

Project Title: Integrated Data and Information Products and Services for the Management of Oceans and Coastal Zones in Africa (ODINAFRICA-IV)

Target Country or Region: AFRICA

Budget code: 513RAF2013

Contract number:

Funding sources: FUST (Flanders UNESCO Science Trust fund)

Total Budget approved: US\$ 3,545,078

Reporting Period: 5 August 2009 – 10 May 2010

Executing Agency: UNESCO/IOC

Implementing partners: UNESCO/IOC and participating institutions in Algeria, Angola, Benin, Cameroon, Comoros, Congo, Cote d'Ivoire, DR Congo, Egypt, Gabon, Ghana, Guinea, Kenya, Madagascar, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Senegal, Seychelles, South Africa, United Republic of Tanzania, Togo, and Tunisia.

Project starting date: planned 1 January 2009, actual 1 August 2009

Project completion date: planned 31 December 2012, Requested change 31 July 2013.

Responsible Sector: SC/IOC

Name of Person completing Report: Mika Odido

- **Summary and Background**

The goal of ODINAFRICA-IV is to promote the sustainable management of marine and coastal sources, as well as reducing the risks of ocean related hazards, based on sound scientific knowledge. This will be achieved by strengthening the pan African network of National Oceanographic Data Centre (NODCs), and marine related institutions, as a sustained mechanism for application of data, information and products in marine and coastal management in Africa.

The previous phases of ODINAFRICA focussed on development of the basic infrastructure for the collection, archival, analysis and dissemination of data and information products. This phase will strengthen these structures; develop linkages with data generators, including on-going large-scale projects on the African coasts. ODINAFRICA-IV will also develop targeted products and services for national and regional end users. This will enable them demonstrate their roles as national facilities and encourage other projects to deposit their data in the NODCs, thereby making them sustainable.

The project will have a strong focus on developing sustainable capacity in African institutions to provide useful and usable data and information.

The primary objectives are:

- Expanding and strengthening the network of marine scientists and institutions in the region to foster the sharing of data and information.
- Developing high quality products and tools to support decision-making, management and conservation of the marine and coastal environment.
- Promoting the use of products and services developed by the project to all stakeholders.
- Fostering active south-south, intra-Africa, north-south and Africa-Flemish collaboration for marine training, research and technology transfer.

In addition, the ODINAFRICA IV programme will strive to promote the involvement and participation of women and youth in marine science.

The project will combine a regional approach – building networks and generating economies of scale - with nationally driven identification of needs and priorities. The project will foster a 'user-oriented' approach to the management of data and information.

ODINAFRICA-IV will focus on the development of the following products in order to achieve its objectives:

- (i) Web-based data services (including catalogues and archives)
- (ii) Web-based Information Services (including literature catalogues and repositories, institution and experts directories, inventories of projects)
- (iii) National Marine Atlases, and the African Marine Atlas (including scenarios, models, forecasts and predictions on priority issues)
- (iv) National and regional portals, as well as project websites and national NODC websites
- (v) Communication tools: newsletters, policy and media briefs, African Oceans and Coasts books series

Description of project activities undertaken during the reporting period

Designation of Regional Coordinators

The ODINAFRICA Project Steering Committee designated Regional Coordinators for the LME regions of ODINAFRICA. In addition to their regional coordination responsibilities, each of the ODINAFRICA Regional Coordinators has also been assigned a "Products Cluster". These are as follows:

- Dr Desiderius CP Masalu (Tanzania): Agulhas Somali Current LME region. He will also assist with coordinating the development of Portals and Websites.
- Dr Anja Kreiner (Namibia): Benguela Current LME region. She will also assist with coordinating the development of Communication tools.
- Canary Current LME region: Mrs Arame Keita (Senegal). She will also assist with coordinating the development of the Web-based Information Services.
- Prof Angora Aman (Cote d'Ivoire): Guinea Current LME region. He will also assist with coordinating the development of the Atlases products (including scenarios, models, forecasts and prediction).
- Dr Malika Belhassen-Abid (Tunisia): Mediterranean Sea region. She will also assist with coordinating the development of the Web-based Data Services.

National Assessments.

The institutions participating in ODINAFRICA-IV in each country completed a questionnaire for assessment of national capacities and identification of key issues that need to be addressed in the current phase. The responses to the questionnaires provide general information on the institution and on data and information management. The questionnaires also provided information on available capacities and allow us to identify the weaknesses and strengths of the NODCs. These will form the basis for further discussions at the national coordination meetings planned for May/June 2010, and the assessment missions to be undertaken by the ODINAFRICA Regional Coordinators.

African Marine Atlas Task team meeting (12 – 14 October 2009)

The African Marine Atlas task Team met at the UNESCO/IOC Project Office for IODE from 12 - 14 October 2009 to plan the development of the African Marine Atlas and related mapping activities at the national and regional level.

The team identified the mapping needs, and the skills and tools that will be required to develop the atlas. Members of the African Marine Atlas Task Team include experts who worked in the earlier version of the atlas, representative of the LME projects being implemented along the African coasts, and invited experts who are involved in other coastal atlas programmes.

The team outlined plans for development of the marine atlases at national,

regional and continental scales, comprising of the elements below.

- Preparation phase (includes identification of user needs at national and regional scales, review of current status of the African Marine Atlas, and Baseline data surveys)
- Data mining and processing (Review of protocols, and conventions; Collection and cataloguing of data; Acquisition of data from external sources; Formatting and conversions of data sets)
- Compilation of Atlas (Review of current status – prototype; Review existing mapping tools; Decision on platform, software etc; Acquisition and installation of software; Incorporating stakeholder needs in the atlas; Check on layers/legends; Populating the atlas)
- Development of derived products (includes development of scenarios and forecasts, thematic derived products such as beach water quality and beach access etc)
- Promotion and use of atlas (publication of atlas book, offline CDROM/DVD of atlas, newsletters and posters, conference presentations, mailing lists, advertisements etc)
- Feedback and improvements. (Through national focal points, usage statistics for different layers, Online feedback mechanism, feedback from partners, etc)

The Task team identified the following training requirements:

- (i) *Mapping [map server, web mapping, scripting]*: The trainees need to have a background in IT, programming and GIS.
- (ii) *Metadata [thematic experts]*: Familiarization with meta data elements, installation of GeoNetwork, ISO standards. This should be a hands-on training where the participants come with their data.
- (iii) *Data Providers*: Meta data, simple data management skills, web service, web data provision
- (iv) *Users*: These should be self-training using brochures, posters, newsletters, help page on the atlas and possibly video showing case studies. Demonstrations should be organized during conferences and other events.

The Task team emphasized that in order to ensure the sustainability of the atlas it is important that the governments provide funding for maintenance and further development of the atlases. This can only be possible if they are involved at the development stages so that they can claim ownership of the initiative. Each country should come up with presentation for decision makers demonstrating use, data gaps, problems that need to be addressed [focus depends on the ministry to be addressed].

Participation of ODINAFRICA in First Benguela Current Commission Scientific Symposium (23 – 25 November 2009).

The first BCC Scientific Conference was held in Swakopmund, Namibia and attended by the ODINAFRICA National Coordinators for the BCLME countries (Angola, Namibia and South Africa), the ODINAFRICA Regional Coordinator for BCLME and the ODINAFRICA Project Manager. The forum enabled scientists from national marine research institutes and from other research institutes in the region and beyond to gather and share experiences, provide progress update on projects underway and strengthen regional and international collaboration on research and capacity development. In particular it provided the following:

- Project leaders with an opportunity to present progress on the implementation of the projects. The audience had an opportunity to critically review / assess and comment on the work plans of the projects, taking an advantage of the wide range of local and international scientific expertise available.
- A platform for the members of BCC Ecosystem Advisory Committee and regional Joint Working Groups (JWGs) to conduct business meetings. An opportunity for regional managers at different levels to interact and exchange information with scientists.
- An opportunity for interactions among scientific disciplines, especially in view of Ecosystem Approach to Fisheries (EAF) requirements.
- A platform for regional and international scientists to discuss collaboration and identify areas of mutual scientific interest with training and capacity building at the forefront.
- An opportunity for scientists to develop concept notes for projects to be finalized and submitted for funding from various sources.

The presentations covered the six BCC themes: namely 1) ecosystem approach to fisheries management 2) living marine resources research and management 3) biodiversity and ecosystem health 4) water quality and pollution 5) oceanographic and coastal monitoring and 6) data and information management.

Scientists working on the NansClims project (funded by Norway), and the GENUS project (funded by Germany) also presented the results of their work. ODINAFRICA Project Manager made a presentation on "Access to Marine Data and Information" which was well received by the participants.

ODINAFRICA meeting for BCLME region (23 and 26 November 2009).

The meetings were during the BCC Scientific Symposium in Swakopmund, Namibia and attended by the ODINAFRICA National Coordinators for Angola, Namibia and South Africa, ODINAFRICA Regional Coordinator for BCLME, ODINAFRICA Project Manager, and the BCC Data and Information Management Coordinator. The meetings reviewed the implementation plans for ODINAFRICA-IV and explored the possibilities for collaboration between ODINAFRICA and BCC.

Three core datasets/databases that need attention in the countries were identified: (i) Fisheries, (ii) Oceanography, and (iii) Biodiversity.

ODINAFRICA-IV focuses on the following:

- Data services [metadata bases and data archives]
- Information services [library catalogues and literature repositories]
- Portal development

- Marine atlases
- Communication tools.

The following is a summary of relevant activities of the BCC:

- At this stage the BCC has three non-interactive websites (these include the BCLME and BENEFIT websites)
- A service provider was appointed to develop a regional data policy
- A service provider was appointed to revive and upgrade the SEIS system

The participants noted that the hosting of the websites and databases is still a concern as the institutional setups are at this stage not able to host any systems. IODE office hosts the websites of many other NODC who cannot host these in their institutes.

A problem identified was the lack of clear national data policies in all three countries. The BCC Data and Information Management Coordinator suggested offering all three partner countries to host workshops in order to draft national data policies (with the assistance of IOC/IODE/FAO).

The participants discussed the challenges of processing partnership agreements for institutions in the region and agreed that the ODINAFRICA Regional Coordinator for BCLME region and the ODINAFRICA Project Manager will explore ways of addressing these challenges.

The participants agreed that the regional ODINAFRICA meeting would be held in Swakopmund in the first half of 2010 back-to-back with the BCC Data Management meeting. National coordinator as well as information managers will be invited to attend.

BCC Data and Information Management Coordinator Mr Zukile Hutu suggested that a Memorandum of Understanding (MoU) is signed between BCC and ODINAFRICA. Work plans and budgets of BCC and ODINAFRICA need to be aligned to maximize results.

ODINAFRICA meeting for GCLME region (8 – 11 February 2010).

The meeting of ODINAFRICA National Coordinators from the GCLME region was held from 8-11 February 2010 in Kribi Cameroon prepare an implementation plan for ODINAFRICA-IV in the GCLME region. The ODINAFRICA national coordinators from the GCLME region made presentations on the status of their national data and information centres, priority coastal and marine issues that should be addressed in ODINAFRICA-IV, and availability of data and skills to develop products to address the issues identified. The participants noted that ODINAFRICA had contributed greatly to the development of national networks, improved visibility of the NODCs and their host institutions, provided equipment for coastal observations and data management, assisted in the development of databases and data products, improved communication infrastructure including internet access, improved skills in data and information management.

The following were identified as some of the challenges that need to be addressed: upgrade of computer equipment, poor Internet connections in some of the institutions, and staff mobility [including resignations from institutions and promotions or transfers to different departments). The participants agreed that

the issues identified during the planning of ODINAFRICA-IV remain relevant and should be the focus for products development. These include: shoreline changes, management of key ecosystems, sustainable use of resources (including fisheries), marine related hazards and disasters, (including pollution). The products should include fisheries atlases, coastal sensitivity maps, inundation maps, coastal profiles, pollution hot spots, shoreline changes, evolution of mangrove areas, oil and gas locations, bathymetry, tourists sites. The lists will be finalized after the national meetings. The availability of data for generating the products differs from country to country. The establishment of active national networks of institutions will be crucial in mobilizing data for products and atlases. The following programmes in the region that generate significant amounts of data were identified as potential collaborators: GCLME, PROPAAO, AMMA/EGEE, PIRATA

The dissemination of information on project activities, as well as products and services available at national level will be important in ODINAFRICA-IV. This will be done through publication of newsletters, brochures, calendars, and improvement of the NODC websites. The participants also decided that exhibitions and open days should be held annually, during one of the two national coordination meetings planned for each of the project years.

I. Difficulties and Problems encountered and measures taken, any changes in implementation.

The project did not commence in January 2009 as initially envisaged. The appointment of the ODINAFRICA Project Manager was only finalized in July 2009, and re reported in August 2009. It may therefore be necessary to extend the duration of the project beyond the initial planned end date of 31 December 2013.

There were challenges encountered in processing of agreements and contracts in the first few months of the project. In order to address this ODINAFRICA made a contribution towards the funding for engaging a temporary administrative support staff based at the IOC HQs in Paris, France. She will assist in the administration of IODE projects and activities especially the processing and follow-up of agreements and contracts.

Staff mobility in the participating institution continues to be a challenge. We intend to increase the number of trained people in the NODCs by utilizing distance learning tools

II. Project Results achieved during the reporting period

- Preliminary assessments of capacity (through questionnaires submitted by national institutions) completed. The results of the preliminary surveys will form the basis of further assessment through assessment missions.
- African Marine Atlas task team finalised the plans for the development of the national coastal and marine atlases
- ODINAFRICA Regional groupings for GCLME and BCLME met to review and finalise implementation plans for activities in the region

- ODINAFRICA website was reviewed and the contents of the African Oceans and Coasts book included.
- Distant training on Ocean Data Collection Development commenced, with an expert from Ghana assisting in coordination of the assignments from the project office.
- Partnership Agreements was processed for most of the countries and have already been sent to the institutions for signatures. The funds should be available to them by end of May 2010.
- Contacts established with all the LME projects along the African coastline and possibilities for collaboration discussed.

III. Lessons learned and Sustainability

Collaboration with other projects/programmes, and incorporation of activities into institution/government budgets are the keys to sustainability. We are focusing on ensuring that both are implemented during the current phase.

IV. Evaluation recommendations when applicable

The first Planning and Review meeting for ODINAFRICA-IV is provisionally scheduled for July 2011. This will provide time for the participating countries to complete the development of the first version of the National Marine Atlases.

V. Visibility: describe any visibility action implemented during the reporting period

Presentations on ODINAFRICA were made at the Sixth session of the IOC's Regional Committee for the Central and Eastern Atlantic (IOCEA-VI) held in Accra, Ghana from 28 -30 March 2010, and at the GOOS Africa meeting held in Cotonou, Benin in February 2010.

ODINAFRICA website was reviewed and the contents of the African Oceans and Coasts book included.

Work commenced on the WINDOW newsletter.

VI. Work plan for the following period (please complete the attached table and when applicable add an eventual budget revision)

The first session of the Steering Committee for the project "Integrated Data and Information Products and Services for the Management of Oceans and Coastal Zones in Africa – ODINAFRICA-IV" was held at the UNESCO/IOC's Project Office for IODE from 20 – 22 January 2010. The Steering Committee identified the

following broad areas to focus on during each year of implementation of ODINAFRICA-IV:

- 2009: National Assessments and putting in place project management structures at the Regional level
- 2010: Finalization of National Assessments, Identification of priority issues to address, Data Mining and commence development of National Marine Atlases
- 2011: Completion of National Marine Atlases, commencement of work on regional atlases and national ocean data portals, as well as development of scenarios and forecasts to be included in marine atlases.
- 2012: Completion of regional atlases and national ocean data portals, incorporation of scenarios and forecasts in marine atlases
- 2013: Development of regional ocean data portals, publication of the African Marine Atlas book, finalization of ODINAFRICA-IV

The following activities will be implemented in the 2010:

- Organisation of national coordination meetings to (i) review National ICAM plans and policies to identify key national issues that an atlas will be of use in addressing, (ii) identify pilot sites or topics for which forecasts and scenarios can be developed, (iii) Identify the national institutions that generate/archive the data needed to address these issues, (iv) Identify the skills and facilities (equipment and software) available in local institutions to support the development of atlases, (v) Identify other products/services that should be developed within ODINAFRICA and the capacities required for this.
- Missions to selected countries to assess the capacities available for implementation of planned activities.
- Finalization of national assessments (on the basis on national meetings and assessment missions), and preparation of reports for each country on: (i) priority coastal issues, (ii) institutions that collect and archive the data required to address these issues, and (iii) the institutional and expert capacities available for developing the atlases.
- Purchase of computers and software required by both the data and information centres for development of products in ODINAFRICA-IV.
- Upgrade and maintenance of information products and services, including: Library catalogues, Catalogue of marine related publications from/about the country, Electronic Repository of relevant national/institutional publications, Directory of marine and freshwater professionals from the country, and Database of ongoing/completed marine related projects.
- Development and maintenance of data services and products, including: Catalogues of data sets, Extraction of data from WOD2009, Incorporation of new data sets into national data archives, and NODC website.

- The services that will be offered by the ODINAFRICA national networks include data extraction and conversion to specific formats, online trend generation, and plotting and printing of maps and figures from databases. Data will be mined from a wide range of national, regional and international sources.
- Development of National Coastal and Marine Atlases, with the following schedule: (i) Distance training on Ocean Data Collection Development, with assistance from an expert from an ODINAFRICA institution based at the IODE project office between March – June 2010, (ii) Selection of ODINAFRICA Regional trainers, and providing them training on Marine GIS in May 2010, (iii) National Atlas team leaders attend the first ODINAFRICA-IV Coastal and Marine Atlas workshop 26 July – 6 August 2010, at Kenya Marine and Fisheries Research Institute, Mombasa, Kenya, (iv) Data mining and processing by the national atlas teams, with support from ODINAFRICA Regional trainers, (v) ODINAFRICA Regional trainers attend Coastal Atlas development workshop at the project office in November 2010.
- An Information Manager from one of the ODINAFRICA institutions, seconded to the IOC Project Office for IODE for a period of March – June 2010 will coordinate the update and maintenance the national library catalogues, AFRILIB, the African records in OceanExpert (www.oceanexpert.org) and OceanDocs (www.oceandocs.net), and the development of the Projects and Programmes database.

SUMMARY OF REVISED BUDGETS.

The following budget revisions have been requested:

	2009	2010	2011	2012	2013	TOTAL
WP1: Networking, Coordination and Management	89,028	223,278	399,184	225,726	292,253	1,229,799
WP2: Strengthening of national marine data and information management capacity	18,700	343,300	200,000	150,000	50,000	762,000
WP3: Development of Products	10,000	297,500	310,000	67,500	20,000	705,000
WP4: Dissemination and sharing of data, information products and services	1,671	80,000	270,000	140,000	34,329	526,000
TOTAL	119,399	944,078	1,179,184	583,226	396,912	3,222,799

Line	CURRENT	PROPOSED	
10	20,000	125,000	+105,000
11	531,320	841,320	+310,000
20	2,086,679	1,415,000	-671,679
30	434,800	564,800	+130,000
40	150,000	236,000	+84,000
50	-	40,679	+40,679
TOTAL	3,222,799	3,222,799	
80	322,279	322,279	
TOTAL	3,545,078	3,545,078	

These changes have been necessitated as follows:

- (i) Line 10: Assessment and Coordination missions to be undertaken by the Regional Coordinators was initially budget under line 20, as "Fee contracts" could still be used for individual experts at the time the proposal was prepared.
- (ii) Line 20: At the time the project was developed experts could be engaged on fee contracts (Line 20). This now not possible and they have to be engaged as Consultants (Line 11). Those covered under this include: Regional Coordinators, and experts who will assist in development of the Coastal and Marine Atlases, development of interfaces for websites, development of scenarios and products. Similarly the assessment and coordination missions initially planned under line 20 have been moved to Line 10.
- (iii) Line 30: The Project Steering Committee approved the organization of two Coastal and Marine Atlas development workshops
- (iv) Line 40: The software for development of atlases, and that for integrated library management will be purchased centrally by UNESCO and distributed to the participating institutions. This will ensure that the correct software is acquired, with possibility of negotiating cheaper rates for bulk purchases.

- (v) Line 50: Includes mailing and communications costs for temporary assistant based in Paris (engaged to assist in processing contracts/agreements etc)

The project was initially to run from 1 January 2010 – 31 December 2012. However due to delays in commencement we would like to request for an extension to 31 July 2013. The budget would then be as follows:

YEAR	ORIGINAL	PROPOSED	CHANGE
2009	849,129	119,399	-729,730
2010	964,760	944,078	-20,682
2011	686,184	1,179,184	+493,000
2012	722,726	583,226	-139,500
2013	0	396,912	+396,912
SUBTOTAL	3,222,799	3,222,799	0
UNESCO overhead	322,279	322,279	0
GRAND TOTAL	3,545,078	3,545,078	0

The above revision will not impact on the objectives and outcomes of the project, but only reflect changes in implementation (practical and administration).

ORIGINAL ODINAFRICA-IV BUDGETS.

		2009	2010	2011	2012	Totals
WP1	Networking, Coordination and Management	186,629	367,260	193,684	375,226	1,122,800
WP2	Strengthening of national marine data and information management capacity	320,000	170,000	170,000	170,000	830,000
WP3	Development of Products	150,000	320,000	185,000	85,000	740,000
WP4	Dissemination and sharing of data, information products and services	192,500	107,500	137,500	92,500	530,000
	TOTAL	854,450	966,950	684,450	716,950	3,222,800
	10% UNESCO overhead	85445	96695	68445	71695	322280
	GRAND TOTAL	939,895	1,063,645	752,895	788,645	3,545,080

Project budget in UNESCO format
(in US Dollars)

Budget	Description	Total	2009	2010	2011	2012
Line						
10	staff/individual travel	20,000	5,000	5,000	5,000	5,000
11	experts (ALD, consultants)	531,321	127,000	130,810	134,734	138,776
13	admin support staff	0	0	0	0	0
20	fee/activity fin. Contracts	2,086,679	547,179	631,500	526,500	381,500
30	meeting costs	434,800	19,950	197,450	19,950	197,450
40	equipment	150,000	150,000	0	0	0
50	hospitality, office expenses	0	0	0	0	0
	Totals before support costs	3,222,800	849,129	964,760	686,184	722,726
80	Programme support costs	322,280	84,913	96,476	68,618	72,273
	TOTAL BUDGET	3,545,080	934,042	1,061,236	754,803	794,999

