NICEMS 4/28/03 1:40 PM Page A

THE UNITED REPUBLIC OF TANZANIA

NATIONAL INTEGRATED COASTAL ENVIRONMENT MANAGEMENT STRATEGY

Vice President's Office
Dar es Salaam

January 2003

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS iii
PREAMBLE v

1.0 INTRODUCTION 1
1.1 THE COASTAL AREA OF TANZANIA 1
1.2 THE COASTAL COMMUNITIES AND RESOURCES . .1
1.3 ECONOMIC IMPORTANCE OF COASTAL AREAS . . .2
1.4 COASTAL RESOURCES DEGRADATION 3
1.5 INTEGRATED COASTAL MANAGEMENT CONCEPT 4

2.0 RATIONALE FOR A NATIONAL INTEGRATED COASTAL MANAGEMENT STRATEGY 5
2.1 IMPROVING DECISION-MAKING 6
2.2 PROMOTING AND STRENGTHENING SECTORAL MANAGEMENT 6
2.3 PROMOTING LOCAL ICM PROGRAMMES 7
2.4 MEETING REGIONAL AND INTERNATIONAL COMMITMENTS 7

3.0 INTEGRATED COASTAL MANAGEMENT ISSUES 9
3.1 IMPROVEMENT OF THE WELL BEING AND LIVELIHOODS OF ALL BENEFICIARIES OF COASTAL RESOURCES 9
3.2 ENVIRONMENTAL PLANNING AND MANAGEMENT OF KEY ECONOMIC OPPORTUNITIES 12
3.3 MANAGING GEOGRAPHICAL AREAS OF CONCERN AND CRITICAL HABITATS 15
3.4 SUPPORTING LOCAL INITIATIVES, DECISION-MAKING FOR INTERSECTORAL DEVELOPMENTS AND HARMONIZING NATIONAL INTEREST WITH LOCAL NEEDS 16
3.5 INFORMATION AVAILABILITY FOR DECISION-MAKING 18
3.6 INADEQUATE HUMAN AND INSTITUTIONAL CAPACITY 18

4.0 THE STRATEGY 20
4.1 OVERALL VISION AND GOAL 20
4.2 STRATEGIES AND IMPLEMENTATION MECHANISMS 21

5.0 BOUNDARY OF THE NATIONAL ICM STRATEGY 31

6.0 INSTITUTIONAL STRUCTURE 32
6.1 NATIONAL STEERING COMMITTEE ON INTEGRATED COASTAL MANAGEMENT 32
6.2 INTEGRATED COASTAL MANAGEMENT UNIT 33
6.3 INTERSECTORAL WORKING GROUPS 33
6.4 LOCAL GOVERNMENT RESPONSIBILITY 34
6.5 INSTITUTIONAL PLACEMENT 35
6.6 ORGANOGRAM 36

7.0 ACTION PLAN 37

8.0 FUNDING 38

9.0 MONITORING, EVALUATION AND READJUSTMENT 39

ANNEX - SUMMARY OF THE ACTION PLAN 40

ACRONYMS AND ABBREVIATIONS

CBO	Community Based Organization
CRC/URI	Coastal Resources Centre of the University of Rhode Island
CTWG	Core Technical Working Group
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
GDP	Gross Domestic Product
ICM	Integrated Coastal Management
ICMU	Integrated Coastal Management Unit
ISWG	Issue Specific Working Group
IUCN	International Union for Conservation of Nature
KICAMP	Kinondoni Integrated Coastal Area Management Programme
LGRP	Local Government Reform Program
MIMP	Mafia Island Marine Park
MMP	Mangrove Management Project
MPAs	Marine Protected Areas
MTEF	Medium Term Expenditure Framework
NEMC	National Environment Management Council
NGOs	Non-Governmental Organizations
NORAD	Norwegian Agency for Development
NSC-ICM	National Steering Committee on Integrated Coastal Management

PACSICOM	Pan-African Conference on Sustainable Integrated Coastal Management
PER	Public Expenditure Review
PO-RALG	President's Office Regional Administration and Local Government
REMP	Rufiji Environment Management Project
RIPS	Rural Integrated Project Support
SAMP	Special Area Management Plan
STWG	Science and Technical Working Group
TCZCDP	Tanga Coastal Zone Conservation and Development Programme
TIC	Tanzania Investment Center
UDSM	University of Dar Es Salaam
USAID	United States Agency for International Development
VPO	Vice President's Office
WWF	World Wide Fund for Nature

PREAMBLE

The relief map of Tanzania shows a large coastal area. The area is endowed with abundant and unique resources. Twenty-five per cent of the country's population is domiciled in the coastal area. One of the unenviable descriptions of this segment of the population is that of being the poorest of the poor. The abundance of resources in coastal areas, contribute immensely to the efforts targeted towards the betterment of the peoples' quality of life and their livelihoods.

To attest the above, one should keep in mind the following: Seventy-five per cent of all industries in the country are to be found in the coastal areas. Dar es Salaam, the largest urban centre in the whole country, is a coastal city. Coastal tourism needs no elaboration. Mariculture development and seabed natural gas exploration and exploitation are activities bound to contribute to the improvement of the quality of life of coastal people in their communities.

The fact that about eight million Tanzanians share the coastal area with some of the most diverse and biologically important species on the planet makes the coast a uniquely productive but fragile part of the environment. This is the place where land meets the sea; where a multiplicity of human activities occur, not forgetting the imperative integrated decision-making requirement. This must be so because existing policies with respect to land, fisheries, forestry, water, minerals, agriculture, wildlife, industry, transport, energy, health, education and human settlement recognize the uniqueness of our coastal areas. It is indeed in view of the above that the National Environment Policy spells outbroad guidelines with regard to managing the environment in general but with more specific targets in the question of coastal and marine areas. Equally so, the National Vision 2025 recognises the need for quality environment and life as some of the goals and the outcome of sustainable development.

The National Integrated Coastal Management Strategy provides a framework under the National Environment Policy that links sectors at district level, and creates partnerships among them towards sustainable use of coastal resources and development. Although sectoral policies for many coastal resources are in place, the coastal people, especially the rural communities, are still poor. An integrated

strategy that overcomes the fragmentation inherent in single-sector management approach is necessary to address these persistent but easy to solve problems.

Coastal resources are under increasing pressure from the people that depend on them for food and income. Unless quick action is taken, coastal resources will not support future coastal communities. Moreover, there are large economic developments being proposed and executed, and more are yet to come. Such developments will, positively or adversely, affect many communities and sectors though participatory planning and execution of the same will ameliorate the would-be negative impacts. Indeed the challenge we now face is how to harness and manage coastal resources in an equitable and sustainable manner.

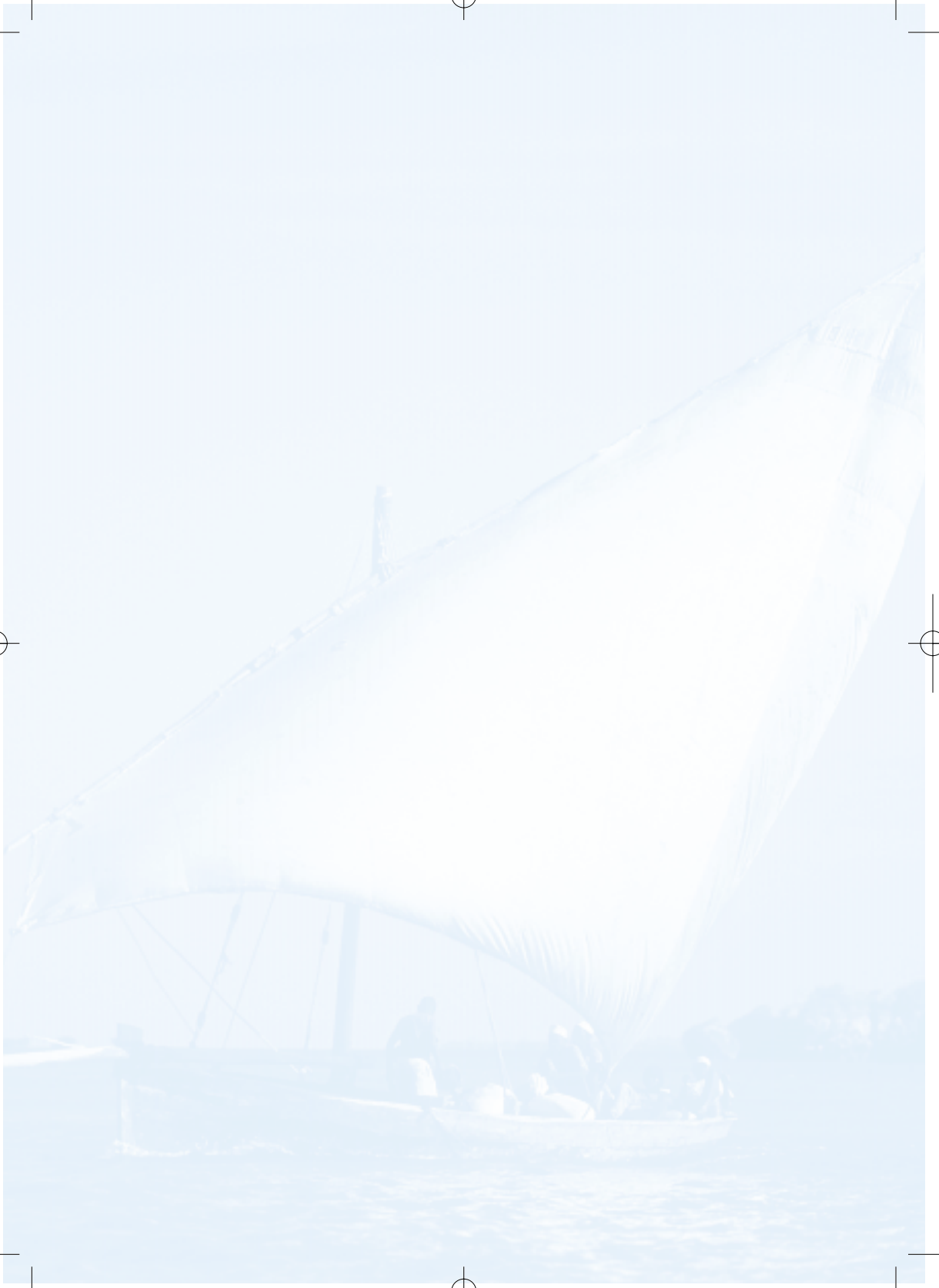
The challenge calls for a balance between development, conservation and utilization of coastal and marine resources; which is achievable when the people are aware, respect, value and responsibly manage the resources. This can be achieved through a well-coordinated and integrated approach that creates conducive and enhancing environment of collaborative partnership between the government and the community. Scientific management of cross-sectoral interests, at both national and local levels, is the key tenet of Integrated Coastal Management (ICM).

In recognizing the value of the coast and the need to facilitate sustainable development nationwide, Tanzania is committed to sustainable coastal governance through ICM. Tanzania is signatory and has ratified a number of multilateral environmental agreements that recognize the need for an integrated approach for managing the coastal area. Tanzania has translated these international and regional agreements into national action plans and tangible efforts to address our coastal problems. The National Integrated Coastal Environment Management Strategy currently draws some experience from several local ICM programmes that translate into action our understanding of the international and regional agreements. The ICM seeks to strengthen national programmes and initiatives to ensure their harmonized implementation.

Finally, I would like to state that the National Integrated Coastal Environment Management Strategy is the result of an open, transparent and participatory process that extended for over two years. It reflects the collective views and interests of a wide range of stakeholders who live and work in the coastal area. It is also built on a solid foundation of scientific and technical knowledge. It is hoped that by applying the principles and practices of ICM, Tanzania can and will realize the benefits of sustainable coastal development and the overall objective of the National Environment Policy in this regard.

In conclusion I would like to thank and pay tribute by taking liberty in mentioning the United States Agency for International Development (USAID) and Coastal Resources Center of the University of Rhode Island (CRC/URI). And of course, this does not belittle in anyway invaluable aid and assistance that we have had from NORAD, Ireland AID, IUCN, Finnish Government, Dutch Government, PEW Foundation and WWF. I also would like to thank those who participated and contributed to the development of this Strategy and particularly those who generously supported the entire process whom I may have omitted to mention.

Arcado D. Ntagazwa (MP)
MINISTER OF STATE
VICE PRESIDENT'S OFFICE (ENVIRONMENT)



1.0 INTRODUCTION

1.1 THE COASTAL AREA OF TANZANIA

Tanzania's mainland coastal area stretches for over 800 kilometres of coastline and includes five regions–Tanga, Coast, Dar es Salaam, Lindi and Mtwara–as well as large islands like Mafia and numerous islets including the catchement areas. About two thirds of the coastline has fringing reefs, often close to the shoreline, broken by river outlets including the Rufiji, Pangani, Ruvuma, Wami, Matandu and Ruvu.

The continental shelf is 5.8 kilometres wide, except at the Zanzibar and Mafia channels where the continental shelf reaches a width of about 62 kilometres. The nation's total estimated shelf area is 17,500 square kilometres. The Exclusive Economic Zone (EEZ) has an estimated area of 223,000 square kilometres[1] . However, this Strategy addresses only the issues of mainland Tanzania.

1.2 THE COASTAL COMMUNITIES AND RESOURCES

The five coastal regions of mainland Tanzania encompass about 15 percent of the country's land area and are home to approximately 25 percent of the country's population. Recent estimates indicate that the population of the five coastal regions now numbers about eight million, with a growth rate ranging between two and six percent. A doubling of the coastal population can be expected in as little as twelve years. That could mean 16 million people living on the coast in 2010, which are about 110 people per square kilometres[2] .The well being of coastal people is tied to the well being of coastal resources. If business as usual continues, more people will be catching decreasing fish stocks, cutting down more mangrove forests and farming the limited land that is suitable for agriculture.

Most rural coastal communities are very poor, with less than US$ 100 per capital GDP at current prices according to the national survey[3] . Hence, addressing the issues associated with the small-

1 Linden, O and Lundin, C. (ed.) 1995. Intergrated Coastal Zone Management in Tanzania

2 World Bank (1996), Tanzania, The Challenges of Reforms: Growth, Income and Welfare. Report No. 14982-TA, Vol.1.

3 National Account of Tanzania (1995) 1976-1994, 11th edition.

NICEMS 4/28/03 1:41 PM Page 2

scale, sustainable use of coastal resources is critical to poverty eradication and slowing rural to urban migration. The economy of the coastal communities depends mainly on small holder farming, subsistence forestry, artisanal fishing, lime and salt production, seaweed farming, livestock husbandry, and small-scale trade handicrafts. Most families must be involved in more than one economic activity so that if one income to the household–fishing for instance–fails, the family still has other sources of food and income. The daily struggle for food and household income keeps people from improving their well being. Underlying this difficult situation is the poor communication and transportation infrastructure, inadequate social services and the lack of non-resources dependant jobs in rural coastal areas.

1.3 ECONOMIC IMPORTANCE OF COASTAL AREAS

The coastal area is of critical importance to the development of the country.The five mainland coastal regions contribute about one third of the national Gross Domestic Product (GDP)[4]. Currently, 75 percent of the country's industries are in urban coastal areas. Newly initiated activities in the coastal region, including coastal tourism, mariculture development and natural gas exploitation, are seen as becoming increasingly important in the future in promoting national economic development. There is also substantial but un-tapped potential for agriculture, offshore fisheries, shipping, urban development, small-scale mining and manufacturing.

These economic opportunities need to be developed for the benefit of the nation and coastal people, in a manner that links growth to wise management and protection of the resource base. Unless this happens, coastal people's quality of life, which is inextricably tied to the resource base, will continue to decline.

4 World Bank (1996), Tanzania, The Challenges of Reforms: Growth, Income and Welfare. Report No. 14982-TA, Vol.1.

NICEMS 4/28/03 1:41 PM Page 3

1.4 COASTAL RESOURCES DEGRADATION

Pressures on the coastal resources are increasing, and resources depletion is already occurring. More and more people depend on water and land to generate income and provide food. This competition for the scarce resources, coupled with the desire to increase income, has led to desctructive practices. Dynamite fishing, although in check today, ran rampant in 1980s and 1990s. Today, international fishing trawlers are impacting significantly on fishery resources that are key to local users; resources that have declined rapidly in the last five years. Exploitation and uncontrolled use of forests and mangroves are on the increase. Major developments that threaten large tracts of coastal area and the people that live therein are becoming more frequent. Coral mining is increasing to supply building material for construction along the coast. In 1998, in just two southern regions, 80,000 tonnes of live and dead coral were estimated to be mined and used for lime production.

In areas where large populations are located, sprawl and uncontrolled land use and development are problems. This is made worse by unplanned settlements, both in urban and rural areas, where there is no access to potable water and sanitary systems. In all five coastal regions, 15 to 23 percent of today's households do not have toilets, leading to health problems like cholera and diarrhea[5].

There is also increased pressure from tourism, industry and population growth. Soon, as new infrastructure such as roads and airports are developed, quiet rural coastal communities will soon face the challenges that urban coastal communities now face,namely; severely degraded water quality - both marine and fresh, unplanned land use, restricted access to the coast for traditional users and a resource base that can no longer support artisanal fishers and mangrove cutters.

5 URT (1988) Tanzania Population Census. National Profile. Bureau of Statistics.

NICEMS 4/28/03 1:41 PM Page 4

1.5 INTEGRATED COASTAL MANAGEMENT CONCEPT

Integrated Coastal Management (ICM) is a continuous and dynamic process that unites government and the community, science and management and sectoral and public interest in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources.

Principles and attributes

i. Coastal development decisions shall be consistent with the government's priority of poverty alleviation and food security.

ii. Local stewardship and decision-making shall be promoted and supported as required by the Local Government Reform Programme. In cases where there is a clear and explicit national interest that overrides local decisions, a consultation process shall occur to find an equitable balance among the interests.

iii. Integrated approaches to the development of major new economic uses of the coast shall be promoted to optimize benefits and minimize negative impacts. Coastal development and management of economic opportunities shall be guided in a way that is compatible with national development goals and local needs, and protects the environment.

iv. Development and conservation interests shall be balanced by protecting areas of high biodiversity and cultural/historic importance and identifying and steering large-scale economic developments to suitable areas.

v. Scientific information shall be used to inform decision-making and re-adjust policy implementation as new information becomes available.

vi. The capacity of Tanzania to sustainably manage the country's coastal resources shall be increased and strengthened by providing information and knowledge to resources users, decision-makers and other stakeholders.

vii. Coastal management activities shall proceed incrementally and in-step with the available human and institutional capacity.

viii. Tanzania shall adhere to the relevant regional and international ICM conventions to which it is a Party.

2.0 RATIONALE FOR A NATIONAL INTEGRATED COASTAL MANAGEMENT STRATEGY

The coast is a uniquely productive and fragile part of the environment-the place where land meets with sea, where a multiplicity of human activities occur and where integrated decision-making is essential. The National Environmental Policy of 1997 serves as an umbrella providing guidance on managing the broader environment including the coastal and marine areas. It also provides the framework for making changes that are needed to bring environmental considerations into mainstream of decision making in the country. The National Vision 2025 also recognizes the need for quality environment and life. This National Integrated Coastal Environment Management Strategy provides a framework under the environmental policy that links government sectors at many levels, and creates partnerships among them and resource users in order to move towards sustainable coastal development.

While sectoral policies to varying extents address specific coastal resources and activities, strategies need to be developed to address the complex multi-sectoral issues found in coastal areas.

As part of the Strategy, there is a need for enhanced implementation mechanisms to tackle the complex challenges of coastal and marine management. Coordination and feedback mechanisms are needed among agencies, decision-makers and implementing authorities at all levels. Enhanced management structures and capacity of relevant agencies, particularly at district and village levels and improved enforcement of existing laws are essential for effective governance of coastal resources.

The result of the existing management practices often lead to resource use conflicts, environmental degradation, and stalled development initiatives. The persistent coastal problems are clear indicators of inadequacies in implementation of the existing policies. The urgency to strengthen the management system is great as we endeavour to harness and manage coastal resources in an equitable and sustainable manner that contributes to national and local development. In the absence of improved management practices, economic development will eventually lead to reduced water quality and supply, reefs stripped clean of fish, vast areas of mangroves lost

and restricted public access to resources and economic opportunties.

2.1 IMPROVING DECISION-MAKING

A national ICM strategy aims at improving the decision-making process for sustainable coastal development by providing clarification and guidance on resource use and allocation at both the national and local levels. This translates to increased power and access to resources by the communities

The ICM Strategy provides a framework and process for linking different sectors and harmonizing their decisions on environmentally sound management of coastal resources. It supports decentralization and existing initiatives working to conserve, protect and develop coastal resources. The National ICM Strategy seeks to support human and institutional capacity development at various levels and to facilitate and enhance partnerships among resource users and government. It also acknowledges the interrelationship among coastal uses and the effect each one imposes on the other. The Strategy provides a basis and a mechanism for decision-making across sectors concerning the conservation and sustainable use of coastal and marine resources. Ultimately, the Strategy will lead to sustainable coastal resource management that can support new development challenges and contribute to improved well being of communities that depend on coastal resources.

2.2 PROMOTING AND STRENGTHENING SECTORAL MANAGEMENT

Sectoral participation and involvement will remain central to effective coastal environment management. This Strategy aims at catalyzing cross-sector planning and action to fill institutional gaps and resolve coastal issues.The Strategy places emphasis on mainstreaming coastal environment concern by enhancing stakeholder participation, compliance to laws and regulations, support for research, training, education and awareness at all levels. Thus, ICM supports and strengthen sectors; it does not replace them.

At the national level, many government sectoral policy statements (such as those of land, fisheries, environment, forestry, tourism and others) recognize the need for an integrated and participatory resource management approach to resolve issues and take advantage of development opportunities.

2.3 PROMOTING LOCAL ICM PROGRAMMES

The National ICM Strategy provides a framework for linking local programmes and promoting additional ICM efforts. There are several locally based ICM programs in Tanzania. These include: Tanga Coastal Zone Conservation and Development Programme (TCZCDP); Kinondoni Integrated Coastal Area Management Programme (KICAMP); Mafia Island Marine Park (MIMP); Rural Integrated Programme Support (RIPS); Rufiji Environment Management Project (REMP); Mnazi Bay and Ruvuma Estuary Marine Park, and Mangrove Management Project (MMP). Currently, the experience and lessons learned from these locally based initiatives are not being effectively captured and transferred. The framework provided by this Strategy will enable the programmes' networking to serve implementation of relevant government policies.

2.4 MEETING REGIONAL AND INTERNATIONAL COMMITMENTS

Tanzania has been in the forefront within the Western Indian Ocean region in the field of ICM. This is a result of substantial experience in ICM and a long standing political commitment to make effective ICM a reality.

At the regional and international level, Tanzania actively supports ICM principles and programmes. The government of Tanzania has signed and ratified international conventions that endorse the importance of ICM. These include the *Nairobi Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region* and its *Protocols*, the *Convention on Biological Diversity*, and the *United Nations Framework Convention on Climate Change*. Tanzania also hosted and chaired the first regional inter-

NICEMS 4/28/03 1:41 PM Page 8

ministerial conference on ICM for Eastern Africa and the Island states held in Arusha (1993), which was followed by a highlevel National ICM Workshop held in Zanzibar (1995) and participated in the second conference on the same topic held in Seychelles (1996). Tanzania signed resolutions resulting from these conferences that provide the basic roadmap for ICM development and implementation at the national level.Tanzania participated in the *Pan African Conference on Sustainable Integrated Coastal Management* (PACSICOM) held in Maputo (July 1998). The meeting recognized that African coastal states need to move towards more integrated policies and practices of sustainable ICM to improve the quality of life for African coastal communities. In November, 1999, Tanzania was elected as a Vice-Chair (for Programmes) to the Nairobi Convention and is actively participating in the African Process on Intergrated Coastal Management.

3.0 INTEGRATED COASTAL MANAGEMENT ISSUES

The National Environment Policy links poverty and environment and prioritizes sustainable resource use for poverty eradication. Issues related to Integrated Coastal Management in Tanzania that address poverty eradication are categorized in the following six broad areas:

(i) Improvement of the well being and livelihoods of all beneficiaries of coastal resources
(ii) Environmental planning and management of key economic opportunities
(iii) Managing geographical areas of concern and critical habitats
(iv) Supporting local initiatives, decision-making for intersectoral developments, and harmonizing national interest with local needs
(v) Information availability for decision-making
(VI) Inadequate human and institutional capacity and awareness

These issues frame the focus of this National Integrated Coastal Environment Management Strategy. For the purpose of this Strategy, the issues are explained below but are not aligned with strategies because in several instances, a single strategy can address several issue areas. A similar solution can be applied to several different problems. Strategies are presented in section 4.

3.1 IMPROVEMENT OF THE WELL BEING AND LIVELIHOODS OF ALL BENEFICIARIES OF COASTAL RESOURCES

Most rural coastal communities are very poor. Their economy depends mainly on smallholder farming, subsistence forestry, artisanal fishing, lime and salt production, seaweed farming, livestock husbandry and small-scale trade handicrafts. While most families in the coastal region are involved in more than one economic activity, many remain well below the poverty line. Lack of food security, communication and transportation infrastructure, livelihood opportunities and social services, coupled with poor performance of agriculture and fishing are major concerns which have resulted in a substantial rural-urban migration, especially to Dar es Salaam. Actions to increase productivity of current economic activities in rural areas; to promote alternative, environmentally sustainable livelihood

NICEMS 4/28/03 1:41 PM Page 10

opportunities; and to strengthen infrastructure and social programs in rural areas are yet to be identified.

The following are the economic activities upon which coastal villagers mainly depend. Together they form an intricate and diverse economic support system that depends upon sound environmental ecosystems.

3.1.1 Small-scale agriculture

Coastal agriculture is dominated by smallholders who form the core of the economy. The majority of these small holder farms are located in areas with poor infrastructure - limiting market opportunities. These areas have limited availability of critical inputs such as fertilizer and credit. Few crops are well suited to the agro-ecological climate of the lowland coastal villages. In coastal areas, much of the agricultural land has been planted with coconuts and is held in a tangle of inheritance rights. In the more remote villages where crops are left unguarded, wild animals may devastate an entire crop. Because of the pressure from vermin, farming is very risky in those villages. Lack of diversification in agriculture has further contributed to food insecurity.

3.1.2 Artisanal fisheries

Artisanal fisheries provide most of the food protein for coastal residents and contribute more than 96 percent of the nation's total marine fish landings. The artisanal fishery is concentrated in inshore shallow waters because of the limited range of the traditional fishing vessels. During the period between 1984 to 1996, the annual fish catch ranged between 45,000 and 54,000 tonnes for the mainland[6]. Also during this period, the number of fishermen increased each year. Until 1990, increased effort resulted in increased catches. However, during the last decade, catches have been in decline, perhaps signaling the fishery is over-exploiting the stocks. Coupled with increased overall fishing effort has been the introduction of destructive capture techniques–including dynamite fishing or blasting, beach seining and poison fishing–all of which exacerbate the problem by

6 MNRT(1996), Annual Fisheries Statistics, Fisheries Division

NICEMS 4/28/03 1:41 PM Page 11

indiscriminately killing fish and destroying habitat. Nevertheless, in the last few years efforts were made to curtail increased use of illegal fishing practices by both local and central government organs, these initiatives need to be revisited sustained. Commercial fishing trawlers are also encroaching on local fishing grounds, causing localized damage and reduced stocks.

3.1.3 Small-scale mariculture

There is an emerging, village-based seaweed farming industry that makes important contributions to the village economy. Continued growth and diversification of the seaweed industry and other small-scale mariculture activities are expected at the village level. If improperly implemented, mariculture activities can have adverse impacts upon the surrounding coastal environment. On a positive note, mariculture can provide an alternative source of employment, income and protein.

3.1.4 Coastal forests and mangroves

Only remnants of the once extensive ancient forests of East Africa remain in Tanzania, occurring as isolated patches on hilltops and offshore islands. Extensive mangrove stands still remain, occupying about 115,000 ha of the coast. Apart from their biodiversity richness, they are important and valuable resources to local communities by providing food, fuel and building materials both for home use and sale, as well as playing a vital environmental role in the rich coastal ecosystem.

3.1.5 Small-scale businesses and the informal sector

In coastal regions, particularly in urban areas, small-scale businesses and the informal sector are becoming substantial components of the economy. The number of people involved in these economic activities has increased while the economic situation has worsened and real wages have declined. The informal sector has expanded faster than the official GDP, although it is not measured by official statistics. The small-scale businesses and the informal sector have an important role to play because they provide income-earning opportunities for large numbers of unskilled and jobless people. The by-products and waste of a rapidly expanding informal sector also have the potential to damage the surrounding environment.

3.1.6 Extraction of coastal resources

Extraction activities along the coast are important contributors to the local economy, both in terms of monetary input and supply of raw materials for construction. There are four main extraction activities along the coast: (1) sand mining–for use as building material (2) salt production; (3) quarrying–targeting materials other than sand, especially coral, for construction; and, (4) coral extraction from the sea–one of the most destructive activities in coastal areas. Live and dead corals are extracted from reefs using pick axes, crowbars and other implements.

The conservation and sustainable use of coastal resources and the identification of new opportunities to supplement village incomes and reduce pressure on the resource base, are challenges.

3.2 ENVIRONMENTAL PLANNING AND MANAGEMENT OF KEY ECONOMIC OPPORTUNITIES

Development and use of the coastal area is expected to increase, creating economic opportunities as well as putting unprecedented pressure on both the people and resources of the coast. To maximize benefits of current and future development, careful shorefront planning guided by clear principles and backed by enforceable practices is necessary. Shorefront planning seeks to balance competing uses for land and natural resources, resolve conflicts among users, and balance national and local interests. It guides development as it is happening, promoting development in suitable areas and away from sensitive areas as well as mitigating the impacts of existing activities. It does not replace the sectoral responsibilities for reviewing and approving development. Instead, it seeks to coordinate among the sectors and fill gaps that exist between them.

In addition to bringing a rational approach to siting shorefront development, another challenge is how to promote integrated and sustainable approaches to the development of major new economic uses of the coast and its supporting infrastructure. New roads, airports, and access to water and power encourage growth. Economic activities that are expected to grow, and their associated

NICEMS 4/28/03 1:41 PM Page 13

issues, include tourism, large-scale agriculture and mariculture, industry, mining and gas/oil exploration.

Development activities including industries, agriculture, mariculture, tourism, urbanization and other activities are potential sources of pollution. Poor waste management (solid and liquid) from various institutions and residential areas has led to environmental pollution. Improper dumping has led to air pollution, and ground water pollution through seepage. Inadequacy of treatment plants of waste water in cities and towns along the coast has led to discharge of raw waste into rivers, eventually in the sea, therefore risking both human lives and coastal ecosystems.

3.2.1 Tourism

The coastline is endowed with numerous potential sites for tourism including historic and scenic sites. The National Tourism Master Plan that recognizes the need for development of sustainable Coastal Tourism activities is in place. As for the current status of implementation of the Master Plan 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.

Future projections indicate that coastal tourism has the potential to generate significant employment and foreign exchange earnings. However, the expansion of coastal tourism could also lead to:

- Pressure on existing infrastructure and services
- Beach erosion from poorly sited hotels, and the consequent call for increased government expenditures to rehabilitate and protect private-sector investments as well as downstream areas
- Localized pollution due to increased waste load
- Reduction of public access to the beach and other conflicts between villagers and tourists e.g. cultural issues
- Degradation of habitats, especially damage to coral reefs due to trampling and anchors
- Depletion of resources through collection of trophies, seashells and corals

NICEMS 4/28/03 1:41 PM Page 14

3.2.2 Large-scale Agriculture

Large-scale agricultural activities include cashew nut and coconut farms and sisal plantations. As the potential for the development of this sector is realized using inputs such as agro-chemicals, measures to avoid impacts such as surface and ground water contamination are inadequate.

3.2.3 Large scale fisheries

Large-scale fishery is an important economic activity and source of income and protein. Currently, large-scale fishery target shallow water shrimp resources, with inevitable catch of finfish. There is also a potential of expanding industrial fishery especially on the pelagic stocks, sardines, tuna and stocks found in the Exclusive Economic Zone. However, there is a need to guard against risks arising from industrial/large scale fisheries, including over-fishing, discard of by-catch, habitat destruction, and conflicts among resource users.

3.2.4 Large-scale Mariculture

Mariculture is the rearing of finfish, shellfish and seaweed in a process where at least one phase of growth is under human control. There is a growing village-based seaweed farming industry, and shrimp culture is also emerging. Continued growth and diversification of the mariculture industry is expected at both the village level, where mariculture is an alternative form of crop production and can provide income and protein; and at a large- scale level where mariculture can provide many types of employment and generate foreign exchange. While mariculture can yield these benefits, it can also have major environmental and socioeconomic impacts if it is not carried out properly.

3.2.5 Industry

Seventy-five percent of the industry that exists in the country is located on the coast. Most of the industrial development in coastal areas are light manufacturing industries, agro-processing plants and mills located in the urban centers of Dar es Salaam and Tanga. Industrial operations generate effluents that are discharged directly or eventually flow into coastal waters because the majority of the industries do not have adequate waste treatment facilities.

NICEMS 4/28/03 1:41 PM Page 15

3.2.6 Mining and gas/oil exploration

There are mineral, oil and gas resources in coastal areas that can contribute significantly to the national economy. While none of these resources have yet been exploited on a significant scale, Tanzania is about to embark on development of the Songo Songo gas field. This will include large-scale offshore gas extraction, and an extensive pipeline system that will deliver the product to Dar es Salaam. It is expected that the gas will be converted to electricity and contribute to the national electrical grid. There are also confirmed gas reserves at Mnazi Bay and specific plans for exploitation are in place. While these are promising developments for Tanzania's economy, extraction must be carefully conducted to not adversely impact the surrounding environment.

3.3 MANAGING GEOGRAPHICAL AREAS OF CONCERN AND CRITICAL HABITATS

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 conflict. These are geographical areas of concern and critical habitats. Geographical areas of concern include coastal areas where major new economic facilities and infrastructures e.g. ports and where developments are planned.

Critical coastal habitats include mangrove, sea-grass, watershed, wetlands and coral reef areas.

3.3.1 Geographical areas of concern

There are currently few mechanisms in place to initiate proactive planning and management of coastal geographic areas of concern. These include coastal areas with important existing economic facilities and infrastructure (e.g., ports) and where major new economic developments are planned. Processes are needed to proactively identify and resolve potential user conflicts before they occur, as well as identifying and managing high hazard areas from natural and man-made forces such as erosion and flooding.

3.3.2 Critical coastal habitats

Critical coastal habitats include estuaries, mangrove forests, beaches, coral reefs and seagrass beds. These systems interact with each other and together supply the natural wealth upon which the coast's resource-dependent activities depend. The biodiversity of these systems is an important asset for the nation and irreplaceable once lost. There is growing concern that this resource base is already degraded, and if current trends exist, increasing pressures from a growing population and emerging economic developments will cause further damage.

Currently, Tanzania uses a number of tools to promote sound planning and management of critical coastal habitats. The National Mangrove Management Plan, prepared in 1991 and currently implemented by the Ministry of Natural Resources and Tourism, provides a framework for sustainable use of mangroves. Marine parks are "special management areas" for critical coastal and marine habitats with high biodiversity. They are managed under the authority of the Marine Parks and Reserves Act with management responsibility vested in the Board of Trustees. Currently there are only two marine parks; however, there is potential for a system of marine parks to play a central role within the nation's overall ICM strategy. Finally, there are local coral reef management initiatives in Tanga and elsewhere that provide promising models for critical habitat management.

3.4 SUPPORTING LOCAL INITIATIVES, DECISION-MAKING FOR INTERSECTORAL DEVELOPMENTS, AND HARMONIZING NATIONAL INTEREST WITH LOCAL NEEDS

Several local level coastal management programmes are ongoing. These programmes are making progress on a host of local issues, but also identify barriers that exist at higher levels of government that need to be removed if the full promise of community management is to be realized. Any national programme must "solve problems" for these existing programmes, as well as develop mechanisms to promote the replication of successful models. Furthermore, the

NICEMS 4/28/03 1:41 PM Page 17

lessons that have been learned in these specific sites need to be applied broadly by a national programme.

Many sectoral-based ministries share coastal and marine resource planning, management and enforcement duties. These include the Ministries for Natural Resources and Tourism (with forest, fishery, tourist and wildlife regulatory responsibilities); Lands and Human Settlement; Trade and Industry; Water and livestock; Food and Agriculture; Co-operatives and Marketing; Foreign Affairs and International Relations; Energy and Minerals; Communications and Transport; and Home Affairs. Others are the Vice President's Office, Regional Administration and Local Government, and the Ministry for Justice and Constitutional Affairs. All have important coastal and marine responsibilities. However, responsibilities are divided among the many divisions within each Ministry.

Local government also plays a key role in natural resource management, with precise responsibilities depending on the particular sectoral legislation and regulations. The ability of district and village governments to manage resources is hampered because of difficulties in re-distributing revenues at the local level.

Many well-intended actions and decisions are being taken to manage coastal resources at local and national levels, by central and local governments, companies, non-governmental organizations, local communities and individuals. However, these actions are often taken independently of one another due to inadequate multi-sectoral and collaborative stakeholder practices and approaches to face the complex challenges of coastal environmental management, while at the same time address poverty eradication issues. In an increasing number of cases, these inadequacies have led to unanticipated consequences and the transfer of problems from one sector or geographic area to another. Therefore, there is a need to have adequate feedback and implementation mechanisms between coordinating agencies, decision-makers and implementing authorities at all levels of government to easily harmonize national interest with local needs.

NICEMS 4/28/03 1:41 PM Page 18

3.5 INFORMATION AVAILABILITY FOR DECISION-MAKING

Inadequacy of data on coastal and marine resource status, trends and uses inhibits good coastal planning, proper management, and enforcement of rules and regulations. Priority data acquisition needs include trend data on sand mining, dynamite fishing, coral reef condition, mangrove condition and loss, and ambient water quality and effluent discharges.

Currently, Tanzania's research institutions have low capacity to address these critical and practical data gaps. Research concerned with the protection of the coastal and marine environment is carried out in isolation with little exchange between research institutions. Research institutions include the Tanzania Commission for Science and Technology, the Tanzania Fisheries Research Institute, the University of Dar es Salaam-Institute of Marine Sciences, the Kunduchi Fisheries and Training Institute, and the Mbegani Fisheries Development Center. These institutions are interested in conducting research on what sort of management issues facing the nation, but there are inadequate coordination mechanisms to bring managers and scientists together to establish priorities or exchange findings.

3.6 INADEQUATE HUMAN AND INSTITUTIONAL CAPACITY AND AWARENESS

One of the major constraints for successfully advancing effective ICM is inadequacy of human and institutional capacity at all levels. Present and future generations living within and outside coastal districts must be made aware of the importance of coastal resources to their well being and the importance of their wise use. However, there is limited individual and institutional capacity to manage the diverse environmental resources within the coastal area. Training and education in the country is delivered in a sectoral manner; hence, what capacity exists tends to be narrowly focused and highly specialized. In recent years, it has become clear that sectoral specialists alone cannot meet the challenges of managing the coastal area.

NICEMS 4/28/03 1:41 PM Page 19

Coastal managers need skills and attitudes that promote integrative thinking and action.

Another issue is the inadequate awareness of roles and responsibilities of the different institutions involved in coastal management. This reduces the potential synergy and collaboration when implementing their respective institutional mandates.

4.0 THE STRATEGY

This National Integrated Coastal Environment Management Strategy, which includes implementation mechanisms and actions, reinforces the collaborative roles of sectors and resource users to identify and develop solutions to urgent coastal problems.

To implement this Strategy there shall be an institutional structure as fully defined under section 6 of this Strategy.

4.1 OVERALL VISION. MISSION AND GOAL

Vision

The overall vision of this Strategy is having a coast with thriving coastal settlements where people rely on the coast and its abundant resources for their food and livelihood and are actively working to protect and sustain the resource base.

Mission

To achieve this vision there is a need to sustain the existing and develop coastal economic opportunities that sustainably contribute to both local and national development and diversify employment opportunities for coastal residents. Furthermore, there is also a need to forge partnership between government and all other segments of Tanzanian society that are resource users, the private sector, academic and research institutions and others to work together to realise the vision.

Goal

The goal of this National Integrated Coastal Environment Management Strategy is to implement the National Environment Policy and other related policies in conserving, protecting and developing the resources of Tanzania's coast for use by present and future generations, to ensure food security and to support economic growth.

In order to achieve this goal, there are seven strategies that need to be implemented by the year 2025.

4.2 STRATEGIES AND IMPLEMENTATION MECHANISMS

Strategy 1. Support environmental planning and integrated management of coastal resources and activities at the local level and provide mechanisms to harmonize national interests with local needs.

This strategy will address the following issues, which are fully explained in section 3 :

i) Improvement of the environment, well-being and livelihood of all beneficiaries of coastal resources which include the poor coastal communities engaged in small-scale agriculture, artisanal fisheries, small-scale mariculture, use of forests and mangroves, small-scale business, the informal sector and extraction of coastal resources (section 3.1).

ii) Supporting local initiatives, decision-making for intersectoral development and harmonizing national interests with local needs (section 3.4).

Implementation mechanisms:

District Integrated Coastal Management Action Plans. Create and support a district level ICM process as part of the overall district environmental planning to develop, approve and implement District ICM action plans. National ICM guidelines for preparing district level action plans shall be developed. The guidelines shall encourage each district to focus on their own priority issues and areas. The action plans shall specify local ICM goals and issues, and shall identify how to effect change (immediate voluntary actions, infrastructure, comprehensive planning, new or revised by-laws, etc.). The National Integrated Coastal Environment Management Strategy recognizes that districts have limited technical and financial capacity for taking on new management responsibilities. Participation in this program can be encouraged through a variety of incentives provided by ICMU. These can include support for outreach and awareness raising, a small grants program, technical assistance, and access to information. For national consistency the ICMU shall facilitate districts planning and implementation by way of providing technical support.

The ICMU shall assist districts to translate the National Environment Policy and other related policies and instruments into district ICM action plans.

The maximum extent of district ICM action plans includes the full district and offshore to the seaward edge of territorial waters. However, District ICM Action Plans can be for smaller geographic areas within the district (for example, a sub-district, village, or bay area) where intersectoral coastal issues are most urgent. If division/ward or village action plans are prepared, they shall include inputs from the District.

Local Environmental committees shall coordinate and execute the development and implementation of the action plans.

For coordination and integration, district ICM plans shall be reviewed by the regional coordinating committee prior to being sent to the NSC-ICM for review and endorsement[7]. The district councils shall then approve district action plans. The ICMU shall seek to create a cooperative environment for affected parties to resolve resource use conflicts.

Strategy 2. Promote integrated, sustainable and environmentally friendly `approaches to the development of major economic uses of the coastal resources to optimize benefits.

The economic opportunities available in the coastal area, both large and small scale, could improve the livelihood and well being of the communities if planned and managed taking into consideration environmental concerns. The following issues are addressed by this strategy:

i) Environmental Planning and management of key economic opportunities (section 3.2).

7 Endorsement means that the national agencies agree to carry out their activities in a manner that supports local ICM goals and implementing actions.

ii) Improvement of the well being and livelihoods of all beneficiaries of coastal resources (section 3.1).

Implementation mechanisms:

Tourism, agriculture, mariculture, industrialization, mining, and gas development are expected to expand along parts of the coast. ICMU shall, as resources and capacity allow, work with relevant sectors to convene Issue-Specific Working Groups to develop integrated sustainable approaches to coastal economic development and ensure that all forms of pollution in coastal areas are properly prevented, controlled and managed.

Coastal Activity Guidelines. Convene and facilitate interagency Issue-Specific Working Groups to develop guidelines for major coastal economic development activities. The guidelines shall be in accordance with national Environmental Impact Assessment guidelines and shall include precise definitions of what constitutes a "major" economic development for that sector, siting requirements, permit procedures, good operational practices and monitoring protocols.

The NSC-ICM shall review and endorse the guidelines. Guidelines shall be implemented through:

- Sectoral agencies, assisted by ICMU and an Issue-Specific Working Group, collaborating with the private sector to voluntarily adopt good management practices; and
- Sectoral agencies, assisted by ICMU, incorporating recommended guidelines directly into their relevant regulations in line with operational national Environmental Impact Assessment procedures and permit approval processes).

Coordinated Permit Review for Major Economic Uses of the Coast. Major economic uses that require permits from more than one national sectoral agency shall be reviewed and acted on through an open, transparent and coordinated review process (see Strategy 7 for public input to this process). Guidelines shall specify what constitutes a major coastal development activity, both in terms of scale and proximity to the coastline, and would therefore be included

in the coordinated permit review process. The ICMU, when requested by the responsible sector, shall facilitate a coordinated permit review process using the existing national EIA procedures.

Strategy 3. Conserve and restore critical habitats and areas of high biodiversity while ensuring that coastal people continue to benefit from the sustainable use of the resources

This strategy shall address three issues:

i) Improvement of the well being and livelihoods of beneficiaries of coastal resources:

Most rural coastal communities are poor. Their economy depends mainly on small-scale holder farming, subsistence forestry, artisanal fishing, lime and salt production, seaweed farming, livestock husbandry and small-scale trade. Hence actions need to be taken to increase productivity of current economic activities and to promote alternative environmentally sustainable livelihoods (section 3.1).

ii) Environmental Planning and managing key economic opportunities within the coastal area, including tourism, agriculture, mariculture, industry and oil and gas exploration:

Development and use of the coastal area is expected to increase, creating economic opportunities as well as putting unprecedented pressure on both the people and resources of the coast. Development activities including industry, agriculture, mariculture, tourism and urbanization and other activities are potential sources of pollution. Poor waste management (solid and liquid), and improper dumping has led to air and water pollution (section 3.2).

iii) Managing geographical areas of concern including and habitats:

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 resource use conflicts (section 3.4).

Implementation mechanisms:

The ICMU, in collaboration with relevant authorities, shall identify critical coastal areas and areas of high biodiversity that should be included within existing or new protected area programs. Areas and their bounds be identified through a consultative process that includes input from local and national government, non-governmental organizations (NGOs) and resource users. Existing protected area programs/projects include:

- Marine Parks and Reserves Unit: The national coastal program shall work with the Board of Trustees and Marine Park and Reserves Unit to establish new marine protected areas (MPAs) (under the Marine Parks and Reserves Act) in areas with significant biodiversity and where local communities support the concept of a park
- The Mangrove Management Project (MMP)
- Terrestrial game parks that exist in coastal areas
- Wetlands and fragile lands as defined in the Land Act of 1999

The ICMU shall work with existing programs and authorities in the strengthening of General Park Management Plans, Mangrove Management Plans etc. by providing technical support as specified in the section on duties and responsibilities of the ICMU.

District ICM action plans and SAMPs shall identify locally important critical coastal areas and areas of high biodiversity, and specify actions that provide for their conservation, restoration and sustainable use by coastal residents.

Strategy 4. Establish an integrated planning and management mechanism for coastal areas of high economic interest and/ or with substantial environmental vulnerability to natural hazards

Successful development and use of the coastal area would need guided planning with clear principles and enforcement practices. This strategy would address the following issues:

NICEMS 4/28/03 1:41 PM Page 26

(i) Increasing pressure on environmental resources (section 3.1 and 3.3)
(ii) Increasing resource use conflicts on the coastal environment (section 3.4)
(iii) Inadequate environmental management mechanisms (sections 3.6 and 3.4)
(iv) Inadequate intersectoral coordination for coastal environment management (sections 3.4, 3.2 and 3.5)

Implementation mechanisms:

Special Area Management Plans (SAMPs)

SAMPS shall be developed for geographic areas of concern, including:

- Areas with existing important economic/infrastructure facilities where resource degradation and use conflicts are occurring;
- Areas where major new economic developments are planned or areas where there is rapid economic transition and substantial resource use conflicts that have environmental implications;
- Pollution hot-spots;
- Trans-boundary areas where significant coastal management issues exist; and
- Areas at high environmental risk from the effects of erosion and flooding.

Special area management planning is a mechanism that allows central government in partnership with local government to plan and manage geographic areas of particular national concern or interest. The SAMP process includes stakeholder input from both local and national levels. For a SAMP site, central government shall work with districts and other planning and management functionaries within the sites to complete a detailed environmental management plan that appropriately guides development.

The ICMU, with guidance from the NSC-ICM, shall identify areas requiring a SAMP. A SAMP area can encompass multiple districts, be a single district, a district/ward or only a village. They shall not, however, extend beyond the offshore limit of territorial waters and

the inshore edge of the coastal district boundaries.

SAMPs shall include management goals, objectives, and implementation mechanisms and actions. ICMU shall develop coastal environmental guidelines and provide technical assistance for SAMP preparation. The ICMU shall assist the SAMP implementing agents to review national environmental related frameworks for consistency with SAMP.

The NSC-ICM shall review and endorse SAMPs. Central and local governments will have responsibility to implement actions specified in the SAMPS.

Strategy 5. Develop and use an effective[8] coastal ecosystem research, monitoring and assessment system that will allow available scientific and technical information to inform ICM decisions

Inadequacy of data on coastal environment and lack of individual and institutional

capacity is a hindrance to proper planning and management of resources. This strategy

will be addressing the issue related to:

(i) Inadequacy of environmental information availability for decision-making (section 3.5),

(ii) Human, institutional capacity and awareness (section 3.6).

Implementation mechanisms :

Science and Technical Working Group. ICMU shall establish a Science and Technical Working Group (STWG) to facilitate scientific inputs into national and local coastal programmes. The STWG shall:

8 The word effective is interpreted to include such factors as cost, practicality, appropriateness and efficacy.

- Serve as a bridge between environmental scientists, and resource managers and decision-makers;
- Identify priority management-related research needs with national and local ICM practitioners and researchers and ensure that this information is used to drive data acquisition;
- Make information about ICM and ongoing monitoring available to resource managers and the public;
- Recognize the importance of local knowledge and ensure that it is incorporated in the management process;
- Recommend conservation and restoration techniques for inclusion in local planning; and
- Design a monitoring programme that nests local, national and international monitoring efforts that builds on and utilizes existing research and monitoring institutions. This programme should seek to incorporate resource users in the effort.

STWG shall use existing institutions for full implementation and may develop pilot monitoring or research programmes as the need arises.

Strategy 6. Provide meaningful opportunities for stakeholder involvement in the coastal development process and the implementation of coastal management policies

The strategy addresses the following issues:

(i) The rapid rate of unplanned development in critical coastal areas and resultant environmental implications (section 3.3)

(ii) The low socio-economic status of coastal inhabitants (section 3.1);

The strategy seeks to improve the overall well being of coastal inhabitants through their involvement in the planning of resources. This participatory approach to environmental management requires access to relevant and necessary information in order to make sound decisions that will take advantage of emerging economic opportunities in the coastal areas.

Implementation mechanisms:

This ICM Strategy recognizes that without active participation by the people, the urgent environmental coastal problems will not be solved. This Strategy creates opportunities for participation and empowers people to become active stewards of the coastal environment.

The mechanisms by which stakeholders shall be involved include:

- Public education and outreach programmes to raise awareness of the need and for importance of sustainable coastal management
- Input to district action plans, SAMPs, protected area plans and guidelines
- Initiation of a 45-day[9] public review period for any District Action Plan, Special Area Management Plan, or Economic Use Guidelines before they are submitted to the NSC-ICM for final review and endorsement. The ICMU shall work with the planning functionaries to respond to each public comment. Specific review guidelines shall have to be developed that describe this review process.

Special attention shall be given to ensure that those most affected by proposed plans, actions or guidelines, are included in the development, review and implementation process.

Strategy 7. Build both human and institutional capacity for inter-disciplinary and intersectoral management of coastal environment

This strategy addresses three broader issues;

(i) The inadequacy of human and institutional capacity and awareness (section 3.6);

(ii) Lack of readily available information availability for decision-making (section 3.5) and ;

9 Forty-five day limit is given because it provides adequate time to circulate the document to be reviewed and receive comments. A 30-day limit was considered too short and would therefore exclude certain groups from responding. A 60 or 90 day limit was considered too long, especially when the time it takes to respond to comments is added to the process.

(iii) The need for support for local initiatives as well as increased decision-making for intersectoral developments, and harmonizing national interest with local needs(section 3.4).

Implementation mechanisms:

Human and institutional capacity shall be strengthened primarily by improving the skills, attitudes and knowledge of individuals through the following three primary tools:

- Learning-by-doing. Build capacity of both practitioners (local and national) and resource users to plan for and manage coastal resources in an integrated way by providing in-service training and workshops and by providing opportunities for learning through experience.
- Information exchange. The ICMU shall serve as the backbone of a national ICM network where practitioners (local and national) can easily exchange information and ideas.
- Formal curriculum in coastal management. Support incorporation of coastal management-relevant material into educational curricula from primary schools to the university . At the University level, encourage the creation of a formal education track for ICM within existing institutes or universities.

Other types of capacity building, in terms of limited finance and technical assistance, shall be provided to partner sectors and institutions to build their institutional capacity for carrying out specific ICM activities.

5.0 BOUNDARY OF THE NATIONAL ICM STRATEGY

The operational boundary includes existing administrative borders of coastal districts out to the seaward edge of territorial waters.

Individual district action plans, SAMPs, MPAs and Issue-Specific Guidelines shall set specific planning and management boundaries. Activities with distinct and significant impacts on the coastal area (e.g., fresh water diversion and impoundment) that take place outside the boundaries shall be addressed by the ICMU and NSC-ICM in collaboration and consultation with relevant authorities. This creates a flexible boundary system, allowing the ICM strategy to focus activities where issues are most pressing.

ICMU shall work with local authorities to ensure adequate setback line[10] is included in individual district ICM action plans, SAMPs, MPAs and specific guidelines as appropriate. ICMU shall also work with the Ministry for Lands to assess the adequacy and implementation of this setback line, and seek mechanisms to improve the effectiveness of its application.

10 A setback line is a legally delineated line showing a minimum distance and space from the tide's highest watermark in which development in form of permanent structures is restricted and/or controlled for ecological and public access reasons.

6.0 INSTITUTIONAL STRUCTURE

To carry out the National ICM Strategy, three levels of the institutional structure shall be created:

- National Steering Committee on Integrated Coastal Management (NSC-ICM)
- Integrated Coastal Management Unit (ICMU)
- Intersectoral working groups

6.1 NATIONAL STEERING COMMITTEE ON INTEGRATED COASTAL MANAGEMENT

There shall be a NSC-ICM to provide policy oversight and guidance on the overall vision of the ICM activities.

Specific responsibilities of NSC-ICM include:

- Providing policy guidance to the ICMU on program priorities and endorse formation of Issue-Specific Working Groups
- Providing guidance to the ICMU on areas requiring SAMPs
- Providing a link between national priorities and technical delivery
- Reviewing and endorsing District ICM Action Plans
- Providing a critical link between decision-making at the center and local goals and activities
- Reviewing and endorsing guidelines
- Facilitating the resolution of intersectoral conflicts, and conflicts between national and local entities related to ICM issues

6.1.1 National Steering Committee on Integrated Coastal Management Membership

The Permanent Secretary responsible for Environment shall appoint members to the NSC-ICM and shall serve as its Chair.The NSC-ICM shall consist of directors of relevant sectors and representatives from the local authorities.

The Steering Committee will comprise of three coastal district representatives, representative from Mafia district; one member from the private sector, one member from non-governmental organizations; and nine members from central government. Central government representation shall be drawn from the following sectors: lands and human settlements, fisheries, forestry, tourism,

NICEMS 4/28/03 1:41 PM Page 33

agriculture and mining. Others will be the Director General of NEMC and the Director of Division of Environment. Additionally, there will be a representative from the ministry responsible for local government. The NSC-ICM shall meet at least semi annually.

6.2 INTEGRATED COASTAL MANAGEMENT UNIT

Responsibilities of the Integrated Coastal Management Unit include:

- Serving as a secretariat to the NSC-ICM
- Coordinating and facilitating the implementation of the National ICM strategy
- Advising the Director General of the National Environmental Management Council (NEMC), during the formulation and review of initiatives related to integrated coastal management
- To carry out any other coastal-relevant activities as directed by Director General of NEMC

6.3 INTERSECTORAL WORKING GROUPS

Intersectoral working groups shall be the engines for ICM. The working groups shall be composed of experts representing different disciplines and sectors and may include representatives from the private sector and communities. Working group members shall be both technical experts and representatives of their sector.

6.3.1 Core Technical Working Group (CTWG)

The Core Technical Working Group shall draw its members from appropriate sectors. Members shall provide technical assistance to districts as they develop local action plans, work with districts to solve specific problems, provide assistance during the development of general management plans for MPAs and SAMPs and develop sustainable ICM programs.

6.3.2 Issue-Specific Working Group(s) (ISWG)

The Issue-Specific Working Group(s) shall draw from appropriate sectors to develop issue specific guidelines. An ISWG provides a venue for sectors to work together to develop integrated guidelines that consider multiple perspectives. At least 25 percent of the

NICEMS 4/28/03 1:41 PM Page 34

membership of any Issue-Specific Working Group shall be drawn from the CTWG to ensure consistency and exchange of information. An ISWG group is not limited to government officials, but shall also include representatives (at least 10 percent of the members) from the related industry.

6.3.3 Science and Technical Working Group (STWG)

The Science and Technical Working Group shall provides advice and guidance related to scientific questions, studies and investigations, data management, and sampling and monitoring necessary to improve the scientific foundation of ICMU's activities. The STWG shall assist in peer review of studies, reports on the status and trends of the coastal and marine ecosystem, and shall alert the ICMU to emerging environmental problems. To promote effective integration of science and ICM, the STWG shall consult with coastal managers and those holding indigenous knowledge in carrying out its work, and may invite selected managers to its meetings when appropriate. STWG members should represent a balance of natural and social scientific disciplines.

6.4 LOCAL GOVERNMENT RESPONSIBILITY

Local government shall have significant responsibility for carrying out the strategies herein. The responsibility of the Local government authorities shall include:

- Preparing and/or facilitating ICM Action Plan formulation
- Review and approval of district and local ICM Action Plans
- Implementation of Action Plans, including adoption of by-laws
- Management of local resource use conflicts
- Education and mobilization of the local community to promote ICM objectives

Local government authorities shall use the existing environment committees to be responsible for ICM issues to coordinate and carry out the development and implementation of District ICM Action Plans. Committee composition shall depend on issues to be addressed. The shall establish technical working groups, composed of experts representing different disciplines and sectors as well as

NICEMS 4/28/03 1:41 PM Page 35

representatives from the private sector, community-based organizations, non-governmental organizations, and resource users. The technical working groups, with assistance from the CTWG, shall develop the ICM action plans. It shall, however, be the responsibility of the Districts and other local level stakeholders to implement these plans with support and service from the central government.

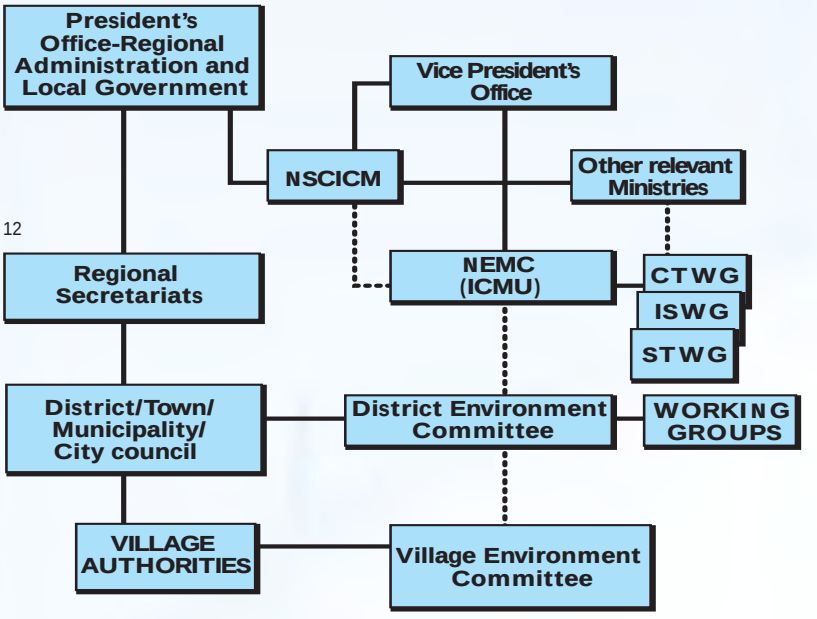
6.5 INSTITUTIONAL PLACEMENT[11]

The Integrated Coastal Management Unit (ICMU) shall carry out its activities under the supervision of NEMC and shall report to the Director General. NEMC operates under the National Environment Management Act No.19 of 1983 and as per government structure it is placed under the Vice President's Office. The operational modalities of ICMU within NEMC will be prepared and reviewed from time to time to suit the existing structure of the organization.

11 This placement has been presented based on the current structure of the environmental sector. However, the recommended structure is transportable if the current over-arching structure is modified

NICEMS 4/28/03 1:41 PM Page 36

6.6 ORGANOGRAM



NOTES:

1. Working group members shall be drawn from relevant sectors, private sector, NGOs and CBOs and resource user groups.
2. Region-to-region and district-to-district interaction shall happen as necessary during the planning and management process as well as through specific events such as annual ICM meetings
3. District and Village Environment Committees shall deal with ICM issues in their respective areas. These authorities are at liberty of establishing ICM sub Committee from the larger environment committee. Where such committees are not yet established those authorities should be encouraged and facilitated to establish such committees.
4. District and village Environment Committees will coordinate and carry out the development and implementation of District / local action plans. Committee composition shall depend on issues to be addressed.

12 Solid lines means compulsory linkage while dotted lines means collaborative and advisory linkage

7.0 ACTION PLAN

In making progress towards implementation of this National ICM Strategy, various implementation mechanisms and actions have been chosen. While some are new, others are re-emphasizing or build on previous experience on the ongoing initiatives either at local or national level. Various institutions have been given responsibility in implementing the strategies elaborated herein and a time frame have been allocated to make this process meaningful and effective though the thrust is to make progress indefinitely. Detailed requirements for each strategy has been elaborated in the respective implementation mechanisms and actions section.

Annex 1 illustrates the timeframe and lead agencies that are responsible for implementing each described strategy. Institutions that are mentioned are those that shall lead the process but the implementing agencies are all relevant sectors, private sector, NGOs, CBOs and individuals living and working in coastal areas. The maximum time frame for implementing this ICM strategy has been set up according to the current national vision to year 2025, from where major reviews are anticipated. Regular reviews and assessments shall be done as necessary depending on the new demands.

8.0 FUNDING

In implementing the activities described in this National Strategy, there are some definite implications for sustainable funding of this strategy into the future. (1) Central and local governments through public expenditure review (per) and medium term expenditure framework (MTEF) shall both have to allocate specific funds for both recurrent and development expenditure for the implementation of core activities listed under this strategy. (2) Participating sectors shall use their respective budgets to fund agreed-upon priority activities. (3) In the short term, funding from development partners shall be invited. Other stakeholders included in this process that may also contribute financially include the private sector such as prospective investors in mariculture and coastal tourism and voluntary organizations such as NGOs and CBOs.

9.0 MONITORING, EVALUATION AND READJUSTMENT

Monitoring and evaluation for the effectiveness of this strategy will be carried out periodically. Every coastal district should develop its monitoring plan to monitor the implementation of their ICM Action Plans. ICMU, through the inter-sectoral Working Groups, should develop a monitoring plan at national level. Monitoring plans should be designed to be inexpensive and rely on uncomplicated measuring techniques. This will ensure the success and sustainability of the monitoring plans. Some of the variables that should be considered for the monitoring plans could be but not limited to:

- Quality indexes of critical habitats, water quality, fish landings
- Erosion and accretion, agriculture and mariculture production
- Industrial production
- Hotel occupancy
- Any other socio- economic quality index

Evaluation should be done after every five years of implementation depend on the availability of funds. This will allow for review and adjustment, learning for tracking impact and accountability in the course of implementing this Strategy.

ANNEX : SUMMARY OF THE ACTION PLAN

Strategy 1: Support environmental planning and integrated management of coastal resources and activities at the local level and provide mechanisms to harmonize national interests with local needs.

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
District ICM Action Plans	Prepare and approve National Guidelines for Local ICM Action Planning	NSC-ICM, NEMC-ICMU, CTWG (input from Local Government Authorities, private sector, NGOs and CBOs)	Official set of National guidelines for local ICM action planning approved by NSC-ICM.	2003-2004
	Preparation and Approval of Local ICM Action Plans	Local Government Authorities	Official Local ICM Action Plans approved by Local Councils and endorsed by NSC-ICM	2003-2008
	Implementation and monitoring of local ICM Action Plans	Local Government Authorities	Implementation plan developed and undertaken by Local Councils and monitored by NEMC-ICMU	2003-2009

NICEMS 4/28/03 1:42 PM Page 41

Strategy2: Promote integrated, sustainable and environmentally friendly approaches to the development of major economic uses of the coastal resources to optimize benefits.

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Coastal activity guidelines	Prepare and approve issue- specific guidelines and management plans (e.g., mariculture, coastal tourism and waterfront development) containing decision making criteria and permitting procedures	NEMC-ICMU (Input from NSC-ICM, ISWG,TIC, Local Government Authorities, private sector, NGOs and CBOs)	Set of official issue-specific guidelines and management plans developed by the ISWG and approved by the NSC-ICM.	2003 - 2006
	Implementation and monitoring of issue-specific guidelines and management plans.	Private sector, relevant sectors, Local Government Authorities, NEMC-ICMU	Implementation schedule for issue-specific management plans developed and undertaken by private sector, local authorities and relevant government sectors. Monitoring plan(s) developed and undertaken by NEMC-ICMU and developers.	2003 - 2025

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Consultative, multi-sectoral and inter-disciplinary project review	(1) Establish intersectoral project review committees at national and local levels	Local Government Authorities, NEMC-ICMU, ISWG, relevant sectors	Official terms of reference (developed by ICMU) for national and local Project review committees in place	2003-2005
	(3) Prepare and implement a Monitoring program on the use of the project review procedures	Local Government Authorities, ISWG, NEMC-ICMU	Formal monitoring program developed by ISWG and reviewed by ICMU	2003 - 2025
	(2) Develop and establish transparent and participatory project review procedures	National and local project review committees, ISWG, NEMC- ICMU, NSC-ICM	Official project review procedures developed by relevant committees and approved by NSC-ICM	2003 - 2005
Development of proper approaches for pollution prevention and control in coastal areas	Apply Environmental Impact Assessment criteria for coastal development activities	Local Government Authorities and private sector (facilitated by NEMC-ICMU)	Environmental Impact Statements produced by developers and reviewed by NEMC's TRC and ISWG	2003 - 2025

NICEMS 4/28/03 1:42 PM Page 43

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
	Identification of point and non point sources of pollution	Local Government Authorities and relevant government and private sectors (facilitated by NEMC-ICMU)	Official ICMU inventory of identified point/non-point sources (and their hotspots) of pollution along the coastline	2003-2006
Monitoring program for reducing coastal pollution in selected areas	Formulate monitoring plans for specific pollution control activities in selected areas	Local Government Authorities and private sector (facilitated by NEMC-ICMU)	Monitoring plans prepared by ICMU and approved by NEMC.	2003-2006
	Implement Monitoring plans in selected areas	Local Government Authorities, private sector and NEMC-ICMU.	Monitoring reports submitted by local authorities to NEMC- ICMU.	2005-2025

Strategy 3. Conserve and restore critical habitats and areas of high biodiversity while ensuring that coastal people continue to benefit from the sustainable use of the resources

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Assessment and monitoring of critical habitats and areas of high biodiversity	Continuous assessment and identification of critical coastal areas	Local Government Authorities, STWG, UDSM, relevant Research and Training Institutions	Assessment and analyses reports produced.	2003-2025
	Identification and assessment of local, regional and global significant habitats and ecosystems that require urgent conservation efforts	Local Government Authorities, STWG, UDSM, Research and Training institutions and NGOs	Inventory of ecosystems that have local, regional and global conservation significance compiled.	2004-2016
Broad-based stakeholder participation in critical coastal area decision making	Utilize participatory processes to integrate stakeholder inputs to incorporate critical coastal areas within new/existing coastal management and conservation programs	Local Government Authorities and communities (facilitated by Ministry for Local Government, NEMC-ICMU, DOE, NGOs, UDSM, Marine Parks, MMP and Private sector)	Official incorporation of selected critical coastal areas within existing/new coastal management and conservation programs	2006 - 2016

NICEMS 4/28/03 1:42 PM Page 45

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Restoration of degraded habitats and conservation of coastal resources	Collect and compile scientific information for use conserving and restoring habitats	STWG and UDSM.	Updated library list produced annually	2003-2013
	Develop and implement selected restoration programs for badly damaged habitats	Private sector, Department of Environment, NEMC- ICMU, NGOs, Marine Parks, MMP, Private sector, Game reserves, UDSM.	Official implementation reports Produced	2004-2013

NICEMS 4/28/03 1:42 PM Page 46

Strategy 4. Establish an integrated planning and management mechanism for coastal areas of high economic interest and/or with substantial environmental vulnerability to natural hazards

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Development of Special Area Management Plans where resource degradation and use conflicts are occurring	Develop and apply guidelines for preparing SAMPs and provide technical assistance for SAMP preparation	NEMC-ICMU (input from all stakeholders)	Official SAMPs development guidelines are prepared	2003 - 2004
	Develop and apply SAMPs for areas where the following exist • New economic developments are planned • Pollution hot-spots • Trans-boundary areas where significant coastal management issues exist • High risks from erosion of flooding exist	Local Government Authorities (facilitated by NSC-ICM, NEMC-ICMU, STWG, ISWG, and other relevant sectors)	Official Special Area Management Plans developed by local authorities,	2004-2013

NICEMS 4/28/03 1:42 PM Page 47

Strategy 5. Develop and use an effective[13] coastal ecosystem research, monitoring and assessment system that will allow available scientific and technical information to inform ICM decisions

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Scientific baseline information to guide coastal management initiatives and decision-making	Continuous review and update of available scientific information relevant to coastal management and decision-making	STWG, Local Government Authorities CTWG, ISWG Training and Research Institutions, NEMC- ICMU.	Updated information collected and compiled by , STWG and made available for use in coastal management decision-making	2003-2025
Assessment of the status and trends of coastal condition and relate them to human causes and consequences	Preparation of periodic state of the coast reports drawing from existing research, local projects, field survey and remote sensing technologies	STWG, Local Government Authorities, local ICM programmes, research institutions, UDSM, and ISWG	Documented and disseminated state of the coast reports	2003 - 2025
Coastal Ecosystem Monitoring Program (CEMP)	Collaborate with other partners and stakeholders within and outside the country in developing and implementing a viable remote sensing program for coastal zone management, and prevention of management and natural hazard	STWG, Universities, Local Government Authorities, ICMU, research institutions	Viable remote sensing program for coastal zone management with standardized monitoring protocols developed by STWG and implemented by stakeholders	2003-2025

13 The word effective is interpreted to include such factors as cost, practicality, appropriateness and efficacy.

Strategy 6. Provide meaningful opportunities for stakeholder involvement in the coastal development process and the implementation of coastal management policies

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Strengthening public education and awareness campaigns on coastal management	Develop and implement public outreach programs on the overall importance of coastal ecosystems for sustainable development	Local Government Authorities (facilitated by NEMC-ICMU, ISWG and media)	Education, communication and awareness tools such as newsletters, newspaper articles, radio and TV programs, and workshops in place.	2003 - 2015
Building ICM constituencies and awareness about coastal management issues at local level	Design and implement community based programs and schemes promoting environmentally friendly practices and sustainable resource use and management	Local Government Authourities (facilitated by NEMC-ICMU, local ICM programs, ISWG and media)	Designed programs and schemes incorporated in district council calendars of activities	2003 - 2025
Link ICM strategy with LGRP	Incorporate Local ICM Action plans into district plans	Local Government Authoritiesl, local environment committees, local ICM working groups, PO-RALG, NEMC-ICMU, NSC-ICM	Approved district development plan(s) incorporate local ICM action plans.	2003 - 2025

NICEMS 4/28/03 1:42 PM Page 49

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Coastal management discussion forum	Establish and maintain platform for review and exchange of information on ICM issues and experiences at both the local and national level through a regular gathering of ICM practitioners	NEMC-ICMU, local and national ICM Programs, Local Government Authorities, sectors, private sector, community-based organizations	Annual proceedings of lessons learned in Tanzanian coastal management	2003 - 2025

Strategy 7. Build both human and institutional capacity for inter-disciplinary and intersectoral management of coastal environment

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Build and enhance intersectoral technical skills through Capacity building at local level	Conduct In-service training on integrated coastal management for local authorities	Training and Research Institutions and Local Government Authorities (facilitated by NEMC-ICMU)	Training plan and implementation schedule developed and applied by local councils.	2004 - 2013
	Develop and deliver short and long term issue- based training programs to coastal practitioners	Training and Research Institutions and Local Government Authorities (facilitated by NEMC-ICMU)	Training plan and implementation schedule developed and conducted	2004 - 2013
	Enhance Learning by doing on ICM through on-site demonstrations for local authorities	Training and Research Institutions, Local Government Authorities and selected on-site implementers (facilitated by NEMC-ICMU)	Training report prepared by trained participant(s) submitted to local council	2004 - 2013

NICEMS 4/28/03 1:42 PM Page 51

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Development of Formal curriculum in coastal management	Develop and use pilot coastal environmental education materials for schools and universities	Institute of Education and higher learning institution	Coastal environmental education materials developed	2003 -2006
	Incorporation of coastal environment educational materials in official school curriculum NEMC-ICMU,	Ministry responsible for Education, Institute of Education, Higher learning institutions and implemented by schools and universities	Coastal Management curriculum approved by the Institute of Education and	2007 - 2025

NICEMS 4/28/03 1:42 PM Page 52

Management actions for implementing the National ICM Strategy

MECHANISM	ACTIONS	LEAD AGENCIES	INDICATORS	TIMEFRAME
Local level coastal strategy implementation mechanism	Establish and formalize Village/ District ICM committees	Village / District Councils	Formal Village/ District ICM committees in place	2003 - 2004
	Establish and formalize Village /District ICM Working Group	Village/District Councils	Formal Village/ District ICM Working Group in place	2003 - 2004
National level ICM Strategy implementation mechanism	Establish Steering Committee on ICM (NSC-ICM)	VPO	NSC-ICM in place	2003 - 2004
	Establish the Integrated Coastal Management Unit (ICMU) within NEMC	NEMC	CMU in place	2003 - 2004
	Establish/ formalize specific inter-sectoral and Multi-disciplinary ICM Working Groups (CTWG, ISWGs and STWG)	NSC-ICM, NEMC and other relevant sectors	Formal Working groups in place	2003 - 2025

Published by Tanzania Coastal Management Partnership
P. O. Box 71686, Dar es Salaam, Tanzania

ISBN: 9987-680-04-6