# Appendix I. Principles and guidelines for Data and Information Management on the ASCLME Project

## 14 November 2008

Participating countries in the ASCLME Project, and their designated representatives, have the mandate to develop this document on principles and guidelines for ASCLME data and information management so that it facilitates the effective collection, use and dissemination of information in support of TDA/SAP development in the short term and the ecosystem approach in the long term.

National D&I coordinators in particular, have a primary responsibility for sourcing, collating, interrogating and presenting information relevant to the TDA/SAP process, and developing mechanisms for reliable long-term storage and use of information collected under the ASCLME Project.

This section has been drawn up based on principles discussed and outlined in MOUs, data policies and meeting resolutions of the ASCLME Project, the South West Indian Ocean Fisheries Project (SWIOFP), UNEP's Addressing Land Based Sources of Pollution in the Western Indian Ocean (WIO-LaB), the Nairobi Convention, the African Coelacanth Ecosystem Programme (ACEP), the International Council for Science (ICSU), the Intergovernmental Oceanographic Commission of UNESCO (IOC), the Committee on Data for Science and Technology (CODATA) and the Intergovernmental Oceanographic data exchange (IODE). It is also informed by recommendations of the ASCLME Steering Committee meeting of January 2008 (Durban).

The section only addresses **principles**, **guidelines** and some fundamental requirements. It will **not address mechanisms or activities**. This document should be seen as the guiding policy on intellectual property underlying the proposal, design and implementation of all research and data-use activities.

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The process of development has been:

1. Discuss and develop the content of the document at **National** meetings of the COGs, with Steering Committee and D&I representatives in particular (May to July 2008)
2. Adopt an interim guiding document on commencement of the first ASCLME cruise (1 August 2008)
3. Present the compiled document together with comments, recommendations and points of discussion at the **Regional** meeting of the COGs (29 September 2008).
4. COGs to get further input from countries and submit final comments to the Project Coordination Unit (PCU) before 3 November 2008.
5. The PCU to do a final review of changes to check consistency with FAO and UN Principles.
6. Finalisation of document (14 November 2008).

**Principles of intellectual property and data management under the ASCLME Project (with reference to international recommendations on best-practice)**

Data and information collected and compiled for the purposes of the development of the regional TDAs and SAPs may be divided into two main categories; A) New data collected under the ASCLME Project, and B) Existing or historical data residing in National or International institutions or databases.

## A) New data and new mechanisms for data management

The intellectual property of data, associated metadata, information collection activities and resulting products funded by the ASCLME Project resides with the principal investigator (in the case of a scientific investigation), the Institution to which the scientist belongs, the participating country and the ASCLME Project.

Bearing in mind that access to new data, associated metadata, information collection **activities and resulting products funded by the ASCLME Project** shall be free and unrestricted to the Project and the participating countries;

*Existing initiatives and collaboration*

1. The ASCLME Project takes cognizance of the many projects, programmes, networks and institutions in the region that are actively collecting, managing, archiving and disseminating marine and coastal-related data. The Project will seek to avoid duplication of existing activities.
2. The Project has established, or will seek to establish, collaboration with the initiatives that have a complimentary mandate.
3. It is recognized that ASCLME countries have institutions with mandates for certain marine data-related activities (management or policy), and every effort will be made by the Steering Committee to include these institutions in ASCLME technical committees.
4. Internationally accepted standards and best-practices for data collection and management will be used wherever possible.
5. The ASCLME Project will support the coordination of effort across the region for the promotion of access to coastal and marine-related information in appropriate forms, to underpin informed ecosystem management decisions.

*Custodians of data and policy*

6. The primary custodians of data sets shall be member-countries of the ASCLME Project, and the primary contact points and archive locations for ASCLME-generated data shall be at National data centres. Where requested, the ASCLME Project shall provide appropriate support and training to the Data Centres (as determined by countries themselves) to enable them to fulfill this mandate.
7. The Working Group of National D&I coordinators (Regional Information Working Group) for the ASCLME Project will be made up of National representatives, and will have the responsibility for guiding all aspects of data collection, management and policy.

8. Participating countries shall collaborate in good faith to establish systems to best meet the needs of the Project, Programme and region as a whole, in support of the ecosystem approach.

*Primary research data*

9. Primary research data collected by scientists under the ASCLME Project shall be immediately available to the Regional Information Working Group (made up of National D&I Coordinators).
10. On request by the Principal Investigator (PI), a restriction may be placed on the release of primary research data outside of the Project for a period of no more than 24 months (International Council for Science (ICSU) guidelines). Scientists will, however, be encouraged to publish their data as soon as possible, and shall be given appropriate support and skills training to allow the analysis and interpretation of their data.
11. If restricted (10, above), even within this 24 month period, data may still be used by the ASCLME Regional Data & Information Working Group, TDA and SAP Working Groups, for purposes that are fully disclosed to the PI and that, by mutual agreement, do not compromise any pending publications.

*Commercial gain*

12. Information and data, as well as products developed from these data under the ASCLME Project shall under no circumstances be sold, either during or after the ASCLME Project duration.
13. This restriction does not apply to value added services.

*Mechanisms for data exchange, sharing and access*

14. Internationally recommended standards for data description shall be used in all cases (metadata standards and ontologies by MMI, JCOMM, IODE, ICAN).
15. Metadata formats used by the Project shall comply with Open Geospatial Consortium (OGC) and ISO standards.
16. All reasonable efforts to ensure interoperability with existing African and International marine and coastal information networks shall be taken.
17. Information systems instituted by the ASCLME must have a purpose and design for the benefit of the region, must have a mechanism to ensure updating at an appropriate frequency, and must have measures to ensure their protection and the sustainability of content information *in some form, in the future* beyond the duration of the ASCLME Project.
18. Public domain data should be contributed to appropriate international databases and international information networks including SADCO, the World Ocean Database, the Ocean Biogeographic Information System, the African Marine Atlas, the Nairobi Convention Clearinghouse Mechanism, the Global Ocean Observing System.
19. Mechanisms of data exchange shall be determined by the D&I working group.

*Disclosure of relevant project, data and research activities*

20. Countries shall, in good faith, make known to the ASCLME National & Regional Committees any project, programme, research or data activity that is relevant to the ASCLME.

21. Metadata of all data collected for ASCLME purposes, as well as research data shall have no restriction and shall be placed in the public domain as soon as reasonably possible.
22. Data and metadata from the ASCLME Project shall be made available in one or more formats to ensure accessibility by the widest range of potential users.
23. Public-domain information shall be made available to the ASCLME communications team to facilitate awareness of ASCLME results and activities.
24. No research or data collection activity (including specimen collection and the deployment of instrumentation) will take place in territorial waters without the guidance and permission of the relevant country, and the possession of required permits.
25. Where morphological specimens are collected, every effort will be made to collect duplicates and to lodge primary specimens in National Collections, and to provide appropriate training where this is requested.
26. Copies of all electronic data collected by the ASCLME Project will be given to the National Oceanographic Data Centre, or other Nationally designated institution for archiving (flagged if necessary), regardless of the publication status.
27. Data collected or disseminated remotely, from satellites or drifters, is often immediately in the public domain (data from Argo floats, for example), and links to these repositories will be provided.

*Sensitive data*

28. Since the establishment of data policies and data management mechanisms will be established by National D&I representatives, countries will be able to decide actions on data of particular sensitivity. Clauses may be added for sensitive data types (themes) or sensitive areas (geographically delimited).

*Disclosure*

29. Data collected by the ASCLME Project, whether from historical or field (new data) sources, shall be described (metadata shall be written if the data sets are new) and the metadata shall be made available in the public domain as soon as practically possible, with reference to the location and appropriate national-level contacts for obtaining the actual data sets.
30. Project descriptive information which will always be public domain and fully open access will include:
    - Cruise tracks (planned and executed)
    - The location of deployed instrumentation
    - The location and nature of field activities, including ship-based Station logs.

## B) Existing and historical data

31. Data obtained from other projects or sources must be attributed with comprehensive metadata, and copyright, and use restrictions. Citation requirements made by other data providers must be respected and followed without exception.
32. Data provided by National Institutions are deemed to be National contributions to the ASCLME Project and would remain the intellectual property of those institutions while being used by countries in the development of their own National and Regional TDAs and SAPs.

33. The ASCLME Project will actively pursue and support the repatriation of data sets to their source countries, for example from past research cruises in Western Indian Ocean waters, for both ASCLME Project and Country use.

*Quality control*

34. Data sets and derived information used in the ASCLME MEDAs, TDAs and SAPs, from any source, must be subject to quality control or peer review to confirm their reliability and usefulness.