

**Pwani Yetu Issue # 15**  
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## **Tanzania is now ready for sustainable mariculture industry**

Tanzania is now ready for sustainable mariculture industry with the focus to improve the national economy and livelihoods of coastal communities. This follows the establishment of the Mariculture Investors' Guide and the Mariculture Guidelines Source Book, both of which clarify the planning and permitting process for wise and sustainable mariculture projects in Tanzania.

Prepared by a group of Tanzanian and foreign experts under the guidance of TCMP, and handed over to the Ministry of Natural Resources and Tourism, both publications, according to the ministry's Permanent Secretary, Mr. Philemon Luhanjo, will be important tools for effective planning of sustainable mariculture development in the country.

"The investor's guide will not only help us in avoiding environmental disasters, but also from potential unintentional but costly conflicts with other economic activities such as fisheries, lands, agriculture and forestry," noted Mr. Luhanjo in his brief speech after receiving the books from the Permanent Secretary Vice President's Office, Mr. Abubakar Rajabu.

Underscoring the essence of the documents, Mr. Luhanjo said that it was not only quite encouraging that efforts are being made to address mariculture development in Tanzania, but even more gratifying that efforts are being made to approach mariculture development with a focus on ensuring that mariculture development does not reduce the ecological or economic value of critical habitats. "The essence of these documents is that they will not only promote mariculture in Tanzania, but will also guide us in enhancing mariculture without marginalising the biological value of the delicate coastal environment."

Speaking earlier at the ceremony, Mr. Abubakar Rajabu noted that mariculture holds great promise in Tanzania. If properly developed and managed it can contribute handsomely in economic development and poverty alleviation. But difficulties in inter-sectoral co-ordination may not only hinder the growth of this industry but cause controversial conflicts.

"From a governance perspective, mariculture represents a multi-disciplinary field requiring close intersectoral co-ordination and cross-sectoral policy development. From an environmental management perspective, mariculture 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," Mr. Rajabu noted in his remarks.

He explained that the mariculture guidelines and source book aim at establishing a modified mariculture development in Tanzania with the focus on better structure project permitting and review process that provide essential coordinating and feedback mechanisms. They also present recommendations and strategies, which support the ability to plan and develop mariculture harmoniously with other activities, local needs, and the protection of the sensitive environment.

The Mariculture Guidelines Source Book analyse the current means of promoting and facilitating development of mariculture businesses and devise new mechanisms to strengthen the ability of responsible institutions to assist the public to establish viable and profitable businesses that present minimal or no impacts. Different approaches are suggested where needed, to support large and small-scale mariculture development.

On its part, the Mariculture Investor's Guide describes the planning and permitting processes for mariculture projects in a clear and concise manner. The mariculture investor's guide, according to Mr. Rajabu, takes Tanzania another important step in concerted efforts to practising integrated coastal management (ICM) principles. ICM focus on improving the quality of life of coastal communities through wise and sustainable management and use of coastal resources and associated rich but delicate environment.

Speaking at the occasion, the USAID Mission Director Mr. Ray Kirkland expressed his conviction that the documents will be useful tools in promoting the development of mariculture that has ample potential in alleviating poverty in the country. He pledged his country's continued support of initiatives in enhancing sustainable development of coastal resources through the TCMP.

## **REPORTS FROM THE FIELD**

### **Parliamentary Committee on Environment impressed by ICM initiatives**

*By Jeremiah Daffa*

Members of the Parliamentary Committee on Environment and Poverty Alleviation have expressed their satisfaction on the ongoing efforts in enhancing integrated coastal management (ICM) in Tanzania, with the focus to improve the quality of life of coastal communities.

Expressing the MPs impression on the activities of the Tanga Coastal Zone Conservation and Development Program and initiatives in implementing ICM action planing in Bagamoyo under the guidance of the TCMP, the Vice Chairman of the committee, Hon. Hassan Rajab Khatib MP for Amani, Zanzibar, noted that the involvement of the local communities in the conservation and management of resources was the most appropriate approach in enhancing sustainable development at local level.

Hon. Khatib, who was wrapping up on observations by his committee during the

tour, said the MPs learned a lot on the coastal environment and development issues raised by various authorities and communities. The issues noted, if properly addressed at both national and local level, according to the MP, would effectively provide mechanisms to improve livelihoods of coastal communities. He commended efforts being made by Tanga regional and district level leadership in enhancing sustainable management of natural resources and associated environment.

Showing critical concern on poverty levels in coastal areas, the policy makers urged for efforts to be directed in balancing conservation and development. Challenging conservation programs to enhance community development, Hon. Job Yusto Ndungai - MP Kongwa, said people's efforts being directed to environment conservation will only be meaningful if the efforts will contribute in the improvement of community livelihoods. "Yes, local people are doing their best in conserving the environment and the resources, but they are poor and hungry. Let us do something on this."

The MPs' general impression is that the coastal resources, if effectively managed and developed, are able to contribute handsomely in the national and community development. Citing coastal tourism, fisheries, mariculture and agriculture, the MP for Bariadi East, Hon Danhi Makanga said that the economic opportunities abound in coastal areas should be developed to supplement the nation's efforts in fighting poverty. "But this will only occur if Tanzania will establish good policies and strategies to promote these areas and make the development wheel rolling."

The team had earlier toured Arusha and Moshi, and later Bagamoyo. Apart from praising the efforts being made by the Tanga Coastal Zone Conservation and Development Program in involving the community in resources conservation, they urged for national and local level efforts in addressing pertinent issues in coastal areas. The issues among others, include:

- \* Lack of mechanism to guide benefit sharing of mangrove forest resources: the local communities apart from taking initiatives in the conservation of the mangrove forests are not equitably benefiting from the resources
- \* Trawlers operations which were causing conflicts with local fishers
- \* Market problem and unsatisfactory price for seaweed
- \* Deterioration conditions of historical sites which are important tourist attractions
- \* Unsatisfactory beach plots allocation process

Apart from expressing their impression on the Tanga program, the MPs commended village communities for their cooperation and keen participation in the programme's activities. Initiatives being taken through the village environmental committees are not only contributing to environmental safeguarding but also in poverty alleviation initiatives.

On Bagamoyo the MPs expressed concern on the beach hotels development, some of which have been constructed without adhering to the 60 metres space from the sea front. Other noted issues in Bagamoyo include the clearing of mangroves to give way for hotel development; dynamite fishing; and deforestation as a result of the charcoal industry.

## **Rufiji all out for sustainable management of abounding natural resources**

Brigadier S. A. Hemed, the Rufiji District Commissioner does not mince words when he talks of the abounding natural resources of the Rufiji district. Despite the district's poor infrastructure that is further hampered by floods, the district chief says that concerted efforts being made will soon propel the Rufiji people to prosperity.

Talking in a special interview to the Dar es Salaam Television (DTV) journalists who were visiting Rufiji, Brg. Hemed said that his district has many natural resources which, if well managed and developed, would make handsome benefits to the local community apart from contributing to the national economy.

"We have all the riches in terms of natural resources which, if effectively managed and developed, would turn Rufiji the wealthiest district in the country. You just go around, visit the delta, sail on the Rufiji and see the natural splendour and endowments of this district. Rufiji is so special, a virgin goldmine," the DC says, with clear pride.

Indeed, Rufiji is a treasure-trove in terms of natural resources. The lower Rufiji is home to giant floodplain stretching 130 kilometres from west to east and supports grasslands, woodland, forest, swamp and thirteen permanent lakes. It is further home to the largest mangrove forest on the eastern coast of Africa with a massive 53,000 hectares, which provide nursery grounds for over eighty percent of Tanzania's shrimp.

"Rufiji resources are not only for the benefit of the local community. Our area's rich biodiversity is of special interest to the scientific community - the variety of plants and animals include some species found nowhere else in the world. Our challenge is how to maintain the rich endowments and wisely use these riches to improve livelihoods of the local community," the district chief explained.

On the challenges facing the district administration, the DC named uncontrolled over-harvesting of forests and woodlands for timber, charcoal and firewood; clearing of mangrove forests for cultivation and export of poles; and semi-industrial trawling for shrimps.

"We already know our challenges, but we are making progress in educating the community so it changes attitudes in resource management and use. Fortunately we are getting good cooperation from the community, which is an inspiration in our endeavour to manage Rufiji's abounding natural resources sustainably. I am confidently hopeful that it will not take us long to achieve positive economic changes and ultimately, better quality of life for the Rufiji community," the DC says with confidence.

## **Concerted efforts needed to protect turtles in Mafia**

*By Catharine Muir*

Few places are left in Tanzania coastal waters, that still offer a window onto those bygone days of prolific sea turtles. Shungumbili, a small sandy islet in the north-west coast of Mafia Island, is perhaps one of the most important places left in this part of the world, where sea turtles may still be easily sighted in large numbers. This is despite the continuing killings of defenceless turtles, and the unabated robbery of turtle eggs.

Shungimbili is indeed an important turtle-breeding site that many marine scientists and nature lovers insist should be earnestly protected. Over the past thirty years, Shungi-mbili and its sister islands of Nyororo and Mbarakuni, which are also critical nesting sites for turtles, have become popular camping grounds for fishermen mainly from Mtwara, Zanzibar, Dar es Salaam and the islands of Koma and Kwale. At Nyororo, a small shanty village has grown up, housing as many as 1000 fishermen and traders who congregate to fish for sharks, octopus, lobster and sea cucumbers.

The fishermen numbers at Shungi-mbili and Mbarakuni are lower due to the absence of fresh water, but nonetheless they are significant enough to disturb the nesting activities of turtles. As a result of high noise levels, including the running of compressors at night, nesting on the three islands has all but stopped during times of human inhabitation. Turtles now only nest during the North-East Monsoons - the Kaskazi between November and February when the islands are uninhabited.

The future of these islands as safe havens for endangered Green and Hawksbill turtles now hangs on the Mafia Island Sea Turtle & Dugong Conservation Programme. For the past 14 months, the program funded by WWF, the Born Free Foundation, the Body Shop Foundation and the SEA Trust has been taking initiatives to monitor the plight of these turtles.

The situation has changed slightly since the Mafia Island Sea Turtle & Dugong Conservation Programme began operations in cooperation with Mafia District Council, Mafia Island Marine Park and local communities. A year ago the islands were littered with shells of Green and Hawksbill turtles. Turtle skulls, picked clean by the sea, used to be washed up on the sand and the discarded shells of turtle eggs were heaped in piles beside makeshift fisher huts. In addition, the roots and branches of trees were being amputated for fuel to boil sea cucumbers and for campfires, and baobabs were being ring-barked for rope, resulting in the death of many trees and increased erosion.

Turtle nests are now being recorded and protected. The eggs are carefully translocated if laid below the high water mark, or if they are at risk from erosion. Turtle Guards have been elected and an incentive scheme initiated to encourage egg protection rather than egg poaching. Moreover, the fishermen have agreed only to run compressors during the day and to keep noise at night to a minimum. Trees are being planted and Forest Guards have been appointed to ensure that trees are not being cut or de-barked and that firewood is brought in from outside.

Over fifty meetings, informal discussions and video shows have been convened with fishermen visiting the islands to highlight the importance of turtles, trees and coral reefs

and how to protect them. Although considerable progress is being made, much is still to be done to enable effective management of the islets and conservation of turtles. One management option is to control the levels of fishing and camping by "closing" the islands for periods set to coincide with the main turtle nesting season (November to July). Another alternative is to designate all the islands, but at the very least, Shunguimbili, as turtle sanctuaries, giving them full protective status, as first recommended thirty years ago.

## **Tanzania establish Coastal Change Analysis Project**

*By Dr. A.S Ngusaru*

In the efforts to improve accessibility to scientific data of key coastal resources for effective coastal land planning, Tanzania, through the TCMP is pursuing the application of remote sensing and geographical information system technologies as one of the analytical tools for information gathering on the coastal resources of Tanzania. The immediate goal is to use remote sensing techniques and acquired remote sensing data in evaluating the status of coastal ecosystems.

Through its Science and Technical Working Group (STWG), TCMP has realized that the absence of accessible data and condition of key coastal resources, including maps for the analysis and coastal land use planning with geographically referenced data, have proven to be a limiting factor in effective coastal management in the country. The challenge lies in arriving at enduring solutions to the complex problems facing these unique areas, where considerable ecosystem services and high human population pressure coincide.

Current priority is in the study on the distribution and status of mangroves, coral reefs, marine fisheries, water quality, shoreline erosion and other marine living resources (mammals, sea turtles, seaweed, sea cucumber, crustaceans etc.). The future aim of TCMP is to be able use geospatial data and information in monitoring of hot spots and critical areas that require restoration and conservation. Equally important is the provision of background information for management planning, as well as detecting changes in habitat over time. This is the focus of the State of the Coast Report which, TCMP plans to publish annually.

One of the initial steps that has been taken by TCMP is the establishment of a Laboratory for Marine and Terrestrial Remote Sensing under the auspices of the Geographic Information for Sustainable Development (GISD) project. GISD is a United States of America-led international effort to apply new generation of earth observation data, GIS-linked technologies, and field-tested geographic knowledge to on-going sustainable development projects. TCMP is one of the GISD partners under a one-year Tanzania Coastal Change Analysis Project that was launched in September 2001. This project is among the four sites in Africa that is part of the GISD initiative. One of its main focus is the processing of land-based satellite data, construction of GIS maps for coastal areas of Tanzania and application of GIS technologies for use in coastal management planning and decision making. This will help to:

- \* Analyze rates of change over time in resource and land use patterns
- \* Shoreline change
- \* Mangrove and coastal forest change
- \* Urban growth
- \* Identify priority locations for coastal action planning and conservation, aquaculture and tourism development planning, and land use zoning
- \* Plan monitoring strategies
- \* Delineate management boundaries

### **Coastal Environment Award Scheme**

## **Makamba calls for community participation as Dar launch CEAS**

The Dar es Salaam Regional Commissioner, Lt. Yusufu Makamba has called on institutions, the business community, schools and the general public to participate actively in the Coastal Environment Award Scheme (CEAS), that aims at improving the city environment through community participation.

The RC made that appeal in his speech read on his behalf by the Ilala District Commissioner Mr. Mdoe, while officiating at the launching of the Dar es Salaam CEAS that is being coordinated by a regional committee formed by officers from the Dar es Salaam municipalities of Ilala, Temeke and Kinondoni.

At the ceremony held at the National Urban Water Authority (NUWA) Kizinga Water Pump Station and attended by district officers and Kizinga community, the RC expressed his anticipation for Dar es Salaam's effective participation in the scheme with the focus to improve and promote community participation in environmental management and safeguarding.

The RC noted that Dar es Salaam, apart from being a mirror for the country, is Tanzania's center for commerce and economy in which over two million people, including visitors and residents are actively conducting economic activities in various sectors.

"Dar es Salaam is not only a city of many industries, but also an area of many resident homes for various classes of people - the well-to-do and the low income earners. As a result, the efforts being directed in income generation and home raising, in many instances have led to environmental destruction, especially when people do not abide to laid out city development plans," noted the RC.

Citing the chronic haphazard building in river valleys and the street vending that has turned Dar es Salaam into an eye sore, the RC said that the situation poses a big challenge to the regional leadership. "We are being challenged to bring about changes - changes in human behaviour and attitudes towards sound environment. And in order to make

significant achievements, besides enforcing the city laws and regulations, we have to build strong partnerships with the city residents."

Naming the environmental award scheme as one of the practical ways of uniting the community and the city leadership in enhancing environmental management, the RC said the scheme will provide an opportunity to motivate the community in taking positive action towards environmental conservation and management. He named some of the values of the scheme as:

- \* Increasing environmental awareness
- \* Promoting public participation in sustainable coastal management
- \* Encouraging the use of environment-friendly technologies
- \* Enhancing practical education in issues relevant to environment amongst local communities
- \* Demonstrating government's commitment to sustainable coastal management
- \* Rewarding good actions by individuals and groups who carry out appropriate resource management practices

Calling on institutions and the general public, including business organisations, schools, community groups, religious organisations and individuals to participate in the scheme, the RC said that the best way to enhance effective management of the delicate coastal environment is the participation of all stakeholders. He urged the business community to support the initiative by participating in the scheme, and or by providing prizes to be awarded to best performers. This, he said will be the base for making the scheme sustainable.

Speaking at the ceremony, the GreenCOM Tanzania Chief of Party, Mr. Ngalason said Dar es Salaam has ample opportunity in running a successful award scheme through the support of the business community and other organisations, which are conscious with environmental health. He expressed his hope and anticipation of active participation of communities and institutions for the benefit of all Dar es Salaam residents and the nation at large.

### **Call for contributions**

In order that *Pwani Yetu* achieves its goal of sharing across information, experiences and ideas on coastal management, it requires for a wider participation of the coastal stakeholders including coastal managers, practitioners of different sectors, leaders, natural resource users and coastal communities.

This is even more important at the present time when Tanzania is in the ICM development process, which relies on a collaborative and stakeholder participatory approach. Please don't hesitate to offer your contribution to Pwani Yetu.

### **Join E-Pwani**

Since its introduction, the email discussion group (E- Pwani), has proved to be a very effective tool in information sharing amongst coastal managers and practitioners. For those who wish to join E- Pwani, Discussion Group just forward your application to: [e-pwani\\_mod@crc.uri.edu](mailto:e-pwani_mod@crc.uri.edu)