

Global Markets and Management of Coastal Resources in Tanzania

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Abstract

With the operation of global markets in Tanzania, discourses and practices related to the management of coastal resources have not remained the same. Yet, still little is known as to how global markets have shaped the management of coastal resource in Tanzania. Using both qualitative and quantitative approaches, in this article, we examine the impact of the operation of global markets on the structures and processes of managing coastal resources. Findings show that management of coastal resources has become more complex and challenging in the context of global markets. It is also clear that local people are increasingly losing confidence in the managers of resources due to the fact that these local people are not getting due benefits from such resources. The institutional and policy framework for the management of coastal resources in Tanzania have been altered in response to the forces of global markets. The article concludes that in the eve of globalisation, it is important to consider the interests of coastal communities as the country strives to attain sustainable management of these resources.

Keywords: *global markets, coastal communities, political ecology, fisheries management.*

1.0 Introduction

Tanzania is endowed with 1,424km of coastline which is both ecologically and economically important to the nation. The coastline stretches for approximately 2300 kms and encompasses five coastal regions, namely, Tanga, Coast, Dar es Salaam, Lindi, and Mtwara. These regions cover 15% of the country's physical area, and are also the home of about 25% of Tanzania's population (URT, 2003; TCMP, 2003). Tanzania's scenic, diverse and resource-rich coastal area constitutes a strip of land and water which supports a diversity of important natural systems (TCMP, 2003), including marine turtles/mammals, coral reefs, beaches, estuaries, sea grass beds and extensive coastal forests and mangroves (133,467has). The nation's total estimated shelf area is 17,500 km² (TCMP, 2003). The Exclusive Economic Zone (EEZ) has an estimated area of 223,000 km² (URT, 2003). The coastal area is of critical importance to the development of the country. In Tanzania, the five mainland coastal regions contribute about one-third of the national Gross Domestic Product (GDP), and 75% of the country's industries are in urban coastal areas (URT, 2003). This area is of immense strategic importance to many social and economic sectors, such as shipping, fishing, tourism, trade, agriculture, settlements and industrial development for the country.

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It is clear that coastal resources can potentially add value to national economic development and, over time, may contribute to the gradual improvement of the quality of life of the coastal communities (TCMP, 2003). This is possible if, and only if, coastal resources are properly managed to benefit all people in the coastal areas. In this article, we argue that the welfare especially in terms of livelihood of coastal communities should be the litmus test as to whether or not coastal resources are being properly managed.

The operation of global markets has necessitated certain dynamics in the management of coastal resources in Tanzania. With the operation of such markets in Tanzania, discourses and practices related to the management of coastal resources have not remained the same. Yet, still little is known as to how global markets have shaped the coastal resource management in Tanzania. This article examines the impact of the operation of global markets on the structures and processes of managing coastal resources. Apart from the review of the institutional and policy frameworks governing the use and management of coastal resources in Tanzania, the findings used in this article are based on responses from the coastal resources managers and local people.

The increase of the population dependent on fishing and coastal resources experienced in the Western Indian Ocean (WIO) countries in general and, Tanzania in particular, has been driven by many factors including dynamics in the operation of global markets as indicated on Figure 1 below.

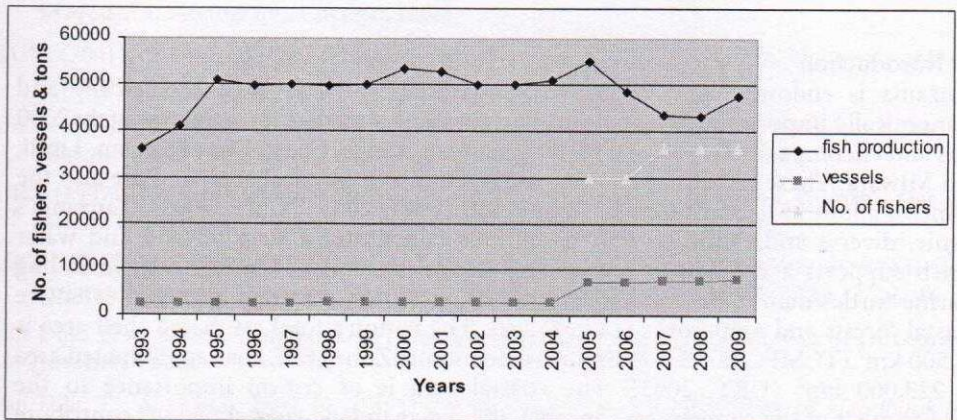


Figure 1: Trends of marine fisheries in Tanzania (1993 to 2009)

Source: URT (2010). Economic Survey Report, 2007, 2009, 2010

2.0 Conceptualising coastal resources management: A theoretical framework

This article has considered the utilisation and management of coastal resources taking place within a particular ecological and political context in which various actors compete over such resources. Such a context corresponds to the historical circumstances that a particular society encounters and can be adequately understood using a political ecological perspective. For that matter, we adopt political ecology, as

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opposed to the apolitical approach, to explain the magnitude and implications of global market on the coastal areas and communities. According to Robbins (2004), the most prominent apolitical approaches that tend to dominate in global conservations surrounding the environment are 'ecoscarcity' and 'modernisation' accounts.

Important to note here is that the modernisation account suggests several general principles and policies for global ecology. First, Western/Northern technology and techniques need to be diffused outwards to the underdeveloped world. Second, firms and individuals must be connected to larger markets and given more exclusive property control over environmental resources. Third, for wilderness and biodiversity conservation, the benefits of these efficiencies must be realised by institutionalising some form of valuation to properly price the environmental goods on an open market (Robbins, 2004:10). The operation of global markets in relation to coastal management should be placed within the framework above.

To individuate and distribute 'collective' or public goods like forests, fisheries, land or water requires the alienation of previous user groups. To implement new technological approaches in fisheries resource extraction or wilderness management requires a transformation of the existing institutions. The big question here is: Whose interests get considered in such transformation? Increasingly, open markets demand deregulation of labour and environmental controls at the expense of local people's livelihood and welfare (Robbins, 2004:11).

Political ecologists therefore critically explain the shortcomings of the dominant accounts of environmental change while at the same time exploring alternatives in the face of mismanagement and exploitation. In doing so, political ecologists may ask the following four major questions (Robbins, 2004).

- What causes natural resource loss?
- Who benefits from natural resource management and who loses?
- What political movements grow from local natural resource use transition?
- Why do some ideas and interests get incorporated in policies, while others do not? Or whose ideas and interests get incorporated in policies and which do not and why?

Responding to the above, political ecologists follow a mode of explanation that evaluates the influence of variables acting at a number of scales each nested within another, with local decision influenced by regional policies which are in turn directed by global politics and economics (Robbins, 2004).

Within the above conceptualisation, we use the term 'global markets' to refer to a situation of integrating marketing activities across different countries. The situation of the boundary-less business world of today has seen organisations operating from multiple locations across the globe. Today's era of globalisation has witnessed the emergence of the 'global' corporation, and the reasons for going 'global' include wide reach and economies of scale. International marketing involves coordinating the firm's marketing activities in more than one nation – in this case, we refer to both

domestic and international markets. In connection with this, we also refer to local and foreign firms operating within the economic sectors which depend on coastal resources. In this vein, the article focuses on how the management of coastal resources in Tanzania has been changing in response to the forces of global markets.

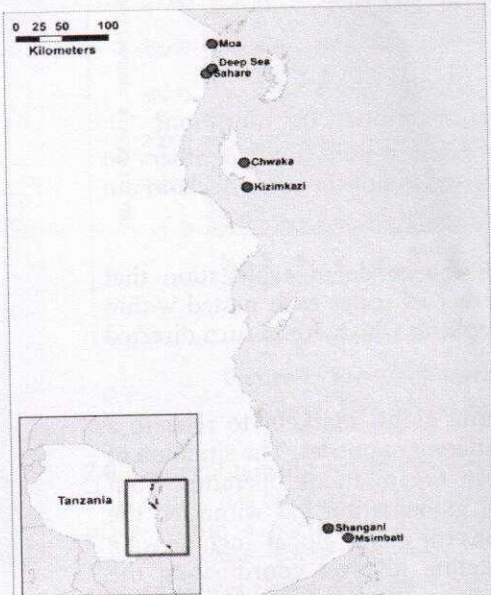
3.0 Methodology

The findings used in this article were generated from a research project which adopted a descriptive and explanatory research design. The project used both qualitative and quantitative techniques of data collection. For technical purposes, the study was done in two phases. The first phase involved exploration of the basic qualitative information through in-depth interviews which included life trajectories of informants, focus group discussions (FGDs), observation and documentary reviews. The information generated in the first phase was used to design the questionnaire for social survey in the second phase.

The study was conducted in Tanzania where study sites were selected on the basis of the presence of fish export activities, the presence of artisanal and/or commercial fishing, fish processing and tourism activities. The diversity of livelihood strategies was also taken into account. The study involved two regions in Tanzania mainland, namely, Tanga and Mtwara and one region (South Unguja) from the Zanzibar Island. Two sites were selected from each of the regions to capture the urban-rural trajectory. In Tanga, data were collected from Sahare and Deep Sea which represented urban areas whereas, Moa represented rural areas. In Zanzibar, data were collected from Kizimkazi which represented rural areas and Chwaka which represented urban areas. In Mtwara region, Msimbati was studied as a rural site while Shangani represented

urban areas in the region (see Map 1). Given the strategic location of all the study sites in the coastal line of Tanzania, the influence of global markets was evident in the entire study area.

A total of 43 in-depth interviews were conducted with artisanal fishers, middlemen and owners of different fishing vessels. The sample for the social survey included 797 respondents from three regions. The number was reached through a rigorous statistical sampling calculation. Qualitative data were generated using interview guides while Focus Group Discussions were conducted with community leaders, fishers and women groups. Quantitative data were collected using a structured questionnaire. Respondents were conveniently selected with the help of the community leaders from the respective study sites.



Map 1: Study Sites

4.0 Institutional and policy framework for managing coastal resources

The framework for managing coastal resources just like the management of other natural resources in Tanzania has been changing with changing social, economic and political contexts. At the macro level, a series of policies and institutional frameworks have been put in place to guide the management of natural resources. The frameworks are never neutral, as they define the relationships between people at the local level and the government and markets at the macro level in the course of using natural resources. For instance, before the establishment of the colonial government in Tanganyika in 1880s, management of coastal resources had been guided by ideological and resource management systems that respected and sustained the ecological factors of the environment, simply to allow for the survival of human communities and cultural groups (Sunseri, 2003).

The management of natural resources during the colonial era was geared towards meeting the interests of the colonialists, namely raw materials, areas for settlement and areas for investment. The exploitation and extraction of human and natural resources was, and still is, vital to the reproduction of capitalism (Rodney, 1980; Chachage, 2003; Emmons, 1996). To that end, it was necessary for the colonial governments to introduce systems of managing natural resources in Africa since the pre-colonial systems of managing natural resources could not meet the colonial demands (Emmons, 1996; Sunseri, 2003). This was done through enacting laws circumscribing local people's access to natural resources. Consequently, colonial management of natural resources impinged upon local livelihood strategies and their socio-economic organisation in general (Sambaiga, 2007). For instance, as illustrated by Sunseri (2003), the efforts by the German East Africa concession company to take over the coastal trade in forests soon after the state had gained control of forest use in Tanganyika, denied the local people access and control to natural resources and their commercial networks.

Post independent Tanzania retained much of the colonial legislation governing land tenure systems and natural resource management, and coastal resources in particular (Chachage, 2003). As Mwaipopo (2008) points out, post independent coastal management strategies became centralised under the state and were geared towards economic gains that these resources could generate for the country. For instance, in the fisheries sector, the government put in place state control through a licensing system and expanded production or harvest of fisheries resources. Informed by the East Africa Fisheries Research Organisation (EAFRO) which was later called the Institute of Marine Science (IMS), the government stressed the need to increase fishing efforts (Mwaipopo, 2008). As a result, large scale fishing was allowed to coexist with the traditional small scale and artisan fishers (Mwaipopo, 2008).

In the mid- and late 1990s, Structural Adjustment Programmes (SAPs) were considered the panacea for Africa's economic predicaments (Chachage, 2003; Kamata, 2003). Many southern governments saw the policies as harmful but were unable to resist them. Conformity to SAPs became a condition to continued multilateral and bilateral aid from both the International Monetary Fund (IMF) and the World Bank (WB), and the so-called 'Donor Communities', mainly developed countries. African

countries in general and Tanzania in particular, were pressured into adopting policies that would accommodate and legitimise foreign capital interests, particularly the operation of a market-driven economy. This led to changes in its macro-economic orientation and environmental management policies including those related to coastal resource management.

Liberalisation of the use of coastal resource since the 1990s has exposed fisheries resources to international markets. For instance, the Nile perch from Lake Victoria, tuna, octopus and prawns from the Indian Ocean, among others, have been integrated into the international trade (Mwaipopo, 2008). As a result, we have seen the emergence of large-scale marine exploitation projects such as industrial prawn trawling, and operations of private individuals who are externally supported (URT, 2009).

According to Lokina (2009), seven licensed vessels participated in the Tanzanian Exclusive Economic Zone (EEZ) water and none had been registered in Zanzibar by the year 1998. There were only 11 vessels registered by 1999 in Zanzibar. The 2003 was a record year for Zanzibar EEZ fisheries as it reached a level of 104 vessels. Unlike with the fishing of prawns, the ownership of EEZ vessels in both mainland and Zanzibar were whole foreign. Since licenses were introduced in 1998 the number of foreign vessels fishing tuna and tuna-like pelagic has risen rapidly. In 2004, the total number of registered vessels was 171 of which 41 were tuna seiners and 123 longliners (Lokina, 2009). The mainland issued 85 licenses and Zanzibar 86 (mainly to longliners from the Far East). Besides having a license and registration, fishers are also required to comply with closed areas regulation, report on their catch and have an observer on board. It is clear from the above statistics (data) that new structures and regulations for managing the new forms of fishery in the EEZ have been put in place.

In this article, we argue that the institutional and policy frameworks for management of fisheries resources in Tanzania have also been changing in response to the forces of global markets of fish and fish products. In his budget speech for the year 2010/2011, the minister responsible for the fisheries aptly put it, "The National Fisheries Policy of 1997 and its implementation strategy were reviewed in 2010 and a draft National Fisheries Policy 2010 prepared to match the social, economic, and political changes" (URT, 2010).

Thus, is acknowledged even by policy makers that global market demands necessitate changes of coastal resource management including fisheries. The current national fisheries management policy priorities include conservation, protection, utilisation and development. These are reflected in the following policy and legislative documents guiding the management of marine resources in Tanzania.

The national environmental and fisheries policies provide the general framework for protection and utilisation of environmental resources and fisheries in particular (Mwaipopo, 2008). The Fisheries Act of 2003 constitutes the main piece of legislation guiding the fisheries industry. It provides regulations regarding the protection, conservation, control of capture, collection, gathering, manufacture, storage and marketing of fish as well as fish products (Mwaipopo, 2008). The law also stipulates use requirements such as licensing, use of specific gear and the role of local authorities.

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In Zanzibar, the Environmental Management for Sustainable Development Act of 1996 and Conservation Area, Reserves, Parks and Sanctuaries Act, and the Fisheries Act of 1998 are the major legislations governing the management of coastal resources.

Furthermore, Fisheries Master Plan of 2002 delineates a 10-year strategy to develop a suitable fisheries sector with a view to benefiting the fishing community. The strategy calls for development of aquaculture and improved export and marketing of fisheries products (Mwaipopo, 2008). The National Integrated Coastal Management Strategy of 2003 further provides for coastal and marine fisheries management. It outlines a framework for sustainable utilisation and development of resources so as to boost economic growth. Currently, management of fisheries resources is geared towards poverty eradication in Tanzania, as the sector contributes to sources of nutrition, employment and income (URT, 2010). The expectations are sharply contrasted by the fact that fishing communities constitutes the poorest communities in the country (Sambaiga, 2007). Furthermore, even the fish intake per person per year is still as low as 8.0 kilogrammes compared to 10.7 kilogrammes suggested by FAO (URT, 2010).

Managers of coastal resources rarely consider the welfare of fishing communities to be at the core of coastal management; instead, they strive to address what they consider as challenges facing the fisheries sector, e.g. i) promoting investment in the sector so as to improve productivity and value of fisheries products; ii) ensuring availability of fisheries equipment at an affordable price; iii) looking for reliable markets for fisheries products; and iv) controlling illegal fishing and trade in fisheries products (URT, 2010). In most cases local people in the coastal communities are blamed for the increased degradation of coastal and marine environments and depletion of the respective resources. This is ignoring the fact that managers and uncertainty of markets have got a lot to do with the problems and challenges that have been identified.

5.0 Dilemma of sustainable coastal management: Perceptions of users and managers of coastal resources

The way people perceive coastal management practices speaks a lot about the relationship between users and managers of coastal resources. Understanding of perceptions of users and managers regarding certain aspects of coastal management is very crucial but has received limited attention in the literature on coastal management. It is within such context that this study sought to capture the understanding of local people about who they thought should be responsible for management of coastal resources and how they perceived coastal management in their areas. Interviews with key informants showed that the role of managing coastal resources has remained in the hands of the government to the extent the resources are considered to belong to the government.

Findings from the social survey showed that it is mainly the central and local government authorities that are considered to be responsible for management of coastal resources. About 42.5% (458) respondents said it was the responsibility of the central government, while 33.5% (361) respondents thought it was the responsibility of the local government. About 18% (191) respondents mentioned community

members as other actors responsible for coastal resource management. Very few respondents mentioned NGOs 3.9% (42), International Organisations 1.3% (14) and Private Companies 1.2% (13). See Table 1.

Table 1: Actors responsible for coastal resource management by region

Response	Zanzibar		Tanga		Mtwara		Total	
	n	%	N	%	n	%	n	%
Community members	106	31.4	44	9.5	41	14.8	191	17.7
Local government authorities	83	24.6	166	35.8	112	40.4	361	33.5
Central government authorities	131	38.8	246	53.0	81	29.2	458	42.5
NGOs	12	3.6	7	1.5	23	8.3	42	3.9
International Organisations	3	0.9	1	0.2	10	3.6	14	1.3
Private companies	3	0.9	0	0.0	10	3.6	13	1.2

Source: Social Survey, 2010.

Respondents were also asked whether they were personally involved in the management of coastal resources. Findings show that even at the community level, there is limited involvement of the local people in the management of coastal resources. Only 21.7% (171) of the respondents said they were involved in management of coastal resources in their communities while 78.3% (616) of the respondents confirmed that they were not involved in the management of coastal resources (see Table 2). The findings imply that coastal management is still centralised despite efforts to decentralise the same by allowing people to engage in the management of their resources.

Table 2: Involvement in management of coastal resources by region

Response	Zanzibar		Tanga		Mtwara		Total	
	N	%	N	%	n	%	n	%
Yes	56	23.7	50	14.3	65	32.2	171	21.7
No	180	76.3	299	85.7	137	67.8	616	78.3
Total	236	100	349	100	202	100	787	100

Source: Social Survey, 2010

Qualitative data also show that participation of local communities in the management practices is limited to reporting cases of non-compliance to coastal resource management regulations such as illegal fishing and non-payment of license and levies. Participants in FGDs in Mtwara and Tanga said they were disappointed because they had been made to participate only to justify the use of funds from donors; but they did not really benefit from the support. This is testified in the excerpt that follows:

We are often mobilised to form groups so that we receive support from fisheries related projects...to our surprise, when the funds come, individuals who are not fishers have been receiving the support...we know that the fisheries authorities have been using us in the name of community participation..(FGD fishers and petty traders, Shangani, Mtwara)

6.0 Perceptions of local people on management of coastal resources

As stated earlier, the manner in which people perceive certain aspects of coastal resource management speaks a lot about their attitude, interaction and even their relationship with the managers of coastal resources. Findings from this study leave a

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lot to be desired as far as coastal resource management in Tanzania is concerned. When asked whether there was proper management of coastal resources in their areas, 55% (435) of the respondents said that there was proper management of these coastal resources. The perception varied across regions whereby Zanzibar had 70.2% (167) of its respondents in this category, followed by 49.8% (102) from Mtwara and 47.7% (166) from Tanga. Important to note in this regard is the fact that 37.9% (300) of respondents from the three regions thought that there was no proper management of coastal resources in their areas. Tanga region had 48.0% (167) respondents in this category followed by 41.5% (85) respondents from Mtwara. Zanzibar had only 20.2% (48) respondents who reported that there was poor management of coastal resources in their area. Interestingly, 7.1% (56) of the respondents could not say whether or not there was proper management of coastal resources in their area (see Table 3).

Table 3: Perception on management of coastal resources by region

Response	Zanzibar		Tanga		Mtwara		Total	
	n	%	N	%	n	%	n	%
Yes	167	70.2	166	47.7	102	49.8	435	55.0
No	48	20.2	167	48.0	85	41.5	300	37.9
Don't know	23	9.7	15	4.3	18	8.8	56	7.1
Total	238	100	348	100	205	100	791	100

Source: Social Survey, 2010

The following statements from informants suggest that the local population had a very negative opinion about the use of coastal resources.

Management is not considerate because it simply uses force instead of approaches that encourage genuine community participation (IDI-female).

The emphasis of managers today is on revenue collection and nobody cares about the welfare of the local people who depend on fisheries resources... here for example, the beach has been sold to companies dealing with sea products such as TANPESCA and Bahari Sea Foods. Any time they decide to kick us out of this place, we will have nowhere to go (FGD-fishers in Shangani).

Local people attribute improper management of coastal resources to various factors (see Table 4). These include poor administration of government officials (40.8%), unfair treatment of fishers by the officials (20.2%), lack of staff and equipment (9.2%), corruption (8.9%) and lack of awareness on management issues (9.6%).

Table 4: Reasons for poor management of coastal resources by region

Response	Zanzibar		Tanga		Mtwara		Total	
	N	%	N	%	N	%	N	%
Poor administration of government officials	23	50	60	38.7	32	39.5	115	40.8
Lack of staff and equipment	0	0	19	12.3	8	9.9	27	9.6
Lack of cooperation from fishers	1	2.2	10	6.5	15	18.5	26	9.2
Corruption	1	2.2	11	7.1	13	16	25	8.9
Lack of awareness about management	12	26.1	12	7.7	3	3.7	27	9.6
Unfair treatment of the fishers	9	19.6	38	24.5	10	12.3	57	20.2
Total	46	100	155	100	81	100	282	100

Source: Social Survey, 2010

Furthermore, the study tried to find out whether the local people had any hope for changes in the practices associated with coastal resource management. Interviews with key informants showed that customary management structures have been eroded while at the same time the value of fish and fish products has attracted more users. This is seen from the narration below.

In the past, coastal resources were managed by traditional authorities and the sea was protected traditionally using norms, taboos and sanctions. In our community, we had a ritual which entailed going around the sea throwing bones of a sacrificed cow...this not only protected the sea but also increased the catch.....today you don't find such traditions because of an increasing number of users with different cultural backgrounds.... (IDI Moa).

We know there are good plans for fishers but the implementation tends to marginalise us...we never see the benefits of such plans and projects....the only thing we see is confiscation of our property in the name of controlling illegal fishing...here, artisanal fishers are regarded as illegal fishers... In fact, fishers using explosives have huge capital because such explosives are very expensive...normally they fish far from here sometimes in Mozambique...they just come here to sell... (FGD-fishers Shangani).

In the past we used to exchange the so called illegal fishing gear with legal gear. But today they take your gear without replacing it ...what do you expect? (FGD-Fishers Msimbati).

Findings from a social survey showed mixed perception in this regard; for example 45.5% (358) of the respondents said that they had experienced no change in coastal resource management. This accounted for 63.1% (219) of respondents from Tanga, 40.1% (81) from Mtwara and 24.4% (58) from Zanzibar. On the other hand 43.3% (341) of all respondents confirmed that they had experienced changes in coastal resource management. The responses varied across regions whereby Zanzibar had 55.5% (132) respondents, followed by 48.5% (98) respondents from Mtwara and 32.0% (111) respondents from Tanga. The findings suggest that many people in Zanzibar and Mtwara have experienced changes in management of coastal resources (see Table 5).

Table 5: Respondents' perception on changes of management practices by region

Response	Zanzibar		Tanga		Mtwara		Total	
	N	%	n	%	N	%	n	%
Yes	132	55.5	111	32.0	98	48.5	341	43.3
No	58	24.4	219	63.1	81	40.1	358	45.5
Don't know	48	20.2	17	4.9	23	11.4	88	11.2
Total	238	100	347	100	202	100	787	100

Source: Social Survey, 2010

Interviews with key informants hinted on the key management aspects that have been changing; these include emphasis on maximising revenue collection and the tendency to favour resource users with capital mainly at the expense of the local communities. The following excerpts from our key informants further illustrate this point.

The government is currently benefiting more from coastal communities through revenue collection and levies from both local and foreign fishing vessels...also people from marine protected areas confiscate our catch, fishing gear and even vessels...to our surprise they never throw away the fish...(IDI-a fisher from Sahare)

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Foreign fishers using trawlers fish indiscriminately, then they take what they want and throw away a bulk of the catch they don't need. Also their trawlers use powerful machines which make the water so turbulent that a lot of fish is killed ...this is utter destruction...(IFGD-Fisher at Shangani).

7.0 Management of fisheries and the interests of local the people

Proceeding from the political ecology framework, it is important to establish whether the management of fisheries resources favours the interest of local people compared to those of the market and state. There were mixed responses in this regard whereby 47.0% (372) of all respondents said the interests of the local people were not being considered in the management of fisheries resources. This accounted for 60.4% (212) of respondents from Tanga, followed by 54.9% (112) of respondents from Mtwara and only 20.3% (48) of respondents from Zanzibar. On the other hand, 46.7% (370) of all respondents were of the view that fisheries management did favour the interest of local people. A bigger percentage (75.5%) of respondents from Zanzibar had the view that fisheries management considered the interests of local people (see Table 6).

Table 6: Fisheries management regarding the interests of the local people

Response	Zanzibar		Tanga		Mtwara		Total	
	N	%	N	%	n	%	n	%
Yes	179	75.5	119	33.9	72	35.3	370	46.7
No	48	20.3	212	60.4	112	54.9	372	47.0
Don't know	10	4.2	20	5.7	20	9.8	50	6.3
Total	237	100	351	100	204	100	792	100

Source: Social Survey, 2010

Discussions with informants also showed that the local people were dissatisfied by the way things were being run, and that they did not trust the management. This is obvious in the following statements which we recorded from the informants:

Indeed, managers of coastal resources today do not consider our interests (maslahi) because they prevent us from using coastal resources such as dead corals, mangroves, and even fish, in the name of conservationbut we are never told when we will enjoy the benefits of such conservation (FGD-fishers at Msimbati).

The value of land along the coastal area is on the increase but we don't have any control over it even at the landing sites and our beaches, because the land is being controlled by few individuals or marine parks so much so that we do not have a say over these beaches and landing sites (FGD- fisher and traders at Shangani).

A woman like me comes here on foot, with five thousand shillings as my capital, but I am forced to have a business license for which I have to pay twenty thousand shillings a year...so imagine if I pay for the licence how much will I still be getting from my business...this is why apart from the hard work we are doing, there is no change in our welfare (FGD-Females at Shangani).

Similarly, local people have their own way of assessing the situation in the fisheries sector in relation to other sectors. They know for sure that fishery is an important sector worldwide and that governments collect substantial revenue from the sector. However, they also think that when it comes to development priorities in Tanzania especially those which would boost the livelihood of artisanal fishers, fisheries is among the most disregarded sector. One of the FGD participants aptly put it:

Among the less valued activities in the government priorities is fisheries especially artisanal fishing. Have you ever heard of a fishers' day? AIDS has an official day, workers, farmers or peasants etc...that is why a fisher is not valued...but we also know that globally this is an important sector... what we see in our country is the focus on taxes and revenue ...(IDI - artisanal fishers - Shangani).

8.0 Illegal fishing in the context of global markets

Despite efforts to curb illegal fishing, the practices have become even more complex with the operation of global markets in the coastal communities. Among other things, the study found what constitutes illegal fishing and whether there were illegal fishing practices in the studied communities. Indeed, our respondents' point of view reflected the conventional discourses of illegal fishing: use of explosives, poison, nets with small mesh size and ring nets that disturb the breeding grounds. Interview with key informants revealed that as much as people understand illegal fishing and its impact to the ecosystem, the practice is also considered a means to maximise benefit from marine resources. It was also the case that some of the illegal gear was cheaper and could easily be obtained by the local people compared to the more expensive, e.g. explosives. This implies that illegal fishing is not limited to artisanal fishers but it also involves rich people. In some places, politicians and other big shots were said to be behind the business. This further complicates enforcement of management regulations, given the emerging and persistent corruption by the political and economic elites in the eve of neo-liberal ideologies under the umbrella of globalisation.

Moreover, the use of mobile phones is becoming a serious challenge towards controlling illegal fishing using patrol teams. It was learnt from the discussions with districts fisheries officials that it was becoming very difficult to arrest illegal fishers. This was because while fishing, the fishers would constantly monitor the movement of the patrol team. The former would even hire people to monitor the patrol teams and alert the fishers wherever they suspected they were being followed. It is not surprising that local people are losing confidence in the officials responsible for overseeing management of coastal resources, as aptly put by a participant in one of the FDGs:

...in days when a patrol team is on duty, you cannot hear explosives, and illegal fishers disappear; but when there is no patrol, the illegal fishers re-emerge and one could hear the sound of explosives...we wonder who informs these fishers about the patrol (FGD, Deep Sea, Tanga).

Other people went as far as accusing the fisheries officials of being corrupt, and taking bribe from illegal fishers at the expense of the sustainability of coastal resources. According to the key informants, this was being done by the officials because they had nothing to lose at the end of the day, since it was the local people who ended suffering. One of the key informants from Zanzibar had this to say:

...We are getting tired of the fisheries officials... they claim to protect marine resources but in fact they are after money...we have been assisting to arrest illegal fishers, and this we have done several times... but it is very frustrating to find that one is caught today ...and you meet the same person fishing using the same gear the next day...(IDI, Chwaka, Zanzibar).

Interestingly, findings from the social survey show that 44.5 % (346) of all respondents confirmed that illegal fishing is practiced in their communities. Mtwara and Tanga

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regions had many respondents (53.0% and 50.4% respectively) who shared the same opinion, that illegal fishing was rampant in their communities. On the other hand 47.4% (369) of the respondents were of the view that there was no illegal fishing in their communities. About 65% (151) of the respondents from Zanzibar said there was no illegal fishing (see Figure 2).

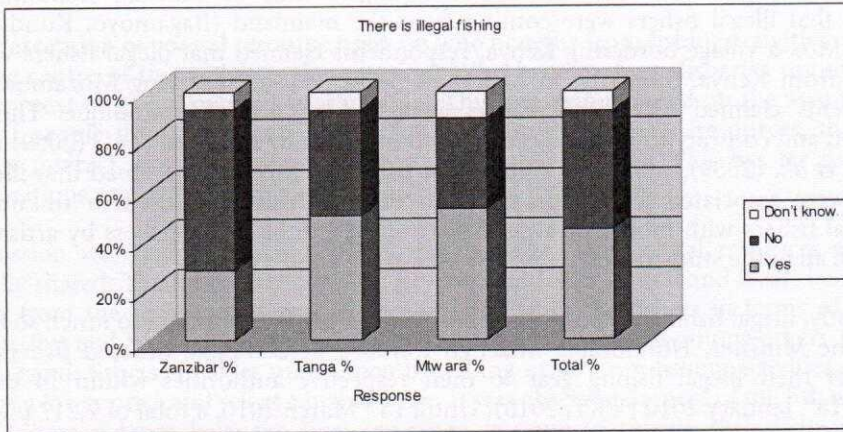


Figure 2: Responses on whether there is illegal fishing by region

Source: Social Survey, 2010

Respondents mentioned factors causing illegal fishing that include inadequate law enforcement and monitoring, inadequate knowledge about sustainable fishing practices, and increasing internal demand for fish and corruption. Only 10.19% of the respondents mentioned increasing global demand for fish as one of the causes of illegal fishing in their villages/Shehia. Very few respondents (4.85%) didn't know what constitutes illegal fishing. Causes of illegal fishing by region are shown on Figure 3.

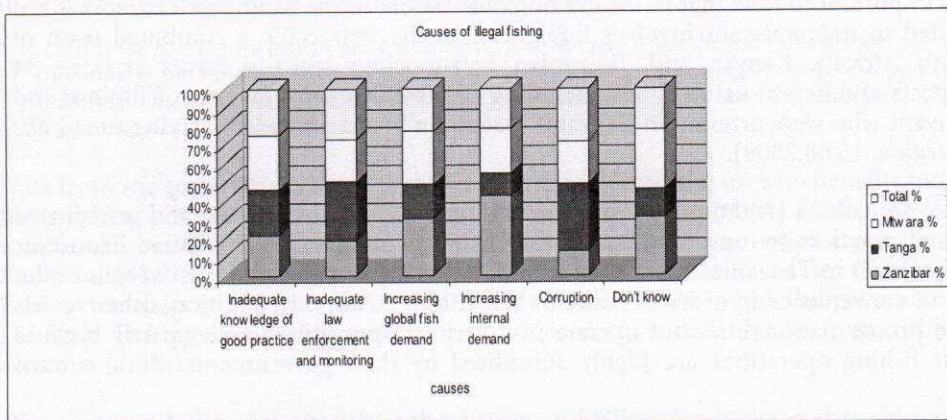


Figure 3: Respondents' opinion about causes of illegal fishing

Source: Social Survey, 2010

Both dynamite and poison are used in the fishing industry contrary to laid-down regulations in Tanzania (Kamweti *et al.*, 2009). Dynamite is used to scare fish from crevices in coral rocks and results in the destruction of coral reefs. Also, the use of ringnets is emerging as a controversial issue and a source of conflict between artisanal and industrial fishers. The qualitative data pose a contested discourse about the nature of illegal fishing in Zanzibar, Mtwara and Tanga. While in Zanzibar respondents claimed that illegal fishers were coming from the mainland (Bagamoyo, Kunduchi etc.) in Moa-a village bordering Kenya, respondents claimed that illegal fishers were coming from Kenya. Similarly, in Msimbati Bay-a, village bordering Mozambique, respondents claimed that illegal fishers were coming from Mozambique. This is contested and contrary to the study conducted in Kenya by Kamweti *et al.*, (2009) and Kamani *et al.*, (2009), who both argued that fishers in Mombasa claimed that illegal fishers were associated with migrants from Pemba. Also unlicensed or unknown industrial fishers with modern trawlers⁶ were alleged to be illegal fishers by artisanal fishers in all of the study regions.

Apparently, illegal fishing practices have become rampant in Tanzania so much so that the Prime Minister, Honourable Mizengo Kayanza Peter Pinda, ordered fishers to surrender their illegal fishing gear to their respective authorities within 14 days, starting 18th January 2010 (URT, 2010). Until 18th March 2010, a total of 7,217 pieces of illegal fishing gear had been surrendered (URT, 2010). Apart from dealing with the users, efforts have been extended to address the suppliers of illegal fishing gear, thanks to the commitment of Honorable John Pombe Magufuli, Minister for Livestock Development and Fisheries. Following a crackdown, 101,290 small mesh-size nets were caught at IMARA FISHNET industry based in Dar es Salaam (URT, 2010). Hand in hand with these efforts, patrol stations have been established and each has been given a patrol boat. In April 2011, Tanzania Defence Forces (TPDF) promised to support the ministry to patrol the coastal areas as a way of controlling illegal fishing practices (*The Citizen*, 11.04.2011; *The Guardian*, 6.04.2011).

It is important to note that in the eve of globalisation, illegal fishing in Tanzania is not limited to nationals but involves foreigners. In the year 2009, a combined team of South African, Kenyan and Tanzanian anti-trawling security forces arrested 34 suspects of different nationalities, including Chinese, Koreans, Japanese, Filipinos and Kenyans who were arrested in Tanzania waters on board a trawler carrying tuna (*The Guardian*, 15.08.2009).

Likewise, Lokina (2009) points out that there are illegal, unregulated and unreported fishing practices by unscrupulous distant fishing vessels in the Exclusive Economic Zone (EEZ) in Tanzania. Some of the vessel owners have registered their vessels under flag of convenience in order to conceal their fishing history. In addition, other vessels have proper nationalities but operate in a very irresponsible manner partly because their fishing operations are highly subsidised by their governments. Poor control

⁶Trawlers are associated with high shrimp bycatch and discards and are likely detrimental to the juvenile fish Quevedo, J. A. H. (2001), Shrimp trawl design improvements suggested for Mexican fisheries. Final Report, Sinaloa, Instituto Tecnológico del Mar

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mechanisms in licensing, monitoring and setting of fishing quotas are said to be among the major factors contributing to a crippling loss of over \$220m (approx. 286bn/-) per year (Lokina, 2009). These are some of the problems that the Tanzania Deep Sea Fishing Authority and other fisheries management authorities have got to deal with in order to increase national revenue from the fishing sector.

9.0 Perception of coastal resource users on who benefits from fishing activities

At the centre of this article is the question: Who benefits from fisheries resources in the context of global markets in Tanzania? This question is based on the assumption that if people think that they do not benefit from their coastal resources, they can hardly interact with such resources in a sustainable manner. This has far reaching implications regarding compliance to management regulations.

Discussion with key informants shows that benefits from coastal resources are not equally shared. The local people see the government (both central and local) benefiting more from the resources as they collect revenue from the fishers in terms of levies, license fees and taxes from the exporters of fish, and fish products among others. On the other hand, fishers consider middlemen benefiting more from fishing activities as they buy at a lower price and sell at a higher price. It was observed in most of the fish markets that fishers did not have the final say when it came to pricing their fish; instead, middlemen buy in bulk and then sell in retail to small vendors, at a price fixed by the middlemen. One of the key informants had the following to say in this regard:

...wachuuzi (middlemen) benefit more from the operations of global markets because they sell according to the market situation, they can even agree to lower the price ...this affects the fishers...we need big investors to invest in our areas to regulate the price of fish... (IDI artisanal fisher, MOA).

The middlemen on their part believe that it is the fishers who benefit more from the fishing activities mainly because they don't consider the efforts injected by the fishers in catching the fish. One of the *wachuuzi* aptly put it:

....It is the fishers who benefit more because they do not pay to get the fish from the sea...for us fishmongers you need money to buy the fish and you have to sell at a high price so that you can maintain the business...short of that, you cannot survive in the business (IDI fishmonger/middleman, Sahare)

Data from the social survey show that there is mixed perception on who benefits more from fishing activities (see Table 7). About 31% of the respondents confirmed that middlemen benefit more than any of the groups, from fishing activities, especially in Zanzibar (42.2%) and Tanga region (29.7%). These were followed by owners of fishing vessels/gear (25.0%), fishers (17.9%), traders (12.6%), and the government (12.3%). Fishing companies were not considered to benefit much from fishing activities (1.7%).

Discussion with fisheries officials at the district and village levels shows that although fisheries contribute a lot to the district revenue, there is little or no trickle-down effect of the revenue to the fishing communities and managers at the local level. In Mtwara

rural district council for example, fishing is the second to cashew nut sales in terms of attracting revenue. For instance, there were no toilet facilities in all the landing sites we studied in the three regions. Furthermore, no study site had a cold room, most communities had dilapidated fish markets. Also, managers complained about poor working conditions.

10.0 Conclusion

The operation of global markets has necessitated certain dynamics in the management of coastal resources in Tanzania. With the operation of global markets in Tanzania, discourses and practices related to the management of coastal resources have been changing. Coastal management priorities have been shifting towards maximising returns from the resources. In that respect, the interests of local people have been undermined by the interests of the state and the markets. In the context of global markets, the welfare of coastal people ought to be placed at the core of management processes and structures. Current management systems need restructuring and transformation in line with coastal communities' interests and benefits.

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