

Launching the NATIONAL INTEGRATED COASTAL ENVIRONMENT MANAGEMENT STRATEGY



Vision for a Thriving Coastal Future



COASTAL RESOURCES CENTER
University of Rhode Island

Tanzania Coastal Management Partnership

NATIONAL ICM STRATEGY

The process to National ICM Strategy

The National Integrated Coastal Environment Management Strategy is the result of an open, transparent and participatory process that extended over four years.

It reflects the collective views and interests of a broad range of stakeholders who live and work along the coast. It is also built on a solid foundation of scientific and technical knowledge. Over thirty technical reports—on topics as diverse as natural science, law, economics, human capacity—were prepared by some of our leading national experts and used as important background information.

The Strategy development process began in early 1998 with the formation of a twenty member intersectoral working group (including private sector) to capture the issues a coastal management initiative needed to

address. The group began by collecting, reviewing and synthesizing available information from sources within and outside the country. The working group then spent several months visiting each coastal district talking to people from both government and the communities.

The group presented its findings to a meeting of directors and commissioners from the relevant government agencies in October 1998. With the directors' endorsement, the working group then returned to the districts and villages to develop a vision, principles and strategies for addressing these issues. These were presented and confirmed at a second meeting of directors in May 1999.

After this meeting a draft Green Paper - Options for a National Integrated Coastal Management Policy was produced. The draft was reviewed at a three-day retreat that brought together participants of three working groups of

the Tanzania Coastal Management and representatives of five ongoing local ICM initiatives. With their input, the Green Paper, which included options for Policy implementation mechanisms, was finalised.

The Green Paper was presented to Members of Parliament representing coastal constituencies, Regional Administrative Secretaries, District Commissioners, District Executive Directors, District Functional Officers and Directors of National Sectoral Agencies at a two day meeting in late November, 1999. This group reviewed the entire Green Paper, considered the options presented for policy implementation, and reached a consensus on recommended implementation mechanisms and structures. Their recommendations were incorporated in the National Integrated Coastal Management Policy White Paper that was widely distributed for comments.

The comments received were incorporated into the draft policy paper that was widely circulated for review and further comments. The draft policy was later submitted to the Government, which made a further review. With further consideration of effective implementation of ICM activities, it was favourably decided to go for a National ICM Strategy that provides a framework under the National Environment Policy. The Strategy will work to link sectors at all levels and create partnerships among them towards sustainable use and development of the coastal environment and its associated resources.



Sectoral Directors and Commissioners reviewing documents at one of the ICM processing meetings

ACTIONS FOR EFFECTIVE ICM IMPLEMENTATION

The implementation of the National Integrated Coastal Environment Management Strategy is structured to enable measurable results of intended actions. It provides opportunity to implementers and stakeholders to participate fully in all steps of implementation - from issue identification, action program preparation, implementation and evaluation of actions, aiming at achieving the following inputs:

1. Supporting environmental planning and integrated management of coastal resources and activities at the local level and provide mechanisms to harmonise national interests with local needs
2. Promoting integrated, sustainable and environmentally friendly approaches to the development of major economic uses of the coastal resources to optimise benefits
3. Conserving and restoring critical habitats and areas of high biodiversity while ensuring that coastal people continue to benefit from the sustainable use of the resources
4. Establishing an integrated planning and management mechanism for coastal areas of high economic interest and/or with substantial environmental vulnerability to natural hazards
5. Developing and using an effective coastal ecosystem research, monitoring and assessment system that will allow available scientific and technical information to inform ICM decisions
6. Providing meaningful opportunities for stakeholder involvement in the coastal development process and the implementation of coastal management policies
7. Building both human and institutional capacity for inter-disciplinary and inter-sectoral management of coastal environment.

ICM: The Global experience

By Lynne Zeitlin Hale

As long as people have lived adjacent to the seashore and used coastal and marine resources, there has been some form of coastal management, even if by default.

Traditional societies that depended on coastal resources often had elaborate management systems that sustained the people and resources for generations, although they were not always consciously planned or intended as management regimes (Ruddle and Johannes 1983, 1989).

In the nineteenth and twentieth centuries as populations increased, technologies changed and governments extended their reach over resources, the responsibility for management moved increasingly away from resource users to governments. For coastal and marine areas this typically meant either neglect which resulted in a de facto open access regime or sectoral management of individual resources like fisheries, or activities like transport, that too often resulted in degradation of resources, lost opportunities and intense user conflicts.

It is due to this situation that led to the practicing of Integrated Coastal Management (ICM) now viewed as a potentially useful tool for addressing these

difficult issues. A recent United Nations report states the goal of coastal management as ...to improve the quality of life of human communities which depend on coastal resources while maintaining the biological diversity and productivity of coastal ecosystems.

The report defines coastal management as ...a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources.

Different from other coastal programs, Integrated Coastal Management (ICM) programs often consider a coastal geographic unit or ecosystem with the people of the place to create a "vision for its future;" then motivate and catalyze action among stakeholders—those with an interest in the area or resources—to achieve that future. In an ICM process, the area's renewable and non-renewable resources are managed

in an integrated, proactive way to maximize benefits from multiple sectors and reduce impacts of one sector on another.

Successful coastal management programs follow the following main principles:

- Local and national ownership of the program that entails government endorsement and active involvement; broad stakeholder participation through enhanced public dialogue; and sustained support from national NGOs and the donor community
- Stakeholder participation in all levels and phases of the program so that people who have a stake in the outcome of the management effort, are given a voice in management decisions. The mechanisms by which the public is involved, however, must be tailored to the culture and traditions of the place
- A Strategic Focus: No single program, even an integrated one, can solve all the problems of the coastal environment. Deciding which issues to address, and where and when to address them will be among the most crucial decisions that a program makes.
- Integration: The integration in coastal

management is what distinguishes the endeavor from traditional sectoral programs. The forms of integration required by coastal management are several, including integration among governance levels; integrating good science with good governance; and integration among sectors, institutions and disciplines.

As Tanzania continues to work to develop its coastal resources and to address its increasingly urgent coastal management problems, it is hoped that the hard-won experience from across the globe is helpful. But perhaps the most important lesson from this global experience is that there is no formula for successful coastal management. Specific management solutions are invented nation by nation, and place by place. It is only through learning by doing that coastal management practitioners will discover what approaches will and will not work within a nation and locality's unique context.



Lynne Hale who contributed immensely in the ICM Strategy process

EDITORIAL TEAM

- Gratian Luhikula
- Joe Nakajumo
- Tuma Abdallah
- Muhingo Rweyemamu
- Pudenciana Temba

Statement by Hon Arcado Ntagazwa (MP), the Minister of State (Environment) Vice President's Office

Tanzania is fortunately a coastal state. Our coast is a unique part of the environment endowed with scenic, diverse and rich resources. This strip of land and water supports a diversity of important natural systems, including coral reefs, beaches, estuaries, sea-grass beds and extensive mangrove stands. All these are important natural heritages, which are essentially life support of the people.

Stretching 800 km from Tanga in the north to Mtwara in the south, the coast is of critical importance to the national development and livelihoods of the coastal communities. It is of immense strategic importance to many social and economic sectors, such as shipping, fishing, tourism, trade, agriculture, settlements and industrial development. Coastal tourism, mariculture development and natural gas exploration, which are just beginning, are potential activities in national economic development and, over time, will contribute to gradual improvement of the quality of life of the coastal communities and Tanzanians in general.

The coast is however, a distinctive system in which a range of considerations - biophysical, economic, social and institutional - must be woven into the management system which realises benefits without causing negative impacts to the coastal rich but fragile environment.

This is the challenge now facing Tanzania. We need effective mechanisms to guide us in harnessing and managing the coastal resources in an equitable and sustainable manner. We essentially need a dynamic tool to direct the future of the coastal and marine development so that

balance between development and conservation of coastal and marine resources is achieved.

The mechanism and tool that can guarantee us a sound future is the National Integrated Coastal Environment Management Strategy, which has just been put in place. The Strategy will work to enhance and achieve sustainable development through a well coordinated and integrated approach that unites the government with the community, science, management and sectoral interests, at both national and local level.

Why we have chosen ICM? Tanzania, like many other coastal countries, has opted for ICM for many good reasons. ICM works to catalyse cross-sectoral planning and action, fill gaps in addressing complex, multi-sectoral issues that cause resource use and management conflicts. It serves as a neutral facilitator to resolve coastal issues by providing coordination and feedback mechanisms among agencies, decision-makers and implementing authorities at all levels.

It is the government's anticipation that through effective implementation of the National Coastal Environment Management Strategy, Tanzania will not only overcome complex management issues which are pertinent to unsustainable resource use, but will harness and manage coastal resources in an equitable and sustainable manner. This way the people of today and those of the future generations will live to benefit the coastal resources.

The essence of this National Integrated Coastal Management

Strategy is that it provides a framework under the National Environmental Policy that links sectors at district levels, and creates partnerships among them towards sustainable coastal development. Although sectoral policies for many coastal resources are in place, the coastal people, especially the rural communities, are still poor. They need a practicable mechanism that will guide them to overcome poverty while they maintain the continuous productivity of the natural resources.

It is the Government's anticipation and intention to effectively use the principles of ICM to improve the decision making process for sustainable development by providing clarification and guidance on coastal resource use and allocation at both the national and local level. This will be achieved through the ICM framework and process that links different sectors and that harmonises sectoral decisions on environmentally sound management of coastal resources.

Through proper implementation of the ICM Strategy, the Government is confident that coastal communities will get the opportunity to improve their well being and livelihoods. The Strategy will guide them in environmental planning and integrated management of coastal resources and activities. It will further guide the government and communities in developing and managing major economic uses of the resources with focused strategies to optimise benefits.

The Strategy will also complement our efforts in conservation of critical and important habitats, and the management of coastal areas of high

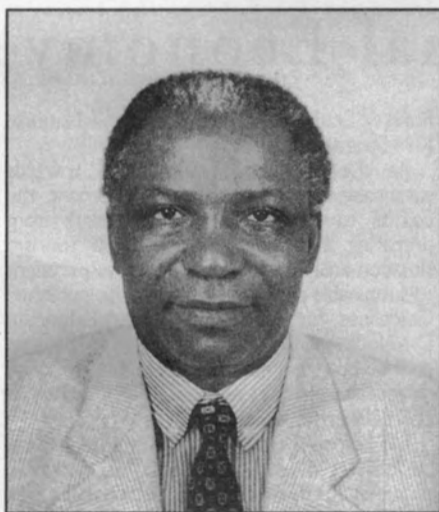


Hon. Arcado Ntagazwa

economic interests and, or with substantial environmental vulnerability to natural hazards. To this effect, scientific research, monitoring and assessment system will be effectively used in informing coastal management decisions.

The adoption of the National ICM Strategy is hence a wise and good decision. It is the Government's hope that the Strategy will live to our expectations by creating a "vision for the coastal future". A future where the coastal area's renewable and non-renewable resources are managed in an integrated, proactive way to maximize benefits from multiple sectors and reduce impacts of one sector to another. A future of thriving coastal settlements where people who rely on the coast and its abundant resources for their food and livelihood are actively working to protect and sustain the resources. ◀

Statement by Dr. Magnus Ngoile, Director General NEMC



Dr. Magnus Ngoile,

One of the authors of world environmental literature, Henry David Thoreau once asked a very authoritative question: "What good is a house if you don't have a decent planet to put it on? It is perhaps from this common sense, people in Rufiji delta in the year 2000, had to reject the giant prawn project that was seen as a saviour to their life and their coming generations.

Before approving any proceeding of the project, the Rufiji people demanded an assurance of the environmental impact from the project in their delta. Unfortunately, the investor had no convincing advance. The people therefore decided not to have a 'house', than having it without a proper foundation.

Blessed the people in Rufiji because there are many others around the world, who do not have a chance to practice their

survival rights. They therefore have to succumb to these types of projects knowingly or unknowingly, willingly or not, later to find that the harm caused by the projects on their environment is detrimental to their lives.

A good example of these kinds of projects, is the Akosombo Dam in Ghana that was built on the Volta River between 1950 and 1960. Apart from getting nothing from this giant electric generating dam, more than 100,000 surrounding people are suffering from river blindness and 70,000 among them have been rendered totally sightless since the completion of the dam that attracted insects carrying the viruses. Other 80,000 people have been permanently disabled as a result of schistosomiasis, a parasitic water-borne disease carried by two species of snail that are now the commonest molluscs in the Volta reservoir.

Environmental problem is the agenda of the world. The problem goes simultaneously with the expanding world population coupled with globalisation. Factors associated with environmental problems include land degradation, water and air pollution and depletion of natural resources. Each of these environmental problems poses a growing threat to the physical, economic and social well being of all people.

Unprotected environment is as good as nothing and it is at this juncture, the Tanzanian government deserves a pet on the back for taking steps to come out with strategies to protect the environment especially of the coast.

The National ICM Strategy will contribute greatly in Tanzania's

development. It will engage in a dynamic process that seeks to unite the government and the community, science and management, sectoral and public interests in implementing an integrated program for the protection and development of coastal ecosystem and resources. Apart from environmental safeguarding, the Strategy will work to improve the well being and livelihoods of all beneficiaries of coastal resources.

It is an open secret that although five mainland coastal regions namely Dar es Salaam, Tanga, Coast, Lindi and Mtwara contribute about one third of the national Gross Domestic Production, its people are very poor. The National Account of Tanzania assumes that people in the coast have less than 100,000 shillings per capita GDP at current prices.

The aim of the ICM Strategy is to change the current trend of economic activities. Under the ICM Strategy, people will be empowered to conduct more than one economic activities so that if one income generating project fails, the family still has other sources of food and income.

The mainstay of ICM is to check and balance if not to stop the negatives of the present situation taking into consideration that the pressures on the coast are increasing and resource depletion is already alarming. Environmental problems of the coast range from complex to minor. The complex phenomenon is such as unruly fishing using trawlers, coral mining for building material, and unsustainable industrial development.

Certainly we are happy that industrialisation brings fortune including employment, new ways of life and international interaction. However, we

have to be concerned with the cons of these new technologies from the industrial countries.

These countries for example, consume more energy and natural resources than the developing world. As the result, the environmental problems of the developed countries are due to industrialisation, over-consumption of natural resources and the demand for increasing quantities of goods and services.

On the other side, the environmental problems of the less developed world are largely due to poverty and priority for economic survival over environmental concerns. This implies that in a near future, the land of the developing world, would be the target for the developed countries, since our actions towards the land, have less impact compared to that of the developed world.

It is high time to commend the ICM through which, we will ably observe the pros and cons of coastal industrialisation. When the country is opening doors for foreign investment along our coast, the ICM is concerned with the quality of investment than its quantity.

It is from this end, the strategy includes the provision of Environmental Impact Assessment (EIA). In the past, this requirement for investment was not taken seriously. EIA is an important management tool for improving the long-term viability of projects and the related environment.

Through the National ICM Strategy, we will avoid mistakes that are expensive in both environmental and economical aspects. And through ICM, we have all chances of improving the well being of the people. ◀

Community involvement in ICM planning

There is no arguing that the recently adopted National Integrated Coastal Environment Management Strategy (ICM Strategy), is billed as a saviour to coastal people who rely on the sea and its abundant but fragile resources for their food and livelihood. The ICM Strategy is working to protect and sustain the coastal resources for the better living of coastal communities.

There is also no arguing that ICM envisions the development of new coastal economic opportunities that will sustainably contribute to both local and national development. It envisions a future of strong partnership between government and all segments of the Tanzania society, including resource users, the private sector, academic and research institutions and others, working together to turn this vision into reality.

The government's move to put in place the National ICM Strategy is hence perceived as a wise approach in addressing issues pertaining coastal environment development. In its essence, the Strategy provides a framework under the National Environment Policy that links sectors at local level, and creates partnerships, which work towards sustainable management and use of coastal resources.

To this effect, critical to the success of ICM is the support of the planning and integrated management of coastal resources and activities at the local level and to provide mechanisms to harmonise national interests and local needs. This will not only work to enhance sustainable development of the fragile coastal environment, but it will also improve the well being and livelihoods of all beneficiaries of coastal resources.

In addressing local ICM action planning, the Strategy guide district level ICM processes in the overall district environmental planning. This entails the developing, approving and implementing

actions aimed at maintaining and improving resource base for sustainable development.

ICM action planning, according to Lewis Nzali who co-ordinates the group of experts who prepared the ICM Strategy, is a way to address key issues and find solutions to specific problems that have been selected through an issue identification and prioritization process.

"An ICM action plan focuses on solving priority issues through specific actions that are targeted at the causes or effects of the underlying problems. Hence, action plans provide guidance on activities to reach clear and achievable goals. In terms of participation, action plans aim to empower those affected by the specific issues and those involved in planning and implementing the actions," Nzali elaborates.

Action planning is closely related to co-management. Co-management is a method of sharing responsibility and authority between the government and

communities to manage coastal resources. There is a hierarchy of co-management approaches from those in which government merely consults the resource users before a policy or regulation is introduced, to those in which users design, implement and enforce laws and regulations with advice and assistance from the government.

"By introducing co-management of coastal resources, through action planning, local communities become empowered to identify their own opportunities and obstacles. They propose intervention measures, and together with district staff, develop and implement plans to address identified obstacles by using available resources."

According to Nzali, local action planning and implementation is the best yard-stick in measuring the effectiveness of the ICM Strategy. Apart from providing a mechanism for strengthening and empowering districts to be responsible and accountable to their local communities,

action planning also contributes to the Local Government Reform Program (LGRP). The LGRP aims to transfer the responsibility of managing local affairs including the management of natural resources from central government to local government authorities.

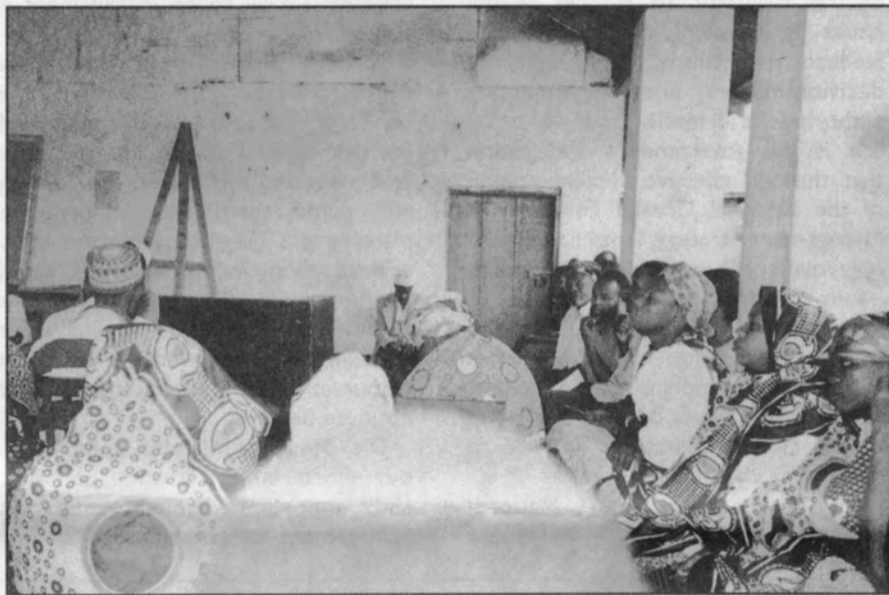
Emphasising that effective implementation of the ICM Strategy will be through local action planning, Nzali says local action planning works to:

- Empower those involved to plan and implement actions themselves
- Implement a limited number of specific actions to address well defined local problems
- Monitor the impacts of the actions taken
- Continuously review of progress and effectiveness – if necessary leading to adaptation

The engine for the action planning process is the intersectoral working group composed of experts from different disciplines and sectors including members from the private sector, communities and NGOs/CBOs.

"The group undertakes the planning, implementation and monitoring responsibilities of activities with close involvement of communities in a particular area. Treading on the ICM principles, the group identifies and assesses issues to be addressed before taking desirable intervention," Nzali elaborates.

Responding to a question on the effectiveness of local action planning in tested districts, Nzali explains that the districts of Pangani and Bagamoyo are beginning to benefit from the fruits of the ICM Action planning. "The districts are now addressing a number of issues which have been affecting sustainable resource use. It is anticipated that as they continue to implement specified actions, they will gradually find solutions for existing unsustainable activities." ◀



The success of ICM in Tanga is the result of community participation in both planning and implementation. In this picture residents of Kipumbwi seen planning their future ICM actions.

Coastal Tourism for Improved National Economy

Tanzania is fortunate to be a coastal state. With its whole eastern frontier stretching over 800 km along the western Indian Ocean, Tanzania boasts a vast disposition of coastal natural and cultural heritage, which if well tapped could make a significant contribution to the national economy. Apart from its diverse and valuable ecosystem, the country's coastal environment also contains an array of historic and scenic sites including the expansive and virgin beaches as well as world heritage sites not forgetting the unique Swahili culture and lifestyle of the coastal people. The coastal area is also endowed by enchanting wildlife reserves and game sanctuaries.

The challenge facing Tanzania is how to develop coastal tourism that benefits the nation and the coastal communities while maintaining the integrity of natural and cultural values of the coast. Equally challenging in coastal tourism

development is the linkage of different sectoral interests and harmonizing sectoral decisions about coastal resource use and management.

But now, as Idefonce Masekesa of the Coastal Tourism Working Group under the Tanzania Coastal Management Partnership (TCMP), says Tanzania is all out to brave the challenges and develop sustainable coastal tourism. "The government's aim is developing coastal tourism that is sustainable in all aspects. The concern is not pursuing for only equitable coastal tourism, but tourism that is environmentally, socially and culturally sensitive and which is in harmony with other sectoral development aspirations."

Being one of the leading economic sectors in the country, tourism contributes some 13 percent (mostly coming from wildlife safaris in the northern game parks) to the annual Gross Domestic Product (GDP) and provides direct employment to over 150,000 people.

Steps on the right direction include the

development of the National Integrated Tourism Master Plan, which is aimed at guiding both public and private sectors in further developing the tourism industry. The Master Plan recognises a number of coastal areas as having great potential for new tourism development.

As for the current position of its implementation, old beach hotels are being rehabilitated, new hotels are being constructed and plots are continuously being allocated for tourism development along the entire coast from Tanga to Mtwara.

The outlook for the future looks fairly bright, particularly for the coastal areas that can offer a diverse array of attractions. Coastal areas with the highest potential for new tourism development include the Kilwa district, Saadani that is soon becoming a National Park, Pangani, Bagamoyo, Mtwara, where Mnazi Bya Marine Park was recently established and Mafia Island.

According to coastal tourism experts working with TCMP, who have published the coastal tourism situation analysis, the development of coastal tourism is one of the major components of the National Integrated Coastal Environment Management Strategy that seeks to enhance environmental planning and management of key economic opportunities.

"It is the government's hope and anticipation, that through ICM principles Tanzania will be able to address the opportunities and constraints surrounding coastal tourism development, since the perspectives of all stakeholders along the coast will be valued and incorporated into the process," explains Masekesa.

The new integrated coastal tourism development approach, according to Masekesa, will in all aspects work in aspiration to the ongoing economic and governance reforms at national and local level. These reforms aiming at enhancing economic development, include the Local Government Reform Programme, the new Land Act, the Integrated Tourism Master Plan, the Marine Parks and Reserves Act, the

Poverty Eradication Strategy and the National ICM Strategy.

As the first step in this move towards sustainable coastal tourism development, the coastal tourism working group, apart from preparing a comprehensive coastal tourism situation analysis that captures issues pertinent to sustainable coastal tourism, has also published Guidelines for Responsible Coastal Tourism Development in Tanzania. The documents provide both technical and procedural guidance to tourism planners and potential investors in coastal tourism facilities.

But before the coastal tourism potential can be utilised, much work needs to be done. Fortunately, however, several initiatives are already underway to prepare for tourism development including the much-needed improvement of the Dar es salaam-Mingoyo road, the rehabilitation of the historical monuments in Kilwa Kisiwani and Bagamoyo, the upgrading of Saadani to a National Park and the establishment of the Mnazi Bay-Ruvuma Estuary Marine Park.

Through the National Integrated Coastal Environment Management Strategy, coastal tourism management plans are being prepared for priority areas. The purpose of developing the tourism management plans is to ensure that all aspects related to the sustainable development of tourism in a particular area are integrated into one comprehensive plan. As tourism is affected by many sectors, and in turn, can impact many other sectors, it is important that all relevant stakeholders are working towards a common goal – the sustainable development of tourism.

The tourism management plans are designed to be tools for organizing information from a variety of sources; planning for future tourism and other development that is appropriate to the local context; developing mechanisms to increase the involvement of local communities in tourism activities; and managing the mature industry once developed. ◀



Historical Mikindani Boma which has been recently turned into a tourist hotel

The essence of the ICM Strategy



Dr. Magnus Ngoile,

Tanzania is committed in sustainable development of its coastal environment and associated delicate resources. It is on this commitment that the government has adopted a National Integrated Coastal Environment Management Strategy (ICM). The main objective of the Strategy is to improve the quality of life of coastal communities through wise use and management of coastal resources. In a special interview, the Director General of NEMC Dr. Magnus Ngoile, and TCMP Support Unit leader, Mr. Jeremiah Daffa explain on the essence of the ICM Strategy.



Mr. Jeremiah Daffa

Q Now that we are launching ICM Strategy, would you please tell us what it is all about?

A Before explaining what ICM is, let me give its brief history. The government through TCMP and in collaboration with international partners had conducted a study to know how Tanzania is to benefit more from the coastal resources. It came up prominently that there was a need to have in place a mechanism that will guide effective coastal management that brings benefits and reduces negative impacts.

It is out of this that in December 2002 that the government approved the National Integrated Coastal Environment Management Strategy, which we are launching.

ICM is globally viewed as a potentially useful tool for addressing difficult coastal management issues through uniting all stakeholders in implementing management actions, which ensure benefits and work to reduce negative impacts.

It should be realised that people who live adjacent to the seashore and use coastal and marine resources, have their ways of coastal management that supports the living of those people. But as populations are increasing, and technologies changing rapidly, the coast and associated resources are increasingly affected by human activities. This situation led us to the establishment and implementation of ICM that is recognised world wide as an essential tool in sustainable management of the coastal areas. It is envisaged that through ICM we will achieve sustainable use and management of the resources in the meanwhile enabling communities to get better benefits from the resources.

Q Who funded the ICM initiatives and who will support its implementation?

A Various international development partners are funding ICM. The Strategy development process itself has been funded by the US Government through USAID and the Coastal Resources Center of the University of Rhode Island. The US Government will continue to support the implementation before the government takes full responsibility. But there have been further support of the ICM initiatives in the country.

For example the ICUN through the Dutch government is funding ICM initiatives in Tanga. In the southern regions of Mtwara and Lindi the Finnish government is supporting RIPS and the GEF/UNDP is funding the Mnazi Bay Ruvuma Estuary Marine Park. In Mafia the Mafia Island Marine Park is funded by

WWF, the British Government and the government of Norway. In Kilwa, we are being assisted by the American fund known as PEW in the initiatives to establish a marine park. Further assistance comes from the Japanese and French governments who are jointly assisting in the rehabilitation of Kilwa ruins. All these are already on going projects and the major aim of the Strategy is to expand these projects and add new ones, because we want them to be sustainable.

The prime objective of the Strategy is to ensure that we develop and improve the coastal environment through wise use of the available resources. The advantage of the ICM principles is that it involves the communities in addressing issues. For example, in Tanga region we had a serious problem of dynamite fishing. It reached a point that there were no fish at all in the Tanga coastal waters. It was out of this that war against dynamite fishing was launched in the area. This war was championed by the coastal communities themselves.

Q Is Zanzibar part of ICM Strategy?

A Zanzibar is not covered by the Strategy for two reasons. One, because issues being dealt with by the Strategy are not union issues. But more important is that Zanzibar is quite advanced in the promotion of sustainable use of coastal resources. They have their own Strategy that is already in implementation.

Q Which areas in the country will this Strategy be implemented?

A The Strategy will cover all districts along the coast from Tanga to Mtwara. We deliberately picked to focus at districts because of the decentralization policy that places much responsibility on districts and also because district authorities work closely with the communities.

However, apart from dealing with coastal districts, we believe communities' economic activities in other regions can have effect on coast ecosystem. For example, the unequal distribution and use of water at Ruaha River, in Usangu water catchment area, cause negative impact on the Rufiji Delta. So although we are dealing with coastal areas, we cannot ignore other areas though far away from the coast, which are linked to coastal resources.

Q Which resources fall under this Strategy?

A For many people coastal resources refer to fish resource. But coastal resources are so many, some of which people cannot think of quickly. For example major transport means for

most coastal communities is water. Therefore, ships are one of the most important coastal resources.

There is tourism. We all know that coastal tourism has many aspects that may impact the coastal environment. For example it involves construction of hotels, scuba diving and other activities which may in one way or another have impact on the coastal eco-system.

Minerals are other coastal resources. We must have heard about Songosongo gas, and we are told that by 2005, this gas will have been connected to Dar es Salaam. Besides Songosongo we have another gas resource at Mnazi Bay that is said to be even more in abundance than that of Songosongo.

Unfortunately, Mozambicans have no problem with power supply; otherwise we would have produced power at Mtwara and sell it to them. These are just a few coastal resources, but there are many more including mangroves and other resources.

Q How will the Strategy protect fragile coastal and marine resources?

A It is true that most of the coastal areas are fragile and sensitive. The Strategy is fully equipped to protect these areas. For the most vulnerable areas, they will be placed under conservation and no investments will be allowed in those areas. For other areas, there will be transparent procedures in investing or using them and coastal communities, particularly those living within or around the areas in question will be given access to inspect and monitor development activities to see if there is any violation of its use.

However, we have prepared investment guidelines particularly in mariculture development and coastal tourism. We wouldn't like to repeat investment problems like what we experienced on the tag of war of the Rufiji Delta prawn farming. When the Rufiji project was being introduced, we did not have the

current Environmental Impact Assessment tools. We hope and believe that we will get maximum cooperation from the intending investors and the local community. We realise that there is no activity that can be conducted within the coastal environment without having negative impacts on the coastal delicate environment. Our efforts cannot do away with all negative impacts, but we will reduce them through effective use of the ICM. Among the efforts is the preparation of various guidelines to guide sustainable development activities.

Q There has been a big problem of un co-ordinated scientific research on coastal areas. How are you going to address this problem?

A It is true there is such a problem. There are many institutions doing research, but there is no coordination of effective use of research results. But after establishing ICM, we have put a research unit that will deal and co-ordinate all coastal researches. This is because we realise the importance of scientific information in coastal management. Last year we launched the State of the Coast Report and this year we will do the same. This report is based on findings of researches conducted on various coastal resources. All these and other efforts will be co-ordinated by our experts and the problem will have been solved.

Q What will the Strategy look like?

A The Strategy will have Introductory part which will talk of the importance of coastal areas and why it is accorded so much importance as engine to development.

The Strategy will also address coastal issues, its people and the resources. There are seven Strategies within this Strategy addressing poverty, science, the fragile environment, capacity building and economic empowerment. ←



Coastal Management experts on field during the processing of the ICM Strategy

Mariculture potentials in alleviating coastal poverty

The Tanzania coast is endowed with rich resources. But the coastal people, who form 25% of the national population, are very poor.

They are poor because their daily livelihoods depend on small scale and unreliable fisheries and small-scale 'hand-hoe' agriculture.

These people mainly lead a 'hand to mouth' life, the small catches from the sea enabling them to feed their families and to make little savings which hardly meet costs for their children's education and clothing. This situation does not compare with the abundant resources of the coastal environment. It is neither rational to the many economic opportunities available in coastal areas.

One of the many economic opportunities, which may potentially help coastal communities to move out from poverty strains, is the development of sustainable mariculture.

According to coastal environment experts, who for over four years have been undertaking a process under the Tanzania Coastal Management Partnership to develop guidelines for mariculture development, the Tanzania coast has many potentially suitable sites for mariculture development, if care is taken not to reduce the ecological or economic value of critical habitats.

"Tanzania's coastal systems with rich and high biodiversity, and relatively unspoilt environment, has great potential for mariculture industry if it is properly managed and developed. Despite the fact that mariculture development requires sound management arrangements to avoid environment degradation, coastal communities have an opportunity to

undertake sustainable mariculture industry that may potentially help them to pull out of poverty strains," explains Fatuma Sobo, coordinator of the group of experts that prepared the mariculture documents.

The Mariculture Guidelines, which have been approved and endorsed by the Fisheries Division, is one of the tools for the implementation of the National Integrated Coastal Environment Management Strategy. The mariculture development guidelines achieve the intent of the proposed ICM Strategy's component of promoting integrated and

field requiring close intersectoral co-ordination and cross-sectoral policy development. From an environmental management perspective, it exemplifies some of the more complex challenges, since it is often conducted where terrestrial and aquatic habitats meet, and is closely linked to other socio-economic activities and issues," Sobo elaborates adding that the guidelines will help in addressing all basic cross-sectoral issues relevant to economic development and environment.

The mariculture guidelines and investor's guide have come at a right

"It is our hope that the Mariculture Guidelines will be of great value not only to the government and its institutions, but also to mariculture investors and coastal communities in general. They will be an effective tool in ensuring that mariculture activities are sustainable and contributing to national and community development. The guidelines will further contribute to transparent and participatory assessment of mariculture projects. The aim is to promote mariculture that is in harmony with other activities, local needs, and the protection of sensitive environment," Sobo explains

According to Sobo, the current approval procedure for mariculture projects is fragmented between institutions, contains gaps that may lead to environmentally damaging projects and is cumbersome for the investors. "The guidelines establish a modified project review procedure that is efficient, safeguards the environment and coastal population, while encouraging investment in mariculture. The aim is to have mariculture projects which are friendly to the environment, meanwhile benefiting the communities and the nation."

After putting in place the guidelines, there are all hopes that mariculture activities will improve in both quality and quantity. This follows the approval and endorsement of the guidelines, by institutions with stake in mariculture development. The institutions, including the Division of Fisheries, NEMC, Tanzania Investment Center, Division of Wildlife, Division of Forestry, Tanzania Harbours Authority, Division of Water and several others, see the guidelines as the road map for reviewing and approving equitable and sustainable mariculture projects in Tanzania. ◀



Seaweed farming is increasingly becoming an economic activity for coastal communities

sustainable approaches to the development of major economic uses of the coast to optimise benefits and minimise negative impacts.

In elaborating on mariculture development challenges the guidelines explain that mariculture is a complex industry that typifies many of the economic activities, and which, if care is not effectively taken, may lead to many environmental and economic problems.

"From a governance perspective, mariculture represents a multi-disciplinary

opportunity, when local and foreign investors are focusing their efforts in mariculture investments. Already there are several mariculture projects in progress and or in planning stages.

Sea weed farming is currently the most popular mariculture activity that is progressively being undertaken by local communities in the country. In 1990 there were 2000 seaweed farmers who produced 808 tones of dry seaweed. But in 1995 the number of seaweed farmers shot to 20,000 people who produced 6,452 tones.

Effective use of science to sustain coastal resource base

Mr. Zuberi Ally lives in Mtwara town, and depends on fishing in the Indian Ocean coast to support his five children, his wife and three children of his brother who died five years ago.

Three of his children and two of his brother are still in primary school. He has to deploy all the techniques he can to ensure that he catches enough fish to be able to get enough money to pay for the school fees and cater for the big family.

At times, he says, he has to use dynamite in fishing and small mesh nets, to be able to get something....."to go home empty handed is the greatest crime I could commit. Life will not go," he soberly says.

Ally is one of thousands of Tanzanians who live in the coastal area and whose lives entirely depend on the coastal marine resources. He is one of the thousands of coastal people who, in their desperation for survival, deplete the fragile coastal environment.

Ally, like many other coastal dwellers confesses that he is aware that using dynamite and small mesh nets is breaking the law apart from degrading the environment. However, he says, if given alternative means to support his family and lead a decent life, he would instantly do away with destructive fishing practices.

Ally's actions and attitude underlines the significance and essence of the National Integrated Coastal Environment Management Strategy that has been adopted. The Strategy will not only work to address issues of irrational and unsustainable use of coastal resources, but will provide guidance and build

partnerships which will work to develop and sustain important ecological habitats.

It is on the basis of this that the ICM Strategy will focus on science for management that enhances the conservation and restoration of critical habitats and areas of high biodiversity while ensuring that coastal people continue to benefit from the sustainable use of the resources.

"Along the coast there are areas that require intensive proactive planning and management because of their unique ecological importance and economic value, or because of intense user conflicts. These include geographical areas where major economic facilities and infrastructures are located - such as ports and industries; and areas with critical coastal habitats including mangroves, seagrass, watersheds, wetlands and coral reefs. Mechanisms are needed to initiate proactive planning and management so as to avoid potential user conflicts and destruction," explains Dr. Gasper Mahika, the secretariat of the Science and Technical Working Group (STWG) under the Tanzania Coastal Management Partnership (TCMP)

He said effective management of coastal resource base on which national economy and community development depend, requires scientific knowledge, Mahika says currently many management mistakes in marine and coastal development activities are made due to several reasons. He names the reasons, among others, as lack of good scientific information in management decisions; lack of scientific information

access and data sharing amongst coastal practitioners; ineffectively and uncoordinated coastal monitoring and assessment efforts; and insufficient scientific knowledge of coastal trends amongst coastal practitioners.

Elaborating further, Dr. Mahika says that science help characterise problems over time and help in the establishment of optimal management priorities. Science also provides a link between causes and specific environmental problems. It further provides opportunity to understand ecological systems in order to develop policy options and legitimize management decisions, apart from being an important tool in monitoring existing conditions of ecosystems in order to evaluate the effectiveness of policies and attainment of planned objectives.

He names ways to enhance science in coastal management as to improve mechanisms for interaction between scientists, coastal policy makers, resource

users and indigenous people; to employ integrated and adaptive approaches in policy making and implementation; to deploy resources to support the foregoing objectives; and to locate field stations along the coast which provide for both scientific research and extension services.

To this effect, the ICM Strategy provides for the establishment of the Science and Technical Working Group (STWG) in the Strategy implementation institutional framework.

"Key components of the STWG mandate include promotion of information access and data sharing employing a range of communication and dissemination strategies. The group will also provide advice and guidance related to scientific questions, studies and investigations, data management, and sampling and monitoring efforts that are necessary to improve the scientific foundation for coastal management," Dr. Mahika elaborates. ◀



Coastal management experts at a research session. Scientific research is important in coastal management.