



## **The use of research outputs by management authorities: Assessment of current practices and identification of capacity building needs**

### **1. BACKGROUND**

Marine and coastal management requires scientific and technical information on both natural (physical, chemical, biological, etc) and social (institutions, knowledge, perceptions, economic and cultural values, etc) processes to identify and define priority environmental issues as well as to define alternative solutions and strategies. It is therefore essential that appropriate environmental information is available for assessment of impacts of existing and planned activities, and that a sound scientific base exists which can accommodate the changing needs of environmental management institutions as well as society at large. However, experience shows that knowledge generated is often not effectively used in management processes.

In the past two decades, the Western Indian Ocean (WIO) region has seen a significant increase in research studies conducted on various aspects of the marine and coastal environment at a local, national or regional level. This has led to the strengthening of the knowledge base within these environments and increased awareness of important marine and coastal issues. Research capacity has also been strengthened in many disciplines.

At both national and regional levels, a number of important initiatives have been put in place in the recent past, seeking to improve both understanding and management of the marine and coastal environment. Governments' efforts, together with those of donor-supported projects and programmes, have allowed countries in the region to considerably strengthen the management of their marine and coastal environment. The cumulative effect of such initiatives is evidenced, for example, by the fact that all the governments in the WIO region have initiated the implementation of integrated coastal zone management to a greater or lesser extent, as well as the process of formulating policies and legislation focusing on these marine and coastal environments. In many cases governments have established dedicated units for dealing with marine and coastal issues. In addition, a number of marine protected areas have been established in priority areas.

*Looking at these developments, the question arises as to what extent these developments in research and management capacities in the region have been linked? Did one contribute in any way to the development of the other or did they develop independently of each other?*

Despite these efforts, the management of the marine and coastal environment in the WIO remains a challenge. While most countries in the WIO region have put in place policy, legal, regulatory and institutional frameworks that are relevant to the protection and management of the marine and coastal environment, most countries have not succeeded in reversing the trend of degradation in coastal and marine ecosystems. This is attributed to, amongst others factors,

sometimes inappropriate, ineffective and/or inadequate governance structures. These weaknesses in governance are reflected as policy and legislative inadequacies; limited institutional capacity; inadequate awareness; inadequate financial mechanisms; and poor knowledge management (UNEP/Nairobi Convention Secretariat, 2009).

*The question that arises here is to what extent better linkages between science and governance processes would have minimized the apparent governance weaknesses?*

Research in the WIO region is undertaken mainly by Universities, Government-affiliated research institutes, national and regional NGOs, and by scientists from outside of the region. With the exception of the research initiatives undertaken by Government-affiliated research institutes, research by other organizations is not necessarily aligned to the needs of management authorities. The research agenda of Government-affiliated research institutes such as the Kenya Marine and Fisheries Research Institute (KMFRI); Tanzania Fisheries Research Institute (TAFIRI) and the Fisheries Research Institute (IIP) of Mozambique should generally be guided by the management objectives of the departments or Ministries to which they are affiliated.

*Related to this, the question which arises is who defines the priority research agenda of the Government-affiliated research institutes? What are the main sources of technical information for management authorities and decision-makers? Is there a framework at the Ministerial level for integrating research results into management and decision-making processes?*

As part of its competitive research grant programme (MASMA), WIOMSA requires users or potential users (who in most cases are management authorities) of research project outputs and outcomes to be involved in the project's planning, or to participate in its implementation. Over the years, MASMA has supported research projects that have contributed to strengthening research capacity, improving the knowledge base on the coastal and marine environments of the region, raising awareness on important management issues, disseminating information on the sustainable use of marine resources, and influencing policies.

*What lessons could be drawn from the MASMA Programme in its efforts to use the competitive research grant programme as a mechanism to facilitate effective linkage of science and management?*

While Government-affiliated research institutes usually publish their research results as technical reports, other research organizations often publish their information in academic peer-reviewed publications (which include papers, books and theses) and more rarely in technical reports. Both these forms of dissemination of research results have presented challenges in terms of being accessible to policy makers and management authorities. Different mechanisms have been used in the region in the attempt to overcome these barriers by converting publications and information into non-specialist language. Mechanisms used include the organization of science to policy workshops aiming at building trust and fostering dialogues between these two (often disparate) groups, and the production of policy briefs.

*How effective have these mechanisms been? What are the views of the management authorities on the effectiveness of these mechanisms, especially as they have often not*

*initiated, and may only have been marginally involved in, these mechanisms? what other mechanisms can be used to improve uptake/relevance?*

Projects and NGOs often play a role in bridging science and practice in the field, while large regional projects that are often closely linked to policy processes may also be effective through the inclusion of built-in mechanisms to bring results to policy makers. In the recent past, major national and regional instruments have been developed with significant inputs from scientists. Some of these instruments include the National Integrated Coastal Environment Management Strategy of Tanzania, the Integrated Coastal Management Policy and Legislation of South Africa, and the Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities. In the early stages of development of these instruments, scientists helped define issues, their impacts and causes, and ranked them according to set criteria, mainly through participation in working groups. Together with representatives of management authorities, they came up with strategies to address the priority issues as well as producing the first draft of the instrument text.

*There is no doubt this model was effective in leading to the development of these instruments. However, the question which arises is to what extent this process will be effective in integrating science into management decisions that are taken on a regular basis?*

Increasingly, national research councils, regional programmes and funding agencies are demanding researchers applying for their funds to demonstrate how their research results will be used in supporting decision-making/management processes. Despite increasing interest amongst scientists in the region to conduct management-relevant research, the knowledge of how management authorities have used, or are using research results in the decision-making processes, is still limited.

Outcomes of this consultancy will be of benefit to both the scientific community and decision-makers/management authorities at different levels, as it will lead to improved understanding of how scientific information is integrated in decision-making processes under different institutional arrangements. It will also strengthen the effectiveness of relationships between scientists and decision-makers in defining management issues and elaborating management options and the types of management measures needed.

In summary, this consultancy is aimed at assessing how organizations dealing with marine and coastal issues in different countries of the WIO region have utilized information from the scientific community in their decision-making/management processes. The consultancy will also identify barriers to effective integration of science into decision-making/management processes, and make recommendations on how these challenges may be overcome.

## **2. SCOPE OF WORK**

The consultant will undertake the following tasks:

- i) Map roles of different management authorities in developing policy, decisions and actions (implementation) in the marine and coastal management arena. Determine the culture of the administration (the extent to which they are hierarchical,?

- integrated or silo-ed, responsive to identified needs, etc), and legal frameworks that define who the decision-makers are;
- ii) Define overlaps and conflicts of mandates within and among these decision-making agencies;
  - iii) Select key national/regional policies/legislations/strategies and review the process of their development
  - iv) Assess whether and how management authorities have interacted with research institutions, particularly in relation to the development of policies/legislations/strategies. What is the nature of engagement? (regular, occasional, serendipitous). Is it effective?
  - v) Review and identify different mechanisms used by research institutions in linking science and management, particularly to ensure that research results with management significance are effectively transmitted to management authorities and requisite follow up actions are carried out. To what extent do scientists or science managers consider this to be an important outcome of research? What factors influence this?
  - vi) Highlight barriers to effective linkages between the scientific and policy-making/management communities
  - vii) Suggest mechanisms/factors that can improve the use of scientific information for decision making
  - viii) Identify the capacity building needs in resource management authorities and agencies that, if addressed, may help to bridge the gap between science and management processes
  - ix) Identify capacity building strategies for overcoming the barriers to effective integration of science into decision-making/management processes.

### **3. GEOGRAPHICAL AND INSTITUTIONAL FOCUS**

The study will focus on the nine WIO states (Comoro, Madagascar, Mauritius, Reunion, Seychelles, Kenya, Tanzania, Mozambique and South Africa). Consultants will be expected to use face to face interviews, Skype interviews and online questionnaires to collect information for the assignment. They will be expected to visit four countries (preferably two mainland countries and two island states) and to review a range of organisations (e.g. local management authorities, parastatals, technical line agencies, policy/strategic planning agencies, Marine Protected Areas, etc. as well as facilitators such as NGOS, and bodies such as the Nairobi Convention Secretariat and IOC).

### **4. DELIVERABLES**

This consultancy has the following distinct deliverables;

- i) A comprehensive report (with case studies/examples addressing the different themes: successes and challenges) of not more 50 pages single spacing;
- ii) A ten page synthesis report and
- iii) Complete electronic copies of all source documents.

## **5. REPORTING AND TIMEFRAME**

A total of 50 working days have been assigned to this assignment which should be carried out between 15<sup>th</sup> April 2013 and 31<sup>st</sup> July 2013.

Consultants will also be expected to attend the Eighth WIOMSA Scientific Symposium in late October 2013 and present the results of their work

## **6. BIDDING PROCESS TO FOLLOW FOR CONSULTANCY**

The consultant or consulting team will prepare and submit:

- A technical proposal giving details on the available expertise and plan of work to achieve the deliverables; as well as a
- A financial proposal giving cost estimation for achieving the objectives of this project.

The deadline for submission of the bid is **5<sup>th</sup> April 2013**. Tenders should be submitted electronically to [secretary@wiomsa.org](mailto:secretary@wiomsa.org).