

JODARI

Newsletter



“Blue Economy at the Heart of Tanzania Prosperity”



IT IS TIME FOR BLUE ECONOMY



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Dear readers, we are happy to welcome you to our third edition of the "Jodari Newsletter". To help us improve the coming editions, we will appreciate getting your invaluable comments and suggestion on this edition through info@dsfa.go.tz.

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Director General's Message



Dr. Emmanuel A. Sweke

Acting Director General

First and foremost, I am happy and honored to cordially welcome our respected readers to this third volume of the Jodari Newsletter. As many of you might be aware, the Jodari Newsletter is issued biannually to highlight matters related to the Deep Sea Fishing Authority (DSFA) and deep sea fisheries in the United Republic of Tanzania at large. In the first and second volumes, we highlighted matters related to investment in the Exclusive Economic Zone (EEZ) of Tanzania.

I wish to express my deep condolences on the sad and untimely demise of the national figures, namely Hon. late Ambassador John William Kijazi - former Chief Secretary of the United Republic of Tanzania, Hon. late Seif Sharif Hamad - former First Vice President of Zanzibar and His Excellence late Dr. John Pombe Joseph Magufuli - the fifth President of the United Republic of Tanzania.

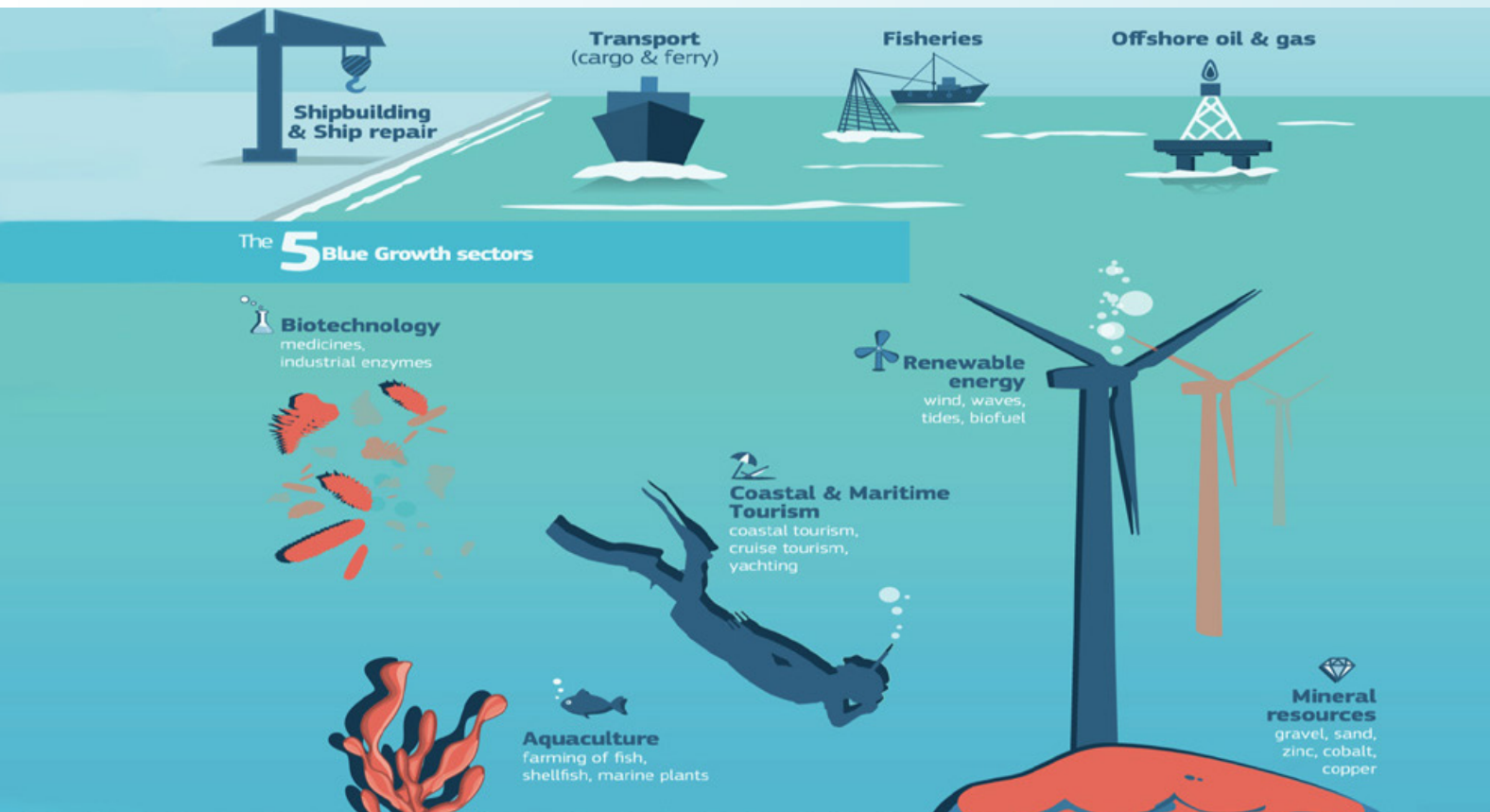
The Excellence late Dr. John Pombe Magufuli will be remembered by DSFA for his leadership as the Minister of Livestock and Fisheries that paved the way to its establishment and headquartering it in Fumba-Zanzibar in 2009, making DSFA an unique Union's institution with a Head Office in Zanzibar. It is said that the establishment of DSFA that happened nine years after the enactment of the Deep Sea Fishing Authority Act No. 1 of 1998 was catalyzed by the arrest of the illegal fishing vessel, TAWARIQ 1, famously

known as "Meli ya Magufuli" was found guilty of fishing without a license in the Tanzanian EEZ. The establishment of DSFA aimed at managing, controlling and monitoring fishing activities within the Tanzanian EEZ, which is an integral part of the blue economy (BE).

The BE concept is becoming more popular around the world and Tanzania inclusive. In the United Republic of Tanzania, BE became more common in the media, especially from the 2020 General Election where the Zanzibar's Presidential Candidate through the Tanzania ruling party, Chama cha Mapinduzi (CCM), His Excellence Dr. Hussein Ali Mwinyi - the current President of Zanzibar and the Chairman of the Revolutionary Council pledged to build a new Zanzibar through a modern BE. This ambition has led to and inspired investments in projects related to the BE in Zanzibar and the United Republic of Tanzania at large.

It is because of an increase in investments and frequent questions related to BE from our esteemed readers, the Jodari Newsletters Editorial Board decided to prepare this volume on the BE titled "Blue Economy at the Heart of Tanzania Prosperity". The articles in this volume provide a general account on the BE-fisheries related information and key achievements made within the first 100 days of Her Excellence Samia Suluhu Hassan, the 6th President of the United Republic of Tanzania. It is my expectation that this volume will enhance the understanding of our leaders and encourage more investments in BE-related projects in Tanzania.

IS BLUE ECONOMY FISHERIES DEVELOPMENT?



A sketch diagram showing the levels and sectors involved in the blue economy

By Dr. Emmanuel A. Sweke

The answer is true but false! “Blue Economy” or “Oceans Economy” is a recent concept that emerged from the United Nations Conference on Sustainable Development that took place in Rio de Janeiro, Brazil in 2012. However, the concept can be traced back from the international framework driven by the United Nations Convention of Law of the Sea of 1982 (UNCLOS 1982) that extended responsibilities and rights to nations to manage and exploit the ocean resources in sustainable manners.

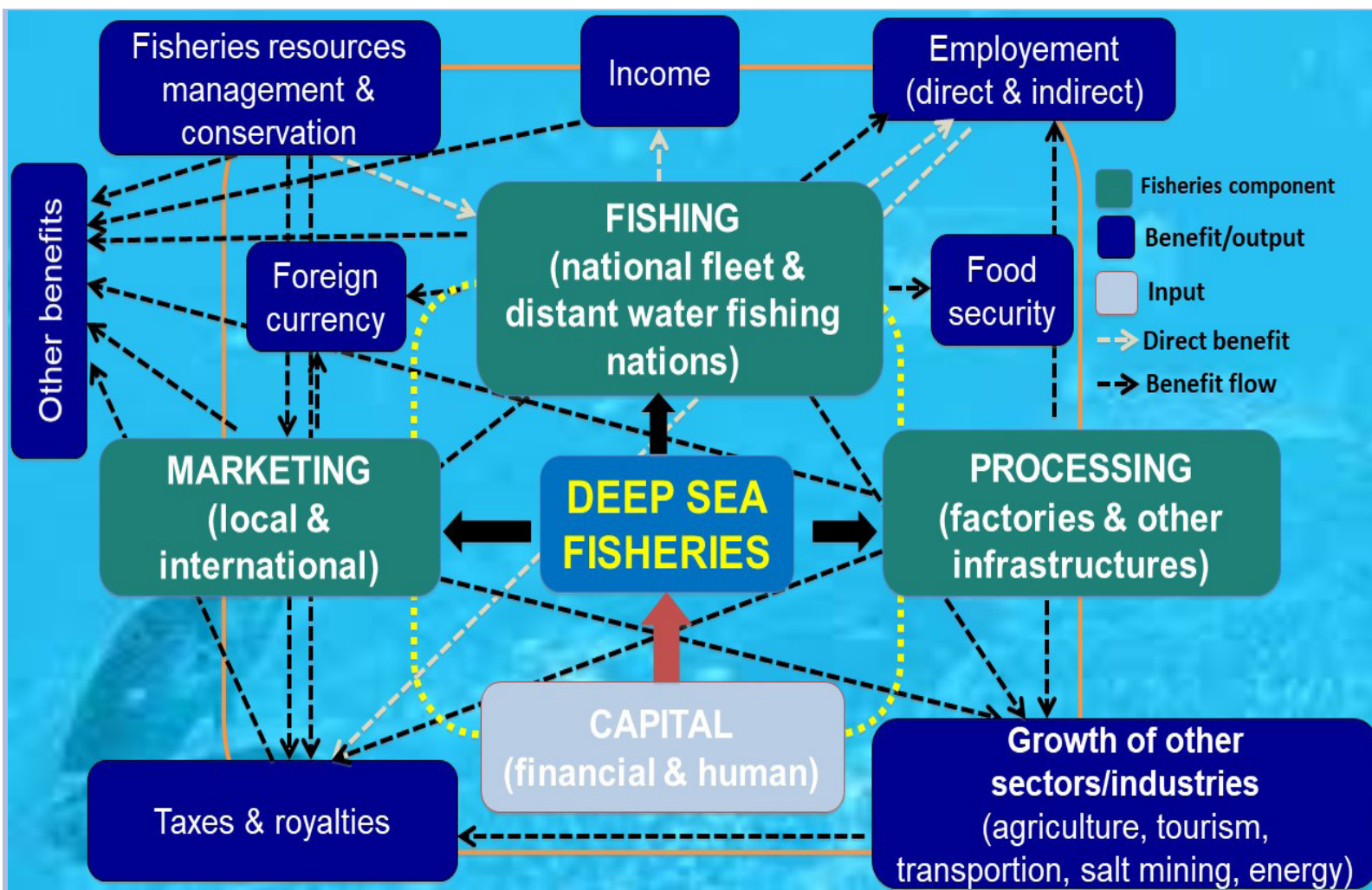
There are plethora definitions of the concept “blue or ocean economy” ranging from societal to global level. Smith-Godfrey from the Council for Scientific and Industrial Research in South Africa, defined blue economy as “sustainable industrialization of the oceans to the benefit of all”.

Oceans means all forms of water bodies including seas, lakes, rivers, reservoirs and many others and the “blue” resources they embrace.

Blue economy can be analyzed into five levels or ocean chains. First, harvesting of living resources that provides food security for humans and animals and established industries such as Aquaculture and fisheries. The emerging industries at this level include pharmaceutical and chemical industries stimulated by growth demand for health care demands, medical and cosmetic industries. Second, extraction of non-living resources including exploration of oil, gas and alluvial mining, and seabed mining and shallow-water mining for minerals and metals. Third, generation of new resources to provide energy namely oil and gas, and water

through desalination. The fourth level is trade in resources: services of transport, trade (shipping, ports and infrastructure), tourism and recreation. The fifth ocean chain is resource health: ocean monitoring, control and surveillance (MCS) and coastal governance and ocean management-carbon sequestration, waste absorption and pollution. Therefore, fisheries constitute a small part of the blue economy, thus the Blue Economy is not only related to fisheries but also other aspects.

Oceans are significantly gaining importance in linking sellers and buyers and providing people with food, oxygen and livelihoods. It is estimated that the global ocean economy values at about USD 1.5 trillion annually, 80% of worldwide trade is carried by sea, 34% of crude oil production will be extracted



A sketch diagram showing the pillars of fisheries and the multiplier benefits that can be accrued from deep sea fisheries (drawn by Emmanuel Sweke)

from offshore fields by 2025, 350 million jobs worldwide are linked to fisheries and 50% of fish for human consumption comes from aquaculture, the fastest growing food sector in the world.

Best practices from country that have benefited from Blue Economy in the West Indian Ocean region, for instance Seychelles, Madagascar and South Africa, emphasize a holistic approach. Taking deep sea fisheries as an example, establishing national fishing fleet, training of crews, processing industries and other key infrastructures such as designated fisheries port and cold storage facilities will be an engine for accruing the multiplier effects such as food and nutritional security, employment, processing and export of fish products, increased foreign

currency and trigger development of other related business.

Both the Government of the United Republic of Tanzania and the Revolutionary Government of Zanzibar envisages the concept of blue economy. The latter, in 2020 launched a “Zanzibar Blue Economy Policy” as a framework to guide execution of initiatives on blue economy for the coming decade with priority areas being fisheries and aquaculture, maritime trade and infrastructure, energy, tourism and marine and maritime governance. The eighth regime of the Revolutionary Government of Zanzibar under the leadership of His Excellence Dr. Hussein Ali Mwinyi established a new full fledged Ministry of Blue Economy and Fisheries and a Blue Economy

Coordination Department. On the other hand, the United Republic of Tanzania is in a process to prepare a Blue Economy Strategic Plan to spearhead planning and implementation of projects in the Blue Economy. Within six months since the installation of the sixth and eighth terms of the United Republic of Tanzania and Revolutionary Government of Zanzibar, respectively, more companies are flowing to invest in the blue economy.

Futhermore, the two Governments are in process to finalize feasibility studies to construct designated fish harbour in Mpigaduri (Zanzibar) and Bagamoyo (Pwani) that will stimulate deep sea fishing.

INVESTMENT OPPORTUNITIES IN TANZANIA DEEP SEA FISHERIES



The President of Zanzibar and Chairman of the Revolutionary Council, His Excellence Dr. Hussein Ali Mwinyi delivering a speech during the signing ceremony of feasibility study for a memorandum of understanding to conduct a fishing port at Mpigaduri, Zanzibar (Photo by the State House - Zanzibar)

By Peter Shunula Peter

Marine capture fisheries provide significant benefits at a global and local level. It contributes more than USD 270 billion to global GDP, provides nearly three billion people with at least 20 percent of their total animal protein and employs hundreds of millions of people majority of whom are in developing countries, Tanzania inclusive. Although the United Republic of Tanzania is endowed with an Economic Exclusive Zone (EEZ) of about 223, 000 square kilometer, which is about 24 percent of total area of the country with abundantly available fisheries resources, the deep sea fisheries resources that are highly migratory and straddling tuna and tuna like species will be

more substantive if sufficient and appropriate investments occur.

Investments will generate income and increase in the value of the resources. In other words, deep sea fisheries in the concept of Blue Economy will only be appreciated through multiplier effects by investing in its whole value chain of the business: production (fishing operations), processing and marketing. Currently, investment in the fisheries sector in the country has not been fully utilized. Because of that, fish resources harvested in the EEZ of Tanzania are transshipped in the neighboring countries, namely Kenya, Seychelles and Mauritius depriving the country of the multiplier benefits.

A question remains: why should someone invest in deep sea fisheries in Tanzania? Notwithstanding, insufficient facilities, namely fishing harbor, vessels, gears and storage that are investment opportunities, here are a few answers to the question. First, geographically, the EEZ of Tanzania is a pathway of major Indian Ocean currents, namely the North East Madagascar current, the East African Coastal Current and the Mozambique Current, which favor abundance of fish stocks making the area to have many fishing hotspots. Previous fish tagging programs under the Indian Ocean Tuna Commission (IOTC) indicated that the majority

The Second reason to invest in deep sea fisheries in Tanzania is transparency and aspiring national instruments on fisheries and Blue Economy at large. These include attractive policies and legislation such as the Deep Sea Fisheries Management and Development Act of 2020 and its Regulations of 2021 with provisions of investment opportunities and trust for investors; Tanzania Vision 2025 and Zanzibar Vision 2050, Zanzibar Blue Economy Policy (2020) and the ruling political party (CCM) Election Manifesto (2020-2025).

The third reason is social and economic stability. Tanzania is considered as the Geneva of Africa due to its political and social stability. In addition the country is a piracy free with reliable transport and markets as it is connected directly to the Indian Ocean linking its trade to

Asia and sits in between the ocean and six landlocked countries of Uganda, DRC, Rwanda, Burundi, Zambia and Malawi.

Fourth, population growth and domestic product per capita means there are high food and nutritional demands and an increase in purchasing power assuring the market of the fish products produced.

The investment opportunities in deep sea fishing in Tanzania include but not limited to:

- Establishment of necessary fisheries-related infrastructures that will ensure berthing, offloading, transshipment and storage of fish;
- Carrying out fishing activities to harvest the abundantly available fish such as tuna;
- Deployment of supporting vessels to supply water, food, fuel and Fish Aggregating

Devices (FADs);

- Building and running fish processing plants to add value;
- Installing ice making plants and fish storage facilities such as cold rooms;
- Exportation of fish and fish products;
- Provision of services and materials for fish processing plant;
- Building of factories to manufacture and supply fishing gears and vessels;
- Construction of dry docks, vessel servicing and maintenance facilities (workshops) for fishing vessels;
- Conducting of research and establishment of protected marine areas (MPAs) and sport fishing; and
- Fish farming for human consumption and fish baits for deep sea fishing.



Loading of tuna into a refrigerated car

NEW DEEP SEA FISHERIES LEGISLATION TO AMELIORATE INVESTMENT



The Minister for Livestock and Fisheries in Mainland Tanzania, Hon. Mashimba Mashaury Ndaki (MP) (center) and Minister for Blue Economy and Fisheries in Zanzibar, Hon. Abdulla Hussein Kombo (left) showing a copy of the Deep Sea Fisheries Management and Development Regulations of 2021 after signing it at the DSFA Headquarters in Fumba, Zanzibar on 9th April 2021 (Photo by Khalid A. Mohamed).

By Dr. Emmanuel A. Sweke

The Deep Sea Fisheries Management and Development Regulations of 2021 came into effect after being gazetted in the Government Notice No. 334 on 18th Juni, 2021. The Regulations will implement the Deep Sea Fisheries Management and Development Act, Cap 388 of 2020 that came into effect on 12th October 2020. The new Regulations and Act thereof aim at boosting investments within the EEZ, well known as deep sea fishing of the United Republic of Tanzania whose resources have not contributed fully in the national Gross Domestic Product (GDP) and other socioeconomic benefits.

Currently, the contributions of the fisheries sector in the GDP are estimated at 1.7% in Mainland Tanzania and 5.7% in Zanzibar, respectively. These figures have remained marginal due to poor investment, especially by the local private sector depriving the country of the multiplier benefits such as employment, taxes and royalties, food and nutrition security, development of other sectors including agriculture, industries, salt mining, tourism a few to mention. In other words, these benefits may have been enjoyed by Distant Water Fishing Nations (DWFNs).

What are the expected contributions of the new

Regulations and Acts in the Blue Economy context? During the signing of the Regulations at the Deep Sea Fishing Authority (DSFA) headquarters in Fumba, Zanzibar on 9th April 2021, the two Ministers responsible for fisheries in Mainland Tanzania and Zanzibar cited the Regulations as an important document to attract investors, consequently maximize benefits from the endowed marine resources. In a few words, the new Regulations and Act set an enabling investment environment for both local and foreign investors. Within two months after signing and gazetting of the Regulations, DSFA issued 22 fishing licenses, a breaking

record of six licenses in 2020.

The following are a few highlights how the Regulations and Act will enhance development of Blue Economy within the united Republic of Tanzania: First, provisions for incentives to Citizens intending to undertake fishing activities to promote access to fisheries in the EEZ. It is apparent that fishing vessels from DWFNs are advantaged over fishing vessels from coastal states, particularly in the Indian ocean as they receive fuel subsidies, vessel construction and other support that enables them to travel long distances to fish. Therefore, incentives will boost the participation of locals in the industry, particularly the establishment of a national fleet that will ensure a multiplier effect.

Second, reduction of fishing license charges for Tanzania flagged vessels between 30-84% depending on fishing methods/gears. For instance, a one year long line license for a vessel registered in Tanzania will cost 8,000 USD compared to 50,000 USD for the same license issued to a foreign vessel.

Third, the new legislation recognizes private, joint venture and chartering access agreement systems for the purpose of enhancing cooperation or coordination of fisheries in the country.

Fourth, the legislation provides for resource health through enhanced monitoring, control and surveillance (MSC) activities. The provision of establishment of Vessel Monitoring Operation

Center will ensure that the fish stocks including the protected, threatened or endangered ones are biologically and environmentally sustainable to enhance sound investments;

Fifth, acknowledging that little is known about fisheries resources and their environment in the Tanzania EEZ, the new Regulations and Act emphasizes on scientific research including for exploration of new resources and the necessity to collaborate with relevant Regional Fisheries Management Organizations (RFMOs). The Regulations have a provision to issue a special purpose license for exploratory fishing, collection of fish specimens for museum and educational purposes.

INVESTING IN DATA AND INFORMATION INFRASTRUCTURE IS A CRITICAL FOOT STEP TOWARDS BLUE ECONOMY

By Ali Ussi Basha

The need to collect data arises when attempts are made to manage the economic and social activities of a society. Fisheries data have many important uses and users including stock assessment by scientists, strategic planning, fishery monitoring and allocation decisions by managers. Nevertheless, collection and analysis of fishery data and information is a costly and timely exercise. Chronic problems of insufficient human and financial resources allocated for data collection often result into insufficient and poor quality

of information that further led to non- or limited use of data for fishery management and conservation and policy development.

This article tells about two successful approaches of collecting fisheries data employed by the DeepSeaFishing Authority (DSFA) in Tanzania. Despite the blue economy being a relatively new concept, DSFA via the South West Indian Ocean Fisheries Governance and Shared Growth (SWIOFish) project demonstrates a leading role in collecting neritic tuna

data through modern science and technology. DSFA employs on-board and landing site data collection on regular basis. The on-board data collection is undertaken through a “Observer program”, which is a scientific data collection and monitoring of fishing activities at sea. Over the last five years, DSFA through the SWIOFish project spent about USD 57,000 annually to deploy on-board scientific observers on commercial fishing vessels to collect information on fishing activities that are not usually reported in logbooks. The data collected is used to determine the



A fisheries officer weighting a fish with a weighing balance donated by DSFA

fish species and age composition, sex ratio and fishing effort a few to mention. Successively, timely collection, reporting and analysis of data on mortality and Catch per Unit Effort (CPUE) - assumed proxy for an index of fish stock abundance has improved the Fisheries Information System (FIS) at DSFA to meet both national and regional information requirements.

In addition, data collection on tuna and tuna-like species at landing sites is undertaken in seven districts along the coast of the United Republic of Tanzania. This article highlights knowledge and experience explored at Mtwara municipality in the South-eastern part of the country. Fisheries data collection in the area with a SWIOFish support employs a modern technology using a mobile application by

trained and competent beach enumerators. The key fishery datasets collected are catch landings, species, fishing effort, first-sale prices (prices at landing), values, and fish sizes (weight and length). The data collected is processed and analyzed using Tableau, FiSAT II and R Statistical software. Conclusively data are linked to an analytic and management evaluation process and improvement of the legislation.

Mtwara confirms that regular tuna data collection under SWIOFish improved the municipal budget planning, revenues forecast and reduced leakage of incomes generated from the fisheries sector. Mr. Tumaini Mosha, the Head of Livestock and Fisheries Department at Mtwara Municipal acclaimed that the application of modern

technology at landing site data collection contributed effective revenue collection from TZS 7 million to 8.5 per annum. Based on substantial revenue collection, the municipality is underway to improve fish market infrastructures with cold room facilities and rescue boats.

To an end, on-board and landing site data collection proves to rejuvenate the sustainable use of oceanic resources as the central element of the blue economy. This article reminds communities, scientists, managers and policy makers on the importance of collecting relevant information, analyzing and dissemination of findings to the general public and decision makers to expedite implementation of the Nation Blue Economy Policy.

Events in pictures

The Permanent Secretary for Fisheries in Mainland Tanzania Dr. Rashid Tamatamah (in front with a tie) and the Representative of the Principle Secretary for Blue Economy and Fisheries Zanzibar Mr. Sheha Hamdan (third from the right) posing for a group photo after a collaborative joint meeting between the two ministries in Dar es Salaam on 28th June, 2021 (photo by Ismael Kimirei)



Visitors crowded at DSFA's booth to learn on matters related to deep sea fisheries during the 45th Dar es Salaam International Trade Fair

A DSFA's staff holding a piece of yellow fin tuna for making "shashimi" and "shushi", Japanese raw fish dish at the DSFA's booth during the 45th Dar es Salaam International Trade Fair (Photo by Hasei Koji).





Former Minister for Foreign Affairs and East Africa Community Cooperation in the United Republic of Tanzania, Prof. Palamagamba Kabudi (MP) (centre with red neck-tie), former Deputy Minister for the Ministry, Hon. Ole Nasha (MP) (third left) and former Permanent Secretary for the Ministry, Ambassador Col. Wilbert A. Ibuge (third right) standing for a group photo with former Deputy Principal Secretary responsible for fisheries in Zanzibar, Dr. Omar Ali Amir and DSFA Directors and staff during their visit to DSFA Headquarters in Fumba, Zanzibar on 21 January 2021 (Photo by Khalid A. Mohamed).

The Acting Director General for DSFA, Dr. Emmanuel Andrew Sweke (blue tie) at "Mzani" live interview with the Tanzania Broadcasting Cooperation (TBC1) in June 2021 (Photo by Mohamed Mwamvura)



The Minister for Livestock and Fisheries in Mainland Tanzania, Hon. Mashimba Mashauri Ndaki (MP) (fifth in the front line) and the Deputy Minister for Livestock and Fisheries, Hon. Abdallah H. Ulega (fourth in the front line) posing for a group photo with Permanent Secretaries and Directors in the Ministry after endorsement of the Ministry's 2021/2022 budget speech in the National Assembly in Dodoma on 28th May, 2021 (photo by Ismael Kimirei)

THE CONTRIBUTION OF MANGROVE ECO-TOURISM IN BLUE ECONOMY DEVELOPMENT



A tourists arriving in Zanzibar during a Christmas season

By Ali Shaban Juma

Zanzibar is well known as “Spice Islands” receives about 83,000 tourists per year who enjoy a variety of attractive areas including culture, food, historical sites and beaches. Recently, tourism significantly contributes to the economy and it is the largest source of foreign exchange in Zanzibar. In 2018, the sector contributed about 28 percent to Zanzibar’s GDP and 82 percent of foreign exchange earnings. About 30,000 people directly or indirectly get their earnings from tourism.

The ocean and coastal habits have the potential to improve tourism in Zanzibar through a number of ways. One of the most important steps to be taken to

improve tourism is to introduce a new type of tourism which is “mangrove eco-tourism”. Mangrove ecosystems, in particular, provide a multitude of goods and services, including provision of food and clean water, enhance climate resilience, soil composition and disaster risk reduction, and recreational and spiritual space.

Mangrove ecosystems have components of natural resources in the form of landscapes, flora, fauna and local communities interacting with each other to become an ecosystem unit that has important ecological, economic and social functions in development in coastal areas. The mangroves ecosystem is the second largest forest in Zanzibar

after the coral rag forest. Pemba island has approximately 12,000 hectares of mangroves with nine species, whereas there are 6,000 hectares with eight species in Unguja island.

Mangrove forest tourism is one type of natural tourism that can greatly fill in the socioeconomic gap of the tourism sector in Zanzibar. In addition, mangrove forest tourism will increase the awareness of conservation of the forests as they have shown to shrink. What is important now is for the Ministry of Blue Economy and Fisheries in collaboration with other relevant authorities including the Tourism Commission and Commission of Environment to draw a Master Plan for mangrove eco-tourism

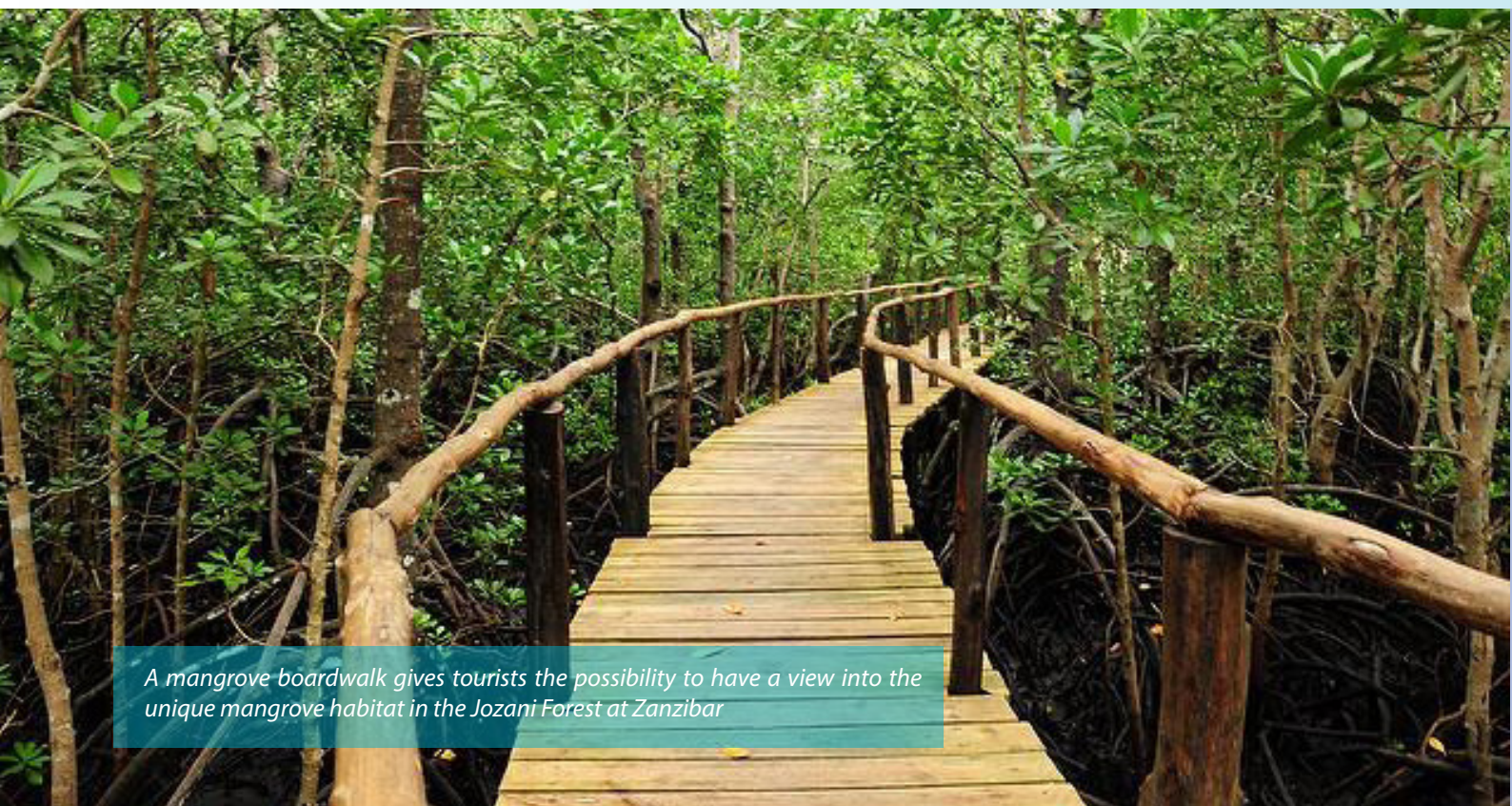


Tourists at the Jozani National Park in Chwaka Bay, Zanzibar.

that will develop a mangrove tourism forest design to include the spatial concept, accessibility concept, recreational infrastructure concept and management concept. The mangrove tourism forest

design will make an area as beautiful as possible at measurable and efficient costs. Mangrove planting arrangements, provision of adequate tourist facilities and setting a mangrove area can be

printed into an attractive forest tourism area like Jozani and Ngezi forests that will improve the economy of local communities and the nation at large.



A mangrove boardwalk gives tourists the possibility to have a view into the unique mangrove habitat in the Jozani Forest at Zanzibar

WHAT IF ALL FISHES IN OUR OCEAN DISAPPEAR ONE DAY? THE ROLE OF RESEARCH IN BLUE ECONOMY



A Fisheries enumerator collecting data at a landing site in Unguja Ukuu Zanzibar

By Yussuf B. Salim

Many people think Blue Economy is just about the production and jobs creation from the ocean, but in reality conserving and protecting the marine environments and resources is part and parcel of Blue Economy.

The Sustainable Development Goal 14 (SDG 14) aims at sustainable utilization of the ocean and marine resources. Sound research initiatives will definitely provide findings to form a baseline for investment and scientific-based management of the resources. In Zanzibar, most of the studies on the blue economy is based on the

conservation and management of marine resources. A knowledge gap exists on other aspects that can be filled by stock assessment and genetic-related studies. The recently established Zanzibar Fisheries and Marine Resources Research Institute (ZAFIRI) has started conducting research on comprehensive marine inventory, biodiversity conservation, endangered species, mariculture development and value addition on marine products in the coming five years.

Priority study areas are required for sustainable development of Blue Economy in Tanzania. These include:-

- Stock assessment to understand the marine resources that can be exploited to guide investments; .
- Protection and restoration of marine habitat such as coral reef, seagrass and mangrove that are shelter and breeding grounds of marine organisms. For instance, Chumbe Island Coral Park, Mafia Island Marine Park and JUUMKISA (Jumuiya ya Upandaji na uhifadhi wa Mikoko Kisakasaka) are biodiversity hotspots that have the potential to improve ecosystem health and increase biodiversity of



A research doing laboratory analysis

marine organisms. Mafia Island Marine Park has more than 380 fish species, coral reefs which are homes of different marine organisms, sea turtles, and marine mammals such as dugong, dolphins and Migratory species of humpback and

sperm whale that can be seen from August to November. This well managed large marine ecosystem will provide ecosystem services, improve biodiversity and lead to increase the number of fish and finally boost Tanzania Blue Economy by increasing

- the income through fishery and marine tourism;
- Climate change. The impacts of climate change can be classified as physical, chemical and biological changes. Physical and chemical changes include sea surface temperature



A seaweed farm at Muungoni Village Zanzibar



Assessment of Water quality parameters in seaweed research

rise, sea level rise, changes in salinity and ocean acidification. Biological changes include changes in primary production, and fish stock distribution. Studies on those are important to understand the impacts of climate change on fisheries, aquaculture and the Blue Economy in general;

- Protection of endangered species. These are organisms that are at a serious risk of extinction. In Zanzibar, for example, they include marine mega fauna such as dolphin and sea turtles where these organisms take a long time to reach sexual maturity as well as a long period of time from one breeding period to another. These organisms play an important role in supporting the marine

tourism industry in Zanzibar by employing hundreds of people around the Kizimkazi village and Mnarani Marine Turtle Conservation area in Nungwi. However, dolphins' behaviour is affected by increased numbers of boats and tourists. Studies on the co-existence of fisheries and tourism are of paramount importance;

- Marine pollution and their effects on marine environment, marine organisms and fisheries at large. In the light of ensuring that marine environments are well protected, it is the responsibility of the community including industrial owners to control pollutants such as marine litter, plastic, harmful untreated chemicals,

discharge of untreated sewage in aquatic systems and improve recycling and reusing methods. Therefore,

If the fishes in our ocean disappear in one day, the integrity of the marine ecosystem will be highly affected and the blue economy will be impaired. Therefore, public and private institutions including research institutions (ZAFIRI and TAFIRI), Departments of Fisheries Development, Deep Sea Fishing Authority, academic institutions, regional and international organizations, and private sectors have to put more collective efforts on research programs.

THE ROLE OF MONITORING CONTROL AND SURVEILLANCE ON FISHERIES RESOURCES IN THE DEEP SEA FISHERIES



A team of Fishery Inspectors arriving for inspection of a purse seine in Dar es Salaam Harbor

By Christian A. Nzowa

It is estimated that Illegal, Unregulated and Unreported Fisheries (IUU) activities count for 15-30% of global annual catches and impede economic of 25.91 million mt to \$23.5 billion/yr and jeopardizes the sustainability of a number of important commercial fisheries in the world, food and nutrition insecurity and jobs a few to mention. Therefore, to ensure sustainability of the fisheries resources in the concept of Blue Economy, enforcement and control cannot be overemphasized. Combating IUU activities involves implementation of a number legal frameworks at international, regional and national levels.

The United Republic of Tanzania is a signatory member of a number of regional and international frameworks. The legal global frameworks include the UNCLOS 1982 under Article 73 FAO Compliance Agreement (1993), FAO UNFish Stock Agreement 1995 and FAO Port State Measures Agreements (2009), FAO Code of Conduct for Responsible Fisheries (1995), FAO NPOA (1999-2001) and many other aims at combating IUU fishing activities. In terms of Regional levels we have Indian Ocean Tuna Commission (IOTC Resolutions), Southern West Indian Ocean Fisheries Commissions (SWIOFC Minimum Terms and Conditions MTC), SADC Monitoring, Control and

Surveillance (MCS) protocol and IORA Protocol for combating IUU. At the National level, the action is controlled by the Fisheries legislation from DSFA, Mainland Tanzania and Zanzibar.

Development Act, Cap 388 of 2020 and Deep Sea Fisheries Management and Development Regulations 2021 are tools for combating IUU within the Exclusive Economic Zone (EEZ) of the United Republic of Tanzania. The legislation has introduced a Fisheries Monitoring Centre (FMC) equipped with a Vessel Monitoring System with competent and qualified personnel. From 2015 to date, a total of 436 hours were spent, 111 vessels were sighted and



The Acting Director General for DSFA Dr. Emmanuel A. Sweke stressing on vessel monitoring system (VMS) to the Minister for Livestock and Fisheries in Mainland Tanzania, Hon. Mashimba M. Ndaki (MP) (center), the Deputy Minister for Livestock and Fisheries, Hon. Abdallah H. Ulega (second on left) and Permanent Secretary for Fisheries, Dr. Rashid Tamatamah at DSFA Headquarters, Fumba-Zanzibar in April 2021.

out of these 8 vessels were compounded. In addition, joint-patrols of 1344 hours involving 28 vessels were conducted from 2016 to date within the EEZ of Tanzania where one vessel, BUAH NAGA 1 was arrested and fined one billion Tanzania Shillings.

Furthermore, inspection activities were conducted under the Port State Measure Agreements (PSMA). A total of the 64 vessels inspected in Tanzania ports, out of which 34 at Zanzibar Port, 18 at Dar es Salaam and 12 vessels were inspected outside of the countries including Port Victoria-Seychelles, Port Louis – Mauritius and Port Mombasa. In addition, the Observer program under the Indian Ocean Tuna Commission (IOTC) Resolution 11/4 by deploying fisheries observers. Thus, a total of 598.3 tonnes of targeted species were recorded by Observers during the period of

11, 212 hours at sea.

Also, the DSFA collaborates with NANY, KMKM, Marine Police and Fisheries Departments Mainland Tanzania and Zanzibar through the institutions are linked with image for sharing of information to curb IUU fishing. In addition, DSFA has trained a total of 310 Authorized officers from NAVY, KMKM, Marine Police, Tanzania Port Authorities (Mainland Tanzania and Zanzibar), Maritime Authorities (Mainland Tanzania and Zanzibar), NMAT, Local Government Authorities (Mainland Tanzania and Zanzibar), Fisheries Department (Mainland and Zanzibar) and DSFA.

The training was trained by experts from South Africa, Botswana Fish I Africa, Nelson Mandela University and CAP Fish, FETA and DMI. The Authorized officers were trained on Fisheries

Observer, Inspectors, Evidence and Exhibit, International Fisheries laws, Law of the Sea, Port State Measure Agreements (PSMA), Fishing gears, STCW mandatory's course and Navigations.

In addition, DSFA has strengthened the Fisheries Monitoring Centre (FCM) by developing standard operation procedures (SOPs) on automatic identification system (AIS) and Vessel Monitoring System (VMS) for smooth implementation of MCS activities from sustainable management of the fisheries resources as an integral part of the blue economy.

ACHIEVEMENTS ON DEEP SEA FISHERIES WITHIN THE FIRST 100 DAYS OF HER EXCELLENCE SAMIA SULUHU HASSAN



Her Excellence. Hon. Samia S. Hassan
The President of the United Republic of Tanzania

By Dr. Emmanuel A. Sweke

It is apparently known that Her Excellence Samia Suluhu Hassan, the sixth and the first female President of the United Republic of Tanzania who assumed office on 19th March 2021, is making headlines globally because of her aspiring leadership. Within her first 100 days in the Office, Her Excellence Mama Samia has passionately attracted and encouraged both local and foreign investments in a number of sectors including fisheries.

The Deep Sea Fishing Authority (DSFA), which is an unique institution of the United Republic of Tanzania to be headquartered in Zanzibar recorded a number of significant achievements within the first 100 days of the regime

of Excellence Samia Suluhu Hassan including but not limited to the following:-

- DSFA finalized the preparation of new Fisheries Management and Development Regulations. The Regulations were signed by the Ministers responsible for Fisheries in Mainland Tanzania and Zanzibar on 9th April, 2021 the event that took place at the DSFA Headquarters in Fumba, Zanzibar. The Regulations came into force after being gazzeted in the Government Notice (GN) No. 437 on 18th June, 2021;
- DSFA collected a total of USD 1,000,000 as economic compensation and fishing license fees for 22 vessels after three solid years (from 2017/2018) boycott of foreign vessels to take licenses that deprived the Governments of revenues;
- DSFA finalized the preparation of a draft of the National Deep Sea Fisheries Policy. The draft was submitted to the Ministry of Livestock and Fisheries to finalize its approval process;
- Through collaboration with other relevant authorities in the country, DSFA strengthened the monitoring, control and surveillance (MCS) program in combating illegal, unreported and regulated (IUU) fishing activities and fishing-related crimes in the Exclusive Economic Zone (EEZ) of the United Republic of Tanzania;
- For the first time, DSFA convened a two days joint meeting that involved institutions responsible for fisheries, investments and revenue collection from the Government of the United Republic of Tanzania and Revolutionary Government of Zanzibar including the Zanzibar Investment Promotion Agency (ZIPPA), Tanzania Investment Centre (TIC), Tanzania Revenue Authority (TRA) and Zanzibar Revenue Board (ZRB) to identify and propose a list of incentives for deep sea fisheries in Tanzania. The proposed list of incentives will be channeled through relevant procedures before being prescribed by the Ministers responsible for fisheries as stipulated in Section 45(2) of the Deep Sea Fisheries and Management Act, Cap 388 of 2020;
- DSFA spent 243,215,301 Tanzania Shillings to fund a number of fisheries research implemented by local and foreign research institutions. The research aims at enhancing understanding of the fisheries stocks, productivity and scientific-based management and development of deep sea fisheries in the country; and
- The Government allocated funds to finalize the ongoing feasibility study and start the construction of designated fishing port in the 2021/2022 financial year. The harbor will facilitate the fishing vessels to berth, offload and transship catches. This in return will stimulate more investments, consequently enhance multiplier benefits from the deep sea fisheries resources.



DEEP SEA FISHING AUTHORITY

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