CAPACITY BUILDING COORDINATION GROUP (CBCG)

TASK TEAM ON RESOURCES
FIRST SESSION

Paris, France, 3-4 February 2003

FINAL REPORT

JCOMM Meeting Report No. 19

WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (OF UNESCO)

CAPACITY BUILDING COORDINATION GROUP (CBCG)

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N O T E

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C O N T E N T S

GENERAL SUMMARY OF THE WORK OF THE SESSION

1. OPENING OF THE SESSION

1.1 Opening

1.1.1 The first session of the JCOMM Task Team on Resources was opened by its chairman, Dr Sergey Priamikov, at 0930 hours on Monday, 3 February 2003, in Room XIV of the Miollis/Bonvin Building, UNESCO Headquarters, Paris. Dr Priamikov welcomed members of the team and observers to the session and called on Dr Colin Summerhayes, Director of the GOOS Project Office, IOC, to make some remarks.

1.1.2 On behalf of the Executive Secretary IOC, Dr P. Bernal, and the Secretary-General of WMO, Professor G. O. P. Obasi, as well as the co-presidents of JCOMM, Dr Summerhayes welcomed participants to the session, to IOC and to Paris. In doing so, he noted the very close relationship between JCOMM and GOOS, with GOOS in general providing the conceptual design of an ocean observing system, with JCOMM then charged with its implementation. In this context, the JCOMM and GOOS capacity building strategies were very similar, with only slightly different emphasis, and the work of the Task Team was therefore likely to be of great benefit also to GOOS capacity building. Dr Summerhayes recalled that both GOOS and JCOMM were seeking partnerships with developing countries, to enable them to make maximum use of the data and products being made available through the system. This included facilitating access to new technologies and facilities, as well as simple, limited area models for use on PCs and work stations. He concluded by wishing participants a successful meeting and an enjoyable stay in Paris.

1.1.3 In his opening remarks to the session, the representative of the joint JCOMM Secretariat noted that the role of the Task Team on Resources was not to identify or solicit resources for the implementation of operational or programmatic activities under JCOMM, which were largely national responsibilities; nor was it to assist in identifying resources for general JCOMM coordination work, which was largely the responsibility of the Secretariat and the Management Committee. Rather, as a key component of the JCOMM Capacity Building Programme Area, the role of the team was to assist in identifying potential funding sources, and in addressing requests to these, to support specific JCOMM capacity building activities, ranging from training workshops and similar events, to major regional and national development projects. In this role, the team should work closely with the Capacity Building Coordination Group, which was developing a comprehensive analysis of national and regional priorities for such capacity building. In addition, to further the process, members of the team had been chosen for their specific expertise and knowledge of both national and international funding mechanisms. The JCOMM Secretariat representative concluded by assuring participants of the full support of the JCOMM Secretariat in their work.

1.1.4 The list of participants in the session is given in *Annex I.*

1.2 Adoption of the agenda

1.2.1 The session adopted its agenda, which is given in *Annex II*.

1.3 Working arrangements

1.3.1 The session agreed its working hours and other meeting arrangements. The formal session documentation was introduced by the Secretariat. In addition, participants requested the Secretariat to make available a set of complementary documents, to provide information on existing activities which would give a basis for further developing the JCOMM capacity building programme. These included the JCOMM and GOOS CB Strategies; documentation on TEMA and other relevant IOC and UNESCO CB activities; the CEOS CB activity; information on ODIN,

particularly ODINAfrica; and a copy of the report on the Pacific Islands ocean observations workshop of October 2002.

2. REVIEW OF EXISTING JCOMM AND RELATED GOOS CAPACITY BUILDING

2.1 To provide a background to its work, the Task Team briefly reviewed its terms of reference, existing JCOMM and related GOOS capacity building activities, including the JCOMM and GOOS CB Strategies and implementation plans; seminars, workshops and other short term training; technical publications; regional capacity building activities including regional cooperative projects; etc. This item also included a brief review of relevant results from the first sessions of the JCOMM Capacity Building Coordination Group and GOOS Capacity Building Panel, Geneva, June 2002.

2.2 The Team recognized that, while short term training (seminars, workshops, etc.) and the preparation, publication and distribution of technical publications were important CB activities, they were normally undertaken within regular Secretariat budgets, with support from external agencies and funding sources sought and delivered on an ad hoc basis. It therefore agreed to concentrate its own work, for the time being at least, to larger, more broadly based and long-term capacity building projects. In this context, the Team reviewed in more detail the WIOMAP regional project in the western Indian Ocean, which it agreed should form a prototype for developing its own approach to supporting JCOMM and GOOS CB. A summary of this project is in *Annex III*.

2.3 In this context, the Team noted a number of key issues relevant to the eventual funding of the project by donor agencies:

(i) The need to structure and focus the project in relation to the priorities of the potential donors, including a justification of the project aims and requirements in terms of these priorities; these priorities included in particular issues relating to health, resource depletion, environment, climate, human safety, etc.;
(ii) The project should be regionally and nationally owned and promoted;
(iii) The project should be closely related to user sectors and requirements, based on national and regional surveys of user requirements;
(iv) The potential for a joint project with industry might be explored, particularly in the context of possible industry interest in emerging markets;
(v) A dialogue between recipient countries and potential donors should begin as early as possible in the project development process;
(vi) The project should build as much as possible on existing facilities and capabilities in the region;
(vii) The project should be presented as an integrated whole, but with multiple components and uses, which would allow presentation to and potential funding by a number of donor agencies.

2.4 The Team agreed that work should continue as planned to revise the draft WIOMAP project document, on the basis of the input received at the second project planning meeting, Mauritius, November 2002. This revised document should then be distributed to Team members, for their further review and revision on the basis of their specialized knowledge of national and international funding processes and priorities, before distribution to participating agencies for their approval. (**Action**: Secretariat and Team members)

3. JCOMM REQUIREMENTS SURVEYS AND PRIORITIES

3.1 The Team noted that the JCOMM Capacity Building Coordination Group had initiated a series of regional surveys of national requirements for capacity building in the context of JCOMM. The results of these surveys were to be used to determine overall priorities for such capacity building. These priorities would then, in turn, form the basis for the future work of the Task Team, to merge requirements with potential funding, to determine a strategy for matching requirements with the resources to address these, and also to identify gaps in these resources.

3.2 The Team noted with interest a report on a preliminary analysis of the results of the surveys in some of the WMO Regions, presented by Ms Miriam Andrioli, JCOMM CB Coordinator. Details of this preliminary analysis are in *Annex IV*. The Team agreed on the importance to JCOMM of these surveys, and urged that work should continue to ensure that the requirements of all potential participants in JCOMM were included, and that the eventual results (priorities) should focus on broad-based regional or common national requirements, rather than specific national or agency interests. (**Action**: Capacity Building Coordination Group)

3.3 The Team agreed that the priorities identified by this work would eventually serve as the basis for the development of other regional or multinational projects such as WIOMAP. The Team further agreed that such regional projects would serve as a very useful tool for advancing the implementation of the overall global observing, data management and services system, which was the ultimate goal of the JCOMM. These projects would allow both contributions to and benefits from global systems at regional and national levels.

3.4 The Team recognized that a primary initial focus of capacity building projects was likely to be the development of human resources and capabilities. This would greatly assist countries to access, process and apply the ocean data and products delivered by the global system. At the same time, the Team agreed that it was important not to marginalize countries in terms of the hardware and software now being employed in ocean observing systems. It was therefore important that all projects should also include components relating to national and regional requirements for observing system hardware and data collection/data management facilities. This would allow both to fill regional gaps in the global systems, and also provide real facilities for trained personnel to work on. In this context, the Team noted with interest that a recent workshop for Pacific Island countries on the application of ocean observations (Fiji, October 2002) had identified a number of key but practical requirements for capacity building, including enhanced internet access, trained personnel, and documentation in national languages. It had also demonstrated the value of factoring in the interests of potential donors in project formulation.

3.5 The Team agreed that the results of regional priority surveys, when finalized, should be passed to all Team members, who would then review them with a view to formulating outline projects. These outlines should then be used as a basis for preliminary consultations with both potential recipients and donors before further work was undertaken to prepare detailed project proposals. (**Action**: Team members and Secretariat)

4. PROCEDURES FOR THE DEVELOPMENT OF CAPACITY BUILDING PROJECTS

4.1 The Team recognized that a primary initial task for itself, based on the specific knowledge and expertise of its members, was to survey and analyze potential funding sources/agencies for JCOMM capacity building, and based on this information compile a comprehensive catalogue. The catalogue could include details of their priorities, regions of interest, formats, mechanisms for decisions, funding parameters (dollar limits, duration, award criteria), deadline, project details, constraints, reporting and evaluation procedures, etc. The analysis would also prove valuable not only to GOOS and other IOC and WMO capacity building programmes but also to other international organizations, from the same perspective.

4.2 As an introduction to this work, the Team noted with interest brief verbal reports on the structure, operating procedures and priorities of a number of national and international agencies and bodies, including the Canadian International Development Agency (CIDA: http://www.cida.gc.ca), NSF/USA, the International Group of Funding Agencies for global change research (IGFA), NOAA/USA, the Integrated Global Observing Strategy (IGOS) Partnership and CEOS.

4.3 The Team recognized that there were a very large number of potential donor agencies and funding mechanisms in existence, which could be classed under a number of general categories (intergovernmental, IFI, NGO, foundations, regional, etc), but not all of which were necessarily relevant to JCOMM and related programmes (see *Annex V*). Detailed information on most of these

was available on various web sites, which could be used in assessing their relevance to JCOMM, and thus to the proposed catalogue. The Team identified "key words" to link JCOMM projects to potential donors (*Annex VI*). Such key words were important to JCOMM, both to facilitate identification of potential donors, and also in formulating project objectives and outcomes in terminology appropriate to donor priorities.

4.4 The Team next discussed and further agreed that this catalogue could now be populated largely through a survey of donor agency web sites, using the categories and key words given in Annex V and VI as basic search criteria. The Team proposed that this should be undertaken by a consultant. (**Action**: Secretariat to seek the advice of the Management Committee on how to proceed) It was agreed that the catalogue should be web-based, in a relational data base format, to allow search by a number of different criteria.

4.5 The Team noted that the requirements basis for future JCOMM CB projects would be provided by the CB priorities identified through the regional requirements surveys being undertaken by the CB Coordination Group. It also recognized that potential donors should be involved at an early stage in project formulation, that the catalogue being developed would greatly assist in this process, and that Task Team itself would need to be involved in initial project formulation and contact with potential donors. An outline of the initial JCOMM project preparation process is given in *Annex VII*. *Annex VIII* contains some key words which will be useful for incorporation in the text of the project proposal as they are usually "attractive" to the funding agencies. In general, the process from initial requirements identification to project implementation is a long one, involving many iterations among recipients, donors and executors, as shown in the example in *Annex VII*. The involvement of both the Task Team and the CB Coordination Group would thus be largely in the early stages, in formulating initial project concepts and matching these to potential donors. (**Action**: CBCG and TTR) However, the Team also agreed that the facilitating and coordinating role of the Secretariat was critical to the whole process, and expressed the hope that sufficient resources would be made available to effect this role at the level required. (**Action**: Secretariat)

5. EVALUATION OF JCOMM CAPACITY BUILDING

5.1 The Team noted that the Capacity Building Coordination Group had initiated procedures for evaluating the effectiveness and appropriateness of JCOMM capacity building activities, including in particular seminars and workshops. The Team further noted with interest some preliminary draft procedures for evaluating the effectiveness of specialized training workshops and seminars in support of JCOMM. It agreed that a particularly important aspect of evaluating the effectiveness of such specialized training events concerned the impacts of the training in the home agency of the recipient, both on the work environment and personally. These impacts include follow-up actions, if any, such as enhanced services and internal agency training. The Team therefore suggested that the evaluation questionnaire should be modified to include questions such as:

(i) How do you judge the impact of your training on your work and personal development (such as promotion prospects)?
(ii) What kind of follow-up actions have taken place in your agency, or do you suggest should be taken?
(iii) Will you convey your specialized knowledge and training to others in your agency, and how?

A number of other minor modifications to the questionnaire were also suggested, and the modified questionnaires are given in *Annex IX.* It was agreed that these questionnaires should be used in the future to evaluate all specific JCOMM training events, recognizing that the effectiveness of the evaluation depended very much on appropriate Secretariat follow-up. (**Action**: Secretariat and CB Coordination Group)

5.2 With regard to large scale projects, the Team recognized that an extensive monitoring and evaluation was very much a part of the whole project formulation and implementation process.

While largely initiated by the donor agency, the evaluation itself was tripartite, involving donors, recipients and executing agency. Such evaluation was critical to the project cycle: it assisted recipients to develop functional work plans; it helped in adjusting projects during implementation; it could be used for assisting in future project design and even policy modifications in donor agencies. The team supported such considerations, as well as the importance of this evaluation process to JCOMM-initiated projects, while at the same time recognizing that the evaluation process was largely outside the remit of JCOMM itself. At the same time, it noted the potential value for the Commission of having a specific JCOMM rapporteur associated with each project, as proposed by the CB Coordination Group (see *Annex X*).

5.3 The Team also reviewed briefly the procedure used by WMO for evaluating the results and impacts of VCP projects. It suggested that, at least from a JCOMM perspective, such evaluation should be more oriented towards positive impacts of the projects, rather that reasons (if any) for failure. The Secretariat was requested to convey this view to the appropriate Department in WMO. (**Action**: Secretariat)

5.4 The Team noted the potential value of the CB requirements surveys, including national/agency contacts established through them, in the project evaluation process, in particular in facilitating feedback on evaluations to both donors and recipients. It requested the Secretariat and the CB Coordination Group to follow-up on this suggestion as appropriate. (**Action**: Secretariat and CBCG)

6. WORK PROGRAMME

6.1 Based on discussions and decisions under preceding agenda items, the Task Team prepared a work plan for itself for the remainder of the intersessional period, which is given in *Annex XI*.

7. CLOSURE

7.1 In closing the meeting the chairman, Dr Sergey Priamikov, offered his thanks to all participants, and to the Secretariat, for their valuable input to what had been a very productive introduction to the work of the task team. He expressed his hope and belief that the Team would eventually be able to provide extremely useful advice and support, not just to JCOMM, but also to GOOS and other international organizations in implementing their capacity building programmes.

7.2 The first session of the JCOMM Task Team on Resources closed at 1730 hours on Tuesday, 4 February 2003.

Annex I

JCOMM Capacity Building Coordination Group - Task Team on Resources
(Paris, 3-4 February 2003)

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Annex II

Agenda

1. OPENING OF THE SESSION

1.1 Opening
1.2 Adoption of the agenda
1.3 Working arrangements

2. REVIEW OF EXISTING JCOMM AND RELATED GOOS CAPACITY BUILDING

2.1 JCOMM and GOOS CB Strategies
2.2 Existing JCOMM CB activities
2.3 Related GOOS CB activities
2.4 Regional cooperative projects

3. JCOMM REQUIREMENTS SURVEYS AND PRIORITIES

3.1 Regional requirements surveys
3.2 Initial priority assessments

4. PROCEDURES FOR THE DEVELOPMENT OF CAPACITY BUILDING PROJECTS

5. EVALUATION OF JCOMM CAPACITY BUILDING

6. WORK PROGRAMME

7. CLOSURE

Annex III

Western Indian Ocean Marine Applications Project (WIOMAP)

Project aims

1. The project will contribute to the sustainable development of marine resources to alleviate the problem of food security, better long term planning and management to minimize the impacts of extreme weather events (such as storm surge from tropical cyclones, flood and drought) and the monitoring of long term changes of the marine environment and accelerated sea level rise. This will be achieved through improved climate and marine predictions and enhancement of the coastal and open ocean observing system. It will also focus on capacity building of national institutions to enable them to take advantage of modern technology in ocean monitoring and development of ocean modelling. WIOMAP will ensure that ocean observations in support of GCOS are sustained and utilized in weather modelling activities, coordinated through a Specialized Application Centre located in the West Indian Ocean.

Context

2. The Eastern and Southern Africa region comprises many islands, members of the Indian Ocean Commission (IOC) – Comoros, Madagascar, Mauritius, Reunion (France), Seychelles – and coastal and landlocked countries, Member States of SADC and IGAD. Most of them are developing countries where the main concern is food and housing security. The Indian Ocean in general, and the Western Indian Ocean in particular, exerts a profound influence on weather and climate of these countries. The WIO contains enormous potential of marine resources, which have yet to be fully exploited in a sustainable manner. Among these are fisheries, ocean energy, mineral resources and coastal tourism. As the population in the region increases and the shortage of land for cultivation purposes becomes more acute, there is no doubt that a resort to marine resources for food supply in the region will gradually become inevitable. The island states and coastal countries have been provided with opportunities and additional responsibilities with the adoption of the United Nation Convention on the Law of the Sea (UNCLOS) which, in defining the Exclusive Economic Zone (EEZ), has given them the right and obligation to protect and manage their marine resources within at least 200 miles of the coast.

3. Ocean circulation and coastal processes in the Western Indian Ocean are unique. In its northern part, there is an annual reversal of wind direction and ocean current. The Agulhas current off the South East Coast of South Africa is an important feature of the ocean circulation in the southern part. For this reason, the region is considered by marine scientists as a natural laboratory for research purposes. In spite of that, the Indian Ocean is the least studied ocean, mainly due to lack of data.

4. The tropical region of the WIO lies in the belt of tropical cyclones, which derive their energy from the ocean. This is the most devastating weather system, which can cause enormous loss of life and widespread damage to property, crippling the economy of a country for years. The recent flooding in Madagascar, Mozambique, South Africa and Zimbabwe, due to the passage of cyclones Connie, Eline, Gloria and Hudah, from January to April 2000, causing millions of US dollars damage to property and more than one thousand deaths in Mozambique, is a vivid illustration of the vulnerability of those countries to tropical cyclones. On average, about 10 formations occur annually in the region during the cyclone season which extends from November to May.

5. The importance of the ocean in the life system of the earth cannot be over-emphasized. It influences almost every facet of the economic and social development of any country and its role in understanding weather and inter-seasonal and inter-annual climate variability is well known. By its very nature, ocean circulation does not recognize any geopolitical boundaries. Pollution which originates from one state often becomes the concern of others as the contaminants are carried throughout the region by the prevailing winds and currents.

6. The ability to understand and predict weather and climate and enhance the effective exploration and exploitation of living and non-living marine resources, requires close collaboration and cooperation at regional and international level involving both meteorological and oceanographic Institutions and agencies. Other areas which require a regional grouping of countries, include monitoring of marine pollution, predicting oil movement in case of an oil spill accident, understanding ocean and coastal processes for coastal protection and management and ensuring the safety of life and property at sea. This is particularly true in the Western Indian Ocean (WIO) region where most countries are developing states.

7. Under such circumstances, it would be almost impossible for a single country in the region to establish the necessary infrastructure and make available the required human resources to meet the growing demand for marine data and services from a wide spectrum of marine users in an efficient and most cost-effective fashion, even at the local level. User demands are expected to become even more stringent in the years ahead. The most appropriate option is a regional approach. This is a global trend today, which is being encouraged in the marine field to share and co-sponsor sophisticated equipment and specialized support institutions regionally.

Project Development

8. Following the successful development of the SEACAMP project, the eleventh session of the WMO Commission for Marine Meteorology (Lisbon, April 1993) recommended that studies be undertaken on the possibility of developing similar projects in other geographical regions, in particular East and West Africa. Subsequently, a major survey was undertaken in the Western Indian Ocean region of both user requirements for marine data and services, and also the existing capabilities of national agencies and institutions to meet these requirements. The summarized results of this survey were reported to CMM-XII (Havana, March 1997), which endorsed the convening of a meeting to discuss the possible establishment of a cooperative project in this region.

9. A first WMO/IOC Implementation Planning meeting for a Western Indian Ocean Marine Applications Project (WIOMAP) was held in Mauritius in May 1997. Participants were from Meteorological Services and Oceanographic Institutions from Comoros, France, Kenya, Mauritius, Mozambique, Seychelles, South Africa, Tanzania and representatives from Institut Francais de Recherche Scientifique pour le Developpement en Cooperation (ORSTOM) and Regional Co-operation in Scientific Information Exchange (RECOSCIX) in the Western Indian Ocean. The main conclusions were:

(i) The need for a regional project as a regional contribution to the Global Ocean Observing System (GOOS) to enhance the provision of marine services for the benefit of a diversity of national, regional and global users;

(ii) Development of a Specialized Marine Modelling and Product Preparation Centre, with various Sub- Regional Marine Centres for the preparation and distribution of marine products.

10. A project outline of WIOMAP has received endorsement, besides WMO and IOC bodies, from the Directors' meeting of Meteorological Services of the Southern African Development Community (SADC) (Mauritius, 5-8 May 1998) and Meeting of Directors of Meteorological Services of the Indian Ocean Commission (Reunion, 28-29 May 1998). This was approved by the SADC Southern African Transport and Communications Commission (SATCC) Committee of Ministers (January 1999) as a subproject of the Meteorological Programme Project - No AAA 6.0.1, "Integration of weather and climate data, products and information in weather sensitive socio-economic activities." During the Global Climate Observing Systems (GCOS) regional workshop for Eastern and Southern Africa countries (Kisumu, Kenya, 3-5 October 2001), a resolution which includes "that the Western Indian observations be enhanced and becomes an integral part of an Indian Ocean observation strategy" was also approved. GCOS has been recognized by the conference of parties to the UN Framework Convention of Climate Change (UNFCC) as the

primary mechanism to coordinate and assist in national efforts to monitor global climate and climate change.

11. WIOMAP is being designed as a regional contribution to the Global Ocean Observing System (GOOS), which was called for by Agenda 21 of the United Nations Conference on Environment and Development (UNCED), to aid in sustainable development of ocean and seas. As the next step in project development, Mr Sachooda Ragoonaden, vice-president of the former CMM and member of the interim Management Committee for JCOMM, undertook a mission in late 1999 to institutions and agencies in all countries with a potential interest in the project, to develop a detailed assessment of requirements and needs. He then prepared a first draft of a full WIOMAP project document. Following experience gained with SEACAMP, the full project has again been sub-divided into four separate but inter-linked modules, to assist in funding and implementation. These modules are:

(i) Capacity building of human capacity through formal training;

(ii) Expansion of the marine meteorological and oceanographic observing network;

(iii) Enhancement of communication infrastructure;

(iv) Establishment of a specialized marine meteorological and oceanographic centre for ocean products.

12. By the end of the project, it is expected that participating National Meteorological Services and oceanographic institutions will have reached a level comparable to other more advanced marine institutions elsewhere in the world. The gaps in terms of human and infrastructure capabilities between institutions in these countries and those in more developed countries will have partially been bridged. Additional marine data, both at the surface and sub-surface will become available in real time as input into regional models to improve marine products for the protection of the marine environment, enhanced maritime safety, and the more effective and efficient exploitation of marine resources. It is expected that the level reached by national institutions and potential regional marine centres at the end of the project, in terms of equipment and trained manpower, would be high enough to ensure self-sustainability. Furthermore, more active participation of countries in the region in national, regional and international marine programmes, which is essential for the success and timely completion of these programmes, would be forthcoming.

Future developments

13. The full draft project document for WIOMAP has been reviewed within the Secretariats of WMO, IOC, GOOS and GCOS. This draft document has been distributed to the heads of all agencies and institutions in the region potentially interested in participating in the project, for their own review and comments. Following receipt of this feedback, the document was submitted to a second project planning meeting, which was convened on 1 November 2002 in conjunction with the Indian Ocean GOOS Conference, Mauritius, 4-9 November 2002. This meeting undertook a further detailed review of the document, and provided numerous proposals for modifications. It generally endorsed the document, and representatives of participating agencies gave provisional agreement on participation. The meeting accepted the offer from Mauritius to eventually submit the document to funding agencies on behalf of all participants. It is expected that the final project document will be available in late 2003 for formal endorsement by agency heads.

Annex IV

Summary of Preliminary Results of the JCOMM CB Requirements Surveys

Compilation of Identified Needs for Training for Regional Association I (RA-I)

by

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1.0 INTRODUCTION

At the first session of JCOMM Capacity Building Coordination Group meeting held in Geneva from the 24th to 27th June 2002, members of the group were assigned the duty of compiling the needs from different member countries in the following areas: Services, Data Management, Observations and Education and Training. I was charged with the responsibility to compile the regional Capacity building requirements for Africa based on a survey of the various countries in the Region through a questionnaire (copy attached). This questionnaire was sent to the various maritime countries in (Region RA.I IOC and WMO member States'.) by the WMO secretariat in Geneva. Responses to the questionnaire were forwarded to me for compilation. Seven countries in the region responded to the questionnaire, these countries included Tunisia, Nigeria, Republic of Congo, Tanzania, Mauritius, Morocco and Madagascar.

Below is a summary of individual countries responses to services.

2.0 SERVICES

This section relates to services required for accomplishing effective marine pollution emergency response system, Global maritime distress and safety system, marine and ocean model output to meet users needs, wave model verification and Services and Internet technology are limited and to a large extent non existent as a result of the financial squeeze experienced regionally. Answers to the questions posed under this section are as follows:

(i) Requirements to accomplish the Marine pollution Emergency Response System (MPERSS)

In the RA I, it was obvious that some Met-Ocean services were executed by certain institutions other than the Meteorological and Oceanographic Institutions, hence responses to the needs of Marine Pollution Emergency Response Support Systems and services did not receive a uniform response. For example, in Nigeria, Tunisia and Mauritius these services are executed by the Ministry of Environment or the National Port Authorities hence no different requirements were stated. However, Nigeria for example requires coordinating mechanism for combating marine Pollution. It also needs an Integrated Coastal Management plan to achieve this. All the other respondents need training and mock exercises to ensure adequate and prompt response in time of emergencies.

(ii) Requirements to accomplish the Global Maritime Distress and Safety system (GMDSS)

According to most respondents, requirements include provision of effective communication system to respond to distress calls. All respondents indicated the need to have effective communication facilities to effectively respond to distress calls.

(iii) Requirement to adapt the marine and ocean model output to meet the users needs

Generally, there is lack of capability and resources for adapting marine and ocean model outputs to meet users needs in Africa. From the responses received, it was noted that all respondents agreed that the requirements will enhance several activities in the region especially fishing as well as improve the understanding of wave and tidal regimes and meteorological dynamics especially surface marine wind fields.

(iv) Requirements to accomplish the wave model verification

Most respondents indicated that training in collection, analysis and verification of wave model is needed because acquiring the knowledge will assist graduate students and researchers especially in the field of oceanography to understand coastal dynamics and impacts on coastal areas.

(v) Requirements on Services and Internet technology

Marine services and Internet technology is generally needed by all to assist their centers and researchers to have easy access to current oceanographic and meteorological data and information.

(vi) Requirements on sea ice products

There was a general consensus that sea ice products were not required in Africa

(vii) Requirements for consolidated suites of products and services

Provisions for networking facilities, cooperation and interactions between product developers and users were considered as important in Africa.

(viii) Requirements to test the users response to the marine meteorological and oceanographic services provided by your organization

Responses received indicated that most countries will appreciate programmes that will promote constant interactions between service providers and users.

(ix) Requirements of technical publications, manuals, guides, regulations, texts expert professors and instructors workshops, etc. on marine meteorology, marine climatology, waves, sea ice, GOOS and any other area related to services.

According to most respondents, limited number of manual, technical publications, guides, expert instructors and text are available in most countries in Africa, especially in countries like Tanzania, Morocco, Tunisia, Nigeria, Ghana, Congo and Madagascar. Assistance in this regards will improve services rendered to the shipping, fisheries and general meteorology. Provision of facilities for data and information exchange, training in data and information exchange and enhancement of information and data centers particularly in Mauritius, Tanzania, Tunisia, Morocco, Nigeria and Madagascar are needed.

3.0 DATA AND INFORMATION *MANAGEMENT*

This section relates to data and information management relating to telecommunication, quality control, archival and exchange and codes and formats. These aspects are quite challenging to the maritime countries in Africa. Answers to the questions posed under this section are as follows:

(i) Requirements relating to telecommunications for data collection, e.g Inmarsat, Argos, IDCS, etc

Morocco, Tanzania and Nigeria indicated that acquisition of platforms for ARGOS, INMARSAT and IDCS could be a step in the right direction towards acquiring real-time data. Such acquisition could assist local scientist in the planning, implementation and analysis of related data in the region.

(ii) Requirements related to the management, including quality control, archival and exchange of different marine data (surface meteorological, surface and Sub-surface oceanographic, sea level, sea ice, etc)

Training in the Management, quality control, archiving and the exchange of data is also needed to enhance the capability needed to monitor the system. Training by experts on the use of codes and manuals was highlighted by all the respondents. Though Tunisia and Morocco on the other hand did not respond to the questions; it is believed however, that the general response to the above requirements will apply to them too.

(iii) Needs relating to the implementation of appropriate codes and formats

All the respondents agreed to the need to have a standardization of codes, formats and the involvement of local scientists in the development of such requirements.

(iv) Requirements relating to the acquisition, archival and exchange of metadata (including digital imagery if appropriate)

It was gathered from responses received that many institutions in the region lack infrastructure for digitizing images, processing, storage and electronic exchange of data. The needs towards this requirement is for facilities to enable them process, store and also exchange these data.

(v) Requirements for the implementation of internet technology in data management

Internet requirements in data management are needed by all respondents for their different institutions and agencies. For example, Tanzania needs this technology for their Meteorology agency, the Maritime resource learning centre and the Fisheries development centre at Mbegani. All respondents expressed the need for effective data exchange within their countries and region. This they believe will foster cooperation between neighboring states.

(vi) Requirements for an effective data exchange with regional, specialized and global data centers

It was generally agreed by all that upgrading and enhancing data exchange via GTS of WMO will enhance links within the JCOMM community. It will also provide avenue for exchange of data and information between scientists from developing world and their counterparts in developed world.

(vii) Requirements to enhance data exchange via the GTS (Global Telecommunication system-WMO), Internet, etc.

Responses from Tunisia and Nigeria indicated that the empowerment of the National Oceanographic or Meteorological centers could enhance technological cooperation and enable data exchanges. Other respondents expressed similar views.

(viii) Requirements of technical publications, manuals, guides, regulations, text, expert professors and instructors, workshops, etc on any area related to data and information management.

The need for technical publications, manuals, guides, regulations, text, workshops and expert instructors was generally agreed to be needed in the areas related to data and information management. In addition to this, respondents stressed the need of local experts to be encouraged.

4.0 OBSERVATIONS

This section deals with requirements to observational needs such as remote sensors, observational marine data and technical publications, manuals and expert instructors received critical responses that are detailed below. Answers to the questions posed under this section are as follows:

(i) Requirements to access remote sensor products

It was generally agreed that met-ocean data from remote sensing such as wave heights, sea surface temperatures, sea level pressure and wind speeds will enhance Oceanographic and Meteorological capabilities in the region. Respondents stressed the need for a remote sensing software and access to marine remote sensing products from world forecast centers. These responses pointed out that remotely sensed data would capture more data than can ordinarily be achieved and enhance national programmes and the use of modern equipment and techniques like ADPC etc.

(ii) Requirements to fulfill national user needs for observational marine data

All respondents considered this requirement important in enhancing public awareness to make users aware of availability of products and also encourage cooperation between users and developers of products. According to the responses, the implementation of new techniques such as (ADCP, SeaCat etc.) is handicapped by a lack of information or financial means even though several national programmes being executed.

(iii) Requirements of technical publications, manual, guides, regulations, texts, expert professors and instructors, workshops, etc. on any area related to observations

A requirement for technical publication guides and expert instructors was highlighted by majority of the respondents. Respondents also highlighted the need to participate in relevant workshops on marine observations.

5.0 EDUCATION AND TRAINING

All requirements on education and training are required in the region. Specifically, there is the request for training in Marine Meteorology and Oceanography which according to responses from Mauritius, Congo, Nigeria and Tunisia are most needed. Most countries will find training in new educational methods, technologies, and automated systems very useful in their countries. Below are the specific responses.

(i) Requirements for the exchange of software, technologies, etc.

Responses to this question centered around acquisition of software packages and the exchange of personnel with good networking. Generally, there were references to provision of computers, plotters, printers and the encouragement of local capacity in Numeric Weather outputs and oceanographic data analysis.

(ii) Requirements on Services and Internet technology

This was widely answered as an important facility for the enhancement of research skills especially young scientists.

(iii) Requirements to produce Electronic Products Bulletins

Electronic product bulletins are needed by all respondents; however, because of the limited number of Internet facilities available in the region, this product will not be fully utilized unless communication facilities are improved in the region.

(iv) Requirements of technical publications, manuals, guides, regulations, texts, expert professors and instructors, workshops etc. in any area related to specialized education and training in marine Meteorology and Oceanography.

From responses gathered, showed that limited number of manuals, technical publications, guides, expert instructors and text are available in countries such as Tanzania, Morocco, Tunisia, Nigeria, Congo and Madagascar. Assistance in this regards will improve services rendered to the shipping, fisheries and general meteorology.

(v) Requirements of information related to new educational methods and technologies, automated systems, etc.

It is noted by all respondents that acquiring new educational methods and technologies will encourage frequent interactions with developing nations on new technologies.

6.0 CONCLUSION

The general spread of respondents from Tanzania, Nigeria, Congo, Mauritius, Morocco, Tunisia and Madagascar showed a good representation of the needs of the region to capacity building requirements for JCOMM. It is hoped the results of this assessment and future ones will assist JCOMM to build a very strong Met-Ocean capacity building programme for Africa.

Acknowledgements
This report came to fruition through the efforts and dedication of Dr. Peter Dexter, head of the Ocean Affairs Division, and the entire staff at the WMO headquarters in Geneva.

Identification of the Capacity Building Needs of RA II

Introduction

The questionnaire was prepared and distributed via the WMO to the permanent representatives of RA region. Six countries: China, Pakistan, Macao China, Hong Kong, Thai, Korea returned the questionnaire duly completed.

Results of the survey

The Reponses are invaluable to JCOMM. The information presented here is only a summary of the information, the full text is available to JCOMM.

Hong Kong identified the following needs:

- Data and information: enhance data exchange via the GTS, Internet, etc. Further enhancement on Internet will be made when the need arises.
- Technical Assistance: exchange of software, technologies, etc.
- Training: courses in the elaboration of marine meteorological services, automatic weather observing systems, radar and satellite meteorology in numerical weather prediction and satellite data utilization.

Thailand:

- Materials: technical and educational material on maritime safety services. Technical publications, manuals, guides, regulations, texts, expert instructors, workshops, etc. in any area related to specialized education and training in marine meteorology and oceanography. Remotely products.
- Training: courses on marine services and Internet technology. Human resources training for running ocean model output, wave model implementation and Verification and some educational material also.
- Technical Assistance: technical publications, manuals, guides, regulations, texts, expert instructors, workshops, etc. On marine meteorological and oceanographic services. Access about web-based products and services.
- Data and information: Requirements related to the management, including quality control, archival and exchange, of different marine data. Requirements relating to the acquisition, archival and exchange of metadata. Training and techniques about Internet technology in data management. An effective data exchange with regional and global data centers. Data that exchange via GTS or Internet. Technical publications, manuals, guides, regulations, texts, expert instructors, workshops, etc. related to data and information management.

Macao:

- Data and information: Technique, methodology and analysis data for the verification of the wave model output are required. Exchange of software, technologies. Access to ftp servers to obtain marine and/or wave products from various model output required. Software for pre-processing of data and post-processing of marine products. Wave model with wave and wind analysis and forecast output including South China Sea area and South China coastal region is required.
- Materials: Standard technical publications, manuals, guides and regulations on marine observations.

Korea:

- Technical Assistance: implement and distribute maritime safety services through Inmarsat SafetyNet, NAVTEX or similar marine broadcast systems using ORBComm for telecommunication to buoy, lighthouse AWS, and ship. Guide for solving international problem.
- Data and information: global-scale data and information of sea ice for modelling. high-resolution seabed topography. more higher resolution data . Technical consultation, assistance and guidance to maintenance and exchange 6m buoys,

- Technical Assistance: construct remote area oceanic site, advice on how to design electric power, telecommunication for unmanned station.
- Training: course on Weather Forecasting for Operational Meteorologists. education for international meteorologist

Pakistan:

- Training: courses on analyzing the data for the implement the MPERSS and achieving Wave model implementation and verification. Access to enhanced internet technology.
- Materials: exchange of software and technology, technical publications, workshops, etc on marine meteorological, oceanographic services, data and information management.
- Data and information: implementation of codes and formats. Acquisition, archival and exchange of metadata. Enhance data exchange with regional and global data centres and via GTS, internet.
- Technical assistance: for observational marine data, implement and distribute maritime safety services to users through Inmarsat, NAVTEX.

China:

- Education: advanced educational tools like software,
- Materials: Technical publications and texts on education and training in marine meteorology and oceanography.
- Training: exchange of software, technologies, especially aspects about operational forecast system. Producing web-based products and services. Courses on information services; on numerical models; on sea wave models; on the internet; on data management ;
- Technical assistance: implement and distribute safety services to users through Inmarsat, SAFETYNET, NAVTEX. Internet site through which obtain marine and ocean output products. Archive wave model. Marine services and Internet technology, technical manuals and guides on marine meteorological and oceanographic services, data and information management, and marine observations.
- Hardware and maintenance: communication equipment; equipment for data collection.
- Data and information: telecommunications for data collection through Inmarsat, Argos, IDCS; quality control and analysis; acquisition, archival and exchange of metedata. Internet technology in data management; an effective data exchange with regional and global data centres, enhanced data exchange via the GTS, Internet;
- Infrastructure: a remote sensing network; data processing and telecommunication systems.

Conclusions

The information available shows strong variations, it reflects the different resources, possibilities, targets and potential of each RA II Member.

According to the survey results, Hongkong has shown the advantageous position in terms of capacity building while China has shown a great potentiality but a serious funding problem to fulfill its expectations, while Hong Kong shown stated very few specific needs. Which all presented an extensive and varied list of priority requirements.

According to the survey, it is needed for more and more regional interaction towards a regional Internet network for the exchange of data, products, procedures, software, and publications. And it is very important to promote the transfer of knowledge and technology within the region .It was possible to identify the basic needs of RA ii in the capacity building and it was also possible to portray the present financial constraints faced by the great majority of the RA ii countries. The funding questions constitute the main obstacle to the full implementation, development and accomplishment of many programmmes. Appropriate funding is essential to establish the basis of future projects of JCOMM in RA II.

It is our responsibility to assist decision makers to find sound solutions to their requirements for capacity building and to ensure that all countries can equally participate in and benefit from the work, programmes and projects of JCOMM.

These conclusions show the potential usefulness of identifying and examining and regional capacity building requirements to make the most effective use of existing and potential resources.

Regional and National Needs - RA V

General

Only one response was received from Australia. Nevertheless, an attempt is being made to identify the needs of RAV on the basis of the one response, RAIII identified needs and information obtained from RAV reports.

Education and Training

Education opportunities to enhance the capacity of countries in the region, mainly developing countries, to participate more actively in JCOMM are definitely lacking in the region. Some advanced course in marine meteorology and oceanography is recommended.

The Bureau of Meteorology has already hosted a Regional marine training workshop on marine pollution (Townsville, July 1998). Given the rapid growth in GOOS / JCOMM related activities and the broadening of scope of operational oceanography, this workshop should be organised again, perhaps with some hands-on training on a marine pollution dispersion and oil slick movement model. The participants should then be able to develop a pollution model, adaptable to their own national needs.

Other training events should include:

- Coastal dynamics models;
- Application of sea-surface temperature to enhance fisheries catch;
- Wave models for coastal region.

Data and Information

Data management is an important issue in the region. A strategic and more concentrated IT focus on data management should be addressed, particularly as more Argo data become available. A regional workshop about practices, procedures and systems, operational at the international level, could be useful. Perhaps a similar programme as ODINAFRICA and ODINCARSA should be developed for the region.

Materials

The needs as identified for RA III are applicable to the region.

Hardware and Maintenance

The installation of similar instruments for ocean monitoring in the region through regional programme could facilitate maintenance. The RONMAC programme (the water level observation network for Central America) and a identical GEF regional programme for the Caribbean are good models for replicability. Such a project could be developed for RA V.

Technical Assistance and Monetary Support

Advantage should be taken within the framework of the COP assistance programme for sustainable observations to obtain GEF funding for regional programmes.

Annex V

List of Potential Funding Sources

Intergovernmental Organizations
Int'l Org
Int'l NGOs
Regional Indigenous Org
IFIs
Bilateral Donor Community
Private Sector
Foundations

Annex VI

Key Words for the Search of Funding Sources Relevant to JCOMM Objectives

Sustainable Development
Capacity Building (equipment and technology transfer)
Global operations (networks, data and products)
Observing systems (in situ, satellites, programs)
Oceans and phenomena (sea level, waves, storm surges, etc)
Coastal Zone Protection and Development (prediction, advisories)
Meteorology/atmosphere (weather forecasting, warnings)
Human Resources Development (training, education, scholarships)
Tourism and recreation
Conventions and legal requirements
Climate variability
Maritime safety and transportation

Annex VII

Project Preparation Work Plan

Identify the project

- Negotiate with partners
- Revise proposal
- Submit revised proposal to partners
- Revise proposal
- Recipient Country/region submit proposal to funding agencies

Approval in principle

- Recipient Country executing agency meet with funding agency
- Revise proposal
- Formulate proposal and develop implementation plan
- Appraise proposal

Project Approval

- Contract selection/implementing agency
- Conduct inception mission by the implementing agency
- Modify implementation plan

Implementation Phase

- Implement project
- Monitoring and evaluation

Annex VIII

Key words to be Recommended for Reference and in the Project Proposal.

Sustainable Development
Capacity and institutional building
Marine environment protection and conservation for the poor
Human life protection and security
Insurance protection / re-insurance
National, indigenous, regional ownership
Partnership and equity, trust and friendship
Cooperation and policy and program coordination
Food security / household, domestic, national and regional
Filling the implementation gap
Poverty reduction
Risk assessment and management
Reference to protocols, conventions, decision of the UN Summit meetings
Governance, respect for human rights and the rule of law/democracy
Women in development/gender equity
Sector-wide approach
Improving the quality of life in rural areas
Reduction of duplication of efforts
Constructing a better world
Global trends/interdependence
Global/regional/national policy objectives
Global environmental security.

Annex IX

World Meteorological Organization (WMO) -
Intergovernmental Oceanographic Commission (IOC) of UNESCO

Lecturers Report of
WMO / IOC Sponsored Training Courses,
Workshops and Seminars

Objective of the Report

The main objective of this report is to obtain your immediate reaction and specific comments with regards to the level of participation, which could be used for future improvements of similar events and any difficulties encountered.

At the end of the training events / workshops / seminar, you are requested to complete the report and give it to the supervisor of the event who will send it either of the address below with a copy to the other.

The Secretary General
World Meteorological Organization
7 bis Avenue de la Paix
CP 2300
CH-1211 Geneva 2
Switzerland

or

The Executive Secretary
Intergovernmental Oceanographic Commission
1, Rue Miollis
75735 Paris Cedex
France

Title, venue and date of Training Course / Workshop / Seminar ……
……...
……

Date of Submission (YYYY-MON-DAY)
……

Participants Background

- How do you evaluate the participant background to follow the programme

☐ Excellent ☐ Fairly adequate

☐ Poor ☐ Very poor

- What background knowledge you expected the participants to have

☐ Basic knowledge in oceanography ☐ Basic mathematics

☐ Basic knowledge in meteorology ☐ Others

☐ Basic knowledge in both ☐

If others, name them.

……
……
……..

- Did you have any information on the participation background for preparing your lectures

☐ Necessary information ☐ some information ☐ not at all

Facilities

- How do you evaluate the facilities available at the venue

☐ Very good ☐ Good ☐ Fair ☐ Poor ☐ Very poor

Overhead projector
LCD projector
Slide projector
Flip charts
Photocopying machine
Physical environment

- Name any other facilities to improve future programme
  ……..
  ……..

Materials provided

- What materials did you provide to facilitate better assimilation of the lectures

☐ Lecture notes ☐ Practical exercises ☐ References

☐ Questions and answers ☐

Language

☐ Most appropriate ☐ Fairly appropriate ☐ Not appropriate

If not appropriate, suggest an option.
……
……
……
……..

General Information

Name of lecturer: ……..

Address: …….
……..

Telephone:…… Fax: …… E-Mail: ……..

Lectures given: ……..
……..

Was the language used appropriate for the programme.
……

World Meteorological Organization (WMO) -
Intergovernmental Oceanographic Commission (IOC) of UNESCO

Participant / Institution Report of
WMO / IOC Sponsored Participants at
JCOMM Training Courses, Workshops and Seminars

Objective of the Report

The main objective of this report is to find out to what extent a JCOMM Capacity Building Programme has been beneficial to a participant / institution and to obtain some feedback information on the long term benefit of the programme.

This questionnaire should be filled by Institution or participant who attended JCOMM training programmes one year after and be sent either of the address below with a copy to the other.

The Secretary General
World Meteorological Organization
7 bis Avenue de la Paix
CP 2300
CH-1211 Geneva 2
Switzerland

or

The Executive Secretary
Intergovernmental Oceanographic Commission
1, Rue Miollis
75735 Paris Cedex
France

Title, venue and date of Training Course / Workshop / Seminar ……
……..
……..

Date of Submission (YYYY-MON-DAY)
……

- Since your return, have you applied the knowledge gained to discharge your responsibility

☐ Yes ☐ No

If **Yes,** give a few examples

……
……
……
……..

If No, why

☐ Not appropriate ☐ Change in position ☐ Left Institution

- How do you rate the programme has contributed to enhance the effectiveness of your activities

☐ Very much ☐ Fairly well ☐ Not at all

- Will any follow-up programme be of value in your work

☐ Highly Recommended ☐ Not worth ☐

- If a similar programme is to be organised, what topics you consider should be included

……
……
……..

- What training programme you consider should be organised within JCOMM activities as follow-up

……
……
……..

General Information

1. Family name …… First name …….. Other names ……

2. Country of origin …… 3 Date of birth ……

4. Service and post held on commencement of fellowship

……
……

5. Field(s) of study during fellowship / Title of training event

……
……
……
……..

6. Dates of the fellowship

From: …… To: ……

7. Country of study …… Institution ……

8. Qualifications obtained (if any)

……
……
……

General Information

(a) State briefly your current responsibilities and activities:
……
……

b) Optional section (Participants are not obliged to complete this section if they prefer to remain anonymous)

Family name: ……

First name: ……

Other names: ……

Service or Institution: ……..

World Meteorological Organization (WMO) -
Intergovernmental Oceanographic Commission (IOC) of UNESCO

Participant Report of WMO / IOC Sponsored Participants at JCOMM Training Courses, Workshops and Seminars

Objective of the Report

The main objective of this report is to obtain your immediate reaction on the usefulness and effectiveness of this training event / workshop / seminar in enhancing participation in JCOMM activities and obtaining some feedback and additional ideas to further improve such programme in the future.

At the end of the training event / workshop / seminar, you are requested to complete the report and to give it to the supervisor of the event who will send it either of the address below with a copy to the other.

The Secretary General
World Meteorological Organization
7 bis Avenue de la Paix
CP 2300
CH-1211 Geneva 2
Switzerland

or

The Executive Secretary
Intergovernmental Oceanographic Commission
1, Rue Miollis
75735 Paris Cedex
France

Title, venue and date of Training Course / Workshop / Seminar ……
……..
……..

Date of Submission (YYYY-MON-DAY)
…….

Scope and Content of Programme

- Is your background in oceanography / meteorology adequate to allow you to derive maximum benefit from the programme

  ☐ Adequate ☐ Adequate enough ☐ Not adequate

- Are the topics covered appropriate in your work

  ☐ Most appropriate ☐ No connection ☐ Partly relevant

- Name the topics most appropriate for your purpose
  ……
  ……..

- Name the topics not relevant for you
  ……
  ……..

- How do you evaluate the intensity of the program

  ☐ Too deep ☐ About right ☐ Not enough details

- Do you consider that the topics covered would increase your knowledge to perform better your job at home

  ☐ Much better ☐ A little better ☐ No connection

- What oceanographic or meteorological topics you would have liked to be included in future

  ……
  ……
  ……..

- Suggest any other topics you would like to be included in the future
  ……
  ……
  ……..

Duration

- Do you think that the length of the training was reasonable

  ☐ Yes ☐ No

  If No, what you would consider to be a reasonable duration

Months	Weeks	Days

- On which topic / theme in the programme, do you think more time should have been devoted?
  ……
  ……
  ……..

- Is the ratio Theory ./ Practical reasonable

  ☐ Yes ☐ No

  If **No**, what do you propose

☐ More theory ☐ Less practical

☐ More practical ☐ Less theory

Presentation

- How do you evaluate the presentation by the lecturers

  ☐ All excellent ☐ All of them poor

  ☐ Many of them good ☐ Many of them poor

- How do you evaluate the following items:

  – lecture notes / text books

  ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐ Very poor

  – physical environment

  ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐ Very poor

  – equipment for presentations

  ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐ Very poor

  – practical exercises

  ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐ Very poor

- What improvement would you propose for the future

  ☐ More lecture notes ☐ More practical

  ☐ More discussion

- Did you have any language problem

  ☐ No ☐ Little ☐ Much

- Is the language used appropriate

  ☐ Yes ☐ No

If **No**, what type would you prefer

……
……
……

Non-academic aspects

- Name the organization which sponsors you
  ……
- Did you encounter any problem with regards to travel arrangements, stipend payments, accommodation arrangements

☐ Yes ☐ No

If **Yes**, explain

……
……
……
……

General Information

a) State briefly your qualifications and relevant work experience:
……
……
……

b) Optional section (Participants are not obliged to complete this section if they prefer to remain anonymous)

Family name: ……

First name: ……

Other names: ……

Service or Institution: ……..

Post held: ……..

Annex X

Evaluation of JCOMM Capacity Building

I. Evaluation of the effectiveness of training workshops

A series of questionnaire surveys should be made

1) At the end of a training event, to monitor the immediate reaction, outcome, specific comments to be used for future improvement of similar events.

   a) A questionnaire to be filled out by participants

      A JCOMM Capacity Building questionnaire should be developed on the basis of the WMO questionnaire (CBCG-I/Doc4.6 Appendix E) and a similar questionnaire used by IOC (if it exists). Such questionnaires used by other organizations such as JMA could also be referred to.

   b) A questionnaire to be filled out by lecturers and organizers

2) One year after the training event (or some appropriate timing)

   A questionnaire should be sent to institutes/organization from which trainees participated. The purpose of the questionnaire is to know the eventual outcome of the training event.

II. Monitoring projects related to (or under) JCOMM (e.g. the WIOMAP project)

1) A rapporteur to monitor the project should be identified among the recipient countries.

2) Recipient countries are requested to submit a status report on the project to the rapporteur every six months (or another appropriate timing)

3) The rapporteur should submit the reports with comment to the JCOMM CBPA Coordinator

4) The CBPA Coordinator circulate the report to the members of the CBCG as appropriate

III. VCP or similar projects to be implemented under a different mechanism

1) Members requested to inform the JCOMM Secretariat when they submit proposals to VCP and when any progress is are made.

2) Such information is passed to the appropriate Regional Rapporteur on MMS so that the Rapporteur can monitor what kind of proposals are submitted, what kind of proposals are supported, what kind of proposals cannot get donors, etc.

3) The Regional Rapporteurs are requested to submit a report to the JCOMM CBPA Coordinator as appropriate.

_____

Annex XI

List of Action Items

Ref.	Subject	Action proposed	With whom	Target	Comments
Para 2.4	WIOMAP regional project	(i) To distribute the draft WIOMAP project document to Team members for their review and revision;	Secretariat, Team members	ASAP	
		(ii) To distribute the final version of the project document to participating agencies for their approval.	Secretariat	ASAP	
Para 3.2	JCOMM Capacity building requirements	To continue development of the JCOMM CB requirements surveys and to include the national requirements of all potential JCOMM participants in the surveys	CBCG	Intersessional period	
Para 3.5	Regional priority surveys	(i) To pass the results of regional priority surveys to all Team members	Secretariat	when the surveys finalized	
		(ii) To review the results of regional priority surveys with a view to formulating outline projects	Team members		
Para 4.4	Potential funding sources	To seek the advice of the Management Committee with regard to appointment a consultant to compile an electronic version of a comprehensive catalogue of potential funding sources/agencies for JCOMM capacity building	Secretariat	ASAP	

Ref.	Subject	Action proposed	With whom	Target	Comments
Para 4.5	CB project for funding sources relevant to JCOMM objectives	(i) To be involved in the process from initial requirements identification to project implementation, in formulating initial project concepts and matching these to potential donors;	CBCG, TTR	continuous	
		(ii) To consider financial support for the involvement of CBCD and TTR in the process	Secretariat		
Para 5.1	Evaluation of JCOMM capacity building	To use the modified questionnaires in the future to evaluate all specific JCOMM training events;	Secretariat, CBCG	continuous	
Para 5.3	Evaluation of the results and impacts of VCP projects	To convey the view regarding the procedure used by WMO for evaluating the results and impacts of VCP projects to the appropriate Department in WMO	Secretariat		
Para 5.4	Use the potential value of the CB requirement survey	To make use of the potential value of the CB requirement surveys, including national/agency contacts established through them, in the project evaluation process, in particular in facilitating feedback on evaluations both donors and recipients.	Secretariat, CBCG	continuous	