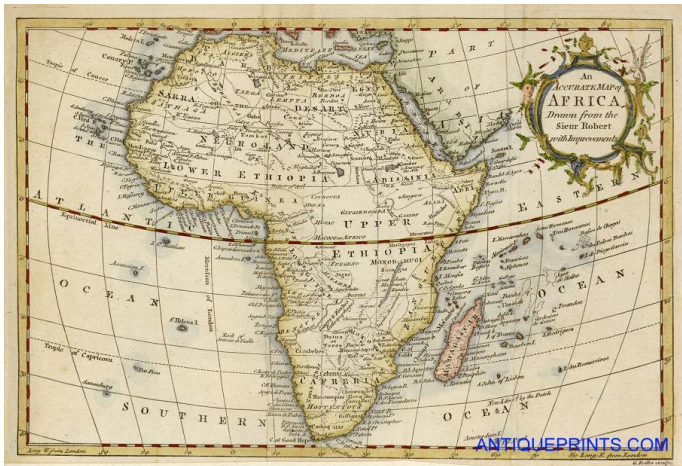
Cartographer: Jacques
Nicolas Bellin
Name of L'Océan
WIO: Orientale
Date: 1740
Published: Paris



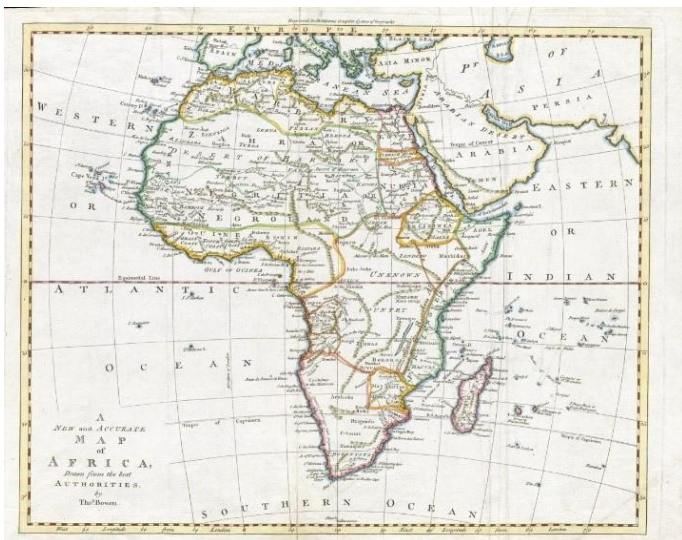
Cartographer: John Senex
Name of Eastern or
WIO: Indian Ocean
Date: 1740
Published: London



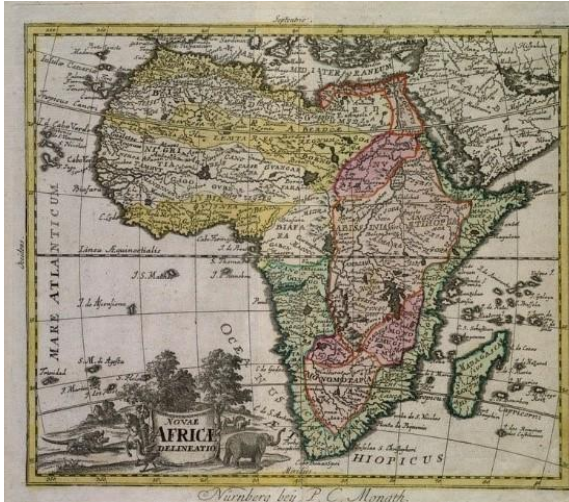
Cartographer: John Gibson
Name of Eastern or
WIO: Indian Ocean
Date: c. 1760
Published: London



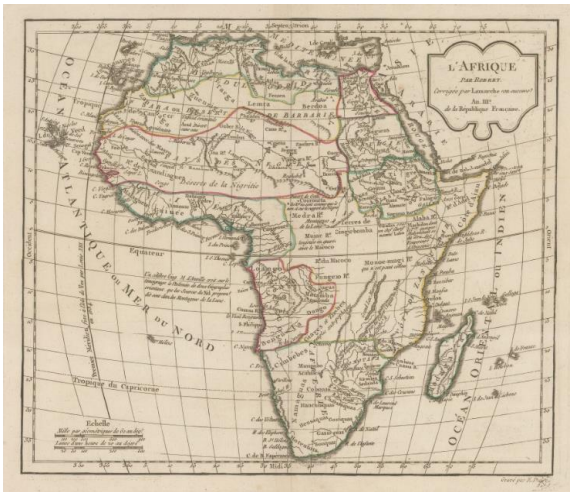
Cartographer: G Rollos
Name of Eastern
WIO: Ocean
Date: c. 1762
Published: London



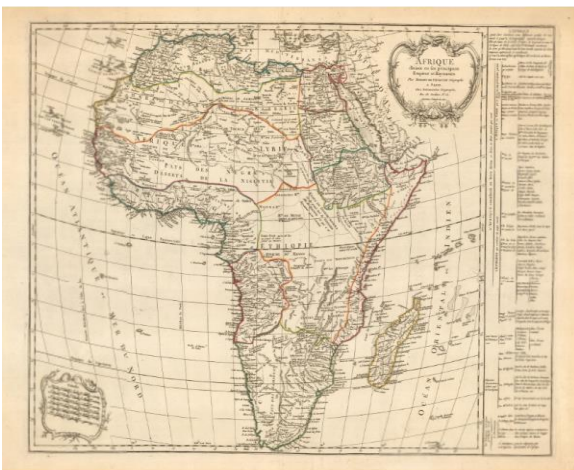
Cartographer: Thomas
Bowen
Name of Eastern or
WIO: Indian
Ocean
Date: c. 1762
Published: London



Cartographer: Peter Conrad Monath
Name of Eastern or Indian
WIO: Ocean
Date: c. 1769
Published: Nuremberg



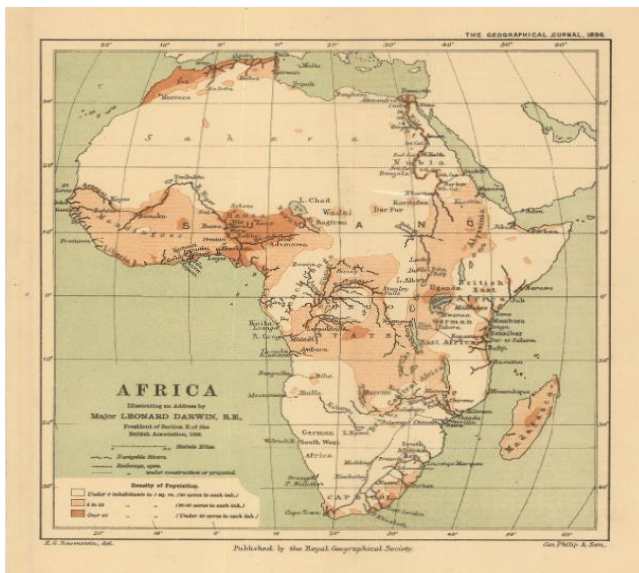
Cartographer: Charles Francois Delamarche
Name of Ocean Oriental or
WIO: Indian
Date: 1795
Published: Paris



Cartographer: Charles Francois Delamarche
Name of Ocean Oriental or
WIO: Indien
Date: c. 1800
Published: Paris



Cartographer: Charles Taylor
Name of WIO: No mention
Date: 1815
Published: London



Cartographer: Royal Geographical Society
Name of WIO: No Mention
Date: 1896
Published: London

LIST OF MAPS

CARTOGRAPHER	PUBLICATION DATE	NATIONALITY/PLACE OF PUBLICATION	WIO NAMED AS	COLONIZATION OF EAST AFRICA
Paolo Firlani	1562	Italian/Venice	Ocean Orientalis	Mo(1505)
Paolo Firlani	1562	Italian/Venice	Ocean Orientalis	Mo(1505)
Abraham Ortelius	1570	Belgian/Antwerp	Mare Rubuim (Red Sea)	Mo(1505)
Sebastien Munster	1578	German/Basel(Switzerland)	No mention	Mo(1505)
Gerard de Jode	1593	Dutch/Antwerp	No mention	Mo(1505)
Gerard de Jode	1593	Dutch/Antwerp	No mention	Mo(1505)
Cornelis de Jode	1593	Belgian/Antwerp	Ocean Orientalis/Mare Arabicum et Indicum	Mo(1505)
Gerhard Mercator	1595	Dutch/Duisberg(Germany)	Mare Rubuim (Red Sea)	Mo(1505)
Abraham Ortelius	1595	Belgian/Antwerp	Mare Rubuim (Red Sea)	Mo(1505)
Arnold Florent Van Langren	1596	Dutch/Amsterdam	No mention	Mo(1505)
Abraham Ortelius	1597	Belgian/Antwerp	Erythraeum Sive	Mo(1505)
Matthias Quad	1600	Dutch/Cologne	Mare Rubuim (Red Sea)	Mo(1505)
Heinrich Bunting	1600	German/Magdeburg	Ocean Orientalis	Mo(1505)
Jodocus Hondicus	1611	Belgian/Amsterdam	Mare Rubuim (Red Sea)	Mo(1505)
Mercator Hondius(Jodocus)	1619	Belgian/Amsterdam	Mare Rubuim (Red Sea)	Mo(1505)
Samuel Purchas	1625	British/London	Mare Rubuim (Red Sea)	Mo(1505)
Samuel Purchas	1625	British/London	Mare Rubuim (Red Sea)	Mo(1505)
John Speed	1627	British/London	The East ocean/ Y Arabian & the Indian Sea	Mo(1505)

William Janszoon Blaeu	1630	Dutch/Amsterdam	Ocean Orientalis	Mo(1505)
Hedrik Hondius	1631	Belgian/Amsterdam	Ocean Orientalis/Mare Arabicum et Indicum	Mo(1505)
Jodocus Hondicus	1633	Belgian	Ocean Orientalis	Mo(1505)
Jodocus Hondicus	1633	Belgian	Ocean Orientalis/Arabicum et Indicum	Mo(1505)
William Janszoon Blaeu	1635	Dutch/Amsterdam	Ocean Orientalis	Mo(1505)
Jan Jansson	1640	Dutch/Amsterdam	Mere oriental sive Indicum	Mo(1505),Ma(1638)
Matthaus Merian	1649	Swiss/Frankfurt(Germany)	Ocean Orientalis	Mo, Ma
Joan Blaeu	1650	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma
Willem & Jan Blaeu	1650	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma
Henricus Hondius	1652	Dutch/Amsterdam	Ocean Orientalis/Mare Arabicum et Indicum	Mo, Ma, SA(1652)
Jan Jansson	1658	Dutch/Amsterdam	Erytherian Sea	Mo, Ma, SA
Livio Sanuto	1655	Italian/Venice	Ocean Meridinal Ethiopian	Mo, Ma, SA
Gabriel Bucelin	1658	Swiss/Ulm	Mare Rubuim (Red Sea) & Oceanus Indicus	Mo, Ma, SA
Huych Allard	1660	Dutch/Amstelo Batavi	Mare Arabocum et Indicum	Mo, Ma, SA
Fredrick de Wit	1660	Dutch/Amsterdam	Ocean Orientalis/Arabicum et Indicum	Mo, Ma, SA
John Speed	1662	English	The East ocean/ Y Arabian & the Indian Sea	Mo, Ma, SA
John Speed	1662	English	The East ocean/ Y Arabian & the Indian Sea	Mo, Ma, SA
Anna Seile	1663	Dutch/Amsterdam	The East ocean/ Y Arabian & the Indian	Mo, Ma, SA

			Sea	
Anna Seile	1663	Dutch/London	The East ocean/ Y Arabian & the Indian Sea	Mo, Ma,SA
Henricus Hondius	1666	Dutch/Amsterdam	Ocean Orientalis/Mare Arabicum et Indicum	Mo, Ma,SA
Jacob Van Meurs	1668	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma,SA
William Berry	1680	British/London	Eastern or Indian Ocean	Mo, Ma,SA
Fredrick de Wit	1680	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma,SA
Nicolas Sanson	1683	French/Paris	Oceanus Meridionalis sive Eathiopticus	Mo, Ma,SA
Nicolaes Visscher	1690	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma,SA
Carel Allard	1690	Dutch/Amstelo Batavi	Oceanus Meridionalis sive Eathiopticus	Mo, Ma,SA
Vincenzo Cornelli	1691	Italian/Venice	Oceano Ethiopico	Mo, Ma,SA
Phillip Cluver	1697	German/Amsterdam	Ocean Orientalis	Mo, Ma,SA
Cornelis & Justus Danckerts	1699	Dutch/Amsterdam	Ocean Orientalis	Mo, Ma,SA
Nicolas Sanson	1700	French/Paris	Oceanus Meridionalis sive Eathiopticus	Mo, Ma,SA
Jean-Baptiste Nolin	1704	French/Paris	Ocean Orientalis	Mo, Ma,SA
John Harrison	1705	British/London	No mention	Mo, Ma,SA
Johann Baptist Homann	1707	German/nurnberg	Ocean Orientalis	Mo, Ma,SA
Herman Moll	1710	British/London	Eastern or Indian Ocean	Dutch leave Ma(1710)
Johann Matthias Hase	1732		Ocean Orientalis	French colonize Ma(1715)
Herman Moll	1736	British/London	Eastern or Indian Ocean	Mo, Ma,SA
Jacques Nicolas Bellin	1740	French/Paris	L' Ocean Oriental	Mo, Ma,SA
John Senex	1740	English	Indian Ocean or Eastern Ocean	Mo, Ma,SA

Emanuel Bowen	1747	British/London	Eastern Ocean	Mo, Ma,SA
Emanuel Bowen	1747	British/London	Eastern Ocean	Mo, Ma,SA
Robert De Vaugondy	1749	French/Paris	Ocean Oriental	Mo, Ma,SA
Herman Moll	1750	British/London	Eastern or Indian Ocean	Mo, Ma,SA
John Gibson	1760	British/London	Eastern or Indian Ocean	Mo, Ma,SA,Se(1756)
G. Rollos	1762		Eastern Ocean	Mo, Ma,SA,Se
Peter Conrad Monath	1769	German/nurnberg	oceanus Athiopicus	Mo, Ma,SA,Se
Thomas Bowen	1777 (or78)	British/London	Eastern or African Ocean	Mo, Ma,SA,Se
Rogobert Bonne	1782	French/Paris	No mention	Mo, Ma,SA,Se
Mathew Carey	1795	American/Philadelphia	Indian Ocean and Southern Ocean	Mo, Ma,SA,Se
Charles Francois Delamarche	1795	French/Paris	Oriental or Indian Ocean	Mo, Ma,SA,Se
Charles Francois Delamarche	1800	French/Paris	Oriental or Indian Ocean	Mo, Ma,SA,Se
Charles Taylor	1815	British/London	No mention	British take over Ma (1810)
Adrian Hubert Brue	1828	French/Paris	Grand Ocean Austral	Mo, Ma,SA,Se
Charles V Monin	1840	French/Paris		Mo, Ma,SA,Se
Victor Levasseur	1852	British/London	Grand Ocean Austral	Mo, Ma,SA,Se
Abraham Ortelius	1852	Belgian/Antwerp	Mare Rubuim (Red Sea)	Mo, Ma,SA,Se
Royal Geographical Society	1896	British/London	No mention	Mo, Ma,SA,Se,Ke(1895), So(1887), Md(1894),Ta(1884)

ABBREVIATIONS	
Mo	Mozambique
Ma	Mauritius
SA	South Africa
Se	Seychelles
Ke	Kenya
So	Somalia
Md	Madagascar
Ta	Tanzania

Chapter 3

Western Indian Ocean (WIO) or African Ocean

Western Indian Ocean (WIO) is a well-known and widely used term in the maritime domain internationally. Many International governmental and non-governmental organizations use the term of Western Indian Ocean either to define the geographic and oceanographic boundaries of their limits of operations or to define the area of their interest in this particular Ocean i.e. Western Indian Ocean. The International governmental and non-governmental bodies, regional multinational and national organizations, in projects of international institutions, in books, research articles and journals etc. have used the term of WIO to refer to a specific water body.

The WIO is geographically, bathymetrically, hydrographically, ecologically in the context of biodiversity and fisheries, climatically with reference to marine biology and environment, economically having its own potential of growth in blue economy, regionally as all of its coastal countries jointly having 7000 km long coastline and all are African countries, historically as all countries situated on it's boundaries were under colonial rule in recent past while in the annals of history this region had always been seen as African , socio-politically though communities living there are diverse but they all are united in being African, for that matter in all and any aspect "WIO" is a self-determining, independent and separate entity of its own. We have now reached the appropriate and precise juncture in time which necessitates that this water body must have a true representative name of its own which is **the African Ocean**.

Following are some major examples where legally and technically the term WIO is used by different international, regional and national organizations and institutions defining WIO as a separate and independent water body and most of them have delineated it also.

LEGAL

1. Use of term Western Indian Ocean (WIO) in International Conventions and Regional Treaties

a. Nairobi Convention:

The first and foremost example in this regard is Nairobi Convention the full and official name of it is the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region adopted in Nairobi in 1985. It is an international instrument which created an international organization having proper legal framework and a Secretariat too. The Nairobi Convention, was signed in 1985 and entered into force in 1996, subsequently amended on 31st March 2010.ⁱⁱ It is a part of UNEP's Regional Seas Program.ⁱⁱⁱ The Contracting Parties to Nairobi Convention are Comoros, France, Kenya,

Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa.^{iv} The opening paragraph of the Nairobi Convention clearly states the importance and uniqueness of the Western Indian Ocean region by stating:

“Preamble: The Contracting Parties, Fully aware of the economic and social value of the marine and coastal environment of the Western Indian Ocean region;”^v

The geographic coverage of the Convention area is defined in the paragraph (b) of Article 2 of the Convention as:

“The “Convention area” shall comprise the riparian, marine and coastal environment including the watershed of the Contracting Parties to this Convention. The extent of the watershed and of the coastal environment to be included within the Convention area shall be indicated in each protocol to this Convention, taking into account the objectives of the protocol concerned;”^{vi}

In a Report: “Regional State of the Coast in Western Indian Ocean” published by United Nation Environment Program (UNEP) in collaboration with other partners in its opening paragraph elaborates the delineation of WIO as:

“The Western Indian Ocean (WIO) region spans across a large latitudinal range, from the Somalia region, influenced by the strong monsoon regime of the northern Indian Ocean to the southern temperate regime of the tip of South Africa, where the Agulhas current diverges from the northward moving Atlantic Benguela current. It encompasses tropical and subtropical regions of diverse nature, rich stretches of coast along the mainland countries of Somalia, Kenya, Tanzania, Mozambique and South Africa, and vast oceanic areas surrounding the island states of Madagascar, Seychelles, Comoros, Mauritius and French Territories. Geomorphological and oceanographic features define the character of the WIO....”^{vii}



The Western Indian Ocean and the political maps of its contacting parties.

b. The Western Indian Ocean Marine Science Association (WIOMSA) is the second noteworthy regional organization in this regard. It was established as a regional, non-profit, membership organization in 1993 and registered in Zanzibar, Tanzania in 1994 as a non-governmental organization. The organization is dedicated to promoting the educational, scientific and technological development of all aspects of marine sciences throughout the Western Indian Ocean (WIO) region (consisting of 10 countries: Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Madagascar, Seychelles, Mauritius, Réunion (France)), with a view toward sustaining the use and conservation of its marine resources. WIOMSA has a particular interest in linking the knowledge that emerges from research to the management and governance issues that affect marine and coastal ecosystems in the region.^{viii}

The Association has been incorporated and registered under the Laws of Zanzibar in 1994. The Board of Trustees performs its duties and functions as provided for under the provisions of its Constitution and Laws applicable in Zanzibar. WIOMSA is also legally bound by the Act for the Zanzibar Registration and Control of Organizations of 1995. WIOMSA was re-registered under this act in 2000. This act also provides for WIOMSA to be registered in Tanzania Mainland and the Western Indian Ocean under clause 4(i).^{ix} Western Indian Ocean Marine Science Association (WIOMSA) is a regional professional, non-governmental, non-profit, membership organization, registered in Zanzibar, Tanzania. The organization is dedicated to promoting the educational, scientific and technological development of all aspects of marine sciences throughout the region of Western Indian Ocean (Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Madagascar, Seychelles, Mauritius, Reunion), with a view toward sustaining the use and conservation of its marine resources. The Association has about 1000 individual members as well as about 50 institutional members from within and outside the region.^x

SCIENTIFIC

2. The Unique Ecosystem of Western Indian Ocean Region.

There are many organizations which are internationally recognized and having proper legal body working for the region of WIO and recognized this region as an independent region due its peculiar marine and coastal ecosystem on the basis of scientific evidence and empirical data. One such initiative is Consortium for the Conservation of Coastal & Marine Ecosystems in the Western Indian Ocean it is also known as Western Indian Ocean Consortium (WIO-C). The WIO-C is a group of NGOs in partnership with Inter-governmental organizations that support synergy in programs of work on marine and coastal ecosystem management and promote knowledge sharing.

a. The Conservation of Coastal & Marine Ecosystems in the Western Indian Ocean. The Consortium was officially launched at the Fifth Meeting of the Contracting Parties to the Nairobi Convention held in Johannesburg, South Africa in November 2007, with the main purpose of advancing efforts to protect, conserve, and manage the coastal and marine environment of the Western Indian Ocean region while working to alleviate poverty and attain sustainable livelihoods for the most vulnerable segments of its population.^{xi}

The Contracting Parties to the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean, in their Seventh Conference of Parties held in Maputo, Mozambique in December 2012, requested the Secretariat to facilitate and organize regional meetings of experts for the purpose of exchanging and consolidating information that will lead to a State of the Coast Report for the Western Indian Ocean (WIO) region (decision CP7/15 of 2012). The WIO State of the coast report contributes to the United Nations Regular Process on preparation of the first integrated World Oceans Assessment report. The exercise is also in accordance with Article 18 (1d) of the Nairobi Convention.^{xii}

A consortium of partners comprising the Nairobi Convention Secretariat, IUCN ESARO, WIOMSA and CORDIO was established in September 2012 to develop a program focusing on enhancing the resilience of coastal socio-ecological systems in the Western Indian Ocean region. This program builds on the experiences of the Mangroves for the Future initiative established by the IUCN Asia Regional Office (ARO) and UNDP in 2006.^{xiii}

b. Western Indian Ocean Coastal Challenge (WIOCC) is another international country led partnership that promotes actions for climate resilient development that achieves effective conservation of biodiversity, enhanced livelihood and economies for greater social security among coastal communities. The WIOCC mobilizes the political, financial and technical commitment at national and regional levels by inspiring leadership and facilitating collaboration towards a shared, long-term vision.^{xiv}

The Western Indian Ocean Coastal Challenge is led by the Republic of Seychelles. The WIOCC is a strong and vocal partnership of WIO Island and coastal countries and stakeholders, working together to build and implement climate-resilient development options and strategies to achieve a balance between enhanced coastal livelihoods and economies and effective conservation of biodiversity. It consists of a partnership of the WIOCC country focal points, representatives from each of the member countries of the WIO countries including Comoros, France-Reunion, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Tanzania and Zanzibar. Each country who formally joins the WIOCC will announce specific targeted national commitments that will contribute to achieving the vision of the WIOCC. The WIOCC countries are supported the WIOCC technical support team, the Consortium of Coastal and Marine Ecosystems in the Western Indian Ocean (WIO-C).

WIOCC's partners are Comoros, France-Reunion, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Tanzania and Zanzibar; European Union; Indian Ocean Commission (IOC); UNEP Nairobi Convention Secretariat; Secretariat of the Convention on Biological Diversity; Global Island Partnership (GLISPA); Western Indian Ocean Consortium (WIO-C) including the WCS, IUCN, WWF, WIOMSA, CORDIO, NEPAD and the IOC UNESCO.^{xv}

3. International Organizations working for the Fisheries in the Western Indian Ocean Region

With the advancement of ecological and environmental sciences in the recent history started to realize that old delineation of oceans and water bodies are not based on any scientific basis. Many ecologically distinct, biologically diverse and hydrographically different water bodies are for some political reasons club together. One such example is Western Indian Ocean which is different in unique in all and every aspect with adjoining water bodies. The thought that Western Indian Ocean is an independent water body gradually developed in the world with the advancement of science and gathering of scientific data in the field of maritime. Fisheries is perhaps among those areas which initiated this realization at global level that Western Indian Ocean is a different ocean region in the world. This realization gradually grew among the countries of the WIO region which was backed by the marine scientists and an international movement was formed. This movement, with substantive political demand by the countries of the region (WIO) culminated into an International treaty called Convention on the Western Indian Ocean Tuna Organization (WIOTO). The purpose of this International treaty was to establish cooperation among the countries with a view to ensuring the conservation, management and optimum utilization of tuna and tuna-like species found in the Western Indian Ocean. This is the first International Treaty which delineates the Western Indian Ocean also.

a. Convention on the Western Indian Ocean Tuna Organization (WIOTO)

An International Organization was established in 1991 by virtue of an International Convention called Convention on the Western Indian Ocean Tuna Organization (WIOTO) which came in force on 1992-12-02 with the following aims:

“The Parties, Recognizing their common interests in the conservation, management and optimum utilization of the living marine resources of the Western Indian Ocean region and in particular of the highly migratory tuna and tuna-like species;

Desiring to cooperate with a view to ensure the conservation, management and optimum utilization of tuna and tuna-like species in the Western Indian Ocean;

Considering the United Nations Convention on the Law of the Sea opened for signature on the 10th December 1992;

Desiring to promote regional cooperation and coordination in respect of fisheries policies;

Concerned to secure the maximum benefits from the tuna and tuna-like species of the region for their peoples;”

Have agreed as follows:

Article 1 Establishment

1. *The contracting parties hereby establish the Western Indian Ocean Tuna Organization (hereafter referred to as "the Organization").*
2. *The Organization shall consist of a Board, a Committee and a Secretariat.*
3. *The headquarters of the Organization shall be in the Seychelles.*

Article 2 Objectives

The objectives of the Organization are to promote cooperation and coordination among its members in respect of, inter alia:

- a. *harmonization of policies with respect to fisheries;*
- b. *relations with distant water fishing nations;*
- c. *fisheries surveillance and enforcement according to arrangements which may be concluded;*
- d. *fisheries development, in particular development of fishing capacity of members and fish technology, processing and marketing;*
- e. *access to exclusive economic zones of Members, according to arrangements which may be concluded.*

In accordance with Article'3 of the Convention, the following are founding States for the purposes of this Convention: Comoros, India, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Sri Lanka, and Tanzania. These are mentioned in Annex I of the Convention.^{xvi}

Article 3 Membership

1. *Membership of the Organization shall be open to:*
 - (a) *Any founding State described in Annex I;^{xvii}*

(b) With unanimous approval of parties, any independent coastal State bordering the Western Indian Ocean whose territory is situated principally in the Western Indian Ocean region, having a common interest with parties in the conservation, management and optimum utilization of the highly migratory tuna and tuna-like species of the region occurring within and beyond its exclusive economic zone.

2. for the purposes of this Article "Western Indian Ocean region" is the area described in Annex II....."

The Annex II of the Convention defines and delineates the Western Indian Ocean region as follows:

"Annex II

In accordance with Article 3, the area of the Western Indian Ocean region is as follows:

Starting along latitude 11o 00'N from the Eastern Coast of India and through the following coordinates:

Lat. 11o 00'N and long. 85o 00'E

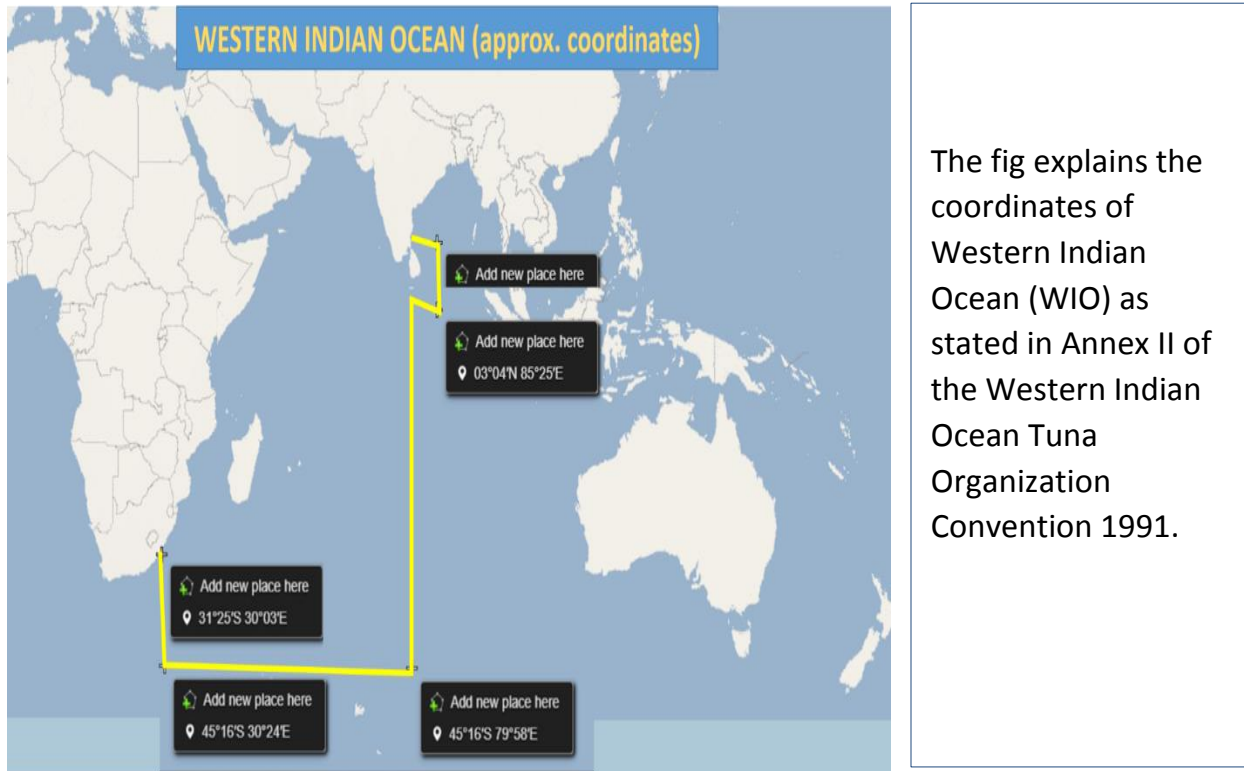
Lat. 3o 00'N and long. 85o 00'E

Lat. 3o 00'N and long. 80o 00'E

Lat. 45o 00'S and long. 80o 00'E

Lat. 45o 00'S and long. 30o 00'E

And proceed along meridian 30o 00'E to the Coast of Africa."^{xviii}



Subsequently a commission called The Indian Ocean TUNA Commission (IOTC) was formed by United Nation specialized agency on food and agriculture FAO through an International Convention called The Indian Ocean Tuna Commission in its preamble a particular emphasis was given on a separate UN Convention which preceded this Convention (IOTC) with the following words:^{xix}

“Bearing in mind the Western Indian Ocean Tuna Organization Convention which was opened for signature on 19 June 1991,”

The purpose of the above mentioned explanation of the two inter-related Conventions is to highlight the fact that all the signatories of the Conventions have recognized at International level that Western Indian Ocean is an independent and separate ocean region which is neither the part Southern Ocean in the south, nor the part of Indian Ocean in the East, or of Atlantic Ocean in the west though physically connected with them like all the other oceans of the world which are connected with one another in one way or other.

4. Western Indian Ocean a well-defined term in the context of International Maritime Safety and Security

Very recently the Djibouti Code of Conduct^{xx} that has been instrumental in repressing piracy and armed robbery against ships in the Western Indian Ocean and the Gulf of Aden has seen its scope significantly broadened to cover other illicit maritime activities, including human trafficking and illegal, unreported and unregulated (IUU) fishing.

A high-level meeting of signatories to the Djibouti Code of Conduct, held in Jeddah, Saudi Arabia (10 to 12 January 2017) has adopted a revised Code of Conduct, which will be known as the “Jeddah Amendment to the Djibouti Code of Conduct 2017”.

The participatory States agreed to work together, with support from IMO and other stakeholders, to build national and regional capacities to address wider maritime security issues, as a basis for sustainable development of the maritime sector.^{xxi}

In this important document the references of Western Indian Ocean are used as the WIO is well-defined and well understood term which is duly delineated. Since the document is related to maritime safety and security in the contemporary world it clearly limits its territorial extent to only two ocean regions i.e. Western Indian Ocean and Gulf of Aden Area. Had there been any ambiguity in the definition or territorial limits of these regions it would have defined them clearly due to the sensitivity of this strategically important legally binding document on the parties to it but this is not the case.

The heading or the introduction of the document states:

“REVISED CODE OF CONDUCT CONCERNING THE REPRESSION OF PIRACY, ARMED ROBBERY AGAINST SHIPS, AND ILLICIT MARITIME ACTIVITY IN THE WESTERN INDIAN OCEAN AND THE GULF OF ADEN AREA.”^{xxii}

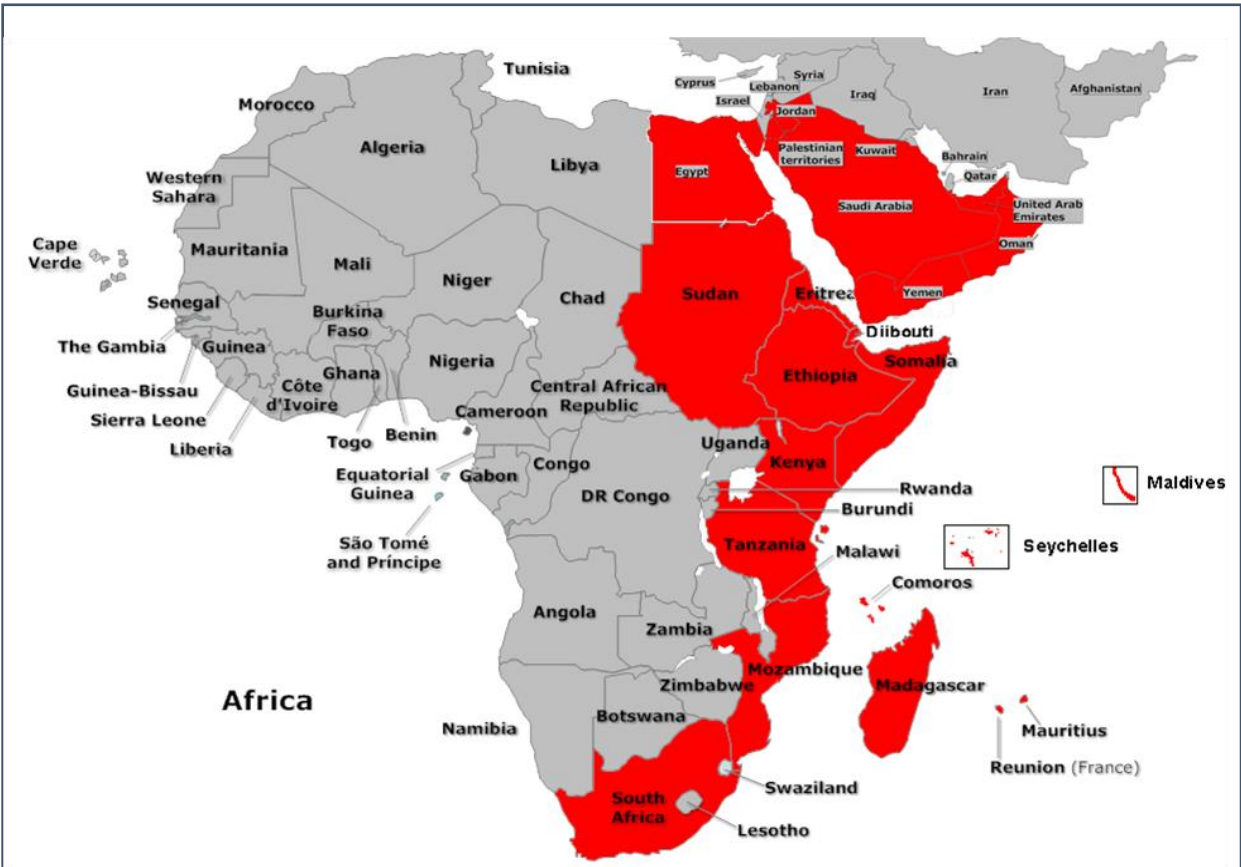


Fig indicates the ocean regions that are covered in Djibouti Code of Conduct in which Western Indian Ocean is include as a separate region independent from region which is connected to it as Gulf of Aden in its north.

This means that the Western Indian Ocean is a well-defined and properly delineated term in the context of maritime security also according to International Maritime Organization.

5. Western Indian Ocean according to Food and Agriculture Organization (FAO) of UN

The Food and Agriculture Organization of the United Nations is a specialized agency of the United Nations that leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate arguments and debate policy.^{xxiii}

It has many departments, its Fisheries and aquaculture department is defined by its vision and mission statements as Vision: A world in which responsible and sustainable use of fisheries and

aquaculture resources makes an appreciable contribution to human well-being, food security and poverty alleviation.

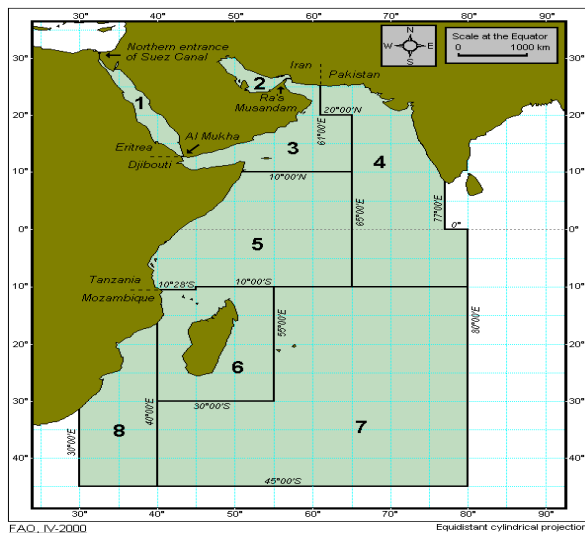
Mission: To strengthen global governance and the managerial and technical capacities of members and to lead consensus-building towards improved conservation and utilization of aquatic resources.

The Department aims to make a significant contribution to the attainment of the Millennium Development Goals and the targets set by the World Summit on Sustainable Development and the World Food Summit.^{xxiv}

FAO's fisheries department describes Western Indian Ocean as follows:

A description of the area and its subareas as follows.

"All marine waters of the Western Indian Ocean bounded by a line commencing on the southeast coast of India at 77°00'E longitude where the boundary between the States of Kerala and Tamil Nadu meet at the sea; thence due south to the Equator; thence due east to 80°00'E longitude; thence due south to latitude 45°00'S; thence running due west along parallel 45°00'S from 80°00'E longitude to 30°00'E longitude; thence due north to the coast of southern Africa; thence in a northeasterly direction along the east coast of the African continent to the northern entrance to the Suez Canal; onward running in a southeasterly direction along the east coast of the Red Sea; thence round the Arabian Peninsula and along the coast of Iran, Pakistan and India to the point of departure."^{xxv}



This map of Fisheries and Aquaculture department of FAO shows the boundaries of the Western Indian Ocean (Major Fishing Area 51).

This large body of water which is named as Western Indian Ocean by FAO is further divided into following sub areas:

The Western Indian Ocean is divided into the following subareas:

Red Sea (Subarea 51.1)

The waters bounded by the northern entrance of the Suez Canal and a thumb line on the south drawn from the frontier between Eritrea and Djibouti on the coast of Africa, running across the mouth of the Red Sea, to Al Mukha on the coast of the Arabian Peninsula.

Gulf (Subarea 51.2)

The waters of the Gulf closed by a line commencing at the northern tip of Ra's Musandam and running due east to the coast of Iran.

Western Arabian Sea (Subarea 51.3)

The eastern and southern boundaries are a line from the Iran/Pakistan frontier on the coast of Asia running due south to the parallel 20°00'N; thence due east to the meridian 65°00'E; thence due south to the parallel 10°00'N; thence due west to the coast of Africa; northern boundaries determined by the south coast of the Arabian Peninsula and running along the coast to the northern tip of Ra's Musandam, thence due east to the coast of Iran.

Eastern Arabian Sea, Laccadives (Subarea 51.4)

The waters bounded by a line commencing on the coast of Asia at 61°00'E longitude at the Iran/Pakistan frontier, running due south to the parallel 20°00'N; thence due east to the meridian 65°00'E; thence due south to the parallel 10°00'S; thence due east to the meridian 80°00'E; thence due north to the Equator; thence due west to the meridian 77°00'E; thence due north to the southeast coast of India where the boundary between the States of Kerala and Tamil Nadu (formerly Madras) meet at the sea.

Somalia, Kenya and Tanzania (Subarea 51.5)

The waters bounded by a line commencing on the coast of Somalia at 10°00'N running due east to the meridian 65°00'E; thence due south to the parallel 10°00'S; thence due west to the meridian 45°00'E; thence due south to the parallel 10°28'S; thence due west to meet the east coast of Africa between Ras Mwambo (to the north) and Mwambo Village (to the south).

Madagascar and Mozambique Channel (Subarea 51.6)

The waters bounded by a line commencing on the east coast of Africa between Ras Mwambo (to the north) and Mwambo village (to the south) at 10°28'S latitude, running due east to the meridian 45°00'E; thence due north to the parallel 10°00'S; thence due east to the meridian 55°00'E; thence due south to the parallel 30°00'S; thence due west to the meridian 40°00'E; thence due north to the coast of Mozambique; thence in a northerly direction along the coast of Mozambique to the point of departure.

Oceanic (Sub area 51.7)

The waters bounded by a line commencing at the position 10°00'S latitude and 55°00'E longitude, running due east to the meridian 80°00'E; thence due south to the parallel 45°00'S; thence due west to the meridian 40°00'E; thence due north to the parallel 30°00'S; thence due east to the meridian 55°00'E; thence due north to the starting position on the parallel 10°00'S.

Mozambique (Subarea 51.8). It comprises the waters lying north of parallel 45°00'S and between the meridians 30°00'E and 40°00'E.^{xxvi}

6. Western Indian Ocean has its own identity according to WWF

According to many report of WWF the western coast line of Western Indian Ocean Region (WIO) which geographically the East coast of African continent has it peculiar wild life and ecology. According to a report of WWF, East African marine ecoregion having Geographic location near Somalia, Kenya, Tanzania, Mozambique, South Africa has its own ecology. The East African marine ecoregion occupies a coastland shallow marine area covering more than 480,000km², and extending approximately 4,600 km along the continent's eastern coast. The ecoregion includes some or all of the territorial waters of each of the countries from Somalia in the north to South Africa in the south, as well as the international waters beyond the 200-mile Exclusive Economic Zone.^{xxvii}

The coast of Eastern Africa extends for over 7,000km (4,000 miles), from the northern tip of the Horn of Africa to Cape Town, and is home to the peoples of Somalia, Kenya, Tanzania, Mozambique and South Africa. North of Chisimayu in Somalia, the coast is strongly influenced by an up-welling of colder, nutrient rich water from March-October. As a result there are marked changes in seawater temperature during the year, varying between 17- 30°C. The central region, stretching from Chisimayu all the way down to Sodwana Bay in South Africa is exposed to consistent, tropical, environmental conditions throughout the year, with seawater temperature usually between 24-31°C. This region extends for approximately 4,600km and includes some or all of the territorial waters of Somalia (approx. 300km), the entire coastlines of Kenya (500km), Tanzania (900km), and Mozambique (2,800km), and the north-eastern

portion of South Africa (approx.100 km). South of Sodwana Bay the coast is influenced by colder seawater and weather that changes the environment from tropical to temperate. Within the tropical portion of the eastern African coast, the shores and coastal seas harbor a characteristic set of species, habitats, dynamics, and environmental conditions. The coastal and marine plants and animals present in the region have adapted and evolved to live and breed in the consistent, reliable tropical conditions that prevail here. This coastal region, functioning largely as a unit, or ecological region, is called the Eastern African Marine Ecoregion (EAME).^{xxviii}

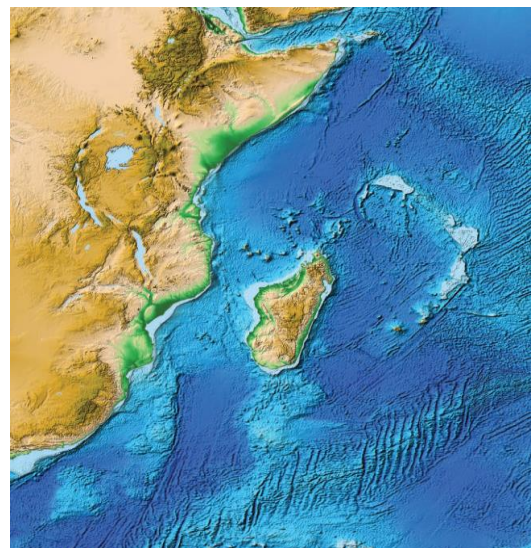


The map is showing the ecoregion of the Western Indian Ocean

The marine ecoregion of the Western Indian Ocean includes coastal and marine waters of the Comoros, Seychelles, Madagascar, Mauritius and France (Reunion). This ecoregion has ecosystems of high biological diversity and high productivity. However, pressures and threats resulting from human activities as well as climate change affect these ecosystems.^{xxix}

7 United Nation Environmental Program (UNEP) and Western Indian Ocean Region

In one of its reports the UNEP defined the Western Indian Ocean Region as, the WIO spans a large latitudinal range, from the Somalia region, influenced by the strong monsoon regime of the northern Indian Ocean, to the sub-tropical regime of the Kwa-Zulu Natal Province in South Africa. It thus encompasses



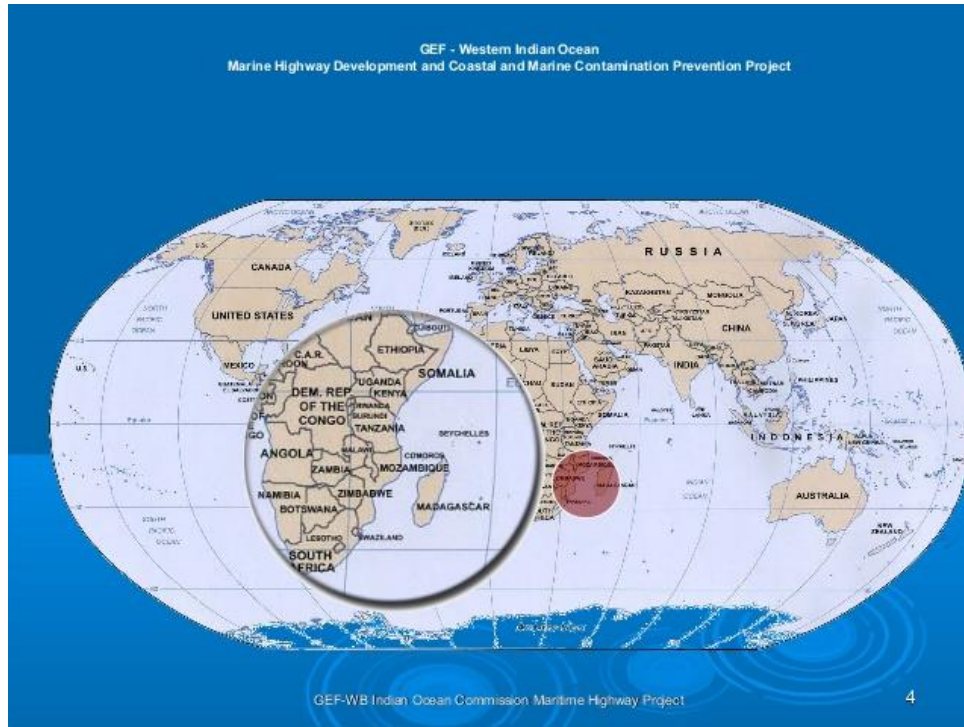
tropical and subtropical regions of diverse nature, rich stretches of coast along the mainland countries of Somalia, Kenya, Tanzania, Mozambique and South Africa, and vast oceanic areas with the island states of Madagascar, Seychelles, Comoros, Mauritius and French Territories. The WIO region presents such uniqueness of features that render it a structural and functional unity within the world global ocean (Obura and others, 2012). The main portion of WIO region is also referred to as the Eastern African Marine Ecoregion (WWF 2001)

Geomorphological and oceanographic features define the character of the WIO (see detailed description in Chapter 1). The bathymetric structure influences water flows (Parson and Evans 2005), modulating the ecosystems' large-scale mosaics and associated biodiversity (Obura and others, 2012). The main oceanographic features are the monsoonal regime in the northern WIO and the equatorial current that diverges close to the mainland and produces the southern moving complex eddy system of Mozambique Channel, the south-flowing East Madagascar Current, meeting the mainland south of Mozambique and merging with the Agulhas Current that transports heat to the south before retroreflection eastwards at the southern end of the African continent.^{xxx}

8. Western Indian Ocean (WIO) region is viewed as an independent region by the World Bank

The World Bank also considers the Western Indian Ocean region and uses this name to refer its investment project in that region. One of its very big project in that region is named as Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project.^{xxxi}

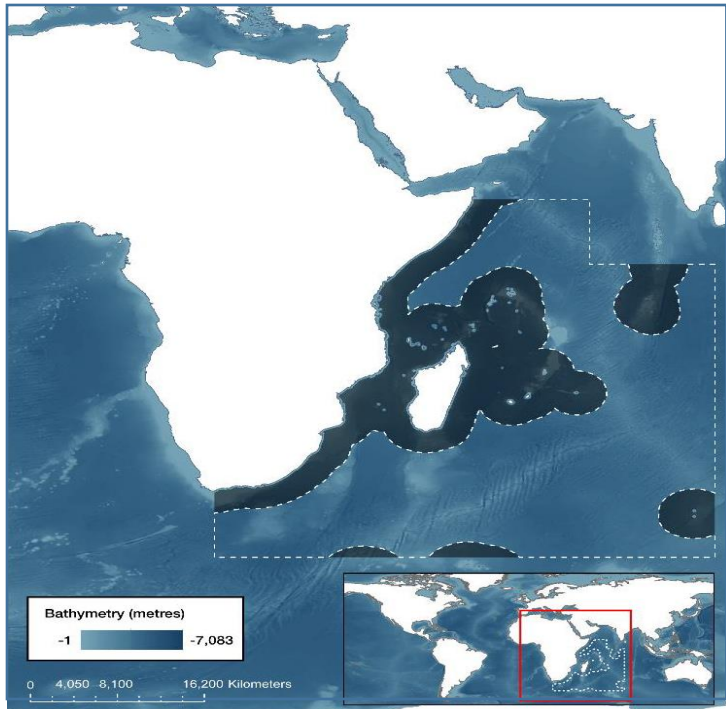
Another project was also focused on the same area undertaken by an INGO called Global Environmental Facility (GEF), the project was called Addressing Land-based Activities in the Western Indian Ocean (WIO-LaB). This project has a primary focus on the degradation of the marine and coastal environment due to land-based activities. Three objectives have been identified: Reduce stress to the ecosystem by improving water and sediment quality; Strengthen regional legal basis for preventing land-based sources of pollution; and Develop regional capacity and strengthen institutions for sustainable, less polluting development. The implementing agency of this project was UNEP and was funded by GEF Fund Trust. Its executing agencies were United Nation Office for Project Service (UNOPS) and Nairobi Convention Secretariat.^{xxxii}



9. International Bathymetric Chart of the Western Indian Ocean (IBCWIO)

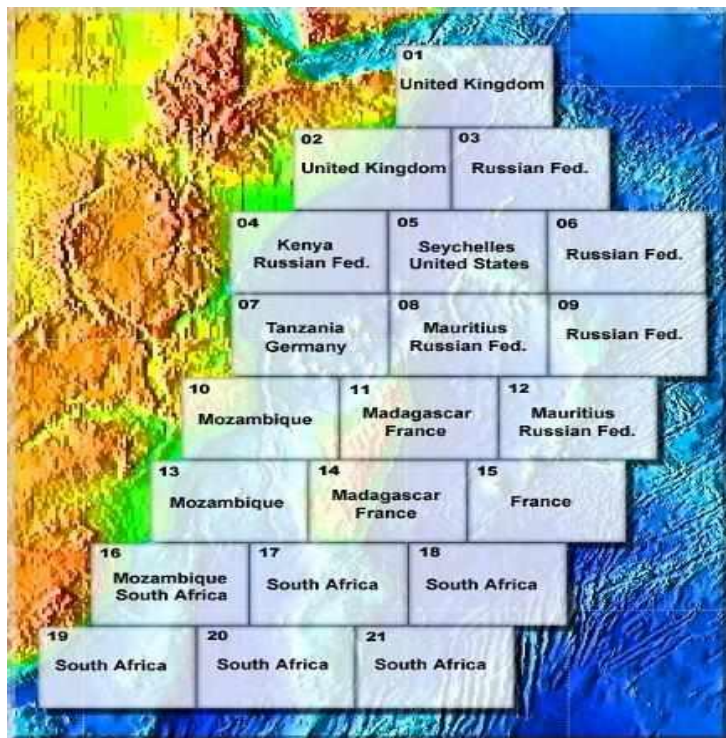
Bathymetric mapping is the ocean-floor equivalent of topographic mapping on land. Like topography, bathymetry provides base maps (or base layers for geographic information systems), for a wide variety of purposes including scientific studies, exploration for natural resources, and environmental decision making. The final products are expected to be GIS-compatible raster and vector datasets, and image files, on CD-ROM (or available for on-line access); and printed maps.

The International Bathymetric Chart of the Western Indian Ocean (IBCWIO) is a regional ocean mapping project sponsored by the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the German government. The first mission undertaken by this project is to create new bathymetric mapping for the areas shown on the previous web page. At some time in the future, it may be decided that the project will undertake mapping of other measurements such as sediment thickness, potential fields (gravimetry, magnetometry), and geological structure.^{xxxiii}



The Seventeenth Session of the GEBCO Guiding Committee delineate in its report the Western Indian Ocean as:

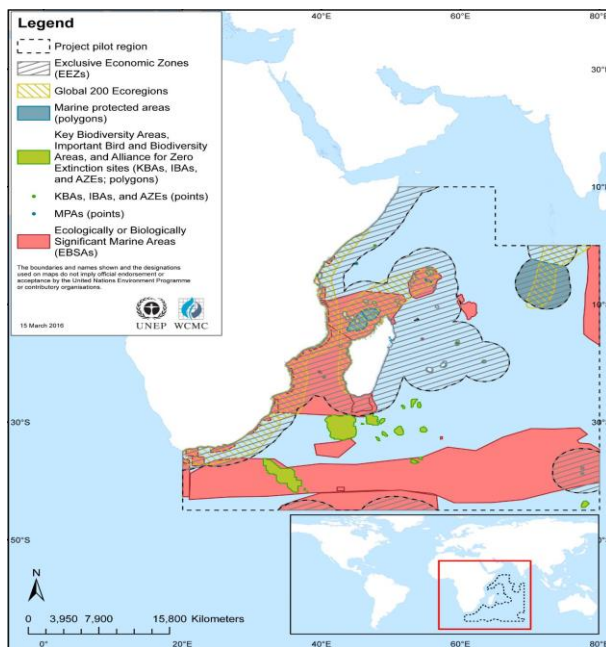
“ Western Indian Ocean physiography : (grid and track plot –each two sheets)@ 1:5,000,000, 36 degree S- 27 degree, N 20 degree -70 degree E , - Fisher and Goodwillie.” . ”



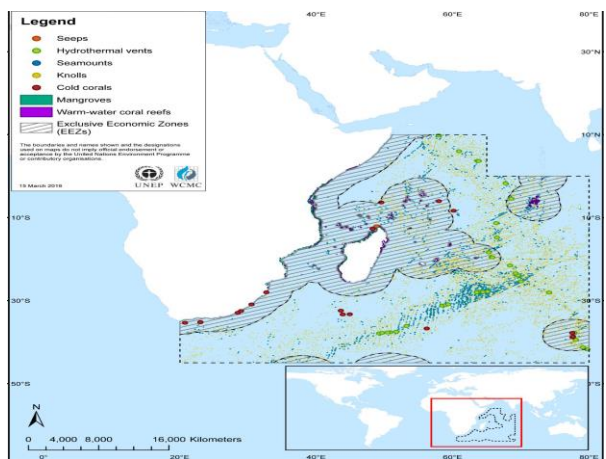
The map is showing that International Bathymetric Chart of the Western Indian Ocean (IBCWIO). Maintained by the national Centers for Environmental Information (NCEI) and the collated World Data Service for Geophysics.

10. Unique ecology and biodiversity of Western Indian Ocean Regions

Thirty-five Ecologically or Biologically Significant Marine Areas (EBSAs) have been identified in the region of Western Indian Ocean, including the Agulhas Front, the Mozambique Channel, the Walters Shoal, and the Mahe, Alphonse and Amirantes Plateau (Secretariat of the Convention on Biological Diversity, 2015). Three major tectonic plates merge within ABNJ in the Western Indian Ocean, forming seamount ridges and hydrothermal vents that support the biodiversity found in these regions. Four ecoregions (The Nature Conservancy, 2012) have been described within the territorial waters of East African countries, off the west coast of Madagascar, at the Maldives Chagas-Lakshadweep Atolls, and along the Agulhas Current, while over 180 marine protected areas are located within this region.^{xxxiv}



The map is showing examples of sites in the Western Indian Ocean pilot region, including Ecologically or Biologically Significant Marine Areas (EBSAs; Secretariat of the Convention on Biological Diversity, 2015), Key Biodiversity Areas, Important Bird and Biodiversity Areas, and Alliance for Zero Extinction sites (KBAs, IBAs, and AZEs; Bird Life International, 2016), Global 200 Ecoregions (Olson DM and Dinerstein E, 2002), and marine protected areas (MPAs: IUCN and UNEP-WCMC, 2016).



Examples of biogeographic classifications (hydrothermal vents, Beaulieu et al., 2013; cold seeps, Baker et al., 2010; seamounts and knolls, Yesson et al., 2011) and biogenic habitats (cold corals, Freiwald et al., 2005; warm-water coral reefs, UNEP-WCMC et al., 2010; mangroves, Giri et al., 2011) in the Western Indian Ocean pilot region.

The preceding discussion over the legal and scientific aspects points out that the Western Indian Ocean or WIO is a separate water body accepted by many governmental and international organizations.

Organizations that recognize WIO as an independent Water body	
1	Nairobi Convention
2	Group of Experts on Marine Protected Areas (GEMPA-Nairobi convention)
3	Legal and Technical Working Group in the Western Indian Ocean-Nairobi Convention
4	Forum of Academic and Research Institutions in the Western Indian Ocean (FARI) -Nairobi Convention
5	Coral Reef Task Force (CRTF)-Nairobi Convention
6	WIO Mangrove Network (WMN)-Nairobi Convention
7	Western Indian Ocean Marine Science Association(WIOMSA)
8	Consortium for the Conservation of Coastal & Marine Ecosystems or Western Indian Ocean Consortium(WIOC)
9	Western Indian Ocean Coastal Challenge (WIOCC)
10	Convention on the Western Indian Ocean Tuna Organisation (WIOTO)
11	International Maritime Organisation (IMO) via Djibouti Code of Conduct
12	Food and Agriculture Organisation-FAO
13	World Wildlife Fund (WWF)
14	United Nation Environmental Program(UNEP)
15	World Bank
16	Intergovernmental Oceanographic Commission-UNESCO
17	United States Africa Command (Africom)

Conclusion

This case study was undertaken with the aim to examine the issue of renaming the Western Indian Ocean. For this reason a historic, legal and scientific examination was carried out. The first part of this case study looked at the historic perspective of the Western Indian Ocean which was known in previous times by many names such as the Mare Rubium, Erythrean Sea, Eastern Ocean, Oriental Ocean and so on.

A modern analysis of legal and scientific aspects has also pointed to the fact that many organizations view the Western Indian Ocean as a separate body from the rest of the Indian Ocean. Similarly scientific organizations have found conclusive scientific proof which substantially proves that the Western Indian Ocean does not share any characteristics with the Indian Ocean hence the Western Indian Ocean has a separate & distinct nature.

This case study is a summarized version of the reasons which highlight the Western Indian Ocean as a distinct entity which shares the longest coastline with the African continent. For all the legal, scientific, historic reasons stated herein this study provide the basis that now is the right time to give this Ocean region its true representative name which is **African Ocean**. The name **African Ocean** highlights its significant linkage with the African continent that has been underplayed for millennia by the European colonial and imperial powers.

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Under the leadership of Janssonius the Hondius Atlas was steadily enlarged. Renamed Atlas Novus, it had three volumes in 1638, one fully dedicated to Italy. In 1646, a fourth volume came out with "English County Maps", a year after a similar issue by Joan Blaeu. Janssonius' maps are similar to those of Blaeu, and he is often accused of copying from his rival, but many of his maps predate those of Blaeu and/or covered different regions. By 1660, at which point the atlas bore the appropriate name "Atlas Major", there were 11 volumes, containing the work of about a hundred credited authors and engravers. It included a description of "most of the cities of the world" (Townatlas), of the waterworld (Atlas Maritimus in 33 maps), and of the Ancient World (60 maps). The eleventh volume was the Atlas of the Heavens by Andreas Cellarius. Editions were printed in Dutch, Latin, French, and a few times in German. See "Jan Janssonius", *Wikipedia*, accessed February 02, 2019
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