These articles were written during a fact-finding mission by Tanzania Coastal Management Partnership Working Group members to Tanga, Lindi, Mtwara and Mafia in the summer of 1998. They originally appeared in local Tanzanian newspapers. Special thanks to all the working group members who participated in the field trips.

This publication was made possible through support provided by the Office of Environment and Natural Resources; Bureau for Global Programs, Field Support and Research; Center for Environment; U.S. Agency for International Development, under the terms of Cooperative Agreement No. PCE-A-00-95-00030-05.
Towards an ICM Policy Process for Tanzania

In November of 1998, a meeting was held on integrated coastal management (ICM) in Tanzania hosted by the vice president’s office. Directors, commissioners and heads of key government institutions, whose departments and institutions are key stakeholders in coastal and marine management, endorsed the process of formulating a national ICM policy for Tanzania.

During the one day meeting, government executives, led by the principal secretary in the vice president’s office, Peter Ngumbullu, reviewed and scrutinized pertinent critical coastal issues identified by the Tanzania Coastal Management Partnership (TCMP) Working Groups. They made valuable comments and inputs that provide for a clearer description, emphasis and clarity on complexities of the issues and their cross sectoral nature.

Endorsement of the process was made after group discussions which focused on the following issue areas, among others:

- Maintaining and improving coastal village well-being and livelihood
- Shorefront planning and management of Tanzania’s emerging coast-related economic opportunities, including tourism, mariculture, industry, and oil and gas exploration
- Shorefront erosion resulting from extraction of coastal resources
- Supporting local initiatives and decisionmaking for inter-sectoral development
- Lack of human and institutional capacity

The meeting emphasized the need for a more detailed description of gender issues, agriculture, small-scale and informal sector needs, public awareness and capacity building. It further suggested the inclusion of issue themes on coastal emergency preparedness and hazard reduction, as well as on cross-boundary problems such as pollution and pelagic fisheries.

The government executives outlined key actions to guide the process to move from issue identification to adoption of an ICM policy. They directed that while the overall ICM policy is being formulated and adopted, action should be taken in the short term on critical issues such as resource depletion.

The TCMP is expected to prepare policy elements to be reviewed by the sectoral heads who will guide the drafting of the coastal policy. “We have been leading the Eastern African Region on ICM issues and now, with our new focus at the national level through the TCMP, we are considered a leader in the field of coastal management, probably for the entire continent,” said the minister of state in the vice president’s office, Hon. Edward Lowassa. He added, “We should not be complacent but move quickly and boldly towards effective policy.”
One of the main recommendations of the Workshop on Integrated Coastal Area Management for Eastern Africa and the Island States held in Tanga, Tanzania in August, 1996 was that there was a need for a training program for experts and practitioners that focused on the practical aspects of planning and implementation of integrated coastal management (ICM) programs in the region. To guide this, a new framework for building capacity for ICM is now in place with the signing of a Memorandum of Understanding (MOU) for the Western Indian Ocean Regional Capacity Building Program, signed by the vice-chancellor of the University of Dar es Salaam, the president of the Western Indian Ocean Marine Science Association and the University of Rhode Island’s Coastal Resources Center.

According to the MOU, there will be a national training program in ICM for Tanzania that will be designed through a process facilitated by the Tanzania Coastal Management Partnership, in cooperation with the Institute of Marine Sciences of the University of Dar es Salaam. It will target technical experts at both the national and district level across multiple sectors with the focus being to facilitate the sharing of ideas, approaches and information as well as creating a Tanzania network of coastal management practitioners. There will also be a similar regional training program for the West Indian Ocean regional states.

Preparations for the first national training program are already underway with a needs assessment exercise in progress. The needs assessment has been designed to assess the existing human and institutional capacity. The findings will identify existing sources of training and education, as well as provide guidance on formalizing a broader training and education agenda for ICM. This will be used to design training courses in ICM, the first to be a two-week short course held March 1-12, 1999, in Mombasa, Kenya. The course will be designed for practitioners from the states of Comoros, Kenya, Madagascar, Mauritius, Mozambique, Reunion, Seychelles, South Africa and Tanzania. It will be implemented through the Western Indian Ocean Marine Science Association in cooperation with the University of Rhode Island Coastal Resources Center.

The MOU also establishes a framework that will allow the regional training and the national training to come together over time to establish a regional center for ICM course work and training. It is hoped that a certificate course will be offered for regional practitioners and, eventually, a certified undergraduate and graduate curriculum will be available.

Through the regional training partnership that was built during the Tanga Workshop, capacity building will continue to be improved and strengthened for the benefit of the West Indian Ocean region.
Africa Affirms Commitment to Integrated Coastal Management

At the Pan-African Conference on Sustainable Integrated Coastal Management (PACSICOM) held 18-25 July 1998 in Mozambique’s capital city of Maputo, African states affirmed their commitment to integrated coastal management (ICM) policies and institutional frameworks to guide the coastal management that balances development with the health of marine and coastal environments. The conference that included technical workshops and a ministerial conference further recognized efforts and initiatives being made by some countries, including Tanzania, in the ongoing process of formulating national ICM policies as provided in the goals of Chapter 17 of Agenda 21 of the United Nations Conference on Environment and Development (UNCED).

According to Jeremiah Daffa of the Tanzania Coastal Management Partnership (TCMP) who accompanied Minister of Agriculture, Livestock and Natural Resources (Zanzibar) Adam Mwakanjuki to the Maputo Conference, the prime focus of the conference was to urge African coastal states to urgently make more concerted efforts in policy formulation and to include ICM principles in national development plans.

Many African countries, including Tanzania, have several policies which attempt to address coastal development issues, but they are mostly sectoral-oriented, lacking provisions to effectively guide integrated management. As a result, coastal area development needs are increasingly faced with sectoral development conflicts and shortcomings,” elaborated Daffa. He claims that the adopted policies on the environment, fisheries, tourism and forestry, despite of their relevance to coastal community development, lack a common purpose and inter-linked objective to enhance the principles of ICM.

The Maputo Conference was part of the PACSICOM process, which consists of a series of Pan-African partnership conferences aimed at enhancing the policymaking in the region on protection, management and development of Africa’s marine and coastal environment. The main themes discussed were:

- Managing Africa’s marine and coastal environment: Intra-African and international cooperation
- Africa’s coasts in crisis: Development implications
- The way forward: The PACSICOM process – Maputo and beyond

Held during the International Year of the Ocean (IYTO 1998), the Maputo Conference was organized in three parts:

- Technical Workshop (18-20 July) to address specific issues
- Workshop on cross-cutting issues and inter-linkages (22-27 July)
- Ministerial Conference to considered political implications and socioeconomic factors

The Maputo Conference recognized key issues pertinent to coastal and marine degradation which were frustrating development in coastal communities. The conference resolved and committed African countries, and called upon United Nations’ agencies, to urgently help African states in addressing three fundamental concerns:

- Introduction of an innovative process to design a comprehensive strategy for sustainable integrated development of the coastal environment, including the cultural and social dimension of development and taking into account the physical environment, the cultural heritage and the people
- Regular review of the state of Africa’s marine and coastal environment as well as the performance of intergovernmental agreements and programs
- Improvement of institutional efficiency and responsibly for management of coastal and marine environment.

Tanzania has long been recognized as a regional leader in ICM in eastern and southern Africa, and since 1997 been striving to formulate a national policy on ICM. The process, initiated by the vice president’s office through the National Environment Council and supported by the United States Agency for International Development and the University of Rhode Island’s Coastal Resources Center (USA), is being implemented by a support unit, the TCMP.

The Tanzania policy formulation initiative is recognized by PACSICOM as the most focused since it entails a collaborative, consultative and community participatory approach which enhances public ownership. The process is also issue-based to ensure that the policy addresses issues pertinent to community development opportunities, with relevancy to cultural background, as well as social, economic and poverty-related concerns.
“You are unfortunate, yesterday two turtles were slaughtered...there is hardly a day that passes without a turtle kill here,” Hamisi Mohamed贺西 bragged as he discussed Somanga’s rich sea harvests.

Hamisi was responding to a question from observers after they bumped into four bottom shells of turtles at the beach. He went to the extent of taking them to a kiosk storing a good number of shells with hopes of striking a quick deal. Never did Hamisi know that it was a disgusting revelation to the group.

Deliberate turtle fishing is no doubt one of the most disturbing issues that urgently need to be addressed in Tanzania. Turtles are among critically threatened marine species which need to be preciously conserved.

Asked if the fishermen knew that fishing of turtles was outlawed in Tanzania, Hamisi laughed before saying that the country has many laws which are hardly observed.

“Some people here may be aware that fishing of turtles is not allowed, but as long as there is no one enforcing the law, you wouldn’t expect people to resist taking the advantage of the laxity,” said Hamisi, calmly adding that apart from the existence of the law, fisheries authorities have to sensitize the local community on the importance of turtle conservation.

“You see most fishermen don’t feel they have anything to hide in fishing and selling turtle meat,” he elaborated. “If you were here yesterday, you would have witnessed the slaughtering right here at the beach, not in any hide-out.”

Turtles still abound in Mafia Island and Kilwa, but the endangered creatures are bound to perish as the indiscriminate killing that goes on unhindered persists.
“Dynamite fishing is now not a problem in our area, but the trawlers are disappointing us. They don’t only wreck our fishing nets and our seaweed farms, but they also kill coral reefs through siltation,” lamented the Kigombe village chairman recently while talking to a Tanzania Coastal Management Partnership (TCMP) team. The TCMP is a programme striving to formulate policies for effective integrated coastal management (ICM) in Tanzania, and the team was on a coastal issues identification tour of Tanga.

The chairman bitterly noted that they were further frustrated by government authorities who are not taking desirable action, despite being notified about the trawlers, which violate regulations by trawling in close to shore. Trawlers are only allowed to fish the high seas, and only during the day. But in Tanga it is alleged they sneak in close to shore, particularly near the Kigombe barrier reefs of Majivike, Kandacha, Upangu, Chanjale and Kitanga, which are rich with lobsters.

Kigombe is one of the villages in Tanga trying to implement ICM. Kigombe’s 3,000 residents, in collaboration with the Tanga Coastal Zone Conservation and Development Programme (TCZCDP), have initiated several conservation and economic projects aimed at bringing good governance to their coast and marine resources.

The trawlers are not only disheartening the Kigombe residents, but also the TCZCDP officials. Project coordinator Chris Horill sees the trawlers as a menace to the efforts being made by the people to implement ICM. As the Kigombe village chairman noted, Horill calls on the government authorities, in particular the Fisheries Department in the Ministry of Natural Resources and Tourism, to listen to people’s concerns and show appreciation of community cooperation in marine and environment conservation.

“We have notified the Fisheries Department about the trawlers not operating in observance of fishing time and trawling limitations, but there has not been any response whatsoever,” explained Horill at a debriefing meeting by the TCMP team that brought together Tanga districts and regional officials. “People are increasingly losing patience as they don’t see any action being taken by authorities. Something has to be done to end uncalled-for conflicts.”

Horill added that TCZCDP has officially complained to the Director of Fisheries by giving names and registration numbers of vessels, but surprisingly there hasn’t been any acknowledgment after five months. It is the Fisheries Department that can take action on any fishing irregularities by authorized trawlers. Appealing to the Director of Fisheries to take appropriate action, Solomon Makoloweka of TCZCDP said the government high authorities should demonstrate commitment and responsibility as a way of encouraging the local public in environmental development.

“It has taken us a long, costly time in Tanga to arouse awareness of the local community on the need to protect and conserve the fragile coastal and marine environment,” Makoloweka emphasized. “Now that people are responding well, every effort should be made to encourage them in whatever good activity they are doing.”
Bush Fires a Threat to Coastal Forests

When speaking of hard-dying destructive environmental habits, bush fires cannot fail to feature prominently in Tanzania. Mnguli, a staff member with the Rural Integrated Project Support in Lindi, describes deliberate bush fires as a habit that has been unfortunately turned into a cultural heritage.

Mnguli, a Mwera hailing from Lindi, whose work involves environmental management, crowns his description of bush fires by a Mwera greeting, "Kwengweminji moto gupitile salama," which means "Did the fire season pass safely at your village?"

The common reply is not only "gupitile salama," meaning "all went well," but in most cases includes a complimentary statement that the one who started it had a "good hand."

Mnguli was exchanging views with a Tanzania Coastal Management Partnership (TCMP) team. The team, comprised of coastal managers and marine scientists, was on an issue identification and assessment field tour of Lindi.

Mnguli had earlier noted that bush fires in most cases are not accidental, but deliberately set by people. "Bush fires are a problem that evades effective intervention, since in many areas—including my home village—there is no dry season that ends without bush fires. Fires are regarded as proper way of preparing land for cultivation," he explained.

Bush fires, which are regarded as major causes for desertification, have been painfully experienced in Tanzania. In the southern coast, bush fires are considered as critical threats to coastal forests which are very important to the coastal and marine ecosystems.

As if to confirm on Mnguli’s observations, the TCMP team encountered several bush fires as they drove to Kilwa. One was a blazing inferno, which was destroying important mninga trees, and threatened the nearby village. Looking at the faces of some people in the village one could not fail to note that they were praying for the fire to pass safely.
As Lime Industry Thrives, Corals Are Pushed into More Trouble

Expert marine biologists and fisheries scientists who are part of the Tanzania Coastal Management Partnership’s (TCMP) Interagency Working Group, dealing with issue identification and assessment of pressure on coastal resources, recently conducted a field tour of Mtwara and Lindi.

The TCMP team was inspired by efforts being made in combating dynamite fishing by the Tanzania Navy, as well as by local community and government officials. The Navy, in collaboration with the Ministry of Natural Resources and Tourism, has been on a special operation to crack down on dynamite fishing along the entire coastline of Tanzania since mid-1997. In every coastal village in Mtwara and Lindi, village government officials did not hesitate to declare their commitment in support of the Navy’s effort.

But the ongoing crack-down may not be Tanzania’s trump card in eradicating marine environment depletion. While everyone anticipates that the marine resources and the associated delicate environment will get relief by the eradication of dynamite fishing, coral reefs in the southern coast areas of Mtwara and Lindi are being pushed into even deeper troubles as the coral lime industry thrives.

Briefing the TCMP working group after the field trip, Lazarus Nhwaní, on behalf of the TCMP field trip team, explained that the lime industry in Mtwara and Lindi is growing exceptionally fast. Many young men who were formerly engaged in dynamite fishing have turned to coral mining. Coral has a ready market through the increasing small-scale lime industries.

Nhwaní—a retired fisheries senior research officer—urged immediate intervention to stop wanton coral mining. He expressed his fear that the coral reefs in Mtwara and Lindi are bound to suffer even more devastatingly due to the lime industry, rather than dynamite fishing. This is due to the fact that the lime industry is advocated as a legal business, and an ideal alternative income source to supplement the livelihood of the local residents who depend on fishing.

Previously, coral mining in the southern coast was not included in the list of human pressures on the coastal and marine resources. According to the experts, it may become the most disastrous imprint of man on the marine environment, since the local community seems not to be aware that coral mining is as unlawful as dynamite fishing and mangrove clearing.

This was made evident by the several boats that were met by the TCMP team delivering freshly ‘harvested’ coral stones at a lime-making site in Mikindani, only a stone’s throw from the police station.

“We are not prohibited from coral mining,” said an illegal miner at Mikindani. “What is offensive to the law is dynamite fishing and mangrove cutting. We don’t use mangroves to burn corals, as you can see.” The man, who was in charge of four boats specializing in coral stone supply, further shocked the scientists when he compared coral reefs to mushrooms.
“After all, the corals are like mushrooms. You cut it today, and in a few days it is thriving,” the man declared, clearly demonstrating the highest degree of misconception and ignorance about coral reef ecology.

Lack of understanding and awareness about the negative impact of live coral mining among the local community and government officers worries the TCMP team. “With public institutions like the Small Scale Industries promoting and dealing in lime-making, and government and political leaders said to be taking active roles in the launching of group lime-making projects, there is all the reason to fear for the worst,” observed Nhwani.

According to the TCMP team findings, there are over 40 known lime-making sites in Mtwara and Lindi, including some which are said to have been publicly launched recently as alternative income sources for youths. Based on estimates made in Mikindani, one site may burn an average of 180 tons of coral stones in a month.

“This is something that we can’t afford to keep silent on. The activity only works against the efforts and resources being spent in curbing dynamite fishing and other destructive fishing practices,” added Gasper Mahika, another member of the TCMP team.

Lime-making, which traditionally has been a livelihood of some coastal people, was formerly being done by using dead coral which abounded on the shore and was also present on the mainland. But with the growing coastal community populations, the dead coral stones, which are also used for house construction, are no longer in abundance. This has necessitated the mining of live corals to meet the local needs.

At historic Mikindani, most of whose buildings were built with coral stone and lime, some fishermen are said to have abandoned fishing in favor of coral mining. Though difficult work, as it involves diving, coral stone suppliers are apparently making a better and more steady income from the coral stone business than artisanal fisheries.

Appealing to Mtwara and Lindi regional and district governments officials and the ever-resourceful Rural Integrated Project Support to address the coral mining issue, Nhwani hopes that a proper sensitization campaign can be initiated to reverse attitudes of the local community.
Listening to H. R. Ngunyali, the northern zone mangrove officer, one might think he is only bragging about his work. But if one goes out into the Tanga coastal villages and talks to the local people, he or she will gain an appreciation of the efforts and resources of Ngunyali’s Mangrove Management Project (MMP).

Initiated in 1988 through a partnership between the Ministry of Natural Resources and Tourism, and the Norwegian Agency for Development, the MMP’s objective is to protect and develop Tanzania’s 110,500 hectares (ha) of mangroves, with a focus on enhancing the contribution of the mangrove ecosystem to the local and national economy by rational utilization on a sustainable basis.

In its own perspective, the project aims to directly benefit the coastal people who depend on its ecosystem for their livelihood.

Drawing on the motto, “Mangroves must live in Tanzania,” the northern zone mangrove officers are working in close cooperation with other regional and district sectoral authorities, and the local community.

This, according to Ngunyali, has brought about successful grassroots integrated management. Briefing a Tanzanian Coastal Management Partnership (TCMP) team of experts who were recently on a field tour of Tanga, Ngunyali explained that through collaborative partnership between the coastal villages, the Tanga Coastal Zone Conservation and Development Programme, and the local district government, some 422 ha of mangrove forests are being managed by the two villages of Kipumbwi and Sange.

“All individuals in the two villages—which were, incidentally, picked out as pilot villages—are taking responsibility, and participate in day-to-day management activities,” explained Ngunyali.

He added that, so far, 15 other villages have formed natural resources committees which organize field patrols to prevent the illegal cutting of mangroves, and supervise sustainable harvesting activities in collaboration with mangrove forest officers.

The TCMP team had the rewarding opportunity of examining integrated mangrove management at the villages of Mwambani and Kigombe. Critically threatened by beach erosion caused by decades of unchecked destructive activities, including dynamite fishing and mangrove clearing, both villages are now replanting mangroves even as they protect the surviving forests from further destruction.

According to Ngunyali, about 180 ha of mangroves have been planted so far through village community collaboration. Forty hectares are being planted along the Pangani River basin to reduce riverine erosion. Harvesting of mangroves is only allowed for strictly sound reasons and without favoritism toward any group.

Apart from involving local communities, the mangrove success story of Tanga has also been due to intensive community awareness campaigns, and training of stakeholders at all levels. To enhance this, some primary schools will include in their syllabus mangrove and other coastal ecosystem conservation lessons. Seven coastal primary schools will benefit from the programme during the pilot period.

“Nine primary school teachers have already undergone training in coastal ecology, and are expected to train the younger generation in the coming term,” explained Ngunyali, adding that the set-up has received the blessings of Tanga’s regional and districts government authorities.
Practicing ICM at Kigombe

Kigombe village, on the southern coast of Tanga, is conducting an all-out fight against beach erosion through the use of integrated coastal management.

With some houses in Kigombe already on the verge of falling into the sea, it is a frantic fight, but one with an impressive community participatory approach. Endowed with a long stretch of a beach which is sadly devastated, and boasting the barrier reefs of Majivike, Upangu, Kandacha, Chanjale and Kitanga, Kigombe village is now collaborating with the Tanga Coastal Zone Conservation and Development Programme and the Mangrove Management Project (MMP) in a community-based campaign to repair the degraded beach environment.

The campaign involves every member of the village community. With 3,000 people who largely depend on sea resources, the village is involved in planting trees (including mangroves), monitoring of destructive fishing practices, conservation of the barrier reefs, and seaweed farming. The El Nino rains unfortunately disrupted the mangrove planting, but the village is now in the process of replanting new mangroves with the guidance of the MMP.

Equally impressive are the village's initiatives to conserve its barrier reefs. Rich in lobster, some of the reefs were found to have been severely damaged by dynamite explosions. The reefs of Upangu and Kitanga have been restricted from use for five years in order to allow regeneration. The restrictions were carried out through village bylaws supported by district and regional authorities.

“Nowadays we do not need to seek the assistance of marine police to enforce the law as far as dynamite fishing is concerned,” said the Kigombe village chairman. “We have organized ourselves, and every individual in the village is taking responsibility in safeguarding the resources and the associated environment.”
This report was published by the Communications Unit of the Coastal Resources Center, University of Rhode Island (USA). It was written by Gratian Luhikula of the Tanzania Coastal Management Partnership, designed by Tyler Hall of the University of Rhode Island, and edited by Chip Young and Noelle Lewis of the Coastal Resources Center.

Coastal Resources Center Tanzania project coordinator is Mark Amaral.

This publication is available electronically on the Coastal Resources Center Worldwide Web site’s Tanzania Coastal Management Partnership page at: http://crc.uri.edu/field/esa/index.html. For more information, contact: Gratian Luhikula, Communication and Liaison Officer, Tanzania Coastal Management Partnership,
A joint initiative between the National Environment Management Council, the University of Rhode Island Coastal Resources Center and the United States Agency for International Development