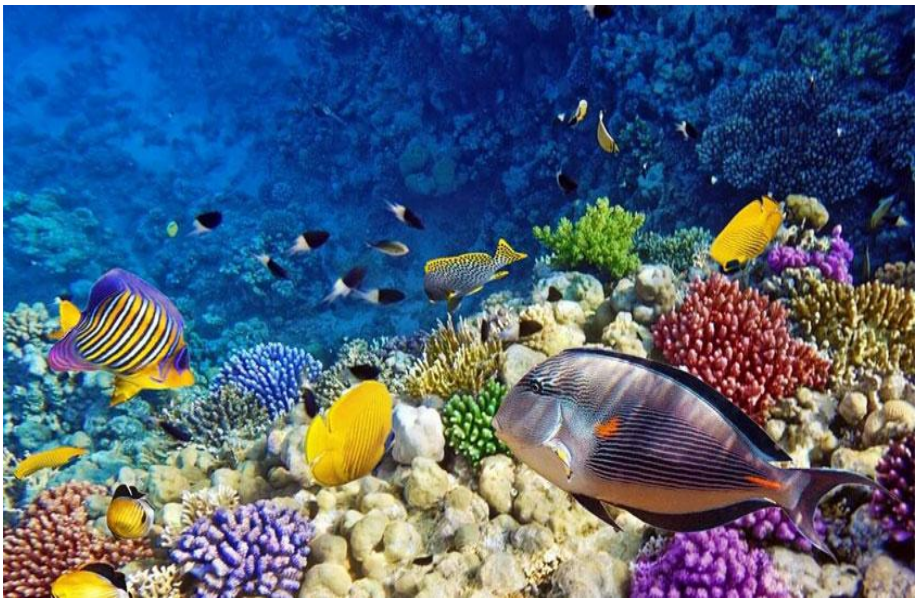
Eritrea's Maritime Resource:

Worth Exploring, Worth Investing



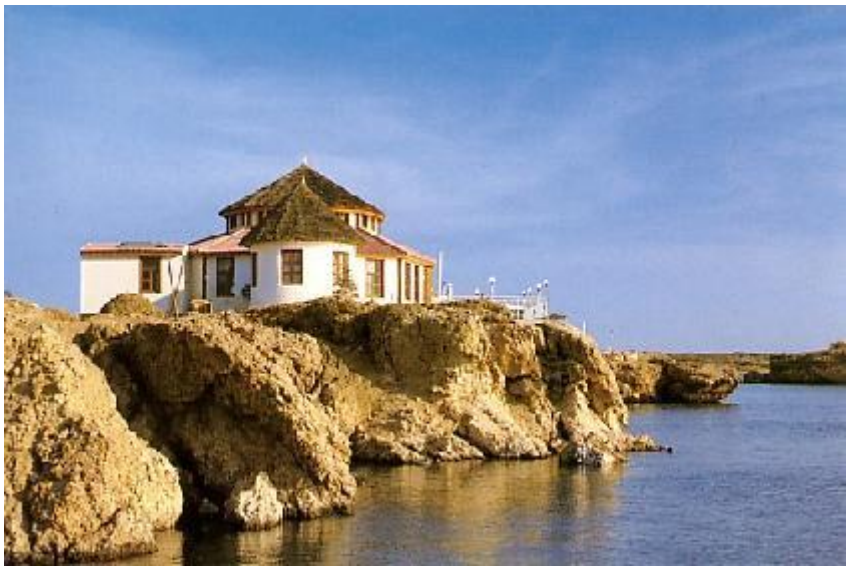
By: Semir Seid

Eritrea has a coastline of more than 1,350 km along the south-western coast of the Red Sea, rich in diverse marine resources and habitat. The territorial waters cover an area of about 55,000 km2. The region and particularly the coastal line and the offshore islands embrace an average of 31oC while in the Danakil Depression (100 meters below sea level) the temperature is 38o-50oC. The harsh climate never prevents people from living in and gaining from the diverse resources the sea offers. The Red Sea region is home to 360 islands, with Dahlak Kebir being the largest in geographic and economic terms. The sea and the long coastline demonstrate a great potential for the growth of the tourist industry. The coastline boasts some of the finest, longest and purest beaches in the world. The Buri Peninsula has rich history stretching back to pre-Christian times when Adulis was the main trading port in the region and it was the spot where British General Napier launched the 19th century expedition against Ethiopia's emperor Tewedros. The landscapes, birdlife and fauna such

as gazelle, ostrich and the rare wild ass are the glamour of the region. The marine life in and around the islands in the Red Sea has prospered and flourished in the post war period with the efforts of the forestry and wild life conservation of the Ministry of Agriculture.

The two Eritrean ports, Massawa and Assab, are located strategically on the sea lane that connects Europe with the Persian Gulf and the countries bordering the Indian and Pacific oceans. These ports provide essential pilotage, tugging, cargo handling and storage services. Maritime and clearing agencies are available at both ports. All of the sub regions in the Northern Red Sea region (NRSR) are connected to the sea except Nakfa, Ghindae and Adobha. The Eritrean marine and coastal environment are characterized by an array of diversified ecosystems: coral reefs, mangroves, sea grass beds, sandy and muddy flats, all important for fisheries and tourism. The intertidal and near-shore zones support a diverse range of marine and terrestrial species and are key areas of ecological and economic importance. A branch of the Ministry of Marine Resources (MMR) is located in the port city of Massawa to conduct marine related activities, encourage tourism and sustain marine biodiversity. The two main divisions of the branch of the ministry are the marine resource development and the research based regulatory services. Massawa salt works and he fishing port administration are also run by the branch. Eritrean Red Sea is full of

diverse resources which are rarely found in other seas. There are 1,250 species of fish and several types of flora and fauna. According to Eritrea Coastal, Marine and Island Biodiversity (ECMIB) project, the fish in the Red Sea are categorized under pelagic, demersal and aquarium fishes. Of these fishes 55% are small pelagic and 5-6% count for large pelagic such as lobsters, oysters, crabs and sharks. Further, 220 types of corals are found all over the coast. The head of the research unit in the branch of MMR, Mr. Tekle Mengistu, said that considering the diversity and quantity of fish in the sea, fishing should not be spontaneous. Fishing activities should be done sustainably so that fish markets are stabilized, he added.



The current potential of fish in the Red Sea is well managed by the ministry. 17% endemic fishes are found only in the Eritrean Red Sea. Besides, the MMR is applying regulations on how to exploit the marine resource, allocate it to people efficiently and ensure its sustainability for the future. It works for the safety of the sea and the resources in it. The ministry develops its manpower with a long and short term fishing courses. The training is conducted to meet highest quality and quantity of sea production as well as improve the welfare of the fishermen. Mr. Zeweldi Haile, head of the branch of Human

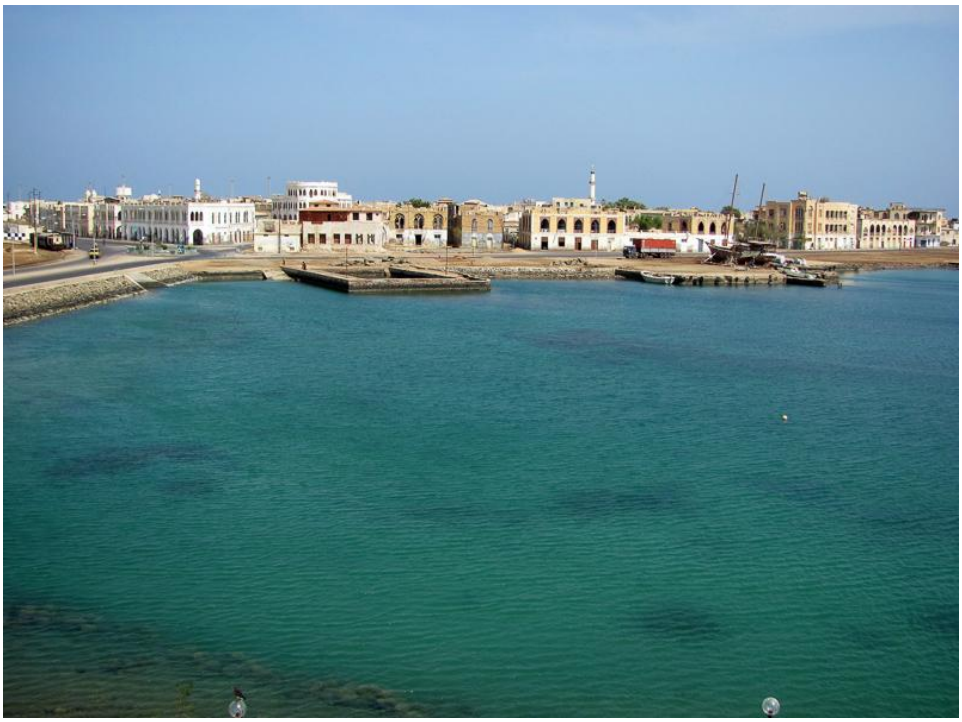
Resource Development, said that the ministry's mandate is to transfer resources to generations, improve lifestyles of fishermen living in the coasts and islands. The Marine College in Massawa outsources instructors to train members of the ministry. Eritrea has a variety of fish resources (a) Soft bottom demersal fish and shrimps such as lizard fishes threadfin breams and catfishes, (b) Hard bottom demersal & reef fishes (used for food and ornaments), snappers, emperors, grunts, job fishes, groupers, etc.,(c) Small pelagic, such as Sardines and Anchovies that are targets for beach-seines and purse seines, and (d) Large pelagic such as sharks which are hunted for their highly valuable fins rather than their flesh and specialized fisheries like cucumber, snail nail and Trochus.

According to the International Law of the Sea, Eritrea's territorial waters extend to 12 nautical miles (about 22 km) from the mean low water line of the coastline, mainland and the islands. The maximum extension of the Exclusive Economic Zone (EEZ) is 200 nautical miles but is reduced to the median line between two countries' territorial waters. The area of the EEZ (including the territorial waters) is estimated to be 120,000 km². Despite Eritrea's extensive coastline

share in the Red Sea, majority of the stakeholder institutions lack the adequate knowledge on the dynamics of the marine ecosystems and the appropriate conservation strategies. Nevertheless, efforts are being made to establish an integrated marine and coastal environment conservation system. The Eritrean coastal area is best known as a highly favorable ecosystem for the development of fisheries. Essential reef areas, extensive surface and numerous shelters of the Dahlak archipelago plateau and aggregates of islands contribute to the prospect of a prosperous fishery.

Coral reefs formation along the islands' coastlines are in good condition whereas reefs along the mainland coastline are less developed mainly due to sedimentation from the river runoff. The continental shelf (down to a depth of about 200m) extends from the coast to a maximum distance of 120 km east of Massawa, narrowing to about 20 km in the north and south of the country. It includes flat coralline islands such as Dahlak Kebir and Nora, some fewer islands of continental origin such as Hawakil and Desse, and the volcanic island of Senaboor. The islands coastline reaches up to 1,950 km and has several biodiversity. The 360 islands with their respective

advantages are hubs for bird and sea turtle breeding. A research found that 181 islands are used by birds for breeding and more than 110 islands are places for sea turtle breeding. Other islands are named after the vegetation around them: sea grass islands, mangrove islands, coral islands, sea weed islands and many more which contribute immensely to the eco-tourism of the country. In islands such as Dese catering service is available for tourists. Most of the Dahlak archipelago islands are results of quaternary sediments and, in particular, uplifts of fossil coral reef formations.



Massawa

However, Dissei Island near the Buri peninsula is an extension of the Precambrian basement of the mainland, mainly composed of granitoids. Towards south there also exist some islands which are of volcanic origin, in particular the islands around Assab. The coastal areas are sparsely populated with approximately 5% of population, the majority residing in the two main coastal cities of Massawa and Assab. Five ethnic groups- Afar, Saho, Tigre, Rashaida, and Tigrigna dominate the rural population. Afar is the largest ethnic group on the coast, and they live mainly in places from Ghel’alo to Rahita and the

Dahlak islands. The Saho are found predominantly in the south-east of the Northern Red Sea Region in villages such as Foro, Erafaile and in the Debub Region. The Tigre are mainly concentrated in Zula, Afta Hirgigo and in the coastal area north of Massawa up to the border with Sudan. The Rashaida are highly mobile and are found scattered in different parts of the coast. To support their livelihood most coastal populations depend on artisanal fishing and livestock production. These communities are usually involved in a variety of fishing practices such as shell fish collection, commercial fishing and the growing sea cucumber collection. Meanwhile, annually around 806.30 ton of fish (67.19 monthly) are collected by fishermen.

Fish is commonly done in high levels of the sea and fishermen are constantly encouraged to return endangered fish species to the sea if they find them accidentally. Approximately around 613 boats are used in marine activities. Fishes such as Spanish mackerel, Grouper, Emperor, Barracuda, and Red Snapper are collected by fishermen. According to Mr. Samson Zekarias, head of zoba branch in the MMR, a boat or vessel is allowed to fish only if it has been issued a license (permit) of fishing in the Eritrean Red Sea, delivered by the licensing

unit of the MMR. The licensing fee depends on the size or on the engine power of the vessel. To prevent illegal fishing the MMR does monitoring, control and surveillance. Illegal fishing is practiced especially by foreign artisanal vessels and trawlers from neighboring countries in areas where the frequency of patrolling is reduced. Unlike those in the north, southern populations are the most actively engaged in fishing. Half of the total fishing communities (about 30,000 people) are estimated to be engaged in fishing and processing dried marine products (snail nail, shark fin, dried mullets, sea cucumbers) for export. For these people fishing is an inherited economic activity that attaches them closely to the sea. Fishermen use traditional boats known as Houri and Canoes or Sambuk (cover 80% of the fleet) and very primitive fishing gear such as hand line and gill nets.