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**REPORT OF THE SEVENTH MEETING OF THE
GCOS COOPERATION MECHANISM BOARD**

(READING, 19 September 2011)

GCOS – 151

**UNITED NATIONS
ENVIRONMENT PROGRAMME**

**INTERNATIONAL COUNCIL
FOR SCIENCE**

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Seventh Meeting of the GCOS Cooperation Mechanism Board

ECMWF Headquarters, Reading, United Kingdom

19 September 2011

SUMMARY

1. Welcome and Introductions

The Seventh Meeting of the GCOS Cooperation Mechanism (GCM) Board was held on 19 September 2011 at the Headquarters of the European Centre for Medium-Range Weather Forecasts in Reading, United Kingdom. The meeting took place the day before the start of the Nineteenth Session of the GCOS Steering Committee (SC). Scheduling the meeting back-to-back with the SC Session enabled the non-SC members participating in the GCM meeting to attend the SC Session as observers if they so wished.

Dr. Adrian Simmons, the Chairman of the GCOS SC and host of both the GCM meeting and SC session at ECMWF this year, welcomed participants to the meeting and introduced Mr. Wim Monna, recently retired from the Royal Netherlands Meteorological Institute (KNMI), who agreed once again to chair this year's GCM Board meeting.

In his opening remarks, Mr. Monna accentuated several issues. He noted that in the 2010 update of the Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC (IP-10), it is estimated that \$600 million per year is needed for the improvement of systematic observations in developing countries. The GCM is one means to try to secure the needed funds and will be discussed in this meeting. Another, potentially much more important means, is through the UNFCCC negotiations, in particular through negotiations that will be taking place for the first time in the UNFCCC's Subsidiary Body for Implementation (SBI). A goal of some European countries in the SBI negotiations is to try to secure structural funding for observing system needs in developing countries.

After his brief opening remarks, and after the participants had introduced themselves, the Director of the GCOS Secretariat, Dr. Carolin Richter reviewed the functioning of the GCM.

2. A Review of the Function of the GCM

Dr. Richter observed that the application of funds to projects undertaken under the GCM is one of the most visible things that the GCOS Secretariat is doing to facilitate improvements in climate observing systems in developing countries. She noted that the GCOS Implementation Project Manager effectively uses the WMO procurement process to implement projects. Projects under \$100,000 are easier to implement than those greater than this amount, as the more expensive projects must be assessed and approved by a committee. A key point she made was that future funding to support the activities of the Implementation Project Manager is not certain. She hoped that sustainable funding might be identified to support this important position. She also noted that the majority of the projects undertaken to date have addressed needs in the atmospheric domain but that it is important that the annual "shopping list" of projects contain projects in the oceans and terrestrial domains as well.

3. Status of Actions from the Last Meeting

Dr. William Westermeyer of the GCOS Secretariat briefly reviewed the actions resulting from the Sixth Meeting of the GCM Board (September 2011). Action 1 requested that the GCOS

Secretariat undertake a systematic review of National Adaptation Programmes of Action (NAPAs) to look for opportunities to collaborate with countries on improving climate observations. The Secretariat undertook this review and determined that forty-five NAPAs were submitted to the UNFCCC of which thirty-one were from Africa. Only thirteen of the thirty-one mention gaps and deficiencies in observing systems. Why did more countries not include gaps in their NAPAs? Possible answers include lack of awareness on the part of policymakers of the role good data play in designing effective policies and lack of adequate communication between National Meteorological and Hydrological Services (NMHSs) and other government agencies. The National Adaptation Plans that the UNFCCC has invited developing countries to develop to follow up on their NAPAs provide another opportunity to consider climate observations.

Action 2 asked GCOS to develop a brochure focusing on why observations are important for addressing important societal needs and to distribute this brochure to NMHSs so they can use it when making the case to their governments for improved observation networks. The Secretariat was not able to complete this action. However, Dr. Sue Barrell of Australia, who made the original suggestion, has asked some of her staff at the Australian Bureau of Meteorology (BoM) to prepare case studies that can be included in the brochure. It was agreed that other examples could be added and, in particular, a WMO-lead project on forecasting for Lake Victoria was mentioned as an additional case study that could be added to the brochure. The Secretariat therefore, with the assistance of the BoM and others, expects to complete this brochure in the first quarter of 2012.

Action 3 asked the Secretariat to collaborate with Dr. David Rogers to strengthen the link between the GCOS Secretariat and the World Bank Global Facility for Disaster Reduction and Recovery (GFDRR). The Secretariat continues to collaborate with David Rogers; however, links with the GFDRR have not significantly strengthened yet.

Action 4 called for the GCOS Secretariat to strengthen links between GCOS and selected regional climate organizations, e.g., ACMAD, and regional climate centers (RCCs) with a view to facilitating follow-up activities related to Regional Action Plans. GCOS is working with the Africa Climate Policy Centre, ACMAD, and others in Africa in conjunction with the Climate for Development in Africa Programme (see item 6). The Secretariat is also partnering with the Centro Internacional para la Investigación del Fenómeno el Niño (CIIFEN) to organize a regional workshop in Guayaquil, Ecuador in March 2012 to consider observation needs supporting climate services for sustainable development.

Action 5 called for the Secretariat to consider identifying and designating from the pool of National Coordinators a representative to attend the WMO Regional Association meetings on behalf of GCOS in the case that representation from the Secretariat or Steering Committee is not possible. This should be discussed at the proposed National Coordinators meeting in 2011 if funding for this meeting is approved. Thus far, this action has not been addressed and funding for the National Coordinator meeting has not been secured.

Action 6 called for the GCOS Secretariat and the Weather Information for All (WIFA) Programme to explore the potential for cooperation to advance the similar goals of each entity. It has not been possible to undertake this action. And Action 7 suggested that the shopping list of projects for consideration by the GCM Board should be circulated to Board members several weeks prior to the meeting and should include projects from the terrestrial and ocean domains. This has been done.

4. Report of the Implementation Project Manager

Mr. Richard Thigpen, the GCOS Implementation Project Manager, gave an overview of his activities since the last GCM Board meeting and provided an indication of what to expect in

the future. His efforts still focus mainly on the GCOS Upper Air and GCOS Surface Networks (GUAN and GSN). Regarding GUAN revitalization activities, he noted equipment repairs at Gan, Maldives; Vacoas, Mauritius; and Harare, Zimbabwe and radiosondes and new ground systems to Dar es Salaam, Tanzania; Mauritius; Khartoum, Sudan; and Rarotonga, Cook Islands. For the future, he has plans to renovate the GUAN station in Luanda, Angola and to provide radiosondes to Yerevan, Armenia and the Maldives. GSN revitalization included replacement of a high performance wind system at Bjelasnica, Bosnia and Herzegovina and renovation of the Aragats High Mountain Station in Armenia. Plans are being developed to renovate GSN stations in Madagascar and to upgrade telecommunications and equipment in the Democratic Republic of the Congo and in Zambia.

Mr. Thigpen noted that significant progress has been made this year by analyzing performance reports. These enable him to keep track of what is being reported and thus of where problems may lie. He stated that he managed to get regional telecommunications hubs (RTHs) to check on each other, and as a result more reports are now being received. Also, since the last GCM meeting, Mr. Thigpen was able to report that the receipt of CLIMAT reports has improved. New reports are now being submitted from Cuba, Brazil, the Central African Republic, the Democratic Republic of the Congo, Zimbabwe, Zambia, and Chad.

A significant accomplishment has been the renovation of fifteen upper air stations in Mexico. To accomplish this, the Implementation Project Officer managed requisition for WMO and was able to save the Mexican government approximately 50 percent of operating costs. It was noted that many countries in Africa could also benefit by using the process that was used in Mexico.

Finally, Mr. Thigpen raised the issue of sustainability and, in particular, how to ensure that improvements could be maintained, what to do about provision of radiosondes once the initial amount supplied by donors had run out, needs for continuing technical support, and the provision of support for Commission for Basic Systems (CBS) Lead Centers. The GCM Board would discuss these sustainability issues in greater detail later in the meeting.

5. Activity Reports by Participating Donor Representatives

Representatives of seven countries provided short reports of activities to improve observing systems that their countries had undertaken or were planning to undertake. In order of presentation these included the United Kingdom, Switzerland, the Netherlands, Germany, Spain, Japan, and Australia.

5.1 United Kingdom

Mr. Steve Palmer of the UK Met Office discussed UK activities in developing countries related to the GCM. He noted that the UK Department of Energy and Climate Change and Department for International Development have established a new International Climate Fund. An initial proposal is being developed for climate science and observations in South Asia.

The Met Office has funding from the UK Public Weather Service for technical cooperation activities in support of NMHSs of developing countries. The aims are to ensure access to high-quality observations from developing countries and to support services for safety of life and property and socio-economic development. A significant proportion of this funding provides long-term support for GUAN observations. In coordination with the Meteorological Service of New Zealand Funafuti in Tuvalu, Tarawa in Kiribati, and Rarotonga (partial) are supported. Radiosondes and balloons are provided to the Seychelles and to Gough Island (operated by South African Weather Services). St Helena is fully supported; this station is now operated by the Government of St Helena, thus making it secure for the long term.

Investigations into methods of resuming GUAN observations from Ascension are in progress. The air sampling programme has resumed with Met Office staff. The dual automatic weather stations (AWSs) on Pitcairn Island are supported.

Over a long period, the Met Office has encouraged and funded development of the Climsoft climate data management system. This package is now part of an ACMAD project for climate data management support, with funding (just started) under the ClimDev Africa Programme. The Met Office is contracted to provide and install AWSs for GCOS and to provide training in Madagascar. The data from these stations will be integrated with manual observations using Climsoft software installed by Kenya Met Dept.

In association with the WMO-led project for Mobile Weather Alerts on Lake Victoria, the Met Office is managing provision of ship-mounted AWSs with sea-surface temperature sensors, and is funding one or two small tethered buoys for placement in marine reserves in Tanzania. The aim is to provide new data on lake surface temperatures, in conjunction with satellite monitoring. These data should give better weather modeling for storms over Lake Victoria and contribute to saving lives.

5.2 Switzerland

Dr. Gabriela Seiz, Head of the Swiss GCOS Office at the Federal Office of Meteorology and Climatology MeteoSwiss, provided a brief overview of Swiss GCOS activities outside Switzerland. She discussed Switzerland's help in reactivating GCOS Upper Air Network (GUAN) Stations in Harare, Zimbabwe and Dar es Salaam, Tanzania. She noted that even after reactivation, the data flow has begun to fall off again and that it is important to monitor activity. A general problem is that unless continuous funding is available, stations may cease operating after the initial funds run out. Twinning and the establishing of Memoranda of Understanding were proposed as two things that may help address this problem.

Dr. Seiz also discussed the Swiss project Capacity Building and Twinning for Climate Observing Systems (CATCOS). This project makes 2.3 million Swiss francs available for capacity building and twinning for climate observing systems in seven countries. The countries include Chile, Colombia, Ecuador, Indonesia, Kenya, Kyrgyzstan, and Vietnam. Cooperation will also be launched with Cooperation Programme with the Peruvian meteorological service (SENAMHI) to establish a WMO Regional Training Centre. Finally, she mentioned the support that Switzerland is providing to the GCOS-CIIFEN South America workshop that will be held in Ecuador in March 2012.

5.3 The Netherlands

Dr. Gé Verver of the Royal Netherlands Meteorological Institute (KNMI) provided a brief update on the GCM activities of the Netherlands. Between 2007 and 2011, the Netherlands has contributed approximately 900,000 euros to the GCM for improving climate observations in Africa, of which about 100,000 euros were made available in 2011. These funds have been used for the installation of hydrogen generators for balloon soundings in the Seychelles and Niger, radiosondes in Mauritius, a training workshop in Namibia, and for renovation of the surface networks in Angola, Madagascar, and Zambia. However, Mr. Verver said that future funding was uncertain and that 2011 may be the last in which the Netherlands will be able to contribute to the GCM.

It was noted that KNMI has a joint project with Indonesia. The project, which has been funded between 2009 and 2011 for 300,000 euros, consists of digitization of historical climate observations in Indonesia, provision of technical infrastructure (including database techniques and diagnostic tools), and capacity building. Future funding for the project is uncertain. Another project supporting the Surinam Meteorological Service at about 100,000

euros per year to deliver tropospheric and stratospheric observations is ongoing, but future funding is uncertain.

5.4 Germany

Mr. Stefan Roesner of the Deutscher Wetterdienst noted that Germany is considering digitization of data in Indonesia. In its cooperation funding, its desire is that the countries that it supports can eventually become self-supporting. Mr. Roesner noted that Germany expects to support the GCM again this year.

5.5 Spain

Mr. Francisco Pascual Perez of Oficina Española de Cambio Climático (OECC) discussed a number of things that Spain is doing in developing countries. The current economic situation is making contributions difficult. However, Spain has supported ozone sondes in Argentina and aerosol measurement equipment in North Africa. It has provided support for the African Centre of Meteorological Applications for Development (ACMAD) and for CIIFEN. It has a trust fund in WMO that provides seed money in West Africa for maritime meteorology for 4 countries for a health program where meningitis related to dust events is studied. A similar program exists in South America where, for example, a conference of NMHS directors is organized using the Spanish trust fund in WMO. Spain also assists with the Red Iberoamericana de Oficinas de Cambio Climático (RIOCC), a network that consists of national climate change offices in Latin America and promotes South-South cooperation. A conference of directors of water resources agencies will be held soon to promote awareness of policymakers.

5.6 Japan

Dr. Katsumasa Yagi of the Japan Meteorological Agency gave an overview of Japan's contributions to improving the global observing system for climate. He noted that Japan has supplied radiosondes to the GUAN station at Rarotonga in the Cook islands and that it has renovated two GSN stations, Pukapuka and Penrhyn, also in the Cook islands. It provides additional support through the WMO Voluntary Cooperation Program (VCP) fund.

Japan has also supported training seminars on seasonal forecasting, climate system monitoring, etc. at the Tokyo Climate Center (<http://ds.data.jma.go.jp/tcc/tcc/index.html>), and the Japan International Cooperation Agency (JICA) conducts a series of training courses in meteorology, including courses on seasonal forecasting and down-scaling.

5.7 Australia

Dr. Sue Barrell, representing Australia, observed that although Australia provides no direct contributions to the GCM, it does provide funding through AUSAID for countries mostly in the Pacific area. Australia's support to Pacific countries has focused on calibration, working with Pacific meteorological services such as Niue. A major activity is upgrading sea level monitoring networks in the Pacific.

Australia is now configuring a multi-year programme, the funding for which will be used mainly for climate prediction and is not directed at improving observations *per se*. It is also developing a climate data portal and is encouraging meteorological services in the Pacific region to use data, for example, by working with agriculture and environment departments.

5.8 General Discussion following Country Reports

A key concern introduced earlier by the Implementation Project Manager, namely the issue of sustainability, was addressed in more detail following the last of the country reports. Board Members were concerned with how developing countries could be encouraged to continue launching balloons once their initial donor-funded supplies had been exhausted. It was observed that countries need to be convinced that using their own funds to continue operations is for their own benefit. It was proposed that costs could be cut by launching only when needed; however, this approach was seen as not what is needed for climate. Another noted that the GUAN is the key to calibrating satellite data and also that these data are needed to validate regional climate models, so, as such, upper air data are coming back into their own. Still, donors noted that it is difficult to finance operations on a sustainable, long-term basis. One proposal was to create a leaflet that would explain the importance to countries of sustaining radiosonde launches. It was suggested that the draft of this leaflet could be supported by experts from the Regional Climate Centres. Another was to send a letter to those countries that have received support indicating that, although we have been happy to support them in the past, it is not possible to continue support indefinitely, and then indicating the reasons why maintaining operations is important. Some meteorological services have indicated that a letter of this sort might be used internally to secure more national funding for continuing operations. Finally, the GCM meeting attendees suggested that a letter to raise interest in the GCM should be sent to developing countries, and that the leaflet on the sustained need of radiosonde launches should be enclosed.

It was noted that the European Union has submitted a document to the UNFCCC addressing the support provided to developing countries by European countries. Some contributions from countries other than those described above are noted. The document may be found on the web at http://unfccc.int/files/adaptation/application/pdf/pl_fm_observation.pdf.

A question of supporting data use projects was discussed. For example, it was suggested that projects to develop data portals or data visualization products might be considered for support through the GCM. This suggestion was generally not supported, although free exchange of data would continue to be encouraged. Likewise, an opinion was expressed that the GCM should probably not become involved in supporting climate services. It was generally agreed that the value of the GCM was to focus on hardware and that the functions of the GCM should not be expanded at this time. A final suggestion was that the GCOS Secretariat should also send a letter to stimulate potential donors to provide additional funding for observing system improvements. This letter should in general raise awareness of the GCM. The group suggested linking the rationale for supporting the GCM to the GFCS efforts underway and emphasizing that climate data are not only useful for calibrating satellite data and climate models but are also relevant for socio-economic use. It was also recommended to use this letter to promote data exchange and to stress that data from the ocean domain are as important for forecasting as data from the atmosphere domain.

6. Opportunities for Funding Observing System Improvements through the Climate for Development in Africa Programme

Dr. Seleshi Bekele Awulachew of the newly established Africa Climate Policy Centre (ACPC) was invited by the GCB to update the Board on recent developments in the Climate for Development in Africa Programme (ClimDev Africa). The ACPC is housed within the UN Economic Commission for Africa (UNECA) and serves as the secretariat for ClimDev Africa. Dr. Bekele provided a comprehensive overview of the development, goals, and objectives of ClimDev Africa. This included discussion of the three “Result Areas” addressed by the Programme: 1) high-quality, reliable, and widely available and disseminated climate information, 2) quality analysis for decision support and management practice, and 3) informed decision-making, awareness and advocacy.

Within the Result Area of most interest to GCOS Dr. Bekele noted the following specific needs that the programme was intended to address:

- Rescue of historical data;
- Observation and data management;
- Upgrade of telecommunications and of observation and data collection systems for upper air and surface networks;
- Quality monitoring for greenhouse gases, air quality, inland lakes, African oceans, coastal environments, and glaciers;
- Detection and attribution of carbon sources and sinks;
- Early warning and seasonal forecasting;
- Long-term climate projections and scenarios; and
- Climate information packaging for all climate sensitive sectors and end users.

These needs, it should be noted, originated from the GCOS Regional Action Plans for Africa and were again reflected in the report of the 2006 stakeholder meeting that GCOS and UNECA organized in Addis Ababa, Ethiopia.

The ACPC was established to address the policy component of ClimDev Africa, and therefore Dr. Bekele reviewed the work programme of the ACPC. Part of the ACPC's mandate deals with advocacy and communication, and, in this regard, Dr. Bekele discussed the Climate Change and Development in Africa Conference. This first annual conference, to be held in October, has been designed to enhance awareness of climate change in Africa. It will also serve to help familiarize people with the ClimDev Africa Programme. On this same theme, he discussed preparations for the Africa Pavilion and Africa Day at COP 17 in Durban, South Africa and the ACPC goal of developing a communications strategy to ensure that climate and development information is targeted and makes it to all relevant audiences.

Finally, opportunities for partnership with both the ClimDev Africa Programme and ACPC were highlighted. As a member of the ClimDev Africa Steering Committee, the GCOS Secretariat is well-placed to help identify climate observing priorities in Africa.

7. Thoughts on UNFCCC Funding Mechanisms

Mr. Rocio Lichte of the UNFCCC Secretariat gave an overview of existing funds associated with the UNFCCC that may be applicable for improving climate observations in developing countries. These are the:

- Global Environment Facility (GEF) Trust Fund;
- Least Developed Countries Fund (LDCF);
- Special Climate Change Fund (SCCF); and the
- Adaptation Fund under the Kyoto Protocol .

In Cancun it was decided to establish a Green Climate Fund (GCF). A significant share of new multilateral funding for adaptation should flow through this fund, for which the World Bank will be the interim trustee. In the Cancun Agreements, observations are mainly considered in the context of adaptation.

In the UNFCCC negotiations funding needs for the improvement of systematic observation in developing countries are currently under consideration. The conclusions of SBI 34 (June 2011) under the agenda item Financial mechanism noted the additional funding needs in the 2010 GCOS IP and emphasized that it would be important that these be taken into account in the future financial architecture of the Convention. The negotiations on this matter will be continued in SBI 35 in Durban, and the GEF will provide its annual report to COP, where it will clarify whether, and to what extent, funding observations fall within its mandate. For the

SBI in Durban, Parties were invited to indicate information on support provided to developing countries and activities undertaken to strengthen existing and, where needed, establish national and regional systematic observation and monitoring networks. (Mr. Stefan Roesner of Germany informed the Board about the recent EU Submission to the UNFCCC addressing this invitation). The information submitted will be compiled by the UNFCCC secretariat together with related information from Annex I national communications. Both the information provided by Parties and the compilation prepared by the UNFCCC secretariat will be made available on the UNFCCC website prior to the Durban Conference.

During the discussion following Ms. Lichte's presentation, it was noted that a process to identify sustained support for observations was started at the COP session in Posnan, Poland and that this process is continuing. It was highlighted that it would be useful if the financial experts in the national UNFCCC delegations were briefed by their respective national experts in climate observations. It was suggested that the overarching organisations in meteorology, oceanography, and terrestrial research approach appropriate national entities with this recommendation. A first opportunity to do so will be the GCOS Steering Committee meeting immediately following the GCM meeting on September 20. More generally, given that few who take part in SBI negotiations know much about observations, it was agreed that other opportunities to inform them on the funding needs for observations in developing countries should be sought. One participant emphasized that to date no funds have been provided to improve observations from any of the funding mechanisms cited above. Hence, networks are getting worse and qualified people are being lost.

The participants suggested establishing a link between the GCOS National Coordinators and the GEF coordinators. The GCOS Secretariat will draft a letter to be sent by the heads of WMO and IOC to ask their Members to send experts not only to the SBSTA but also to the SBI meetings.

8. A World Bank Initiative

Dr. Gabriela Seiz, in the absence of Dr. David Rogers, briefed the Board on an initiative of the Global Facility for Disaster Reduction and Recovery (GFDRR) of the World Bank. The initiative, strengthening Weather and Climate Information and Decision-Support Systems (WCIDS), is designed to strengthen NMHSs in developing countries. A handout was distributed at the meeting which noted that WCIDS "will mainstream development of modern, sustainable, service-oriented weather and climate information systems into the GFDRR and World Bank portfolio. The Program will work as a service centre providing analytical, advisory, and implementation support for GFDRR/World Bank teams." The GCM Board took note of this initiative, and the Secretariat agreed to investigate further.

9. The Project List for Atmospheric and Oceans Domain Projects

Mr. Dick Thigpen, the GCOS Implementation Programme Manager, presented his 2011 project candidate (shopping) list for atmospheric domain projects to the GCM Board. This list is appended to this report as Annex 3. It contains projects addressing needs for telecommunications upgrades, technical support, provision of radiosondes, data rescue, renovation of GSN and GUAN stations, and renovation of a solar power system for a baseline solar radiation station (BSRN) station. It also contains several projects addressing observation needs in the oceans domain, including a project to enhance the Global Sea Level Observing System (GLOSS) network, a project to establish several moored buoys in the Western Indian Ocean, and a project to provide support to the Prediction and Research Moored Array in the Atlantic (PIRATA) network.

10. Some Priorities in the Ocean Domain

Dr. Eric Lindstrom, the Chair of the Ocean Observations Panel for Climate (OOPC), gave a short presentation highlighting priorities for ocean observations. He noted that the “shopping list” projects this year were the same as those for last year, as none that had been proposed last year had been implemented yet. This observation raised the question of whether the GCM, as it is currently structured, is an appropriate mechanism for funding ocean domain observation needs. Dr. Lindstrom observed that academic scientists play a much larger role in the ocean domain and that needs for research tend to dominate. Moreover, ocean funding is done in different ways in different countries, and the IOC and WMO are organized quite differently. He suggested that because of these differences one might need a different cooperation mechanism for each ocean observing system. This discussion did not lead to any definitive conclusions; however, the Chair suggested that the GCM as it relates to the ocean domain should be taken up again in the GCOS Steering Committee session.

Dr. Lindstrom made several helpful suggestions at the end of his presentation. He suggested that formal guidance be provided to potential project preparers on funding agency interests in GCOS so that project proposals would be of appropriate relevance and scale. He also suggested that those who prepare proposals be given feedback, e.g., on the reasons for failure of a proposal, so that future proposals could be improved. It would likewise be helpful if project proposers could be given criteria in advance for what a successful proposal needs to contain.

11. Summary

The Chair briefly summarized some of the key points he saw emerging from the meeting. He noted that:

- Sustainable financial support for the Implementation Project Manager is needed;
- The “shopping list” should continue to contain projects in all domains and should be distributed before meeting;
- Interest by developing countries in the GCM is growing;
- Countries need to be stimulated to continue activities after receiving initial help. A brochure explaining the importance to countries of sustaining balloon launches might be drafted to address this concern;
- A letter to potential donors could be drafted to try to raise additional funds;
- The importance of data exchange could continue to be emphasized;
- Financial experts in national delegations to the UNFCCC could be contacted to familiarize them with observing system issues in advance of SBI negotiations. Letters on this topic might be sent from the heads of WMO and the IOC;
- An open-ended discussion on the suitability of the GCM for the ocean domain was inconclusive but could be taken up again in Steering Committee session; and
- A brochure on why observations are important for addressing important societal should be finalized.

Mr. Monna thanked the Board members for their participation and formally closed the meeting.

SUMMARY OF ACTIONS

1. The GCOS Secretariat, with the assistance of the BoM and others, to complete a brochure on why observations are of benefit for socioeconomic sectors in the 1st quarter of 2012.
2. The GCOS Secretariat to draft a leaflet that would explain the importance to countries of sustaining radiosonde launches in the 1st quarter of 2012.
3. The GCOS Secretariat to draft a letter to developing countries to ask for the continued support of radiosonde stations. The leaflet on the importance of radiosonde launches should be enclosed.
4. The GCOS Secretariat to send a letter to potential donor countries to raise further awareness to the GCM, in the 1st quarter of 2012.
5. The GCOS Secretariat to draft a letter to be sent out WMO and IOC to ask Members to send experts to the UNFCCC SBI as well as to SBSTA sessions. This should be done before COP-17.
6. The “shopping list” should continue to contain projects in all domains and should be distributed before the next meeting.
7. The next GCM meeting to be scheduled, if possible, in conjunction with the next UNFCCC SBSTA, i.e., May 2012.

Seventh Meeting of the GCOS Cooperation Mechanism Board

**ECMWF Headquarters, Reading, United Kingdom
Council Chamber
19 September 2011**

Chairman: Wim Monna, The Netherlands

Final Agenda

Coffee available from 1030 in the Concourse outside the Chamber.

- 1100 – 1115 1. Welcome and Introductions—Simmons and Monna
- 1115 – 1130 2. A review of the functioning of the GCOS Cooperation Mechanism—Richter
- 1130 – 1145 3. Status of actions from last meeting—Westermeyer and Thigpen
- 1145 – 1245 4. Short activity reports by participating donor representatives—countries to be determined
- 1245 – 1345 Lunch
- 1345 – 1415 5. Opportunities for funding observing system improvements through ClimDev Africa—Bekele
- 1415 – 1500 6. Thoughts on UNFCCC Funding Mechanisms—Lichte
- 1500 – 1530 Break
- 1530 – 1545 9. World Bank Initiative—Seiz
- 1545 – 1615 10. Potential renovation projects in the atmospheric domain—Thigpen
- 1615 – 1645 11. Some priorities in the ocean domain—Lindstrom
- 1645 – 1700 12. Discussion
- 1700 – 1715 13. Summary—Monna

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Seventh Meeting of the GCOS Cooperation Mechanism (GCM-VII) Donor Board

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GCM Project Candidates for 2011

€65K Telecommunications up grade for Zambia

Replacement of the SSB radio system used to communicate between the observing stations and the headquarters office. Eleven radio sets are needed in order to re establish this communication.

€70K Technical Support Person in Africa

It is important to have an actual person in Africa to be our contact person and to work with countries to resolve problems. It is also much less expensive than issuing a purchase order each time assistance is needed. We have tried this direct hire on an interim basis and it seems to work well. This would provide one person for one year.

€300-1000K Additional radiosondes

Several GUAN stations routinely require support with radiosondes and balloons. Stations such as Costa Rica, Gan, Mauritius, Zimbabwe, Yerevan, Bauerfield, Rarotonga, Tanzania, PNG, and others will need radiosondes. (About €50K/year per supported station)

€60K Data rescue Project for Yemen

An important amount of historical data for stations in Yemen has been found in the library at the UKMO. Staff from Yemen would assist in the project. This project would provide for the rescue of that data.

€50K Coordination meeting of GCOS Focal Points in South America

One of the CBS lead Centers would host on a trial basis, a coordination meeting of the GCOS Focal Points within the region. This has been suggested at the CBS lead Center Meeting and would likely be held in South America

€180K Renovation of GSN stations in Zambia

Replacement of 4 GSN stations with AWS units with associated radio communication equipment. Further a replacement of the Automatic Message Switching System (AMSS) for GTS connection is needed. They currently use e-mail to send reports and their data is missing most of the times on GTS.

€200K Central African Republic

Replacement of 3 AWS with associated radio communication equipment for data transmission for the 3 GSN stations. Also replace the Automatic Message Switching System (AMSS) for GTS connection. They currently use AFTN but most of the time their data is and CLIMAT reports are missing.

€50K Solar power system for BSRN station at Ilorin, Nigeria

The baseline solar radiation station at Ilorin, Nigeria needs a solar power generating equipment to provide reliable power. The University of Ilorin would continue to operate the station and the Met Service of Nigeria would assist in the installation.

€1.5M Enhancing the GLOSS network

Repair of existing stations and installation of addition tide gauges and co located continuous GPS equipment. GLOSS consists of 300 stations, only 60% are operational. Traveling technician support to the network for 5 years.

€1M In-Situ Western Indian Ocean Met/Ocean Observing Network

Establishment of a network of 5 climate/ocean mooring along the African east coast. The needed five moorings would cost around 600K and support around 200K/year for 2 years.

€250K PIRATA Southeast Extension

Technical support for 3 years including training of technician to support the deep ocean mooring at 6°S 8°E. This is a network of 17 deep ocean moorings with this critical 18th mooring currently not operational.

€250K Luanda, Angola (GUAN addition)

Renovation of the upper air station at Luanda. It needs a new hydrogen generator, upper air equipment, and consumables for at least one year. The actual observing building is no longer useable and the Angolan Met Service has repaired one building but needs to construct a new balloon inflation building. This is the highest AOPC priority for additional GUAN. Currently on hold as projects in Angola are very difficult to manage.

€50K CLIMAT/CLIREP Workshop in Pacific

Three of these workshops have been held so far. Based on the performance of stations, the countries in the Pacific will be addressed next. This workshop was scheduled last year but cancelled because of lack of funds.