

AN OCEAN LIKE NO OTHER

5.2 VALUING THE INVALUABLE: THE ECONOMIC VALUE OF THE WIO VIDEO DURATION- 07:04

In this lecture we will look at how the economic value of the Western Indian Ocean can be estimated; we will discuss the key components of the services provided by the ocean and the key challenges of its future sustainable development.

The Western Indian Ocean is a socio-political and climatic region, which spans across a large latitudinal range, from Somalia in the north to the tip of South Africa in the south. It includes ten countries: five of them are mainland East African states: Somalia, Kenya, Tanzania, Mozambique, and South Africa. Five are island states: Seychelles, Comoros, Mauritius, Madagascar and the French territories.

The total population of the Western Indian Ocean region is estimated to be 220 million, with over a quarter living within 100 km off the coastline. Cultures based on fishing, maritime trade and the use of marine resources go back many hundreds of years. And yet, compared to the most regions of the World Ocean, the western Indian ocean is one of the least impacted by the human activities.

Countries in the western Indian ocean are characterised by high population growth rate, with the highest rates of increase concentrated along the coastlines. Artisanal small-scale fisheries are the main source of livelihoods for many coastal communities. However, the value of the ocean goes far beyond the artisanal fisheries. To begin to understand its true importance, we need to move into an economic analysis of how the ocean supports economic activities and the benefits for people and industry.

No approach can fully account for the value of the ecosystem services that makes life on the planet possible and contributes to cultural and aesthetic values of our lives. The first steps in evaluating the role of the ocean in economic terms are have to be made.

To begin to understand the economic potential of the Western Indian Ocean, we need to look at the concept of the Gross Marine Product which describes the annual economic output of all sectors related to the sea. The Gross Marine Product allows us to compare ocean output to the national economies, in particular to GDP, which measures the total monetary value of goods and services produced by a country in a year.

A recent economic analysis led by the WWF estimated the Western Indian Ocean Gross Marine Product at 20.8 billion US dollars annually. It is calculated in way similar to a calculation of the GDP of a country.

If compared to the WIO countries GDP, the Western Indian Ocean emerges as the fourth largest economy in the region.

So what are the key components of the Ocean Gross Marine Product? It includes three main categories. The largest one is the “adjacent benefits” of the coastal zone. It includes coastal tourism, carbon sequestration and coastal protection. The second category is the “direct services” enabled by the ocean, such as marine tourism. The third category includes direct output of the ocean, such as fisheries and aquaculture.

Coastal tourism alone generates nearly half of the gross marine product. It is highly dependent on the healthy coastal and marine ecosystems as well as state of the coastline and beaches. It supports a wide variety of jobs from five-star resorts to low price destinations, and businesses like shops, restaurants and transport.

Carbon sequestration is estimated to be 14% of the gross marine product. Its value only recently has been acknowledged and there is a growing interest to this aspect of ocean benefits. Intact coastal habitats such as coastal wetlands, mangroves and seagrass beds have soils that range in depth from less than one meter to over ten meters, storing hundreds to thousands of metric tons of carbon per hectare. At this stage, carbon sequestration is hardly recognised by the national policies and its economic value is only beginning to emerge.

Coastal protection is another emerging adjacent benefit of the ocean. Climate change is bringing with it rising sea levels and changing storm patterns. Coral reefs, mangroves and salt marshes can help reduce risks of flood hazards to low lying coastal areas. As the coastal development progresses in the Western Indian Ocean, the value of coastal property and infrastructure will grow rapidly, and the economic value of the coastal protection will climb with it. However, it can only be sustained if the critical habitats such as reefs and mangroves remain intact.

Now we need to consider the fisheries, which are in the category of the direct output of the ocean. They generate 9% of the gross marine product. Of this total value, 87% are the large-scale and industrial fisheries. Artisanal fisheries constitute only 13% of the direct output of the ocean or just 1% of the gross marine product of the Western Indian Ocean.

However, this number does not give the full story. This sector is estimated to support over a quarter of a million fishermen in the region. Considering that dependency ration in the region is 7 to 1, more than 1.5 million of people are directly dependent on the artisanal fisheries for their livelihood. The high social and non-monetary value of this fishery is not captured in this analysis – these fisheries are poorly documented and under reported, often not captured in national statistics and accounts, however they are likely to make a majority of the fish catch by volume. Later in this MOOC we will look at the contribution of the small pelagic fisheries to the national food security of Tanzania.

The importance of the healthy marine environment to the people of the Western Indian Ocean region cannot be overestimated. Due to the relatively low current level of the industrialisation and economic development, the coastal and marine ecosystems remain relative intact, although growing signs of distress are emerging in many parts of the region. However, these conditions are rapidly changing. The countries of the Western Indian Ocean, similarly to the entire continent of Africa, are expected to enter into a period of rapid economic growth; with growing population, investment into the region, access to the new energy sources and recent exploration of oil and gas. Managing the local and global demands on the limited ocean resources will be essential to the political and economic stability of the region which is also beginning to see the alarming signs of the climate change.

In this lecture we have discussed the ways to evaluate the economic potential of the Western Indian Ocean; we have learned about the key components of its gross marine product and the challenges facing the region.