



# INTERNATIONAL WATERS RESULTS NOTES

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## UNDP/GEF Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project

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1. Creation and execution of a pre-TDA stage, the Marine Ecosystem Diagnostic Analysis (MEDA). The production of the nine MEDA reports represents an early delivery to the Project countries of information which is immediately useful to researchers and particularly resource managers.
2. The ASCLME Project has undertaken a Policy and Governance process which has resulted in the creation of a Policy and Governance Coordinator post within the Project.
3. ASCLME Project has built regional and international support for a “Western Indian Ocean Sustainable Ecosystem Alliance” (WIOSEA).

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## **PROJECT OBJECTIVE**

The western Indian Ocean (WIO) supports the people and economies of 9 countries, including a coastal population of some 56 million. Globally important fisheries (notably tuna) and endangered wildlife also depend on this region. Increasingly, the role of the greater Agulhas Current is being recognized as a major component of the world's climate and against a background of global uncertainty over the impacts of climate change, understanding of this system will be vital.

Yet this system is poorly understood, with even basic oceanographic forces scarcely understood, and with only around 50% of marine species having been described. The countries of the region lack capacity to undertake modern oceanographic research, and WSSD targets call for the implementation of the Ecosystem Approach to Fisheries (EAF), which the countries of the region are ill-equipped to undertake.

ASCLME is a project of the nine countries of the western Indian Ocean region - Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania. Financially supported by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP) through a Project Coordination Unit (PCU) based in Grahamstown, South Africa. The main objectives of the ASCLME Project are to capture information on the present status of the western Indian Ocean Large Marine Ecosystems; to use that information as a baseline from which to monitor changes and impacts to the ecosystems; to implement a sustainable management mechanism that can respond to any identified changes and impacts to ensure the long-term well-being of the ecosystems and associated human populations; and to build and strengthen national and regional capacities to sustain such a management mechanism. Part of this process will require the development of a Transboundary Diagnostic Analysis (TDA) (which identifies impacts and expected variability, seeks out the root causes and proposes potential solutions) as well as the development of a Strategic Action Programme (SAP) which sets out a strategy to manage and mitigate transboundary threats and ensure sustainability of the ecosystems.

## **RESULTS: PROCESS**

The ASCLME Project has undertaken several novel approaches to meeting the challenges of TDA/SAP development.

The most major one has been the creation and execution of a pre-TDA stage, the Marine Ecosystem Diagnostic Analysis (MEDA). The structure and the per-country focus of the MEDA results in a very comprehensive state-of-the-environment report, which documents all the threats to the ecosystem in each country, most of which are either transboundary in nature or cross-cutting throughout the countries. The production of the nine MEDA reports represents an early delivery to the Project countries of information which is immediately useful to researchers and particularly resource managers. Throughout the MEDA process, the ASCLME Project has tried to utilize existing regional capacity in the compilation of reports, supporting national researchers and managers in better understanding their own marine and coastal ecosystems, and providing impetus to collating and unearthing existing published and grey literature and information/data sources. This process has created significant buy-in to the TDA/SAP process, particularly at the technical and management level, and built strong in-country support of the Project.

Early on, the Project realized that whilst management regimes are typically limited to the areas encompassed by Exclusive Economic Zones (EEZs), much of the ASCLME region extends beyond this and represents "Areas Beyond National Jurisdiction" (ABNJ) or High Seas, which are relatively poorly policed and managed. Furthermore, these ABNJs are not isolated from the more inshore systems, and with the aim of introducing an Ecosystem Approach, setting out to compile a TDA and SAP limited solely to EEZs is short-sighted, artificially delimits the ecosystem and represents a potential risk of ineffective management and limited understanding. The ASCLME Project is developing its TDA/SAP with these challenges in mind, ensuring the management of ABNJs is considered within the SAP.

The ASCLME Project has undertaken a Policy and Governance process which has resulted in the creation of a Policy and Governance Coordinator post within the Project, and will deliver an in-depth understanding of the political and particularly management processes within each country, which will ensure more effective targeting of SAP interventions for effective management and country acceptance

and implementation of the SAP. Acknowledging that the Ecosystem Approach represents a significant change in management paradigm for the region, the Project is undertaking a Cost-Benefit Analysis (CBA), which will weigh up the benefits of the Ecosystem Approach against the costs of its implementation balanced against the risks represented by “Business as Usual”. Furthermore, the Project recognizes that a problematic gap exists between “researchers”, “managers” and “policy-makers”. This presents a significant barrier to effective management, and has spurred the creation of a Science-to-Governance process, which is receiving significant regional and international interest. This process recognizes the vital importance of translating research results into policy-centric information, and conversely, capturing management and policy information needs, and translating them into targeted research. A related challenge is the slow pace of scientific research relative to management/policy needs; a potential solution is to move away from the “95/99% confidence interval” and the “precautionary approach” to a “weight-of-evidence” approach. The first two represent the “traditional” scientific approach to knowledge which require huge amounts of research and usually time before a scientifically rigorous consensus is reached. The latter represents a more dynamic and responsive approach, which recognizes that whilst scientific uncertainty likely exists around a management or policy issue, at least some information is available upon which policy and management decisions can be made – on the understanding that the information is somewhat less reliable, and policy/management actions may need to be revised once the requisite information is available; the alternative is frequently no action at all and continued degradation or inaction. Another important component will be to encourage the presentation of information to managers and policy-makers with choices. Rather than solely presenting the “best case” scenario, which may not take into account political pressures or other factors potentially overlooked by the researcher, multiple scenarios and their likely outcomes, costs and benefits should be presented in a form that translates incomprehensible “science-speak” into meaningful information upon which considered action can be taken. It is also imperative to ensure that this understanding is translated to society at large, enabling personal action on issues and more effective, informed interaction with management and policy-makers. Engaging society at large is perhaps the most significant challenge to meet.

One other innovative and unique approach to building scientific, financial and political sustainability within the Project is the development of a Western Indian Ocean Alliance. This recognizes the need for partnerships to undertake the multiplicity of actions necessary to achieve an effective management and governance approach for the LMEs. This Alliance of partners allocates certain actions and responsibilities to those groups who have a vested interest (and associated funding) in those actions. This Alliance has evolved somewhat naturally within the WIO region and is now being consolidated through more formal agreements that are being facilitated through ASCLME and its sister project, SWIOFP.

## **RESULTS: STRESS REDUCTION**

The ASCLME Project is in the TDA Preparation Phase, and has not yet implemented targeted Stress Reduction interventions. However, the Project has certainly filled in information gaps which will enable the identification of effective stress reduction actions through SAP implementation. A lack of information/understanding can result in significant environmental stress, and whilst hard to quantify and measure, represent a vital foundation upon which stress reduction actions can be based.

The ASCLME Project and its partners have invested a considerable amount of time and funding on filling information gaps which will ultimately lead to stress reduction mechanisms.

## **RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS**

Being in TDA Preparation Phase, the ASCLME Project has not been in a position to effect measurable change in environmental and socioeconomic status to date.

However, the ASCLME Project has built regional and international support for a “Western Indian Ocean Sustainable Ecosystem Alliance” (WIOSEA), which would provide a vehicle for SAP implementation and long term regional adaptive management. A key principle of WIOSEA will be to coordinate without undermining the autonomy or responsibility of existing regional organizations and bodies. It will seek to

foster stronger partnerships, acquire sustainable funding resources and rally political and social will to effectively implement the LME approach in the WIO region. A key focus will be on implementing and monitoring environmental and social status projects.

The ASCLME Project area supports:

- 4 million tons of fish catches annually;
- US\$943m in annual fisheries revenues;
- The livelihoods of over 56 million people who depend upon marine and coastal resources;
- Tourism linked to healthy marine environments. This accounts for approximately 30-50% of GDP in island states such as Mauritius and Seychelles and is important throughout the region;
- At least 200 species of coral, 11 of mangrove and 12 of seagrass, 1,500 species of fish, 3,000 species of molluscs, 450 species of crabs, 300 species of echinoderm and five of the world's seven marine turtle species. Overall species composition is enormously rich, exceeding 11,000 species of plants and animals, 60-70% of which are found only in the Indo-Pacific ocean region. Scientists estimate only 50% of the marine species in the region are described.

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