

Targeting Youth Empowerment and Education Modelling to Strengthen and Harness Blue Economy Potentials in Kenya

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Abstract

The purpose of the study is to determine the extent to which youth empowerment and education promote harnessing potential gains from the blue growth. The study adopts a desktop research and utilizes content analysis technique for data analysis. The study results indicate that youth empowerment and education provide opportunities to develop skills and equip youth to become problem solvers and decision makers. Maritime education for the youth increases the possibilities of more choices towards a maritime career, as well as, creating a maritime consciousness of the industry. Whereas the master plan for the blue economy is at design stage in the hands of presidential taskforce, the study notes that the Government of Kenya has shown commitments to harness youth potential through design of tailor-made curricula in blue economy for youth career pathways right from a certificate, diploma, all the way to graduate and post-graduate research level. The study argues that the master plan policy framework for the blue economy should offer a suite of opportunities targeting the youth for sustainable, clean, equitable blue growth. The study recommends that more innovative blue enterprise initiatives of empowering the youth be increased and strengthened to harness full potentials of marine resources to move forward the blue economy in Kenya.

Keywords: Youth Empowerment; Youth Education; Blue Economy; Marine Resources

Introduction

The Blue Economy has a greater potential to contribute to higher and faster Gross Domestic Product (GDP) growth in the Kenyan economy. But reality shows that attention to harnessing youth potentials in the blue economy has not been sufficiently exploited considering the practical implications of shifting perceptions of youth and the role they can play in the society. This situation denies Kenya and East African economies potential revenues, at a time when many countries in the world are looking for fresh revenue streams for funding their economic growth agenda. The Blue Economy offers a suite of opportunities for the youth for sustainable, clean, and equitable blue growth. Kenya as a country enjoys vast maritime resources which include ocean, lakes and rivers which have potential in fisheries, tourism, maritime transport, and off-shore mining among others. Kenyan Government recognizes these marine ecosystems as its natural capital and protects and maintains them accordingly. According to Omingo (2018) [1] maritime domain contributed \$1.83 billion to the Kenya's GDP in the year 2015.

Kenya has a coastal line of about 640 km, extending from Somalia border in the north to Tanzania in the south. The territorial waters cover 12 nautical miles from the shore, while the exclusive economic zone (EEZ) covers 200 nautical miles. The living marine resources of Kenya have been exploited for many years and have been exploited as food source. However, artisanal marine data available on the catch of marine species reveal year in year out fluctuations. These fluctuations can be attributed to natural causes, notably environmental conditions that influence the abundance and distribution of different fish populations as well as human causes, which are known to exert excessive fishing pressure to fisheries resources. Despite considerable fluctuations in individual fish stocks, total marine catches remain steady at almost same figure for several years.

Youth being part of development agenda represent an unprecedented opportunity in advancing sustained blue economy agenda in Kenya. The Blue Economy framework is intended to move from the current sectoral approach to a multispectral, integrated, and participatory approach

at multiple levels. A large number of governments have understood this imperative and begun designing national youth policies. Youth population represent the most abundant potential asset Kenya has to fast-track and turn around the blue growth economy for sustained development.

According to the UNFPA, there are about 1.8 billion people worldwide aged between 10 and 24. In Africa alone, there are about 200 million youth aged between 15 and 24. The Kenyan constitution of 2010 of defines the youth as being individuals between the ages of 18 and 35 years. However, the United Nations definition of youth is 15-24 years, and the East African Community (EAC) defines youth as those between 15 and 35 years. The proportion of the youth age 18-34 in Kenya, constitutes 25%, and those below 15 years make up 43% of the total population. Youth Empowerment discussed in this paper is the constraints on youths' right for further education and training in the blue economy career pathways. Career and skill development and opportunities for youth employment provides a base for blue economy flagship projects and programs to be implemented and enforced for the youth. The particular need for an all-embracing Maritime Education and Training Policy (METP) is critical for a thriving maritime economy, in an environmentally sustainable manner. Such a policy should be supported by excellence in evidence-based marine scientific research data, technology and innovation.

Kenya's National Youth Policy (KNYP, 2007) demonstrates the

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government's commitment to addressing current and anticipated development challenges faced by the youth as well as harnessing their potential to contribute to national development. According to the policy, the major challenges faced by young people include poverty, health related problems, increased school and college drop-out rates, unemployment and underemployment, abuse and exploitation, crime and deviant behavior. While Kenya is endowed with large water bodies, the communities and youth living in close proximity to such rivers, lakes, and ocean are among the poorest in the region. In order to address these challenges, Kenya as a country requires to explore harnessing youth potentials for the untapped Blue Economy.

Focus of the Study

The field of youth empowerment has a solid foundation of theory, at both process and outcomes levels. The process of empowerment provides opportunities for youth to develop skills and become problem solvers and decision makers. However, efforts to support youths to engage in Kenya's blue economic activities appears dismal despite the fact that blue economy presents enormous opportunities of livelihoods and employment to end poverty (SDG 1). These include economic activities that are ocean-based, and ocean related. Ocean-based activities include those that are undertaken in the ocean (e.g., fisheries and aquaculture, offshore oil and gas, mining, ocean energy, desalination, shipping/marine transportation, marine tourism, marine construction). Ocean related activities use products from the ocean (e.g., seafood processing, marine biotechnology, chemicals, salt, etc.); and produce products and services for the ocean and ocean-based activities (e.g., ship building and repair, ports, tourist resorts, communication, maritime insurance and law, maritime technical services, etc.). The blue economy also includes marine education and research as well as activities of the public sector agencies with direct coastal and ocean responsibilities (e.g., national defense, coast guard, marine environmental protection, etc.).

The ocean generates economic values that are not usually quantified, such as habitat for fish and marine life, carbon sequestration, shoreline protection, waste recycling and storing, and ocean processes that influence climate and biodiversity. New activities are also evolving over the recent years, such as desalination, marine biotechnologies, ocean energy, and seabed mining. There are also innovations in activities that aim to protect ocean health, such as ballast water and invasive species management, waste-to-energy, wastewater treatment systems with low footprint, etc. These activities should be included and measured in the ocean economy accounts. Ecotourism, eco-ports, and eco-ships aim to make these industries more environmentally sound, while ocean energy offers low carbon and renewable energy source.

These innovations and emerging markets offer opportunities for investments and business, further contributing to blue economy development. If Kenya hopes to evolve into an upper middle-income nation by 2030, it is imperative that it taps into the numerous economic opportunities offered by the deep, blue ocean [2]. Youth being part of development agenda represent therefore an unprecedented opportunity in advancing sustained blue economy agenda. It is against this background that the study seeks to determine the extent to which youth empowerment and education advances blue economy growth in Kenya.

The paper is guided by three specific objectives: determine the role of stakeholder's sustainable capacity building programs and projects for youth in the Blue Economy; establish government strategy and policy framework for promoting youth empowerment and education in in advancing blue growth in Kenya; and assess the extent to which

youth engagement and inclusion harness potentials of blue economy in Kenya.

Material and Methods

The study adopts a desktop research review of secondary data and utilizes content analysis technique for data analysis. Desktop research is an appropriate method because it is used to gather facts and current research data available that aid to respond to numerous aspects of a research questions and objectives of the study. The rationale for adopting content analysis technique is because it allows the qualitative and quantitative data collected in previous studies be analysed systematically and reliably so that generalizations can be drawn. For this purpose, a number of UN reports on blue economy were reviewed including UN concept paper on Blue Economy, a blueprint for ocean sustainability Paris, the future of the ocean economy-exploring the prospects for emerging ocean industries to 2030, among others; related studies on policy and strategies by KIPPRA and ICPAK; and presidential Taskforce for Blue Economy among others. The study was also enriched by information on curricula design and development gotten from websites of middle level colleges, institutes and universities intended for youth empowerment to harness potentials of the blue economy. From the literature review, it is evident that information on youth is growing and there is need to focus on opportunities for young men and women in the counties in Kenya to advance the blue economy and for the attainment of Sustainable Development Goals (SDGs) [2].

Theoretical and Conceptual Framework

This section presents the theoretical and conceptualization of variables adopted by the study. The purpose of theoretical and conceptual framework is to make research findings more meaningful, acceptable to the theoretical constructs in the research field and ensures generalizability. Both propositions assist in stimulating research while ensuring the extension of knowledge by providing both direction and impetus to the research inquiry.

According to Imenda (2014), the theoretical and conceptual frameworks give life to a research. It means therefore that the theoretical and conceptual framework explains the path of a research and grounds it firmly in theoretical constructs. The present study adopts a modified youth empowerment and education model for realization and harnessing potentials of the blue economy for sustained growth and inclusivity of the youth. It should be noted that, the conceptual framework provides an interplay of variables and their relationships. Youth empowerment and education is presented as an independent variable; the government strategies and policy framework is the moderating variable; while youth engagement in harnessing potentials of blue economy is the dependent variable. The study is anchored on youth empowerment theory which focuses on processes that enable participation; enhance control through shared decision making; and create opportunities to learn, practice, and increase skills. Youth empowerment theory suggests that engaging youth in pro-social, meaningful, and community-enhancing activities that the youth themselves define and control, helps youth gain vital skills, responsibilities, and confidence necessary to become productive and healthy adults.

There are various types of youth empowerment programs in Kenya. Youth empowerment programs thrive in positive developmental settings. Positive developmental settings promote youth competence, confidence and connections (Figure 1).

Drawing from the conceptualization model, it is demonstrated that the success of harnessing youth potentials in the blue economy

will largely depend on engagement of youth in enterprise activities in particular, in small and micro enterprises and building capacities in highly specialized and professional maritime training programmes. In order to achieve these objectives, there is need for deliberate design of appropriate government policy framework for the blue economy which targets inclusivity of the youth engagement. Further, the government of Kenya requires to earmark middle-level training institutes, colleges and universities for expansion of professional Maritime training programmes as well as establish Centers of Excellence for capacity building. Further, the Government of Kenya may require to benchmark and enter into strategic collaborations with top notch international Maritime Institutes and Universities in different countries to guide Kenyan universities on matters such as joining membership with international professional bodies in the maritime, shipping, logistics and oil and gas sectors to keep abreast with the current trend in the sector globally.

Results, Analysis and Discussion

The blue economy has immense potential for Kenya, especially coming at a time when the country is grappling to answer the overwhelming question of employment and underemployment among the youth that estimated to about forty percent of the total population [3]. There has been significant progress made to improve education access, quality and management of Maritime Education for the youth in Kenya. The purpose of Maritime Education and Training is to supply manpower to the Maritime industry. Maritime education and training provide knowledge and skill about the shipping industry. The concept “maritime” is often used interchangeably with the term “marine”. This can be confusing as it relates to the type of training being referenced to in this research. For the purpose of clarity, it is important that the concept ‘maritime’ is understood. According to Hildebrand and Schröder-Hinrichs (2014) [4] an understanding of maritime in the context of research, aims at finding technology and innovative solutions for better use of the sea and ocean resources related to human activity. Haun (2014) [5] states that maritime education caters for the sea and shore side resources related activities. In this study term maritime is used in view of the human related activities where youth will be engaged in their pathways careers for businesses and enterprise opportunities.

Among these are: vessels operations, training, technological aspects associated with naval architecture, navigation, port facilities as well as sea and ashore resources. In lieu of the definitions above the researcher has coined a definition of maritime education. Maritime education and training is the acquisition of knowledge and skills related to subjects in the maritime field that enhance competence in the maritime context.

The process of empowerment and education provides opportunities for youth to develop skills and become problem solvers and decision makers. Maritime education for the youth increases the possibilities of more choices towards a maritime career, as well as, creating a maritime consciousness of the industry. Maritime Education and Training programmes in Kenya started in the year 2011. This was followed by a successful evaluation and confirmation by the IMO Maritime Safety Committee, of Kenya’s demonstration of giving the STCW Convention 78, as amended full and complete effect to the relevant provisions in 2010.

The basic rationale behind youth empowerment and education policy in the blue economy is the belief that the provision of this education will enable each individual to increase their productive capacity and ultimately contribute to individual, societal, and national growth and development. The absence of particular knowledge content will ultimately lead to a lack of response of the youth in that field. The Maritime industry, is a major global player in the world’s economic and the sociocultural facet of society.

In recognition of the economic potential in maritime sector, the Government of Kenya has shown interest in maritime affairs by embedding “Maritime Navigation” in Schedule 4 of the Constitution of Kenya [6]. This legislation requires the Maritime Administration to provide an enabling environment to develop the maritime sector and maintain Kenya’s status in the IMO “whitelist” through enforcing globally recognised MET standards [7]. This is demonstrated in the KMA flagship project, “Training the Kenyan seafarers for the international job market [8].

Kenya has since gone through radical changes in the maritime sector with the establishment of Kenya Maritime Authority (KMA) as stipulated in the Republic of Kenya (2006) [9]. The administration

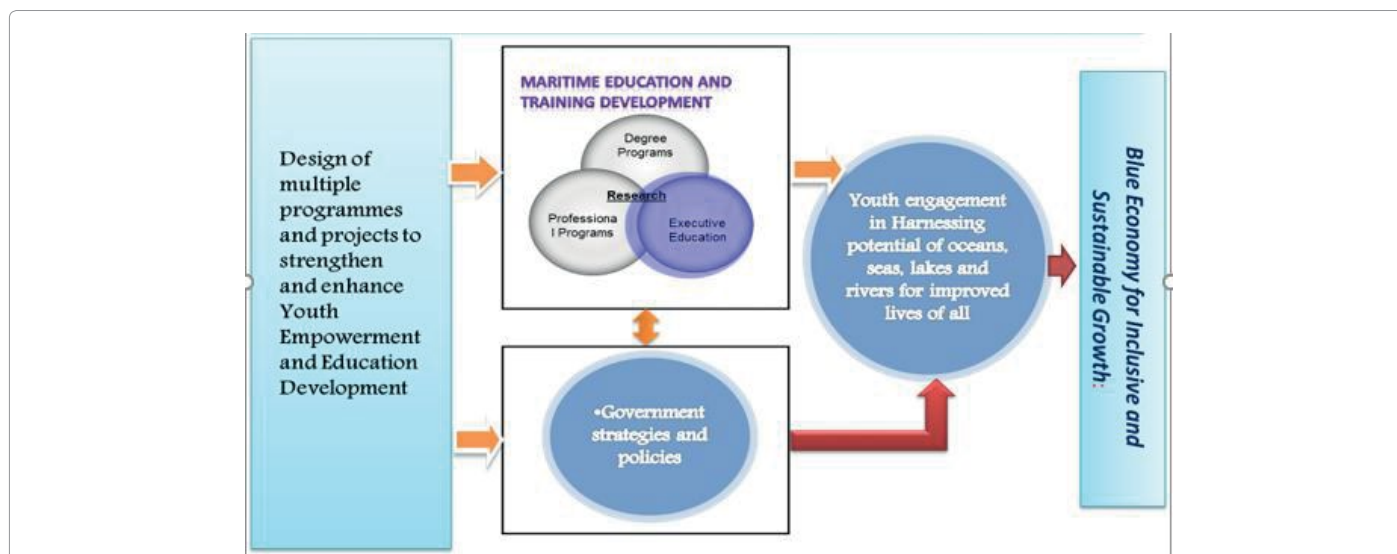


Figure 1: Youth empowerment and education model to strengthen and harness blue economy potentials in Kenya (Source: Dr. Siringi model (2012) on High University Education).

drafted the Merchant Shipping Act which was enacted into Kenyan law in 2009 [10] and drafted curricula for implementation by MET institutions. These developments resulted to the successful evaluation and confirmation by the International Maritime Organization's (IMO) Maritime Safety Committee of Kenya's demonstration of giving the STCW Convention 78, as amended full and complete effect to the relevant provisions, hence entry to the IMO "white list" in 2010 [11].

Following the establishment of the legal framework and the development of MET curricula, four (4) institutions currently offer MET: three offer Marine Engineering and one Diploma in Nautical Science. However, according to Fuazudeen (2011) [12], the institutions lack appropriately qualified instructors and assessors coupled with inadequacy of simulation equipment and infrastructure for practical training, in addition to the absence of a training ship. The STCW 78 Convention, as amended emphasizes on (competence) the demonstration of the ability to perform the functions and tasks on board ship in a safe, efficient and effective manner [13].

Additionally, the Manila amendments necessitates appraisal of national maritime education and training. Nevertheless, it is an opportune time to harmonize national educational practices with international achievements. The process of harmonization of standards is not a mechanical adaptation and hence requires careful assessment and tactical development in line with the accepted international minimum standards, for safe and efficient operation of ships [14].

As a consequence, great efforts are being made to align MET in Kenya to the requirements of STCW Convention 78 as amended. However, having only ratified the STCW Convention in 2010 and effected MET in 2011, it appears to be a demanding task implementing MET concurrently with the Manila amendments which entered into force on 1st January 2012 with full compliance by 1st January 2017 [15]. It does, therefore, seem timely to undertake an analysis of the current MET situation in Kenya, including an assessment of the challenges involved and possibly draw learning experiences from other institutions

in the maritime educational sector. The results of the analysis will be used to draft proposals on how the strategy of implementation of MET can continue in a feasible manner and thus enhance the entrance of Kenyan seafarers in the global labor market (Figure 2).

The MET curriculum in Kenya encompasses artisan courses, craft certificates in marine engineering, diploma in marine engineering and nautical sciences offered at middle level colleges/ institutes. The degree programmes in marine engineering are offered at Universities/ Technologies /academies as well as mandatory and advanced capital STCW courses (Kenya Maritime Authority 2015E.)

Presently, there are seven maritime institutions as illustrated in the above table. Out of these seven, only two appear focused on generating officers for the industry. However, the Drewry Manning Report (2014) observed that ratings are oversupplied although a demand for them still exists die to increasing fleet numbers. The report further noted that almost 40,000 officers will be needed by the end of 2018.

From the above matrix, Kenyan institutions are offering training in only one level of responsibility i.e. management level for degree holders, operational and support level for diploma and certificate holders. For example, Bandari College offers basic safety training referred to as support level. JKUAT and TUM offers training for Marine Engineers in the management level. Mombasa Polytechnic and TTIs offer training for operational level (Table 1).

Strategies and policies for promoting youth empowerment and education

Government strategies and policies for promoting youth empowerment and education in the blue economy will be guided by the blue economy task force set up by President in 2016. The Task-force commits itself to SDG No.14. The following form the key action areas for the blue economy strengthening and enhancement in Kenya. It is expected that the ministry of youth should spearhead the youth agenda under the blue economy; remove main barriers to youth engagement

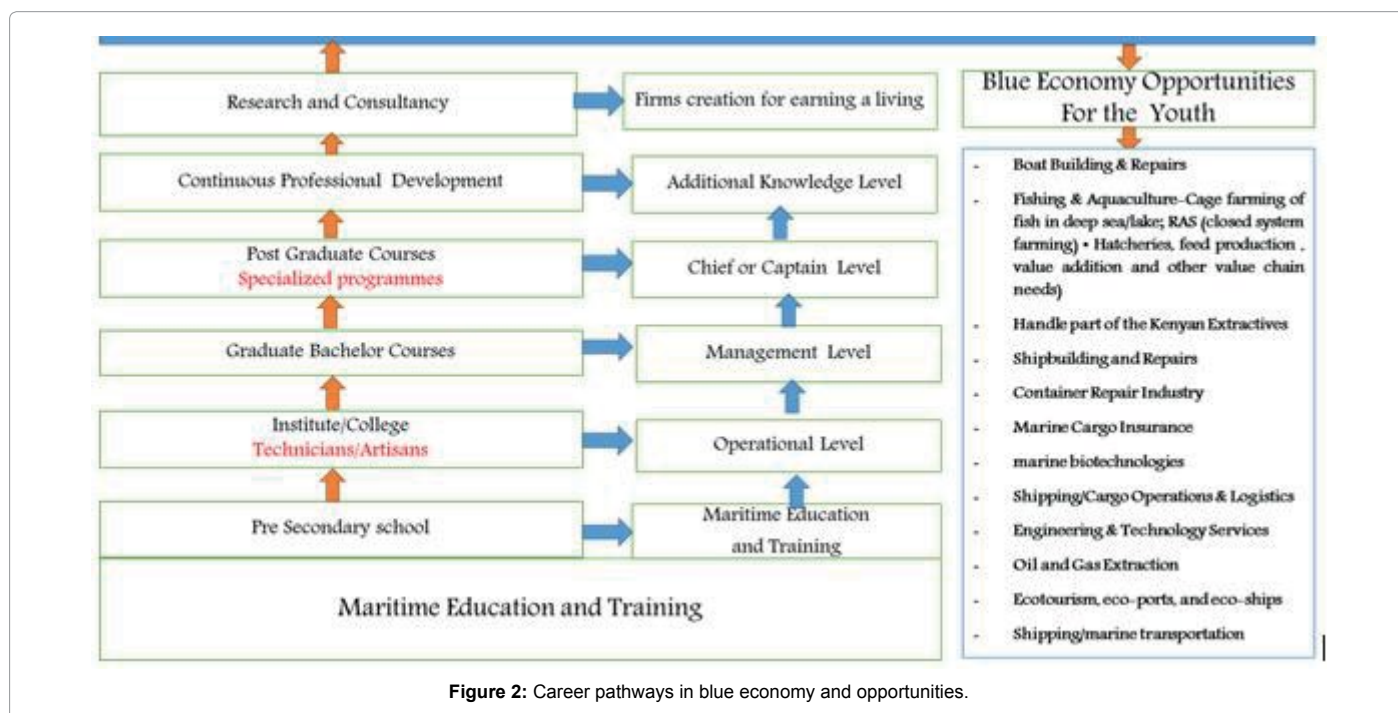


Figure 2: Career pathways in blue economy and opportunities.

in the blue economy namely; skills gap that will be addressed by an education system that will sufficiently provide knowledge and skills for technical positions in the blue economy. Other action areas includes: promoting industries that will inspire youth to be aware of the broad range of career opportunities in coastal and ocean-based industries; preparation of master operational plan that identifies the economic sectors which prioritize programmes and projects to unlock growth of the BE enabling policy and infrastructure; establishment of Fishing ports in Shimoni, Kilifi and Lamu. Further the actions in the master plan will encompass strengthening human resource and capacity building which included-fishing energy, mining, seafaring, logistics, marine science and come up with framework for beach management; organizational structure for the execution of the BE master operational plan and BE budget proposals for inclusion in the 2017/18 FY. Last but not least the task force will prepare a report capturing resourced delivery work plans for each of the identified BE projects.

Key messages on strategies and policies for the blue economy

Kenya is in the process of formulating her integrated ocean management policy including an institutional framework to guide the use and management of ocean space and resources within it. It is apparent that the key opportunities and threats related to the blue economy are not only multidimensional but also closely interlinked, thus the need for coordinated management approach if sustainable use of the associated resources is to be achieved for the present and future generations. This strategy can only be realized through the harmonization of activities and education programmes related to blue economy and having in place an effective legal and institutional mechanism [16].

In dealing with blue economy related programmes, there is need for Governments to continually support and strengthen the existing institutions and initiatives for the effective implementation of marine policies, proper integration of marine issues into national development planning, and ensuring the full participation of youth at all levels of Government and other organizations dealing with ocean planning and management.

Legal Issues

While most of the laws address the need to conserve and develop the resources of the coastal and marine areas, they do not clearly address the management that sustains the resources for posterity. The laws are also silent on other important players like the involvement of the youth in the associated areas. The existing laws were not founded on any clear vision or policy and therefore have been used to enhance narrow

interests rather than national interests. The existing laws lack requisite regulations to enhance effective and coordinated implementation [17].

The laws dealing with blue economy Vis a Vis ocean management do not address new concepts of harnessing blue economy potentials in Kenya. They fail to address linkages and coordination amongst the various stakeholders who are directly or indirectly affected. Proper domestication of international and regional treaties that enhances good approaches in management and governance in relation to youth empowerment to strengthen and harness blue economy is lacking [18].

Socio-economic Issues

There is lack of focus and full understanding on the marine resources and associated youth opportunities and their potential contribution to the blue economy. There is lack of capacity to do research for development especially with regard to well-equipped marine vessels that can carry out critical offshore surveys. It is also seen that there is inadequate capacity and equipment (vessels) to conduct effective surveillance especially beyond the territorial waters to protect and stop any illegal activities that may not only threaten the security of the country, but also exploit the resources within it illegally. Currently, the Kenya Navy does the surveillance but only as a secondary role thus is quite ineffective. It is clearly seen that there is limited funding provided to blue economy issues as there is no proper and comprehensive data from Kenya's Central Bureau of Statistics (CBS) on ocean resource contribution to Gross Domestic Product (GDP) of the country [19].

Policy Framework Objectives

Because of the strategic nature of marine areas in relation to blue economy, the leading values and objectives must be practically ambitious, credible and appealing. They must also be based on universal principles and guidelines such as the ones recognised by international and regional conventions and agreements. In this regard, the policy should, define clear goals and a coordinating mechanism for all issues related to the marine realm that will lead to fair and equitable means for balancing the competing interests in blue economy and youth empowerment to harness the blue economy potentials in Kenya [20].

The policy framework should also seek to inspire sustainable socio-economic development activities through efficient and responsible linkages and ensuring the benefits accruing reach the youth equitably and fairly. This will at the end stimulate a collective sense of responsibility, patriotism and ownership [19].

Institutional Framework

The existing marine governance in the country is rather complex as particular Government ministries and departments and/or agencies

S/No.	Maritime institution	Courses offered	Postgraduate Programmes	Professional programmes
1.	Jomo Kenyatta University of Agriculture and Technology (JKUAT)	• Bachelor of Science in Marine Engineering	None	None
2.	Technical University of Mombasa(TUM)	• Diploma in Marine Engineering and Nautical Studies • Bachelor of Science in Marine Resource Management	None	None
3.	Mt. Kenya University	• Certificate and Diploma in Shipping and Logistics	None	None
4.	Pioneer International University	• Certificate and Diploma in Shipping and Logistics	None	None
5.	Mombasa Technical Training Institute	• Artisans and Craft Certificates in Marine Engineering and Nautical Studies	None	None
6.	Marine Training School Kisumu	• Professional Mandatory Courses	None	None
7.	Bandari College	• Artisan and Craft Certificates in Marine and Nautical Studies, • Diploma in Marine Engineering and Nautical Studies	None	STCW Mandatory and Advance Professional Courses

Table 1: Matrix for Maritime Education and Training Programs in Kenya.

are responsible for particular resource management or uses without proper coordination and inter-linkages with the others. For instance, Kenya Wildlife Services (KWS) has the mandate to manage Kenya's marine parks and reserves while the Fisheries Department oversees the exploitation and management of the fisheries within the marine parks and reserves. In this scenario, it is notable that while the Fisheries Department promotes sustainable use, KWS only allows preservation and this conflict in management approach has resulted in confusion on the ground [21].

This therefore calls for the harmonization of the mandates of the various Government organs in order to create management efficiency and harmony. With regard to implementation of programs, projects and plans, this has been identified to occur on three main governance levels: central administration, provincial/regional, and local. Each authority in these levels has different mandate/roles with respect to the implementation of the programs and related activities. The roles of central the Government ministries and departments are recognized to include inter alia: development of plans and budgets, formulation of policies, development of legislation and its enforcement, collection of revenue, human resource development, research and research coordination and training. All these roles are very relevant to the development and implementation of a national ocean policy [22,23].

Conclusion

In recognition of the immense contribution of the blue economy globally, targeting the youth empowerment in Maritime education and training is critical in building skills of the youth in order to engage meaningfully in the blue growth. As provided in the Kenya's constitution 2010, youth should be engaged in policy and budget reviews which are critical in youth empowerment programmes through public participation. The youth need to be given opportunity by the government of Kenya to hold national and county governments accountable to the youth-centric process and development programmes. One way of achieving this objective is by granting youth opportunities in representations on consultative committees that touch on marine resource management and entrepreneurship development. More-over, tangible results can be achieved by deployment of consistent efforts geared towards supporting and efficiently coordinating marine related education, human resources training, research and development, awareness creation and strengthening marine institutions. The study argues that the marine policy framework which is currently designed by Presidential Task Force (2016) on the blue economy should strongly tackle the following issues: master operational plan that identifies the economic sectors that should be prioritized including constraining factors; priority programmes and projects required to unlock growth of the BE-enabling policy and infrastructure; human resource capacity building-fishing, energy, mining, seafaring, logistics, marine science; organizational structure for execution of the Blue Economy (BE) master operational plan; and BE budget proposals.

Additionally, the Government of Kenya should formulate innovative strategies of institutionalizing absorption of the youth into the blue economy activities at both national and county levels to harness youth participation and engagement. The study argues that the assumption that the youth are homogeneous, and that one size fits them all, make the youth empowerment in blue economy projects and programs unsuitable. The study recommends that more innovative blue enterprise

initiatives of empowering the youth be increased and strengthened to harness full potentials of marine resources to move forward the blue economy in Kenya; promote inter sector research exchanges and impact analysis for better leveraging on the ocean potential and the cohabitation of activities related to coastal and ocean management and promote partnerships for an inter-Africa shipping system and development of African Shipping Lines to create opportunities for wealth creation, employment and income distribution.

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