

Intergovernmental Oceanographic Commission  
Workshop Report No. 184



# **IOC-Flanders Third ODINAFRICA-II Planning and Review Workshop**

Limbe, Cameroon  
18-21 November 2002

**UNESCO**

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## 1. OPENING

The third session of the ODINAFRICA planning and review meeting was held at the International Conference Centre of Botanical and Zoological Gardens in Limbe, Cameroon from 18-21 November 2002. The meeting was attended by ODINAFRICA National Coordinators from Benin, Cameroon, Comores, Cote D'Ivoire, Gabon, Guinea, Kenya, Madagascar, Mauritius, Morocco, Mozambique, Nigeria, Senegal, Seychelles, South Africa, United Republic of Tanzania, Togo, Tunisia as well as representatives of the Ministry of Scientific and Technical Research and the Institute for Agricultural Research for Development in Cameroon. Invited experts from Belgium who have been providing capacity building support for both data and information management for the project also attended the meeting (List of participants is Annex I).

The participants reviewed the implementation status of the project and adopted work plan and budget for the year 2003. The workshop was officially opened by the Mr Vounsia Andai, the Technical adviser on Social and Economic Affairs in the Governor's Office on behalf of the Governor of the South West Province His Excellency Nzegge Onyong Charles and attended by the Director General of IRAD Dr Ayuk Takem Jacob. Participants were also addressed later in the day by the Minister for Environment and Forestry Chief Tanyi Mbianyor Clarkson Oben.

Welcoming the participants, Dr Jean Folack, the ODINAFRICA National Coordinator for Cameroon, expressed Cameroon's pleasure in hosting the workshop. He reiterated Cameroon's commitment to the successful implementation of the second phase of the ODINAFRICA project.

The Secretary General of the Limbe Urban Council Mr Moleliluma welcomed the participants on behalf of the people of Limbe Municipality. He wished them successful deliberation and invited them to take advantage of their presence to visit the marvelous tourist sites around in and around Limbe.

On behalf of Dr Patricio Bernal, Assistant Director-General of UNESCO and Executive Secretary of the Intergovernmental Oceanographic Commission of UNESCO, the Head of Ocean Services at IOC Mr Peter Pissierssens welcomed the participants and thanked the Government of Cameroon for its kind hosting of the ODINAFRICA Review and Planning Workshop. Recalling that at the first meeting in Dakar, Senegal the participants had recognized that they were about to embark on a difficult and complex undertaking, Mr Pissierssens thanked them for the commitment they exhibited in implementation of the project. He urged the participating governments to ensure that the national experts are given the best environments and conditions to make the countries benefit from their expertise. Noting that one of the core priorities of UNESCO today is "bridging the digital divide", he pointed out that ODINAFRICA is addressing this through provision of access to new technology in general and the internet in particular. He emphasized the need to start thinking beyond the current phase of ODINAFRICA and stressed that the sustainability of the centers will only be possible through the forging of close alliances with other programmes at the national level and regional levels. (Full text of the speech is available as Annex II).

In his opening address the Governor of the South West province His Excellency Nzegge Onyong Charles informed the participants that Cameroon has a coastal zone rich in biodiversity with many varying features. The Cameroon government therefore pays particular attention to the protection and conservation of the coastal and marine environment. He stressed the importance of multilateral cooperation as a means of addressing the problems of natural disasters, degradation of the environment and poverty in Africa. In this regards he lauded the initiative by African countries under the auspices of the Intergovernmental Oceanographic Commission of UNESCO to establish a project on management of marine data and information. This is a major step towards sustainable management of marine and coastal ecosystems as it will put useful data products and services at the disposal of users such as maritime transport companies, fishing industry, and planners. He thanked the government of Flanders, IOC-UNESCO, and the other partners who

have ensured the success of the project and wished the participants very successful deliberations (Full text of the speech available in Annex II).

## **2. ADMINISTRATIVE ARRANGEMENTS**

### **2.1 ADOPTION OF AGENDA**

The participants considered and adopted the agenda and timetable for the meeting.

### **2.2 ELECTION OF CHAIRMAN**

The ODINAFRICA National Coordinator for Cameroon, Dr Jean Folack was elected unanimously as the Chairman for the session.

### **2.3 CONDUCT OF SESSION, TIMETABLE AND DOCUMENTATION**

The Technical Secretary for the session Mr Mika Odido introduced the timetable, the documentation and the conduct of session, referring to the Provisional Agenda (Document IOC/ODINAFRICA-III/1), The Provisional Timetable (Document IOC/ODINAFRICA-III/2), and the Provisional List of Documents (Document IOC/ODINAFRICA-III/3). He also apologised for the fact that it was not possible to translate all documents since some of the reports were submitted late. He pointed out that though the Summary Report will be available for adoption in English only, the final report for the session will be published in both English and French.

Two sessional working groups were formed to review indepth the progress in data management and information management respectively. Their reports then formed the basis for plenary discussions. The sessional Working Group on Marine Data Management was Chaired by Prof Amor El Abed (Tunisia) with Mr Harrison Ong'anda (Kenya) as rapporteur, while the Working Group on Marine Information Management was Chaired by Ms Josette Confait (Seychelles) with Dr Yacouba Sankare (Cote d'Ivoire) as rapporteur.

## **3. REVIEW OF ODINAFRICA IMPLEMENTATION STATUS**

### **3.1 Work Plan for 2002**

There were delays in processing of contracts for 2002. This was partly due to implementation of the new UNESCO Financial Management Systems (FABS). Nevertheless the level of implementation remained high (95% for joint activities and (70%) for national activities) due to the assistance provided by several UNESCO Field Offices such as Nairobi, Windhoek, Dakar, Yaounde, Dar es Salaam, Rabat, and Conakry who were able to process contracts during the first semester of 2002 when FABS was not operational.

In the case of Comoros, Madagascar and Mozambique there was a delay in implementation due to late submission of accounts for 2001, while Gabon and Morocco did not submit their work plans and budgets for 2002 on time.

The participants expressed appreciation to the UNESCO Field Offices that had assisted in the processing of contracts. The participants agreed that all efforts should be made to ensure that accounts are submitted on time so as to reduce delays in 2003. Some ODINAFRICA National Coordinators requested more time to implement activities covered by the current contracts due to delay in receipt of funds. They were advised to check with the UNESCO Field Office that processed the contract to confirm if this is possible and what steps need to be taken. However, even if accepted, such extension should not go beyond end of February 2003, as this will interfere with the processing of contracts for 2003 and finalization of project accounts for 2002.

The participants reviewed the implementation status in order to assess how far the objectives of the project have been accomplished. National Oceanographic Data and Information

Centres have now been formally established in most of the countries participating in the project. These are networked through the ODINAFRICA project and an electronic mailing list was provided to encourage communication between the partner institutions. Support from the project enabled the centres to cater for a wide range of activities such as operational expenses (including internet connection), development of meta databases and data archives, development of data and information products, and public awareness creation on the projects products and services. (Summaries of National implementation status are given in Annex III)

The participants noted with concern the delays in implementation of the data and/or information centres in Cameroon, Cote d'Ivoire, Gabon, Guinea and Morocco caused by various reasons. The ODINAFRICA National Coordinators for these countries expressed their strong commitment to improve the level of implementation of the project activities, in collaboration with the Regional Coordinators and the IOC Secretariat.

Internet connectivity provided by the project has enabled the institutions to access a much broader range of data and information resources. However they have not all been able to make optimal use of this because of poor telephone connections. The participants welcomed the initiative taken by the secretariat to explore some of the options that could be used to improve connectivity such as VSAT or ADSL and requested that these efforts be continued. In this regards, the ODINAFRICA National Coordinators were requested to explore the different options available in their countries and provide information on their efficiency and costs to Mr M Odido by 31 December 2002. The participants recommended that the interest of the FUST funds, which is available for "Small Quick Disbursing Projects," could be used to improve Internet connectivity. The Secretariat was requested to prepare a proposal in this regard. Efforts should also be made to link with other initiatives for improving connectivity in Africa.

In order to improve networking, the ODINAFRICA institutions were encouraged to initiate joint activities, which would enable them to share resources and expertise. The ODINAFRICA National Coordinator for Tunisia, Prof Amor El Abed who is also the Director General of the Institut National des Sciences et Technologies de la Mer (INSTM), informed the participants of about the proposal to create the Institut Afro Japonais des Sciences et Techniques de l'Océan (AJIOST). The association, which will be based in Tunis, Tunisia will formulate collaborative research programmes between African coastal countries and Japan. It will particularly involve the countries participating in ODINAFRICA, and will rely on the network of National Ocean Data and Information Centres (NODCs) and African experts developed with the framework of the ODINAFRICA project. Prof El bed informed the participants that both the Tunsians and Japanese authorities have responded favorably to the proposal to create AJIOST. The participants unanimously approved the proposal in principle. The draft proposal will be circulated to the participants for review, and the final document incorporating the needs of ODINAFRICA will be to the Tunisian and Japanese governments to consider for funding.

The participants considered other ways of encouraging networking include the serving of databases developed at national level (such directories, meta databases, library catalogues etc) via the Internet in order to encourage broader usage. These databases and other services and products offered by each centre should be catalogued and the information provided to all the partners.

The participants welcomed the positive report of the External Evaluation of the project discussed ways of implementing the recommendations in order to improve the functioning of the project. The participants thanked the Director and staff of Tanzania data and information centre, located at the Institute of Marine Sciences-Zanzibar, for their efforts in ensuring a positive evaluation of the project.

### **3.2 National Assessment**

The training and follow-up support has equipped the data and information managers with the tools to effectively manage their centres and develop relevant data and information products for their users. However wide disparities in knowledge, capability and background of the trainees

as well as the difference in sizes and focus of the libraries and data centres provided a challenge to the resource persons.

The assessment done by Dr Murray Brown (the main data management trainer) provides a succinct overview of the hitches that need to be addressed in order to streamline the training for data managers. Several options were considered to assist the institutions, which are lagging behind. These include use of advanced students to train others. A glossary of technical terms should be prepared and distributed during the training course. This will particularly be useful for the students who are not proficient in English. The participants recommended that efforts should be made to identify French speaking resource persons to assist with the data management training.

The participants recognised that the centers have specialized in different fields, and recommended that they should exchange capacity between themselves as a practical way of skills and capacity improvement. Regional workshops can be organized using experts from the region as resource persons so as to bring trainees to the same level. The next data management course should therefore focus on training of trainers and development of products. At least five days should be dedicated to products development. It may be necessary for Dr Brown to visit some of the institutions and assist in further training and set up or troubleshooting of systems.

The participants recommended that a similar detailed survey be undertaken for the information management group and the results be used to design remedial measures to be used to assist the institutions that are lagging behind. The Flemish resource persons agreed to investigate ways and means to undertake the survey that should be finalised prior to any further information training in 2003. The survey should investigate what has been accomplished in the information centres, and test the skills of the information managers. The ODINAFRICA National Coordinators should also ensure that the libraries have access to the all the allocated project funds and resources to assist in their operations.

It was emphasised that the people selected for the data and information management training must have appropriate background to enable them follow the course. In order to ensure sustainability, those that attended the training courses should also train other people in their institutions. The institutions should allow the personnel to dedicate more time to project activities.

The participants noted the large number of databases and products described in the national reports and requested that these be availed for inclusion in merged databases. The products will also be put on CD and distributed. In particular library catalogues from the English speaking institutions should be sent to Ms Confait (Seychelles), while those from the French speaking countries should be sent to Ms Keita (Senegal) for quality control. The directories of experts should be sent to the ODINAFRICA Information Services Centre in Mombasa. The INMAGIC manual prepared for the training courses should be translated into French and Portuguese to assist the librarians from French and Portuguese speaking countries.

The participants recommended that no new contracts (for 2003) should be processed for any institution that has not submitted inputs to these three core databases as committed in the 2002 contracts.

The participants emphasised that the preparation of data and information products and their dissemination to users should now be the focus of the project. A minimum suite of products to be prepared by each institution should be defined. The national and regional coordinators should ensure that products coming out of the centres are of high quality. In particular all the institutions should aim at producing National Marine Atlases. The first ODINAFRICA-GODAR product comprising data sets relevant to ODINAFRICA partner countries was distributed during the session. The participants thanked the experts who had contributed to the finalisation of this effort. It was further suggested that the next focus for the ODINAFRICA-GODAR should be repatriation of data collected by European countries.

The participants discussed at length the need for continuation of the ODINAFRICA Information Services Centres (RECOSCIX) in Mombasa and Abidjan. All the national centres now have access to ASFA, either on CD or through the Internet database services, and electronic journals can now be accessed over the Internet much faster. A thorough assessment on the need for both centres should be undertaken and their terms of reference revised, taking into account new trends in information management technology, especially as related to document delivery and access to literature. The participants agreed on the need to upgrade equipment at the ODINAFRICA Information Services Centre in Mombasa in order to make it more efficient. The participants thanked KMFRI for the support it has continued to provide to the information services centre.

The journals subscription should be maintained pending the investigation on the possibility of establishing or joining a consortia through which the institutions will be able to access e-journals. However the number of journals could be reduced depending on the usage statistics and availability of journals through the INASP or other initiatives. The availability of the electronic journals should be widely published to encourage more usage in the region. It was also recognised that the wide usage of e-journals in the region will depend on the quality of Internet access and hence this should be addressed as a priority.

The participants noted that the trend is increasingly towards the creation of virtual libraries. It is important that the ODINAFRICA libraries and information centres are aware of these developments that could form the basis for the information component of the next phase of ODINAFRICA. In this regards a feasibility study on the establishment of a repository and e-journals should be conducted. The study will identify the facilities required, and mechanisms for peer review for the articles. The possibility of collaboration with POGO in this endeavour should be investigated.

Collaboration with other programmes and organisations should not be restricted to participation in workshops with no follow-up. The ODINAFRICA National Coordinators were therefore requested to establish links with national contacts for GOOS Africa, IOGOOS, NEPAD and other initiatives in order to strengthen linkages with them for implementation of joint activities.

The ODINAFRICA coordinators, data managers and information managers were urged to register on the African Ocean Portal and provide content. They were also requested to register on the ODINAFRICA website and use this as a forum for exchange ideas with other centres on their activities.

The participants welcomed the presentation on the activities of the IOCEA Project Office and recommended that there should be closer coordination between the IOCEA, IOCINCWIO and ODINAFRICA project offices, as well as the Information Services Centres.

The participants recommended that a strong team should represent the African Member States at IODE-XVII. Those who are interested will submit their requests to the secretariat which will select the participants to be provided support through the project on the basis of recommendations from the ODINAFRICA National and Regional Coordinators, and taking into account other factors such as ability to source complementary funding.

The participants further recommended that a drafting meeting for the next phase of ODINAFRICA (ODINAFRICA-III) be held back-to-back with the IODE-XVII in March 2003 in Paris, France. This meeting will also be used to discuss preparations for the training courses and the planning and review workshop. The Regional Coordinators in preparation for the meeting should prepare a draft working document for ODINAFRICA-III, and a list of all national and regional products.

The participants welcomed the offer of Belgium to host an IODE Project Office, and strongly recommended the acceptance of the offer, taking into consideration the excellent facilities that will be provided to the IODE Project Office.

The ODINAFRICA National Coordinators were requested to get in touch with the representatives of the countries to the IOC Assembly and provide them with details of the project.

Noting that the next session of the ODINAFRICA Planning and Review workshop will be the last one for the current phase of the project, the participants recommended that the session, together with the training workshops for data and information management, be held in Flanders, Belgium possibly in September 2003. This will provide an opportunity for the data and information centres to demonstrate to the achievements of the project to the Flemish authorities. In this regard each of the ODINAFRICA data and information centres will be required to prepare posters and products for during the session.

#### 4. BUDGETS AND WORKPLANS FOR 2003.

The budgets for joint activities and national activities are provided below was approved by the session.

##### 4.1 JOINT ACTIVITIES PLANNED 2003

ACTIVITY	BUDGET
Annual Project Management workshop	65,000
Annual Project Staffing costs – WIO (Consultant P-3, 50% time)	20,994
Annual Project Staffing costs – CEA (Consultant P-3, 50% time)	20,994
Development of ODINAFRICA/IODE Resource Kit	20,000
Regional Data Management Workshop	65,000
Regional Data Management Workshop follow-up (Consultant)	20,000
Regional Information Management Workshop	65,000
Information Management Remedial actions	30,000
Data Management Remedial (workshops)	30,000
Regional Information Management Workshop follow-up (Consultant)	10,000
GODAR participation	15,000
Support RECOSCIX-WIO network	16,000
Support RECOSCIX-CEA network	16,000
Upgrade RDC equipment	10,000
Journal subscription	20,000
Consortia investigations (and keeping E- source, journal sites)	3,000
Project Coordination- travel CEA	13,000
Project Co-ordination – travel WIO	13,000
Support RECOSCIX networks - Document Delivery	14,000
ASFA subscription	8,000
Translation of INMAGIC manual/guidelines	1400
Evaluation/assessments of MIM centers capabilities	30,000
AFRIDIR development	2,000
AFRIPUB/AFRILIB (QC and Merging)- WIO	6,000
AFRIPUB/AFRILIB set up in Paris	1,000
Feasibility study for repository/E-publishing	3,000
WINDOW (including translation)	6,000
Software maintenance (INMAGIC- including conversions, MINDEX follow-up)	8,000
Participation in IODE-XVII (including ODINAFRICA-III drafting session)	20,000
<b>TOTAL REQUESTED</b>	<b>552,388</b>

Funds available Flanders: US\$487577

UNESCO Regular Programme budget: US\$ 20000



# **ODINAFRICA NATIONAL BUDGETS 2003**

	BENIN	COMORES	GABON	KENYA	MADAGASCAR	MAURITIUS	MOROCCO
National Coordination workshop	1500	1200	2000			2800	2000
Operational expenses	4000	4000	4000	6500	4000	3700	8500
Development of Metadatabase	2500	2000	2000				3500
Development of Data Archives	2500	2700	5400		2700		3000
Workshop on products	2500	3000	3000	3000	9300	3000	
Development of products	2000	1800	3600	1800	1800	2000	4600
Public Awareness	2000	1800	3600		1800	1000	2000
Equipment upgrade						3600	
Special training/internship							12000
<b>TOTALS</b>	<b>17000</b>	<b>16500</b>	<b>23600</b>	<b>11300</b>	<b>19600</b>	<b>16100</b>	<b>35600</b>

	MOZAMBIQUE	NIGERIA	SENEGAL	SEYCHELLES	TANZANIA	TOGO	TUNISIA
National Coordination workshop			1300			1300	
Operational expenses	5800	6200	4000	4000	3200	4000	2500
Development of Metadatabase		2300	2000			2000	3000
Development of Data Archives	2700	3200	2700	1300	2000	2700	10000
Workshop on products	3000	2900	3000	6000	3000	3000	1000
Development of products	1800	1900	1800	1800	1800	5800	9500
Public Awareness	2700	1800	1800	2100	1800	1800	
Equipment upgrade	5000			3500			
Training/internship	1200						
<b>TOTALS</b>	<b>22200</b>	<b>18300</b>	<b>16600</b>	<b>18700</b>	<b>11800</b>	<b>20600</b>	<b>26000</b>

	CAMEROON	COTE D'IVOIRE	GHANA	GUINEA	MAURITANIA	SOUTH AFRICA
National Coordination workshop	2000	1200	2000	1200	1200	
Operational expenses	4000	4000	5600	3000	4000	5200
Development of Metadatabase	2900	2000	2000	1500	2000	4500
Development of Data Archives	2400	2700	3000	2000	2700	7200
Workshop on products	2700	3000	3000	3000	3000	3000
Development of products	3000	1800	4000	3000	1800	1600
Public Awareness	2000	1800	2200	4500	1800	1000
Equipment upgrade		8000				1800
<b>TOTALS</b>	<b>19000</b>	<b>24500</b>	<b>21800</b>	<b>18200</b>	<b>16500</b>	<b>24300</b>

Cote d'Ivoire and Mauritania did not submit work plans and budgets for 2003. We have used the figures in the original revised project document.

For Ghana we have made adjustments on the budget they submitted, taking into account the common collection of products each centre must have at the end of the project.

## ANNEX I : LIST OF PARTICIPANTS

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## **ANNEX II: OPENING SPEECHES**

### **SPEECH BY PETER PISSIERSSSENS HEAD OF IOC OCEAN SERVICES**

Your Excellency Nzegge Onyong Charles, Governor of the South West Province  
Senior Divisional Officer, Fako  
Director General of IRAD  
Government Delegate of the Limbe Urban Council  
Dear participants  
Ladies and Gentlemen,

On behalf of Dr Patricio Bernal, Assistant-Director General of UNESCO and Executive Secretary IOC I first of all wish to thank the Government of Cameroon for hosting this third ODINAFRICA Review and Planning Workshop in the beautiful Limbe.

When we all started discussing ODINAFRICA in 1998 I believe we all realized that we were about to undertake a difficult and complex undertaking. Bringing twenty countries together divided by linguistic, technological, cultural and geographic barriers is a challenge at any time and anywhere. However, at the First Planning Workshop that took place in Dakar in May 2000, it became clear that the commitment was there in all 20 countries and this is the force that has guided us since. This commitment was also clear to the donor country that we approached, and the Government of Flanders therefore decided with confidence to provide US\$ 2,3 Million to enable us all to implement ODINAFRICA between 2001 and 2004. This decision was taken also based upon the financial and in-kind commitments made by all participating countries. As such the total project budget amounts to US\$ 4 Million.

We have now completed the second year of implementation. I am sure you will agree with me that it has not been an easy ride. Those who participated in the 4 training courses on marine data and marine information management have certainly realized that the expertise required to effectively manage marine data and information centres is considerable and requires continued self-training. I therefore urge the participating Governments to ensure that these national experts are given the best possible environment and conditions to enable them to make their country benefit from their expertise.

One of the core priorities in UNESCO today is “bridging the digital divide”. We now live in a world where digital communication is indispensable for economical, educational, cultural and scientific development. However we see that many developing countries cannot participate in this digital revolution and thus the digital divide is rapidly widening. From its inception ODINAFRICA has therefore stressed the importance of access to new technology in general and to the Internet in particular. I can only stress here again how important communication and access to information are to research and management. There can be no quality research and thus no sound advice to decision makers without access to communication and information.

During this Session we will need to take stock of our successes and failures of the past year. The main question I wish you to ask is: how is ODINAFRICA assisting your country in providing products and services for research and management that helps your decision

makers and private sector to manage your coastal zone and marine resources. With 1.5 years to go we need to start thinking beyond ODINAFRICA-II. ODINAFRICA is a project implemented by the IOC's International Oceanographic Data and Information Exchange (IODE) programme.

During the past 4 decades IODE has built a global network of oceanographic data centres in over 60 countries. Through this network researchers around the world have shared millions of ocean observations that are available free of charge to all. In recent years however, and starting with the development of the Global Ocean Observing System (GOOS), new demands are placed on the data and information management community.

Data centres can no longer be only centres that quality control and archive data. Data and information centres now need to be ready to interact closely with scientists and provide data and information products and services to a wide range of clients. This is a fundamental change that many data centres are still getting used to. I am pleased to say that the ODINAFRICA partners have understood this requirement from the start. Interaction with different stakeholders at the national level as well as development of products and services have therefore been priorities from the start. I believe that we can conclude today that this has been a successful approach: recently during the First Indian Ocean GOOS Conference in Mauritius an eminent scientist stated that many developed countries should learn from the ODINAFRICA centres in terms of their addressing user needs.

I call on you to forge close alliances with other programmes at the national as well as the regional level. At the regional level I can mention GOOS-Africa, Indian Ocean GOOS, ICAM, HAB and of course we should certainly mention the new NEPAD. ODINAFRICA must be recognized as a horizontal intersectoral services programme that will provide data and information products and services required by these and many other projects and programmes.

I believe that we can truly state that we are on the right path to success. However we should not cry victory too fast. A lot still needs to be done. Sustainability of the developed data and information centres is a particular concern and I call on the partner countries to address this issue. The partner institutions should also ensure that the often one-man or one-woman data and information centres receive additional staff, and that those who were trained, share their knowledge with their new colleagues. If such actions are not taken, then the departure of one of our data or information managers will destroy the work of many years.

I also wish to express my sincere thanks to the resource persons that have assisted ODINAFRICA from the start. Their personal commitment and efforts during and after training events have created an effective training environment. In this regard I also wish to mention the OceanTeacher project that was infact a spin-off from ODINAFRICA and is now receiving wide acclaim.

To conclude I wish to thank all ODINAFRICA partners for the hard work and I wish you all the best in your deliberations during this week.

Thank you

OPENING SPEECH BY HIS EXCELLENCY NZEGGE ONYONG CHARLES, GOVERNOR OF  
THE SOUTH WEST PROVINCE

The Senior Divisional Officer, Fako,  
The Representative, IOC /UNESCO,  
The Director General, IRAD,  
The Government Delegate, Limbe Urban Council,  
Dear Participants,  
Ladies and Gentlemen

It is a special honour for me to preside today, in the name of the Minister of Scientific and Technical Research, the opening ceremony of this third international workshop organised within the framework of activities of the project « Ocean Data and Information Network for Africa, Second Phase » i.e. ODINAFRICA-II.

I wish, in the name of the Government and people of Cameroon, to welcome all foreign participants and particularly those of you who are visiting Cameroon for the first time.

Ladies and Gentlemen

By coming together for the third review and planning workshop for the ODINAFRICA-II Project in this beautiful coastal city of Limbe, a town particularly concerned with the subject, i.e. « Management of Marine Data and Information » you have deliberately chosen to be at the centre of action .

Actually, Cameroon opens to the Atlantic Ocean with a coastline of about 402 km long. This zone is rich in biodiversity, with many varying features ranging from estuarine mangroves to Mount Cameroon which rises to a height of 4095m in the Fako area, while passing through the waterfalls of the Lobe River in the Kribi region.

Ladies and Gentlemen

Your meeting is holding within a context marked by a determined desire by the international community to conserve the marine and coastal environment, an environment that is clearly in degradation mostly as a result of human activities and climate change.

Agenda 21, adopted during the United Nations Conference on Environment and Sustainable Development (UNCED) held at Rio de Janeiro in 1992 and the recommendations of the last Earth Summit held at Johannesburg in South Africa in September 2002, enumerated emergency measures that each country must take to ensure the conservation, protection and management of marine and coastal ecosystems.

I can assure you that Cameroon, on its part, has always paid particular attention to the protection and conservation of the environment. For this reason, the new deal government , under the wise leadership of His Excellency Paul Biya, President of the Republic of Cameroon, through the Prime Minister and Head of Government, created a whole ministry in charge of management of forestry and environment problems, not forgetting the Ministry of Scientific and Technical Research, which through the Institute of Agricultural Research for Development (IRAD) coordinates scientific research in the domain of forestry/environment.



In Africa, a continent hard hit by natural disasters and poverty, multilateral cooperation and solidarity permit, without any doubt to address together these issues.

I want therefore to thank:

- The Government of Flanders which finances this project.
- The Intergovernmental Oceanographic Commission (IOC) of UNESCO which assures the implementation of the project through its Ocean Services Unit. We have the honour to welcome in our midst today Mr Peter Pissierssens, Head of this unit.
- The Institute of Agricultural Research for Development (IRAD), through its Ekona Regional Centre and the Batoke Specialised Research Station which hosts the project at the national level.
- The national partner institutions which collaborate with IRAD in the execution of project activities in Cameroon.
- The technical partners who continue to provide their know-how
- The regional coordinators for West and East Africa who facilitate the execution of the project at the regional level, to name only these.

The laudable initiative of African countries under the auspices of the Intergovernmental Oceanographic Commission (IOC) of UNESCO, to establish an African project on the management of marine data and information constitutes a major step towards the sustainable management of marine and coastal ecosystems.

There is no doubt that in any research set-up, management of data is a crucial factor, especially in a three dimensional milieu such as the ocean where activities are complex and multisectoral.

Thanks to the ODINAFRICA-II Project, a National Oceanographic Data Centre (NODC) was established in Cameroon since February 2001.

Ladies and Gentlemen

The success of the ODINAFRICA-II Project will therefore depend on the pertinent results and recommendations that will come out from this third review and planning workshop.

The work that awaits you is of profound importance. From data collected, stored, treated and analysed, products or services will be elaborated and put at the disposal of users and managers, especially navigators, maritime transport companies and fishing companies, planners etc. etc.

It is with this note of hope that while wishing you successful deliberations, I declare open the third ODINAFRICA-II annual review and planning workshop.

Long Live Multilateral Cooperation  
Long Live Cameroon

## **ANNEX III: SUMMARY OF NATIONAL REPORTS**

### **1. Benin.**

Two national coordination workshops were held to plan and review ODINAFRICA activities at the national level. A pilot coordinating committee with representatives from seven institutions was created. Priority was given to development of a directory of marine and freshwater professionals, bibliography of marine and fisheries sciences for Benin, and a review of all surveys done on the continental shelf of Benin between 1960-2000. Other products prepared include an atlas of commercial fishes of the Benin continental shelf, directory of national institutions involved in marine related activities, and preparation of publicity brochures for the national oceanographic data and information centre. Languages training was organised for the NODC staff to enable them learn English. The centre has collaborated closely with other institutions, which generate relevant data and information such as the Meteorological Centre, Fisheries Centre, Benin Environmental Agency, and the Applied Ecology Laboratory. The implementation of activities of the centre was hampered by delays in transfer of funds and poor internet connectivity.

### **2. Cameroon.**

The centre has embarked on development of a meta database for Cameroon. This will cover the following areas: Meteorological, Fisheries, Bio-statistics, Fish Catch/Effort Data, Environmental parameters, Marine Pollution, Coastal Processes, Fish Smoking and Conservation. Aspects covered include temporal and geographical coverage, attributes, and origin of data. There are about 27 national institutions with diverse types of data sets collected within the coastal and marine environments of Cameroon. Work on development of a National Directory of Marine and Freshwater Professionals and Institutions in Cameroon has commenced and a bibliography of documents available at IRAD's Fisheries and Oceanographic Research Station in Limbe has been prepared. The activities of the centre, including the national coordination workshop, have been widely reported in the local press.

Problems in the year were mainly related to delay in disbursement of funds. The funds allocated for operational expenses were insufficient. The centre recommends that an advance on the funds should be paid to enable development of some of the products. Some of the planned activities, including data management assignments, were not completed on time due to poor internet connectivity.

### **3. Comores**

The national coordination meeting was held in early 2002 and the Centre National de Documentation et de Recherche Scientifique (CNDRS) was designated as the Comores National Oceanographic Data and Information Centre. The session also approved a work plan and budget for 2002. However funds for the year were only received in September 2002. Comores has therefore requested for an extension of the contract period to March 2003 to enable them implement all planned activities. The NODC was active throughout the year developing directory of marine institutions and experts, library catalogue, bibliography of marine science literature from Comores, and an inventory of relevant

datasets available in other organizations and institutions in the Comores. The centre is also working on a coral reef database for Grande Comore and Moheli islands, fisheries database, and a turtles database for the Moheli island in collaboration with other organizations. A workshop on impact of climate change on tourism was organised jointly with the Climate Change committee. Frequent power cuts hampered implementation of activities. The purchase of a generator has improved the situation. There are plans to produce maps and CDROMs

#### **4. Cote d'Ivoire**

The National Oceanographic Data and Information Centre was re-established at the Centre de Recherches Oceanologiques (CRO) in Abidjan following consultations with other partners. Catch up training for data centre staff was carried out by Dr Murray Brown from 20-31 March 2002. The information management staff had a catch-up training prior to the annual ODINAFRICA marine information management course in Tunis, Tunisia in April 2002. The funds for 2002 were received towards the end of August 2002, though the contracts were signed and returned in May 2002. The development of a meta database commenced with development of the database structure and collection of information from researchers and institutions. The relevant data was downloaded from international datasets to create an ocean database for Cote d'Ivoire. The library database was developed in INMAGIC and also contains publications of CRO. Work on conversion of the older database from CDS/ISIS to INMAGIC is in progress. The ODINAFRICA National Coordinator participated in the African Ocean Portal workshop held in Paris, France in May 2002.

The centre has not been able to implement all the planned activities due to the unstable situation in Cote d'Ivoire, delays in receipt of funds and poor internet connection. The email system has not work well most of the time leading to a breakdown in communication with the Regional Coordinator and other ODINAFRICA institutions.

#### **5. Gabon**

The implementation of ODINAFRICA activities in Gabon has been slow due to the absence of the previous national coordinator who has been away on study leave. A new ODINAFRICA National Coordinator Mr Pierre Maganga (Director Général du Droit de la Mer) was appointed in July 2002. He organised a coordination workshop for Gabon in Libreville in November 2002. The participants decided that the National Oceanographic Data and Information Centre will be hosted by the Centre National de la Recherche Scientifique et Technologique (CENAREST). The participants also approved a work plan and budget for 2003 and requested for refresher training for information management and catch-up training for data management.

#### **6. Ghana**

The rehabilitation and furnishing of the national oceanographic data and information centre continued during the year and a national coordination workshop was held to launch the centre. Progress has been made with development of the library database (over 300 records) and the directory of marine and freshwater experts. Both have already been submitted for inclusion in merged ODINAFRICA databases. The meta database has also

been developed. The data centre has produced "The Environmental Data series" which contains coastal sea surface temperatures and salinity. Brochures have also been produced and distributed widely for public awareness.

## **7. Guinea**

The centre was able to organise a coordination meeting attended by representatives of 18 national institutions and NGO's and a workshop to identify data and information products requirements. A total of 107 records from 7 national institutions have been prepared for the directory of marine and freshwater professionals. The directory is available on zip and floppy disk. 193 sources of marine data and information have been identified and included in the national meta database. The development of the library catalogue continues with 700 records entered. Problems encountered during the year include delays in transfer of funds, and poor internet connectivity. The centre would also like to request for additional training for the data manager.

## **8. Kenya.**

Three day training course was conducted to promote the use of aquatic data in decision making. KeNODC plotted the sampling positions and derived isoplanes for various factors for the Ungwana Bay fisheries stock assessment research project. The results of the project will be used to determine the optimal fishing grounds. The centre also prepared environmental profile for the Diani-Chale marine reserve and the surrounding terrestrial area using GIS. This will assist in drawing up a management plan. In-house training on INMAGIC was organised for KMFRI library staff. Other activities implemented include: updating of directory of marine and freshwater professionals; updating of the catalogue of marine science publications from/about Africa; digitising of various maps into GIS form; publication of KeNODC brochure; and updating of meta database. The data centre plans to focus on strengthening the use of GIS and modelling to prepare data products.

## **9. Madagascar**

The progress in implementation of activities was affected by the uncertain situation in Madagascar in early 2002. The renovation of offices for the National Oceanographic Data and Information Centre was completed at a cost of US\$10000 provided by the government of Madagascar. The NODC participated in the oceanographic cruise focussed on planktonology and hydrography in the Mozambique channel, organised in collaboration with IRD. The first version of the CD on Marine Species (fauna and flora) of the Tulear region, which contains about 750 records was produced and distributed. Good progress has been made in development of the library catalogue, with 4200 records already entered. Posters and brochures were produced for public awareness. The directory of marine and freshwater professionals will be completed by the end of the year 2002. The major problem facing the centre is poor internet access. Delays in processing of the contracts for 2002 also affected the implementation of some of the planned activities, such as a national workshop and the development of a national marine atlas, which have been deferred to 2003.

## **10. Mauritius**

The ocean data and information management network comprises eight institutions (Mauritius Meteorological Services, Department of Environment, University of Mauritius, Central Informatics Bureau, Albion Fisheries Research Centre, Mauritius Oceanographic Institute, Central Statistics Office, and the Remote Sensing Centre). Albion Fisheries Research Centre is responsible for the information component, while the Meteorological Services is responsible for the data management component as well as overall coordination. Substantial progress was made in 2002. This included the downloading of data collected from the relevant geographical area from the World Ocean Database, development of a meta database detailing data/information held by the various government institutions, production of posters and brochures for publicity, production of sea surface temperature plots for the areas of interest, and development and launch of a website. Directory of marine and freshwater experts in Mauritius, and a library catalogue for Albion Fisheries Research Centre have also been completed. The two coordination workshops held in the course of the year proved very useful in ensuring closer collaboration between the institutions dealing in the field of marine science in Mauritius. The ocean teacher software was distributed widely and training provided to local institutions to enable them make use of it. The project is collaborating with other initiatives in the participating institutions such as PUMA, ARGO, IOGOOS, WIOMAP, IMAP, and GOOS Africa.

## **12. Morocco**

The ODINAFRICA institutions in Morocco did not receive funds for work in 2001 and 2002 since they did not submit their work plans and budget on time. However the following activities have been implemented: (i) creation of directory of experts and institutions active in marine and freshwaters, and a catalogue of professional associations in the maritime fisheries and aquaculture; (ii) development of databases on fish landings, aquaculture production and environmental quality. The ODINAFRICA institutions have actively participated in coastal and marine observation initiatives, which will generate substantial amounts of data for inclusion in the databases.

The implementation of ODINAFRICA activities were however slowed down by the departure of Mr Immassi Said who had been the information manager and the heavy work load of Prof Naciri Miriam, the data manager. The delay in holding a national coordination workshop also resulted in difficulties in accessing data and information from other stakeholders.

## **13. Mozambique**

Several activities were implemented including updating of the website; updating the meta database with information from various organizations; public awareness through lectures at educational institutions; ocean data management training students from Mondlane University; preparation of posters and calendars. CENADO received data sets on observations in the Mozambique channel by RV Pelagia (Netherlands) in April 2001. The information centre added 82 new records to the INMAGIC database. It also produced two issues of a quarterly bibliographic bulletin to inform library users of the new acquisitions. The data manager who has attended previous ODINAFRICA training sessions has

proceeded on a long vacation. This has negatively impacted on the implementation of ODINAFRICA activities at CENADO. Though an oceanographer has been assigned to take over the tasks, he lacks the necessary training. It will therefore be necessary for him to be trained in the data management techniques.

#### **14. Nigeria**

The creation of a national collection of datasets from the World Ocean database 98 has been implemented. Other datasets catalogued include: meteorological and oceanographic data obtained from Lagos for 1993-1996; and monitoring data from Victoria Island 2000-2002. The centre also participated actively in collaborative projects with other national organisations. The library subscribed to 76 journals in various marine science related fields. Other activities implemented include the development of a library catalogue in INMAGIC, completion of a business plan and acquisition policy for the library, and a directory of marine and freshwater professionals. A national coordination meeting was held in August 2002, and a workshop on products development is planned for December 2002. Delay in provision of funds hampered the implementation of some activities planned for 2002.

#### **15. Senegal**

The data and information centres located at CDROT and DOPM respectively were very active in 2002. ODISEN- a database of all marine publications available in the two institutions was developed using NMAGIC. The directory of marine and freshwater professionals in Senegal (SENDIR) was developed using WINISIS package. Six other marine databases covering diverse fields such as Coastal Stations and Cruises, Coastal Resources, Environmental Parameters and a meta database (MEDI-SENEGAL) have been developed. These databases have been submitted for inclusion in the merged ODINAFRICA databases. The data centre also participated in studies of the ocean environment organised by several institutions in Senegal. A national workshop was held in November 2002 to present the progress report to stakeholders and adopt work plan and budgets for 2003.

#### **16. Seychelles**

The Seychelles NODC has focussed its efforts on up-dating the national oceanographic databases, especially the directory of marine experts, coastal resources database, fisheries database, and the library catalogue. The centre also assisted in the quality assessment and corrections of library catalogues from other ODINAFRICA institutions in Ghana, Kenya, Madagascar, Mauritius, Mozambique and Tanzania. Changes in software used for the library catalogue in recent years (CDS-ISIS to Filemaker and then INMAGIC) has affected the quality of the catalogues. The web pages for the centre are now available on the internet, and brochures with details of the products and services offered by the centre have been produced and widely circulated. The data manager gave a presentation on ODINAFRICA during the first conference of the Indian Ocean Global Ocean Observing System held in Mauritius in November 2002. A national workshop is planned for December 2002.

## **17. South Africa**

A total of 515 individual research surveys have now been entered into the new data inventory. Other datasets: an data inventory of current meter deployments (321 entries) and weather station services (248 entries). The following data types has been received: Sea Surface Temperatures; Thermistor String Data; Satellite Data (SST and SeaWifs); ADCP Current Data; Aanderaa Current Data; Wave height data; Wind data (from weather stations and lighthouses); Continuous and discrete CTD data; and Temperature Profile data. Data products in the form of graphs and tables showing temperature averages, minimum and maximum observation and frequency plots as well as current roses and wind vectors are available on the local intranet and will be published on M&CM's official web page (<http://www.environment.gov.za/mcm/>). Data products for some of the projects that are being partially funded by the industry and M&CM have been published on the internet at: <http://www.oceanafrica.com>. A Metadata Authoring Tool (MATT), written using HTML and JavaScript has been developed to assist scientists in documenting their data sets. MATT can be customised to meet the requirements of national or regional research programmes, and can be downloaded free form the BENEFIT website: <http://www.benefit.org.za/>

The INMAGIC applications has provided an effective tool for rebuilding the information centre's (Gilchrist Library) catalogue. All monographs were barcoded on INMAGIC to implement a user-friendly lending system. The journals will be barcoded by June 2003. The information centre was provided with an older version of the INMAGIC software and this has hampered the use of the software for library management and database development.

## **18. Tanzania**

The Institute of Marine Sciences (IMS) has now established ten databases within its data and information centre. These are: (i) institutions (ii) scientists (iii) coastal districts information (iv) Marine Protected Areas (v) GIS layers available (vi) datasets (vii) Software (viii) Documentation (ix) Programmes and Projects (x) IMS publications. All these are available on-line. The amount of data and information available has increased tremendously. Library users at IMS can now search for references electronically as most of the library material has been entered in the INMAGIC database. The library web page has also been linked to the main university library. The data centre provides GIS maps with various information to requesting clients using the available layers. In addition, detailed maps on resources and important features for all coastal districts is available on-line. The major focus of the centre is now to provide more services and products to clients. The work of the centre was hampered by shortage of resources and problems with hackers

## **19. Togo**

The centre has progressed well on the assignments given to both the data management and information management personnel by the resource persons. The library catalogue has been developed in INMAGIC, directory of marine and freshwater professionals and institutions in Togo has been created, and a meta database has already been developed. Collection of bathymetry, meteorological and socio-economic data is in progress. The

national coordination workshop provided an opportunity to publicize the activities of the centre and get input from other institutions in the country. The meeting was widely published in the local press and was also attended by the ODINAFRICA national coordinator for Gabon. A project on “Small Window on Ocean for Students” has been approved for funding within the framework of ODINAFRICA and the activities to be implemented will improve the student’s knowledge and understanding of the marine environment and resources.

The centre has developed close collaboration with the ODINAFRICA institutions in Benin and Gabon. The information and data managers from Togo visited the NODC in Benin in September 2002 to discuss collaborate work and define geographical extent of the databases the two centres will be working on jointly. A return visit to Togo was made by the staff of the Benin NODC in November 2002.

## **20. Tunisia**

The metadabase now has over 100 records. Marine maps and aerial photographs and satellite imageries of the Tunisian coast are available. An access database with details of institutions and their facilities is under construction. A database of marine and freshwater professionals with over 60 records has been developed. Bathymetric data for the Tunisian coast has been digitised from marine maps. The three GIS databases maintained at the centre cover the Gulf’s of Gabes (135 layers), Tunis (122 layers) and Hammamet (87 layers). They are updated regularly with data on distribution of pelagic living resources, temperature, salinity and other parameters observed during experimental cruises. A database of benthic resources has been developed and currently has 126 records. The library has over 40,000 documents and a subscription to 30 journals. Development of the INMAGIC database continues with 600 records already entered. The centre has embarked on the development of a national marine atlas.

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