WORLD METEOROLOGICAL ORGANIZATION

REPORT OF JOINT MEETING

EXECUTIVE COUNCIL WORKING GROUP ON CAPACITY BUILDING

&

INFORMAL PLANNING MEETING OF THE VOLUNTARY COOPERATION PROGRAMME

DUBROVNIK, CROATIA

18-20 MARCH 2009

1. OPENING OF THE MEETING

1.1 The Executive Council Working Group on Capacity Building (EC-CB) held its first formal session since establishment in the historic Croatian city of Dubrovnik from 18 to 20 March 2009. On this occasion, the meeting was held jointly with the Informal Planning Meeting (IPM) of the Voluntary Cooperation Programme (VCP) under the joint chairmanship of Mr Tyrone Sutherland (British Caribbean Territories for EC-CB) and Mr Steve Palmer (UK for IPM). The meeting was attended by nominated EC-CB Members or their representatives from the Cook Islands, Finland, Namibia, Republic of Korea and Spain, and IPM representatives of Australia; Canada; China, Croatia, France; Japan, New Zealand, South Africa, Russian Federation, UK and USA and the Mission of Sudan to the UN. The full list of participants is given in **Annex I.**

1.2 Brief opening addresses were provided by:

- Mr T. Sutherland, Chair EC Working Group on Capacity Building (EC-CB)
- Mr S Palmer, Chair Informal Planning Meeting of VCP (IPM)
- Ms Vlasta Tutis, Meteorological and Hydrological Service of Croatia on behalf of Mr Ivan Cacic, Director of Meteorological and Hydrological Service of Croatia and PR to the WMO
- Mr R. O. Masters, Director, Development and Regional Activities Department, WMO

2. ADOPTION OF THE AGENDA

2.1. The Agenda agreed by the meeting is given in **Annex II.**

3. REPORT OF THE VCP 2008

VCP and VCP Coordinated Activities 2008

3.1. The Meeting was informed of the activities supported at the national level in developing and least developed countries under the Voluntary Cooperation Programme including through the VCP (F) and through activities coordinated through WMO VCP (ES).

3.2. The Meeting welcomed the information that in 2008, in addition to major regional development projects, support in the form of replacement, upgrading and extension of observing and communications infrastructure was provided through the VCP Programme through the various funding mechanisms, with some 20 countries receiving support through the VCP (F) (including short-term fellowships) while seven countries were supported under the VCP (ES) Mechanism. (Full details are provided in **Annex III**.) In terms of VCP (ES) and VCP (F), support provided amounted to some US $2.2 million equivalent. Additionally, ten Members made new cash contributions to the VCP Fund (VCP (F)), amounting to approximately US $272,748.

Bilateral Technical Cooperation Activities 2008

3.3. The meeting was also informed of a broad range of development assistance being provided through bilateral means by WMO Members to improve delivery of climate, weather and water services in developing country Member states including the efforts of Australia, Canada, China, Finland, France, Japan, New Zealand, Republic of Korea, Russian

Federation, South Africa, Spain, UK and USA (**Annex IV**). A wider range of countries were supported through bilateral arrangements with financing of some US $11.5 million equivalent value of support provided bringing total support to some US $13.4 million.[1]

3.4. Regarding bilateral reporting, there was discussion regarding the great variation in the nature and scope of reports making it difficult to obtain a full picture of Member's activities or treat respective activities consistently. Additionally not all Members engaging in bilateral development cooperation are reporting. The group therefore recommended that the Secretariat develop a template for reporting on bilateral cooperation activities and also try to secure reporting from all Members engaged in cooperation activities in order to arrive at a true picture of inter-membership cooperation support within the WMO Community.

3.5. The RMO brought attention to the fact that the trend in VCP over the past five years through the VCP (F) and (ES) Programme indicates a fairly constant support of this VCP mechanism but that the overall trend in real value terms would however constitute a decline in use of VCP mechanisms to channel support to developing country Members. In this respect, it was stressed that the VCP (F) and VCP (ES) mechanisms provide very valuable and fairly immediate short-term support to countries to enable them to maintain operations while also moving towards the development of strategic plans for longer-term development (as described below). Members are urged that these mechanisms not be abandoned by donor Members but that Members continue and increase their support in these areas which are a necessary compliment to broader development activities.

4. MAJOR DEVELOPMENT PROJECTS

4.1 The Secretariat provided an overview of the significant strategic work being undertaken by the WMO Resource Mobilization Office and the DRA in respect of regional programmes for capacity enhancement of NMHS in West Africa, South Eastern Europe, Central Asia, Pacific and the Americas in cooperation with WMO Members (Finland, Italy, Republic of Korea, Spain and USA) and with major partners such as World Bank, Rockefeller Foundation and UN system partners UNISDR, UNDP and others (**Annex V**).

4.2. A Case Study on the NMHS Development Project in South Eastern Europe is a multi-partner initiative supported by EU/WB/UNDP/WMO/UNICEF which was presented as means of illustrating the regional and strategic partnership approach being taken. An assessment of socioeconomic benefits has been carried out by the World Bank for this initiative, which could serve as a good example for other regions.

4.3 The group strongly supported this regional and partnership oriented approach to development assistance for improvement of weather, water and climate services and urges the Secretariat to continue working in this way and to encourage other WMO Members to consider supporting such regional development projects. The meeting also noted however that the human resources allocated to management of technical cooperation projects has declined significantly in recent years and urged the Secretary-General to consider the need to enhance the capacity for project management and support of the VCP Programme.

4.4 The group noted the welcome trend towards support for major development programmes by Members as complimentary to VCP and a significant contribution to development cooperation activities overall, noting that in 2008 some US $12 million additional funds was secured for major development activities from WMO Members while in total some US $17.5 was secured for regional development projects overall.

[1] The real figure in terms of development cooperation within the WMO community is of course much higher as this related only to what is reported by IPM Members.

5. CAPACITY BUILDING IN THE WMO SYSTEM

5.1 The meeting was informed on the priority needs and opportunities for capacity building of the developing country Members as offered by the WMO Technical Programmes (**Annex VI**).

5.2. The group held extensive and wide-ranging discussions on capacity building and development needs in the WMO system, including priorities for the immediate future. Key areas discussed included: Observing and Information Systems (GUAN, GSN, RBSN, RBCN), Communications (WIS); Forecasting (SWFDP, use of NWP); Weather and Disaster Risk Reduction Services (PWS, DRR), Global Climate Observing System (GCOS), Climate Database Management Systems (CDMSs), Climate Prediction and Adaptation (CLPA), Least Developed Countries and Small Island Developing States (LDCs and SIDS), Human Resources Development (Education and Training).

5.3. The meeting noted that the development assistance needs of developing and least developed countries Members as expressed through requests for assistance to the VCP continued to focus on primary equipment needs, telecommunications and human resources development, aimed at keeping their NMHSs at current operational strength. It was felt that, while these needs were the first priority of such services, this approach was not necessarily the most appropriate framework for the NMHSs to manage internal development with respect to the major international advances in applications and technology. The meeting felt that requests for assistance, other than in the case of requests for emergency assistance, should be based on a formal and well articulated and sustainable NMHS development plan that is linked to an overall national development plan, on one hand, and to a regional strategic plan for the NMS that reflects the global programmes of WMO and relevant partners. Such an approach, it was felt, would be much more attractive to the VCP partners and other funding agencies that can better match their own priorities with national or regional priorities for capacity building.

5.4 In this connection, the meeting felt that the WMO Executive Council should discuss the merits of linking development assistance to Member States to such NMHS development plans and urged the Secretary-General as a priority to develop a model and assist developing countries with development of such plans for the NMHSs. The meeting also considered that there should be a stronger focus by the WMO and the VCP partners on regular management training for staff of developing country NMHSs that would contribute to the successful and sustainable development of the NMHSs.

5.5 In considering the major scientific and technological advances in meteorological and related applications that are occurring under the auspices of the WMO and partners it was noted that most are international in nature and impact the NMHSs in all WMO Member States in that that all Member States need to embrace and adapt to these advances in a coordinated manner for the advancement of the entire system for the benefit of humankind. The Meeting agreed that while these advances are vital for enhancement of capacity of NMS there is an urgent need to develop specific plans for the introduction of these advances to developing countries including implementation of the Demonstration Projects and taking into account also the costs and ongoing support requirements of developing countries in uptake of new technologies.

5.6 The Meeting expressed concern that many of the major development programmes articulated by the WMO Technical Commissions and Programmes are not linked to clear implementation proposals to transfer the technology or introduce new systems to developing countries, and that developing country NMHSs are still being recommended to install legacy systems even though these have been unsustainable in the past. The Meeting felt that the

Technical Commissions and WMO Programmes and Departments need to work on definite projects, in collaboration with donors that would address these matters.

5.7 In this regard EC-CB commended the WMO progress on development of the WIS but observed that at this stage of development it is essential that WIS implementation be piloted aggressively at the country and regional scale and especially in the developing country context in order to demonstrate how such countries can benefit of uptake of WIS concept. In this regard it is essential that lessons learned and the cost-benefit of various approaches be rigorously documented.

5.8 EC-CB/IPM noted with concern that many GSN/GUAN stations are silent and noted also that the majority of the VCP requests for assistance relate to reactivation of such silent stations and the provision of consumables for GUAN stations. The meeting noted that upper-air observations from the GUAN stations in particular constitute a "global public good", but that the burden of these observations falls disproportionately on the developing countries hosting these sites, particularly the LDCs and SIDS. The meeting considered that there is an urgent need to review the network requirements for these systems in terms of essential stations for the purpose of prioritising assistance to maintenance and operation of these stations. The EC-CB urges Members to consider how these stations can be supported to resume and continue operations.

5.9 The Meeting further highlighted that there are existing provisions in the UNFCC documents that commit signatories to fund the cost of observations essential to global climate monitoring. The Meeting suggests that the Secretary-General should work through WCC3 and Copenhagen 2009 to activate this provision. The Meeting also requests all Members to include information on this in their input to national delegations to WCC3 and Copenhagen 2009.

5.10 In this regard, the Chair of EC-CB agreed to bring the above concerns (paragraphs 21 to 25) to the next session of CBS (Croatia, March-April 2009), the EC Working Group on the Role and Operations of NMHSs and to the Executive Council (**See Annex XII**).

6. OUTLOOK OF VCP 2009/10 AND ENHANCEMENT OF VCP MECHANISMS

6.1 This session focussed on an exchange of views of potential WMO donor Members on the issues requiring action under the VCP umbrella in an informal manner with a view to or better co-ordination on delivery of assistance. Participants provided a short summary on their respective future priorities and envisaged future VCP activities to be supported.

6.2 The meeting considered the VCP process and provided advice as appropriate for actions to enhance and / or improve the process considering the nature and level of unsupported VCP requests (**Annexes VIII and IX**) and also the delays being experienced in the procurement process.

6.3 The Meeting further considered that the rules governing the VCP continue to be appropriate, and that the VCP mechanism is greatly valued by recipient Members. However, the Meeting was concerned that the management processes need to be simplified to operate in a more effective and efficient manner in terms of delivering services to Members. The Meeting therefore recommended that:

- VCP requests could be opened to the donor Members for advice as soon as they are received, to remove the current long delays in inspection by the Technical Programmes and the subsequent approval for circulation by Secretary-General and that the donor Members should enlist the help of technical experts in NMS in these evaluations;

- where VCP requests have been partially fulfilled, the original request should be retired and, if appropriate, a new request for the remaining elements should be submitted;
- where appropriate, the mechanism in the VCP rules should be used to reformulate requests into regional or other groupings, with a view to identifying additional resource mobilization opportunities;
- the current system of rule-based priorities is not helpful, so the evaluation should take account of conformity with NMHS strategic plans and national development plans and disaster platforms, role and operations of the NMHS and the development status of the country.

6.4 Noting that there is currently a serious delay in getting formal technical endorsement for determination of specifications and evaluation of offers for equipment and instruments for Voluntary Cooperation and Emergency Assistance Projects procurement for developing country Members, it was proposed that the CBS might assist in this regard by establishment of a panel of voluntary experts to give technical support and approval for procurement of goods and services through these mechanisms. In this context, EC-CB/IPM resolved to request CBS during its XIV Session in Dubrovnik, to assist the Secretariat in this matter through its relevant bodies.

6.5 Regarding the **WMO Project Support Cost Policy**, EC-CB decided to request the SG to initiate a full review of this policy with a view to moving to a Full Cost Recovery model as IPM members considered that the current model is actually a deterrent to donor Members with respect to running development projects through the WMO rather than on a bilateral basis and considering also that many of the main financing mechanisms such as the World Bank and the European Commission have Overhead Cost limits that would not comply with the WMO Policy.

6.6 The **WMO Revolving Fund** mechanism was reviewed. The meeting recommended consulting D/LDCR and taking a decision as to whether this mechanism should be maintained since it has not been utilized in the last few years by developing countries.

6.7 The Meeting noted the progress on implementation of the **WMO Country Profile Database**, and welcomed the offer by the United Kingdom to make technical expertise available to facilitate the design and implementation including consultation with EC-CB and IPM Members.

7. INTERSESSIONAL WORKING MECHANISMS OF THE EC-CB

7.1 The meeting considered RESOLUTION 10 (EC-LX) governing the expanded Terms of Reference of Executive Council Working Group on Capacity Building (EC-CB) (constituted to replace the EC Advisory Group of Experts on Technical Cooperation (EC-TC) but with a much broadened Terms of Reference.

7.2 Considering the working mechanisms and focus of the EC-CB in the interim to the next Congress, the EC-CB/IPM participants expressed concern at the poor progress and work of the group to date and were of the view that the WG should focus its efforts on two or three issues of significant importance in terms of capacity of LDC Members and identify time-bound actions that would be delivered in the remainder of the 2008-2011 inter-session period. In this regard, the meeting identified the following specific areas that could benefit from specific EC-CB attention:

- EC-CB to work with CBS in one or more development projects aimed at uptake of WIS / WIGOS in specific regions in order to demonstrate how the countries and region can uptake and benefit of WIS concept.

- EC-CB and CBS to establish a Task Team to follow up the issue of maintenance and operation of global meteorological observing networks in particular in developing, LDCs and SIDS.

- EC-CB strongly supported the regional and partnership oriented approach to development assistance for improvement of NMHSs. EC-CB will work with the Secretariat to encourage other WMO Members to consider supporting such regional development projects.

- Recognising the need for EC-CB to not only guide but engage in such matters and improve coherence amongst EC-CB and other constituent bodies. EC-CB will establish a presence and be an advocate at EC and beyond on such matters

- EC-CB will actively enhance its attention to support resource mobilization activities.

8. ANY OTHER BUSINESS

8.1 No additional items were raised.

9. DATE AND PLACE OF THE NEXT MEETINGS OF THE EC- CB AND IPM

9.1 The next meeting will take place in March 2010 in Geneva.

ANNEX I

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EC Working Group on Capacity Building &
Informal Planning Meeting on the Voluntary Cooperation Programme

Dubrovnik, Croatia, 18-20 March 2009

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ANNEX II

WORLD METEOROLOGICAL ORGANIZATION

Joint Meeting

EC Working Group on Capacity Building
&
Informal Planning Meeting Of The
Voluntary Cooperation Programme

Dubrovnik, Croatia
18-20 March 2009

AGENDA

1. **OPENING OF THE MEETING**
2. **ADOPTION OF THE AGENDA**
3. **REPORT OF THE VCP 2008**
4. **MAJOR DEVELOPMENT PROJECTS**
5. **CAPACITY BUILDING IN THE WMO SYSTEM**
6. **OUTLOOK OF VCP 2009/10**
7. **ENHANCEMENT OF CAPACITY BUILDING AND TECHNICAL COOPERATION PROCESSES (INCLUDING VCP)**
8. **WMO COUNTRY PROFILE DATABASE – UPDATE ON PROGRESS**
9. **INTERSESSIONAL WORKING MECHANISMS OF THE EC-CB**
10. **ANY OTHER BUSINESS**
11. **DATE AND PLACE OF THE NEXT MEETINGS OF THE EC-CB AND IPM**

ANNEX III

VCP AND VCP COORDINATED ACTIVITIES 2008

1. MANAGEMENT OF THE VOLUNTARY COOPERATION PROGRAMME

The VCP is now managed through the Resource Mobilization Office in the Development and Regional Activities Department. WMO Regional Offices are now playing a more active role in VCP project definition, assessment and evaluation and assist countries with project implementation as required.

VCP Management Activities focused on:

- Review of outstanding VCP requests and discussions with Scientific Programmes and Regional Offices concerned in order to support valid projects using the VCP(F).
- Response to VCP Members' requests for assistance using the VCP(F), the Emergency Fund or through the VCP Coordinated Programme.
- Strengthening working relationship with Scientific Departments and Regional Offices for support of VCP projects.
- Upgrade of Website.

Various efforts by the WMO Secretariat continued to be made to enhance the visibility of TCO and VCP Programmes, and to ensure the cost-effective and efficient management of the VCP Programme and the timely distribution of the relevant information to Members as well as the general public.

1.1 2008 Informal Planning Meeting on the VCP and related Technical Cooperation Programmes

The 2008 Informal Planning Meeting (IPM) on the Voluntary Co-operation Programme (VCP) and related Technical Co-operation Programmes met in Pretoria in March 2008 to discuss the Voluntary Cooperation Programme. The meeting was attended by the representatives of the following WMO Members: Canada; China; Egypt; Finland; France; Germany; Japan; Kenya; Republic of Korea; Russian Federation; South Africa; Spain; UK and USA. IPM requested the Secretariat to facilitate close interaction between IPM and the EC-Working Group on Capacity Building EC-CB) as they considered that the EC-CB could be a conduit for the donor community to bring their issues, concerns and ideas to the EC.

The meeting welcomed the further development of innovative approaches for the mobilization of resources with the creation of the Resource Mobilization Office (RMO) within the DRA Department, and the integration of Regional Offices and WMO Offices in the Region into the resource mobilization and advocacy processes of the whole WMO. The meeting was informed that the approach is to build relationships with regional political and economic groupings and to co-ordinate both within WMO and across the UN organizations and development partners (e.g., World Bank, European Commission), with an emphasis on developing regional scale projects. The aim is to work with partners to develop and execute multi-country, multi-year projects and also aiming to build long-term relationships between developed and developing country NMHSs.

1.2 Executive Council Working Group on Capacity Building (EC-CB)

An informal meeting of the EC Working Group on Capacity Building was organized in the WMO Secretariat on 17 June 2008, prior to EC LX. In addition to nominated EC-CB Members, the meeting was attended by the representatives of Australia; Canada; Egypt, Finland; France; Germany; Japan; Republic of Korea; Spain; UK and USA.

As the Working Group on Capacity Building established by Resolution 2/5 (EC-LIX) has a much broadened Terms of Reference, the meeting agreed to revise the TOR and also the potential working mechanisms to address all aspects of assistance provided by WMO and its

partners to developing and least developed Members. The EC-CB Working Group is requested to provide advice and pursue a coherent approach towards:

(a) Improving capacity in Least Developed Countries and Small Island Developing States;

(b) Advocating socio-economic benefits of NMHS products and services, including their achievement of the Millennium Development Goals;

(c) Mobilizing resources in support of the above.

1.3 Secondment Programme

Secondment of Mr Ihncheol Seong from KMA to RAP Office for development of assistance package to Democratic People's Republic of Korea and also to assist the Resource Mobilization Office develop financing partnership with Korea International Aid Agency KOICA.

2 WMO VOLUNTARY COOPERATION PROGRAMME – ACTIVITIES SUPPORTED

2.1 VCP(F) Supported Activities

A wide range of activities were supported through the VCP(F) in 2008 including:

Expert Missions:

- Expert fact-finding mission to **Belarus** to assess capacity in particular in relation to provision of aviation meteorological services.
- Fact finding mission to **Mauritania** aimed at evaluating the requirements for the improvement of the flood forecasting system.
- Secondment of three senior technical staff to **Sierra Leone** from the NMS of Nigeria for a period of three months for training activities to support NMS of Sierra Leone. VCP covered travel and subsistence at local rates and NMS Sierra Leone provided accommodation.
- Expert mission to the NMS of **Georgia** for the reorganization of the telecommunication and connection to RA VI RMDCN, 4-6 November 2008.
- Expert Mission to **Bangladesh** to assess needs in relation to agricultural meteorology.
- Expert Mission to **Mauritania** to assess needs in relation to flood risk management.

Provision of infrastructure and equipment:

- NMSs of **Bosnia-Herzegovina** and **Montenegro** received support for connection to the Regional GTS Centre in Sofia.
- 120 GPS Radiosonde RS-06G 25 Colombo, **Sri Lanka**.
- Shipping and transport of spares and replacements:
  - Myanmar Automatic Weather Station （Meisei Electric Co. Ltd)
  - Sri Lanka Sonde Ground Receiving Station (Meisei Electric Co. Ltd)
  - Sri Lanka Balloons (TOTEX)
  - Maldives Balloons (TOTEX)
  - Armenia Balloons (TOTEX)
  - Uzbekistan Wind Vane/Anemometer (Koshin Denki Kogyo Co. Ltd)
- Internet connection and PC equipment **Sierra Leone**.
- Internet facilities Afghanistan Meteorological Authority, **Afghanistan**.
- Internet connection **Guinea Bissau**

Attendance at Seminar:

- Attendance of five participants from various Regional Instrument Centres at TECO 2008, St Petersburg, 27-29 November 2008.
- Participation to Southeast European Climate Outlook Forum (SEECOF 1).
- Training for NMHS of Cyprus in Czech Republic on Climate Data Management.
- Ethiopia (NMAE) to provide support to the First Scientific Conference of the Ethiopian Meteorological Society (EMIBAMA), October 2008 (7,649)

Emergency Assistance (in combination with Emergency Assistance Fund)

Replacement of damaged equipment in several countries affected by severe weather events including **Bangladesh, Mauritania, Mauritius, Myanmar, Seychelles, Yemen and Zambia**

Training and Short Term Fellowships (See 4.1)

Full details on VCP(F) expenditure for 2008 are provided in Table 1 below. Table 2 indicates expenditure trends over the period 2004 to 2008 and shows a trends towards annually increasing expenditure over that time frame (considering that in 2007, 150,000 of expenditure consisted of direct transfers to LDC and Emergency Assistance Funds). It is considered that expenditure could be significantly increased if the constraints surrounding procurement are overcome.

2.2 VCP (ES) Coordinated

In 2008, four donor Members and three private companies offered equipment, expert services within the framework of the VCP Equipment and Services Programme (VCP-ES), including requests carried over from 2007. In total, 16 project requests were circulated in 2008 with **only one** project receiving support. Project requests were aimed at strengthening surface observing stations, strengthening upper-air observing stations, strengthening communications systems, and improving Meteorological applications. Those supported were:

- Observation equipment to **Uzbekistan** (Wind Vane/Anemometer) by Koshin Denki Kogyo of Japan (cir 2007);

- BRON Ltd, SGI, Slovenia support to the Centre for Monitoring and Prognostication of the Ministry of Environmental Protection and Natural Resources of **Georgia** through provision of an 8- or 16-bit processor SGI computer to support the Numerical Weather Predictions (NWP) operations (cir 2007);

- Czech Hydrometeorological Institute (CHMI) support to **Cyprus** for provision and installation of CLIDATA Database System and associated training (cir 2007);

- GPS upper-air observing system to Department of Meteorology, **Sri Lanka** including installation of the system and on-site training (cir 2007);

- **Myanmar** Automatic Weather Station （Meisei Electric Co. Ltd) (cir 2007);

- Balloons (TOTEX), **Sri Lanka, Maldives, Armenia** (cir 2007);

- **Mauritius** - Provision of 400 radiosondes by KNMI (cir 2007);

- **Belarus** – Provision of workstation by Russian Federation

Details of requests for assistance circulated in 2008 can be found in Table 3 whilst statistics on Thematics and requests supported are provided in Table 4.

Table 1 - VCP(F) Expenditure 2008 (USD)

	VCP F Activities Supported in 2008 USD*			Expenditure
1	**Expert Missions**			**16,528**
	Mrs Ilona GLASER (Tiblisi) and Mrs Mariana GRUEVA - (Bulgaria) - Expert mission to the NMS of **Georgia** for the reorganization of the telecommunication and connection to RA VI RMDCN November 2008		3,238	
	WMO (T. ABRATE) fact-finding mission to **Mauritania** aimed at evaluating the requirements for the improvement of the flood forecasting system, NMHS Mauritania, 20 to 27 July 2008		3,653	
	WMO (J. DESOUSA BRITO) - Minsk, **Belarus**: 23-25 April 2008: To undertake a WMO fact-funding mission		1,894	
	Secondment of Mr P.G. Saleh, Mr B.N. Orji and Mr P. Ughiobhe from Nigeria Met Agency to the **Sierra Leone** Meteorological Department for 3 months		10,981	
2	**Fellowships and training activities**			**126,669**
	Short-term fellowships and training activities **		106,570	
	Group training activities			
	Attendance of 5 participants from Regional Instrument Centres at TECO 2008 St Petersburg		9,970	
	ATACO (Czech rep) , training under VCP project WCP/2/2/1 - **Cyprus** - Climate Data Management Software Training		3,080	
	Support to the First Scientific Conference of the **Ethiopian** Meteorological Society (EMIBAMA), Oct. 2008 - National Meteorological Agency of Ethiopia (NMAE)		7,049	
3	**Project Development Activities for Regional Development Projects**			
4	**Improvement of GTS General**			
5	**VCP Spares/shipping of equipment**		147,267	147,267
	Myanmar - Automatic Weather Station （Meisei Electric Co. Ltd)			
	Sri Lanka Sonde Ground Receiving Station (Meisei Electric Co. Ltd)			
	Sri Lanka – Balloons			
	Maldives – Balloon			
	Armenia – Balloons			
6	**Improvement of observing sub-system of GOS and GCOS General**			28,688
	Shipment - 120 GPS Radiosonde RS-06G to UNDP Office, **Colombo, Sri Lanka**. Provided by Meisei Electric Co. Ltd, Japan		25,106	
	Installation of the system & on-site training - GPS upper-air observing system to Dept. of Meteorology, **Sri Lanka**. Mr Makoto FUJITA - Meisei Electric Co.Ltd		3,582	

	VCP F Activities Supported in 2008 USD*			Expenditure
7	**Improvement of GTS Central & Eastern Europe**			3238
8	**Agricultural meteorology activities**			
9	**Support to CDMS and climatological activities**			4,490
	Support to travel of the **Cyprus** specialists to Czech Republic for training one week duration. VCP project WCP/2/2/1 refers (Ms Katerina Pafiti & Mr Stelios Pashiardis)		4,490	
10	**Emergency Assistance Response to Natural Disasters**			
	Replacement Equipment - Bangladesh Mauritius, Myanmar, Seychelles, Yemen and Zambia and in combination with Emergency Assistance Fund (in process but some delays in procurement process) - estimate 130,000-150,000			
11	**Operational hydrology activities**			
12	**Improvement of satellite reception**			
13	**Internet capabilities**			13,916
	Internet connection and 2 PCs **Sierra Leone**		3,877	
	Work carried out in the Afghanistan Meteorological Authority, **Afghanistan**. - Technical support/Expenses/OMT Filter/Feet horn/DHCP Router		587	
	Internet connection 512K, **Guinée Bissau**		2,282	
	PCs, External Hard Drive and accessories Niger		7,170	
14	**TOTAL**			**341,696**

*Based on Exchange Rate of 31 Dec 2008 (1CHF = 1.046 USD)

** See EC-CB / IPM 2009/Doc 2 - Appendix for details

Table 2: - VCP(F) Expenditure 2004-2008 (USD)						
	Activity Area	**2004-05**		**2006**	**2007**	**2008**
	VCP(F)					
	VCP spares/shipping of equipment	4,876		1,480	170	147,267
	Expert services	20065			14,013	16,528
	Short-term fellowships	38,148		40,954	45,339	106,570
	Group Training Activities				-	20999
	TCDC activities	30,543		14,852	4,462	
	Improvement of GTS	7,386			59,316	
	Improvement of GTS Asia/Pacific	11,720			-	
	Improvement of GTS Africa				79	
	Improvement of GTS South America	3,097			-	
	Improvement of GTS South-East RA VI	10,000			-	
	Improvement of GTS Central & Eastern Euro				-	3238
	Improvement of upper-air observ. Subsyst.	44,622			22,643	28,688
	Upper-air stations & GCOS			5,846	7,230	
	Improvement of GDPS	30 30		4,065	-	
	Agricultural meteorology activities	4,688			-	
	Support to CLICOM & climatological activities	22,082			-	4490
	Mitigation of natural disasters	11,655		2,810	-	
	Emergency disaster assistance	19,114		13,328	101,553	
	ACMAD	24,200		6,427	-	
	EAMAC			8,705	-585	
	Operational hydrology activities	18,873			79	
	Improvement of satellite reception				-	
	Internet capabilities	19,656			-	13916
	Long-term fellowships				1,682	
	Support to LDCs				50,000	
	Training activities by ETR				1,229	
	Total	**290725**		**98,467**	**307,210**	**341,696**

Table 3 - VCP Coordinated Projects circulated in 2008

RA	Country	Project Indicator	Project Title		Support	Estimated cost
II	BANGLADESH	TE/4/2/2	Establishment of connectivity between GTS MSS and Domestic Meteorological Information Network System in Bangladesh			US$20,758
VI	BELARUS	HY/6/1/1	Provision of an automated workstation for a hydrologist forecaster		Russian Federation	US$10,000
III	COLOMBIA	TE/2/3/2	Updating of the ISCS Reception System in Colombia			US$44,000
IV	COSTA RICA	OB/1/2/1	Acquisition of one year consumable for the GUAN Costa Rica station			US$71,200
IV	DOMINICA	PWS/1/1/2	Provision of audiovisual equipment for public awareness and information			US$17,000
I	GABON	OB/2/6/1	Rehabilitation of the meteorological network and capacity-building of the Meteorological Service			5,600,000 CFA
IV	HAITI	OB/1/2/1	Rehabilitation of the meteorological observing network			US$386,000
II	KAZAKHSTAN	WCP/2/2/1 (Rev.)	Provision of CLIWARE CDMS			US$22,105
II	KYRGYZSTAN	AGM/1/1/1	Improving of agrometeorological services for agricultural sector			US$27,000
I	MAURITANIA	OB/4/1/1	Provision for the acquisition of two close-range radars for Tintane and Kaedi.			N/A
IV	NICARAGUA	OB/4/1/1	Rehabilitation of the meteorological observing network			US$80,000
II	MALDIVES	OB/1/2/5	Acquisition of upper-air observing system for the National Meteorological Centre			66,000 €
V	PHILIPPINES	STS/1	Capacity building on the Use of remotely Sensed Radar and Weather Satellite Data			N/A
I	ZAMBIA	TE/1/1/1	Provision of communication equipment for 2 meteorological stations affected by flash floods			US$31,956
II	UZBEKISTAN	OB/9/1/1	Provision of calibration devices for meteorological instruments			518,000 €
I	UGANDA	WCP/4/1	Improvement of medium range and seasonal forecasts in Uganda (DARE project)			US$19,600

Table 4
VCP Requests Supported
during the period 1988-2007 and in 2008
(VCP requests related to fellowships excluded)

Fields of cooperation	Number supported during 1988-2007	Total circulated during 1988-2007	Percentage supported during 1988-2007	Number supported in 2008	Total Circulated In 2008	Percentage supported during 1988-2008
Surface observing stations	89	185	48%	0	3	47%
Upper-air observing stations	185	340	54%	0	2	54%
Satellite receiving stations	55	123	45%	1*	1	45%
Weather radar stations	4	20	20%	0	1	19%
Telecommunication systems	185	348	53%	1*	3	53%
Data processing systems	42	101	42%	0	0	42%
Maintenance workshops	6	24	25%	0	1	24%
Research and training centre activities	6	25	24%	0	0	24%
CDMS and climatological activities	88	178	49%	1	2	49%
Hydrological activities	29	87	33%	0	0	33%
GAW and environment protection activities	4	58	7%	0	0	7%
Meteorological applications activities	100	173	58%	0	2	57%
Total	793	1,662	48%	2	15	47%

For detailed discussion on unsupported VCP requests see Doc. 6.

2.3 Members Related Technical Cooperation Activities

See EC-CB/IPM/(2009)/Doc. 3 for a full inventory of Members bilateral cooperation activities.

2.4 WMO Voluntary Cooperation Programme – 2008 Financial Contributions

The Members' contributions to the WMO Voluntary Cooperation Programme in 2008 are shown In Table 5. In terms of VCP(ES) and VCP(F) US $2.2 million equivalent support was provided through and US $11.5 million equivalent was provided through bilateral arrangements between Members for a total of US $13.4 million. Ten Members made new cash contributions to the VCP Fund (VCP(F)), amounting to approximately US $272,748. Major projects facilitated through DRA with Member support amounted to more than US $12 million.

Table 5 - Total VCP Contributions in 2008					
Donor	**VCP(F)**	**VCP(ES)**	**Bilateral**		**Total**
Argentina			ES	E&TR	
Australia	50,000	87,000	372,000		**509,000**
Canada			450,000		**450,000**
China	37,000	47,148	391,719	512,357	**988,224**
France			49,380	1,304,538	**1,353,918**
Finland**			1,450,065		**1,450,065**
Germany			473,100	223,800	**696,900**
Ireland	8,760				**8,760**
Italy**		617,500			**617,500**
Japan	106,000	22,000		250,000	**378,000**
Kenya					**0**
Kingdom of Saudi Arabia~~		13,579			**13,579**
Maldives	1,000				**1,000**
Mauritius	2,685				**2,685**
Myanmar	972				**972**
New Zealand			1,200,000		**1,200,000**
Norway	54,852				**54,852**
Pakistan	977				**978**
Republic of Korea	27,500		1,300,000	371,300	**1,698,800**
Russian Federation		10,000		740,000	**750,000**
Spain**			85,803	301,427	**387,230**
Switzerland~~					**0**
UK		45,417	727,816	202,241	**975,474**
USA		1,096,180	788430		**1,884,610**
Total	**289,747**	**1,938,824**	**7,288,313**	**3,905,663**	**13,422,547**

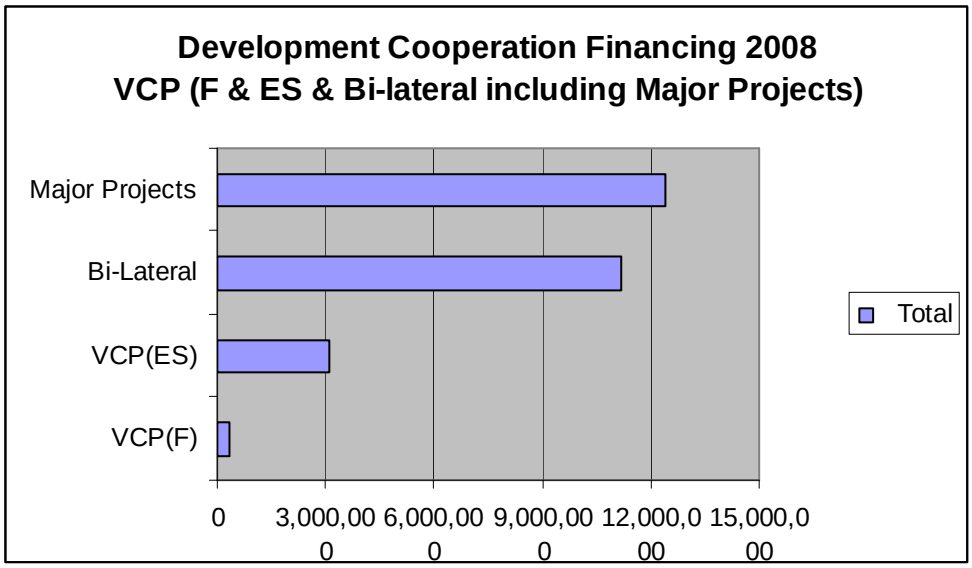
Major Development Programmes		
Spain	Development Programmes for Ibero-American Countries and West Africa	**4,473,312**
Italy	Direct to Iraq - Rehabilitation of IMO	**6,500,000**
Finland	Capacity Building Projects	**1,450,065**
Total		**12,423,377**

Total Dev. Cooperation	**25,845,924**

Kingdom of Saudi Arabia March 2009 KSA added 1.6M USD the newly established Trust Fund

Switzerland Did not indicate monetary value of contribution activities

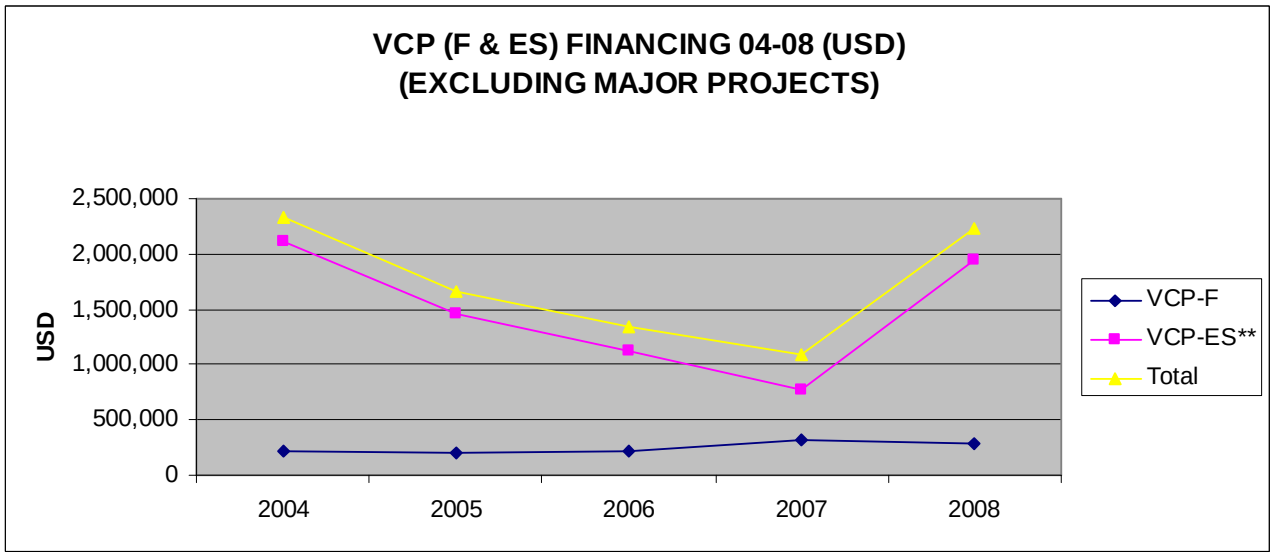
Figure 1



2.5 Trends in Contributions to WMO VCP Programme

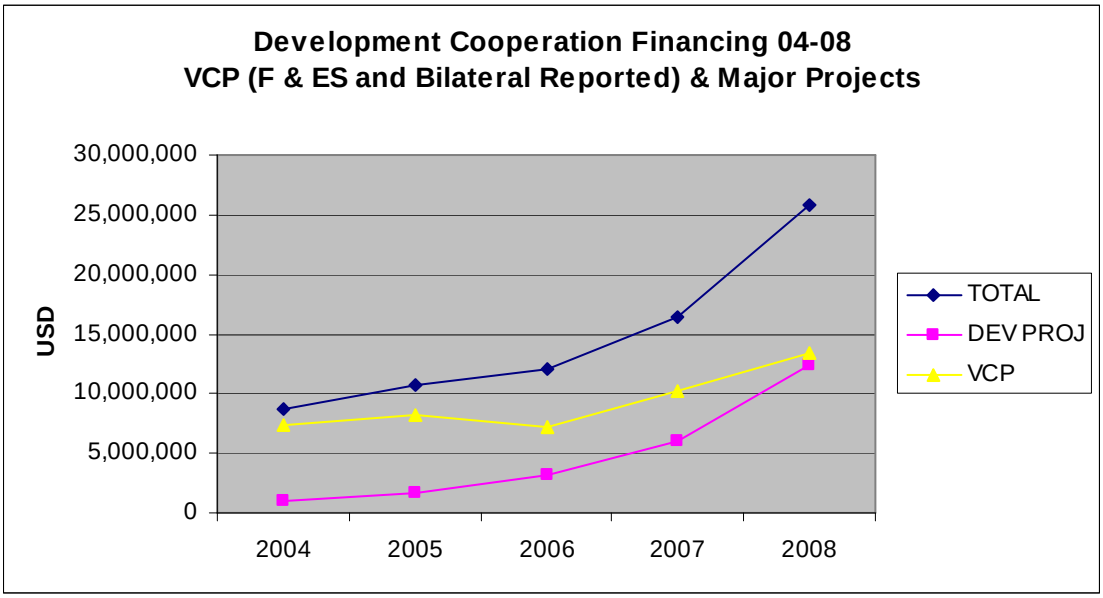
The trends in contributions over the past five years indicate a fairly constant (and therefore possibly declining in real terms) support of the VCP(F) and a general increase in support to VCP(ES) through the WMO in the past year (Table 7 and Figure 2).

Figure 2



However, there is also a very positive move towards support for major development programmes through the Development and Regional Activities Department as Figure 3 below illustrates.

Figure 3

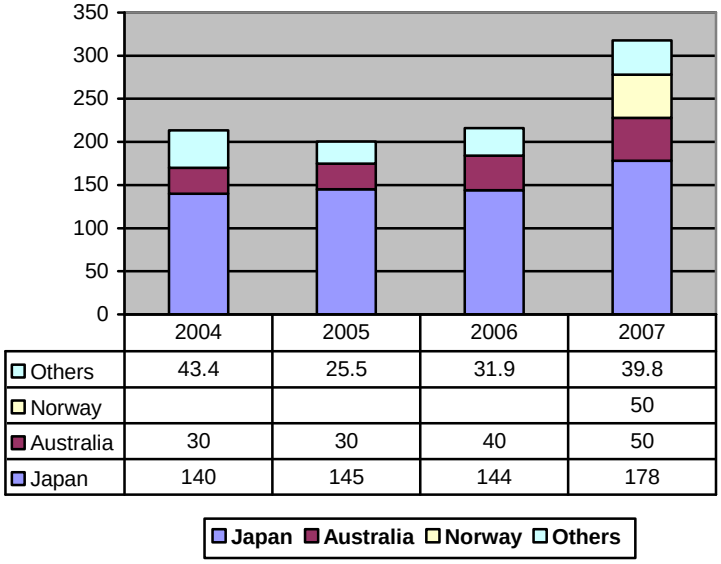


The VCP(F) and VCP(ES) mechanisms provide very valuable and fairly immediate and much in demand short-term support to countries to enable them to maintain operations while also moving towards the development of strategic plans for longer-term development. Consequently, the fairly constant level of support to these mechanisms in real terms shows a reduction on resources available for this type of response mechanism. While the move to funding of major programmes based on strategic analysis of needs is indeed a very welcome one, the VCP mechanism, and in particular the Trust Fund remains a very valuable component to develop cooperation and should not be abandoned. It is imperative that Members be requested to continue and increase their support in these areas.

Regarding the VCP(F) contribution base, the main donors to VCP(F) in 2008 included Japan, Australia and Norway with contributions of CHF 111,620, CHF 54,500, and CHF 65,000, respectively (Table 7). The contribution trend in the previous financial period (2003 to 2007) was similar as shown in the chart below (Figure 4).

Overall in any given year, four to five countries account for over 90% of the VCP-Funds contribution as illustrated by the above sampling of the previous WMO financial period (2008 trend is similar as detailed in Table 7 and Figure 1 above). This poses the risk of over reliance on a small number of donors, which may impact on overall delivery objectives for VCP(F). An increased participation from other countries to diversify the base of the programme is highly desirable.

Figure 4



	2004	2005	2006	2007
Others	43.4	25.5	31.9	39.8
Norway				50
Australia	30	30	40	50
Japan	140	145	144	178

Donors to VCP (F) CHF '000

In respect of Development Cooperation generally (Table 8), Spain is clearly emerging as the strongest contributor in recent years followed by USA and in 2008 Italy. (More recently the Kingdom of Saudi Arabia has a recently newly established TF (early 2009) of US $1.05M for capacity building in that region.)

However, these figures are very indicative. There are some difficulties with representing "Reported" figures as some Members are very specific on the figures for the year past in terms of what should be reflected in the report, while others offer specific figures for VCP but clearly are engaging in major bilateral efforts (i.e., Japan and Korea reported activities in Doc. 3) of a mullet-year nature that do not fit this reporting style and it is likely that other IPM Members have not reported similar activities.

Table 7 VCP (F & ES) SUPPORT 2004 - 2008 USD

	2004			2005			2006			2007			2008		
Donor	**VCP(F)**	**VCP(ES)**	**Total**	**VCP(F)**	**VCP(ES)**	**Total**	**VCP(F)**	**VCP(ES)**	**Total**	**VCP(F)**	**VCP(ES)**	**Total**	**VCP(F)**	**VCP(ES)**	**Total**
Member															
Argentina		2,600	2,600		2,000	2,000									
Australia	30,000	27,250	57,250	30,000	82,000	112,000	40,000	216,600	256,600	50,000	238,350	288,350	50,000	87,000	137,000
Canada						0									
China	10,000	218,590	228,590	10,000	65,050	75,050	10,000	103,650	113,650	10,000		10,000	37,000	47,148	84,148
Germany											14,800	14,800			
Ireland	8,621		8,621	7,692		7,692	8,270		8,270	7,500		7,500	8,760		8,760
Italy						0					160,000	160,000		617,500	617,500
Japan	140,000	25,000	165,000	145,000	82,000	227,000	144,000	69,500	213,500	178,000	17,000	195,000	106,000	22,000	128,000
Kenya						0				9,792		9,792			
Kingdom of Saudi Arabia														13,579	13,579
Maldives						0	1,000		1,000	1,000		1,000	1,000		1,000
Mauritius	1,316		1,316	1,250		1,250	2,175		2,175				2,685		2,685
Myanmar				500		500							972		972
New Zealand															
Norway					81,833	81,833		84,309	84,309	50,000		50,000	54,852		54,852
Pakistan	534		534	1,022		1,022	499		499	499		499	978		978
Republic of Korea	5,000		5,000	5,000		5,000	10,000		10,000	10,000	100,000	110,000	27,500		27,500
Russian Federation		18,000	18,000		32,750	32,750		25,000	25,000					10,000	10,000
Spain		233,635	233,635		432,300	432,300									
South Africa		1,464	1,464		4,500	4,500									
Switzerland		493,300	493,300		120,000	120,000		352,308	352,308						
UK	17,925	698,363	716,288		136,000	136,000		40,431	40,431		19,000	19,000		45,417	45,417
USA		400,000	400,000		428,685	428,685		230,000	230,000		230,000	230,000		1,096,180	1,096,180
Misc															
Total	**213,396**	**2,118,202**	**2,331,598**	**200,464**	**1,467,118**	**1,667,582**	**215,944**	**1,121,798**	**1,337,742**	**316,791**	**779,150**	**1,095,941**	**289,748**	**1,938,824**	**2,228,572**

Table 8	2008	2007	2006	2005	2004
Donor					
Argentina		23,600		8,300	12,200
Australia	509,000	682,250	560,000	482,400	370,250
Canada	450,000	550,000	600,000	868,000	385,000
Chile		0	0	29,320	5,000
China	988,224	10,000	812,110	471,265	457,170
Finland					
France	1,353,918	1,453,364	2,183,098	1,177,369	908,100
Germany	696,900	592,700			
Hong Kong, China		0	29,000	55,000	48,000
Ireland	8,760	7,500	8,270	7,692	8,621
Italy	617,500	160,000	0		
Japan	378,000	445,000	428,000	477,000	415,000
Kenya		9,792	249,251	152,946	
Kingdom of Saudi Arabia	13,579				
Maldives	1,000	1,000	1,000	1,250	1,316
Mauritius	2,685	1,000	2,171		
Myanmar	972	0		500	
New Zealand	1,200,000	1,436,560	0	199,091	263,029
Norway	54,852	50,000	0	81,833	
Pakistan	978	499	10,000	1,022	534
Philippines		0	4,673	6,125	420
Pakistan	978				
Republic of Korea	1,698,800	1,346,919	202,412	143,000	156,200
Russian Federation	750,000	0	105,769	72,780	210,000
South Africa		0	0	5,500	13,598
Spain	387,230				
Switzerland		0	0	120,000	542,300
UK	975,474	1,602,685	163,291	1,791,000	1,585,232
USA	1,884,610	1,881,800	1,881,000	1,984,000	2,000,000
Total	**13,422,547**	**10,254,669**	**7,240,045**	**8,135,393**	**7,381,970**

Major Development Projects

Italy**	6,500,000.00		0		
Spain	4,473,312	6,095,000.00	1,775,662	783,638.00	550,815.00
Finland**	1,450,065	0	1,488,947	875,000.00	403,000.00
	12,423,377.00	**6,095,000.00**	**3,264,609.00**	**1,658,638.00**	**953,815.00**

2.6 Education and Training Fellowship Activities

One hundred and eight (108) fellows were in study during 2008, the majority of them undertaking long-term study (Column 1, Table 8). Forty four (44) new fellowships were awarded in 2008 (Table 3), nineteen (19) began long-term study of which thirteen (13) commenced studies in China under bilateral funding arrangements between WMO and the Government of the Peoples Republic of China. The Governments of Austria, Australia, China, Egypt, the United Kingdom and the United States were amongst Members who contributed to the WMO Fellowship Programme through direct funding of fellowships or the waiving or reduction of tuition fees. As usual the Regular Budget (RB) or a combination of Regular Budget and Voluntary Contribution Programme (RB/VCP) funded the majority of the Fellowships. One fellow from Fiji was funded from VCP(F) to attend a long-term training course in Australia in 2009.

Type of Fellowship	No. of Fellows	VCP	TF	RB	RB/VCP	Total
LTF	71	11.5	14.6	279.6	258.3	564.1
STF	37	97		43.0	3.3	147.3
Total	108	108.5	14.6	322.6	261.6	711.4

Table 8 - Number of person * months of fellows studying in 2008 (VCP – Voluntary Contribution Programme funds, TF – Trust Funds, RB – Regular Budget, RB/VCP - bilateral or multi-lateral arrangements).

Appendix I and II depict the demand and awarding of fellowships over the last five years (based on the starting date of the fellowship request). Apart from RA I and RA III, the demand for fellowships was less in 2008 than in the last five years. Nearly half the demand in RA I was for long-term training opportunities in China. The high level of requests from RA II in 2006 and 2007 were associated with group training activities in the Regional Training Centre (RTC) in the Islamic Republic of Iran for countries such as Afghanistan. No group training requests were received in 2008 but several are anticipated in 2009.

Tables 9 and 10 depict the countries benefiting from WMO Fellowships and the countries hosting WMO Fellows in 2008.

	2004		2005		2006		2007		2008		
	Request	Award	Request	Award	Request	Award	Request	Award	Request	Award	Total Award
I	64	**61**	33	**26**	80	**34**	90	**28**	87	**23**	**172**
II	20	**20**	14	**14**	32	**25**	45	**39**	3	**2**	**100**
III	16	**16**	14	**14**	10	**8**	10	**7**	12	**10**	**55**
IV	14	**14**	13	**11**	13	**11**	11	**6**	10	**7**	**49**
V	5	**5**	6	**4**	4	**0**	12	**8**	3	**1**	**18**
VI	8	**8**	6	**5**	8	**3**	4	**3**	3	**1**	**20**
	127	**124**	88	**74**	147	**81**	172	**91**	118	**44**	**414**

Table 9 - Number of fellowship requests and awards for the last five years by region. 2008 figures include US VCP fellows.

The cost of training and fellowships rose sharply in 2008 as many of the countries hosting training institutions increased tuition fees, airfares increased due to fuel price increases and the fluctuations in the USD and inflation required increases in stipends. This put additional pressure on a very tight Regular Budget.

		2004		2005		2006		2007		2008	Total
Long term		51		23		31		29		19	153
Short Term		20		34		21		36		25	136
Very Short Term		53		17		29		26		0	125
		124		74		81		91		48	418

Table 10 - Numbers of awarded fellows as a function of the length of study. (Long term > 6 months, Short term (between 1 month and 6 months), Very short term (less than 1 month.)

WMO Members are encouraged to take advantage of the WMO Education and Training Fellowship opportunities for the development of human resources and capacity building of their NHMSs through the circular letter on fellowships that is sent by the Secretary General every year. This message is reinforced by communication through Regional Association Sessions and Technical Conferences as and when required.

2.6.1. Improvements in the management of the Education and Training Fellowship Programme

The WMO Fellowship Committee (FELCOM) comprised of senior Secretariat Directors met three times in 2008 to consider fellowship nominations. FELCOM continued to take appropriate decisions and actions to improve the efficiency and transparency of the fellowship programme such as: further encouraging bilateral and trilateral funding arrangements; encouraging Members to link the fellowship requests to their Strategic Plans WMO projects or initiatives; reviewing the stipend rates to ensure that the current investment in fellows was not lost due to unreasonable living conditions; reviewing the processing of familiarization visits by newly appointed Permanent representatives; and, the processing of fellowships within the Secretariat.

An evaluation of the effectiveness of the WMO Fellowship Programme in support of WMO Member countries is one of the issues currently being addressed by FELCOM. The evaluation is foreseen to be in two phases consisting of a data gathering phase using the reports from Fellows and responses to a questionnaire and, an investigative phase with visits to selected Members to see first hand the impact of the fellowship programme. A detailed paper providing the timelines, budget estimates, summary analysis from the existing data and which countries could be targeted for an in-depth evaluation is under preparation. It should be noted that no resources (human and financial) have been identified so far for the evaluation and these would need to be found for the first desk bound phase in 2009 and particularly for the second phase of the evaluation which would not occur before 2010.

At the request of the United States the Education and Fellowship Division has taken over the processing of fellows for the US International Desk using funds provided by NOAA.

2.6.2 Use of VCP (F) funds for short term training in 2008 - 2009

In 2008 approximately CHF 120,000 of VCP(F) funds were committed to education and training activities. Approximately 70,000 of this was actually invested (spent) in 2008, CHF 10,000 was cancelled due to fellows not providing travel details in time to attend courses or sickness preventing them travelling. The remaining CHF 40,000 is currently being implemented as fellows take up approved training opportunities.

In 2009 approximately CHF 810,000 of funds from the Regular Budget has been allocated for Fellowships. Of this some CHF 260,000 has already been approved for Fellowships from the FELCOM XVIII meeting in February 2009.

In 2008 nineteen (19) personnel from WMO Members were assisted to attend very short training activities run primarily by WMO Regional Training Centres in China, Israel and Turkey. These requests were considered through a combination of advice from the relevant WMO Technical Office, the appropriate WMO Regional Office, the Director of the Education and Training Office and the Director of the Resource Mobilization Office. These training opportunities supported Disaster Risk Reduction activities (Severe Thunderstorms and Use of Remote Sensing in preventing and mitigating meteorological disasters), Food Security (Agricultural Meteorology, Climate Change and Desertification Course), Weather Services (Aviation), Observations and Communications (Use of Satellite and Radar data, Use of AWS and Upper Air Data, and Communications Systems), assistance for NMHS staff to attend a data assimilation course run by WWRP in Argentina and, Climate related (Statistics in Applied Climatology Course). This use of VCP(F) funds marks increased collaboration between the ETR Office, the Resource Mobilization Office, the various technical programmes and the WMO Regional Training Centres.

This collaboration provides better vertical integration of the high priority needs of the Members with the priority areas of the technical programmes using the education and training capabilities and facilities of the WMO RTC's. The ETR Office and Resource Mobilization Office would welcome the IPM's endorsement of this approach and a possible increase of the VCP(F) funds allocated to education and training to further assist in meeting the short-term training demands of Members, particularly the LDC's. An increase of CHF 20,000 is proposed for 2009 bringing the total VCP(F) funds for education and training to CHF 120,000. This would be subject to further review at the 2010 IPM meeting.

For 2009 the FELCOM have agreed to allocate approximately 40% of the available VCP(F) funds for these activities. It is anticipated that funds would go towards supporting personnel involved in the Severe Weather Forecasting Demonstration Project to attend a WWRP training course in evaluation of NWP data thus linking research and operations, further support for Agricultural Meteorology and Desertification courses in China and Israel, travel support for Severe Thunderstorm training for SE Europe and the Use of Satellite Data and Products amongst other courses. The ETR Office and the Resource Mobilization Office see these as investment opportunities for WMO Members and continue to seek the best impact for the Members at the minimum cost on the budget.

2.6.3 VCP priority areas for education and training

In summary, the main priority areas for VCP support to education and training, in particular for personnel from developing countries, includes the following:

- Short-term fellowships (up to six month's duration) for training in specialized fields such as management skills and upgrade courses for non-degree staff providing aeronautical meteorological services, group training, and continuing education and training (CET);
- Very short-term fellowships (less than a month) for training on the emerging new needs in fields such as information technology, communication and data processing systems, use of data from observation systems, use and maintenance of observation systems and climate related training;
- Support to RTCs and National Training Centres (NTCs) for the improvement of training facilities and the performance of instructors.

WMO would like to reiterate its appreciation to VCP donor Members for their generous contributions and appeal to them to further increase their contributions to the fellowships programme in order to meet the increasing demand from developing countries.

3. EMERGENCY ASSISTANCE FUND

Emergency assistance was or is in process of being provided to a range of countries affected by extreme hydrometeorological events including:

Mauritius: WMO Expert Team Mission to Mauritius on 19-23 May 2008 following major cyclone. The Team met with high level officials including the Prime Minister of Republic of Mauritius. The Team made detailed review of the structure and operations of the Mauritius Meteorological Services.

Seychelles: Replacement of equipment damages by storms. Two AWS at airports.

Bangladesh: Requested for emergency assistance following the severe floods by Cyclone SIDR. Following the circulation of the list of priority instruments for emergency assistance among potential donor Members, positive responses were received from France an UK for financial support to purchase some priority instruments and equipment. This has been augmented by funds from the EAF and a full support package is being implemented.

Myanmar: WMO sent a field mission team from 15 to 18 May 2008 to Yangon following STC Nargis to assess the needs of the NMHS. A list of priority assistance in the short and immediate terms was developed. Following the circulation of the list of priority instruments for emergency assistance among potential donor Members, positive responses were received from Australia and Japan (cash contribution) and China (Equipment). WMO is now proceeding with actions for assistance to DMH in rebuilding essential meteorological infrastructure and services: (1) To provide DMH with some key immediate priority equipment under the WMO VCP(F) and Emergency Assistance Fund scheme; and (2) To carry out the second mission to Yangon (and Nay Pyi Daw) in collaboration with WMO/ESCAP Panel on Tropical Cyclone Members possibly in mid-September 2008 (deferred to 2009). For short-term training requirements, WMO has been able to facilitate the participation of DMH staff in a series of training events.

Zambia: Replacement of hydrological monitoring equipment following major flooding in 2008.

Yemen: Replacement of hydrological monitoring equipment following major flooding in early 2009.

Note: Delays in procurement process are having an impact on delivery of assistance in some of these cases. The WMO Technical Departments are experiencing difficulty servicing requests for control of specifications for procurement of observation instruments as required by WMO Procurement procedures. The meeting will discuss potential ways to overcome this constraint to timely delivery of VCP and Emergency Assistance.

Appendix 1

WMO fellow by host country

Period: **01-Jan-08** ***to:*** **31-Dec-08**

Country	*No. Fellows*	*VCP*	*TF*	*RB*	*RB/VCP*	*Total*
Algeria	8				74.4	74.4
Austria	1			3.0		3.0
Barbados	7			39.2	12.0	51.2
China	15				99.8	99.8
Costa Rica	4			23.8		23.8
Egypt	3	3.0	2.6		3.3	8.9
India	8	0.6		58.5		59.1
Kenya	10			86.4		86.4
Madagascar	2			22.0		22.0
Morocco	1			2.0		2.0
Niger	3			18.9		18.9
Nigeria	1			7.9		7.9
Paraguay	1			0.3		0.3
Philippines	7			40.1		40.1
Russian Federation					6	72.0
South Africa	2		12.0	1.9		13.9
Spain	1			6.9		6.9
Switzerland	1			0.4		0.4
United Kingdom	3	11.0		8.0		19.0
United States of America	24	97		3.9		100.9
Total	108	111.6	14.6	323.6	261.6	711.4 Person months

Appendix 2

WMO fellow by nationality

Period **01-Jan-08** ***to*** **31-Dec-08**

Nationality	No. Fellows	UNDP	VCP	TF	RB	RB/VCP	Total
Region I							
Angola	1	-	4.0	-	-	-	4.0
Benin	1	-	-	-	-	12.0	12.0
Burkina Faso	1	-	4.0	-	-	-	4.0
Burundi	2	-	-	-	20.0	-	20.0
Cameroon	2	-	-	-	2.5	12.0	14.5
Central African Republic	3	-	-	-	12.0	6.9	18.9
Chad	2	-	-	-	-	24.0	24.0
Comoros	2	-	-	-	22.0	-	22.0
Congo	2	-	8.0	-	-	12.0	20.0
Cote d'Ivoire	1	-	-	-	-	4.0	4.0
Gabon	1	-	-	-	-	4.0	4.0
Gambia	1	-	4.0	-	-	-	4.0
Guinea	2	-	-	-	2.9	4.0	6.9
Guinea-Bissau	1	-	-	-	0.4	-	0.4
Kenya	3	-	7.0	-	8.0	-	15.0
Lesotho	5	-	3.0	14.6	6.0	4.0	27.6
Madagascar	1	-	-	-	3.9	-	3.9
Malawi	1	-	8.0	-	-	-	8.0
Mali	3	-	4.0	-	2.0	9.0	15.0
Mauritania	3	-	-	-	-	10.6	10.6
Mozambique	3	-	4.0	-	-	24.0	28.0
Namibia	3	-	-	-	12.0	16.0	28.0
Nigeria	2	-	-	-	8.4	-	8.4
Rwanda	1	-	-	-	-	4.0	4.0
Sao Tome & Principe	2	-	-	-	-	24.0	24.0
Senegal	2	-	-	-	-	23.9	23.9
Seychelles	1	-	-	-	8.0	-	8.0
Sierra Leone	2	-	-	-	7.9	3.3	11.2
South Africa	1	-	3.0	-	-	-	3.0
Sudan	2	-	-	-	9.9	-	9.9
Swaziland	1	-	-	-	11.1	-	11.1
Tanzania, United Rep. of	2	-	1.9	-	-	12.0	13.9
Tunisia	1	-	4.0	-	-	-	4.0
Zambia	5	-	-	-	44.9	4.0	48.9
Total Region	***66***		***54.9***	***14.6***	***181.9***	***213.7***	***465.1***

Region II

Bhutan	2	-	-	-	12.0	12.0	24.0
Liberia	1	-	-	-	-	12.0	12.0
Maldives	1	-	0.6	-	-	-	0.6
Myanmar	3	-	-	-	25.9	-	25.9
Tajikistan	1	-	-	-	-	12.0	12.0
Total Region	***8***	***0.6***	***37.9***	***36.0***	***74.5***		

Region III

Argentina	1	-	3.0	-	-	-	3.0
Bolivia	1	-	4.0	-	-	-	4.0
Chile	1	-	4.0	-	-	-	4.0
Colombia	2	-	1.0	-	6.9	-	7.9
Ecuador	1	-	4.0	-	-	-	4.0
Guyana	2	-	-	-	10.4	-	10.4
Paraguay	2	-	4.0	-	0.3	-	4.3
Peru	2	-	4.0	-	-	-	4.0
Total Region	***12***	***24.0***	***17.6***	***41.6***			

Region IV

Bahamas	1	-	4.0	-	-	-	4.0
Cayman Islands	2	-	-	-	12.0	12.0	24.0
Costa Rica	1	-	1.0	-	-	-	1.0
Dominica	1	-	-	-	4.1	-	4.1
Dominica Republic	1	-	4.0	-	-	-	4.0
El Salvador	2	-	-	-	10.9	-	10.9
Honduras	1	-	3.0	-	-	-	3.0
Jamaica	2	-	-	-	8.1	-	8.1
Mexico	1	-	4.0	-	-	-	4.0
Panama	2	-	1.0	-	6.4	-	7.4
Saint Lucia	1	-	-	-	11.1	-	11.1
Total Region	***15***		***17.0***		***52.6***	***12.0***	***81.6***

Region V

Kiribati	4	-	-	-	14.2	-	14.2
Papua New Guinea	1	-	-	-	3.8	-	3.8
Vanuatu	1	-	-	-	8.3	-	8.3
Total Region	***6***				***26.3***		***26.3***

Region VI

Lithuania	1	-	-	-	3.0	-	3.0
Total Region	***1***				***3.0***		***3.0***

ANNEX IV

BILATERAL TECHNICAL COOPERATION ACTIVITIES IN 2008

Argentina

In 2008, Argentina continued its activities as a donor to the Spanish-speaking countries of Regions II and IV. However, financial restrictions brought along significant reductions in the overall volume of support.

The following cooperation activities were carried out despite the reductions:

- Internship and short- and medium-term courses at RMTC Buenos Aires.

- Granting to certain Members of RA III password-protected access to value-added products developed by RSMC Buenos Aires which were published on the restricted-access site Internet of the National Meteorological Service (NMS). Through RMTC Buenos Aires, the National Meteorological Service offers the possibility of designing courses intended to be converted into the interactive system using multimedia, as long as NMS can count on the supportive action of specialists in computing sciences and receive some training in the design of such courses.

- Missions by Argentine experts to other NMHSs: Lic. Alberto Flores realized tasks: in the República Dominicana National Meteorological Service (ONAMET). Basically he made an inventory of instruments and left suggestions on how to prepare National landlords (US $3,000).

- Granting to certain Members of RA III a regional course on the Use of Environmental Satellite Data in Meteorological Applications in RA III and RA IV organized by WMO, SMN and CONAE from 22 September to 3 October 2008 at Mario Gulich Institute, CONAE Teófilo Tabanera Space Centre, Falda del Carmen, Provincia de Córodoba, Argentina. In this case the nominal cost of tuition for 10 students from Argentina and abroad was US $12,000.

- Reference to the standard calibration and repair of other Members' meteorological instruments by the Regional Instrumental Centre (RIC) in Buenos Aires is working to regularize the instruments of calibration of RIC. In 2008, an expert from Venezuela undertook an Instrumental course for three months in the RIC. Cost estimate US $20,000.

- In January 2008, through the VCP, the NMS received 400 TOTEX Balloons (TA-500) for upper-air station Comodoro Rivadavia (contribution by Japan). In February 2008, the NMS received a EUMET station (computers, station and programmes) (contribution by Spain). In October 2008, the NMS received EMPA equipment which includes Ozone Calibrator/Thermo Environmental Instruments Notebook Fujitsu-Siemens Tubing/Cables Zero Air Supply to Ozone Calibrator Drierite Cartige, including refill Breifuss MGM Dilution Unit/Sofnocat Cartridge 100 – Flowmeter/Tools/Spares for installing in the VAG Ushuaia (Contribution from Switzerland).

- Internship and short- medium- and long-term courses at RMTC Buenos Aires, seven participants from RA III countries attended the following courses (medium and long term) from three RA III countries (Uruguay, Venezuela and Paraguay) attended technical courses offered by RMTC Buenos Aires (NMS component). Cost estimate US $8,000.

    1. Computerized climatology, Oracle system (medium term)
    2. Elaboration of weather data for the public (medium term)
    3. Aeronautical Operative Meteorology course (long term)
    4. Training Forecasting Techniques in Advances on Weather Forecast in South America
    5. Applications and Installed Remove Satellite Sensors course (medium term)

6. Analysis and use of Satellite Images (medium term)
7. Meteorological Instruments course (long term).

- Throughout, the Internet site of NMS has included several value-added products from the Regional Specialized Meteorological Centre (RSMC) Buenos Aires. This information may be accessed using a password and an account. Accounts have been provided to several Members of RA III upon request.

- In global terms, during 2008 Argentina contributions to the VCP were lower than in previous years due to general financial reductions caused by the reorganization of the NMS which implied change of Authorities.

- In 2009, the contributions are hopefully expected to reinforce the development. New activities that we feel could be useful to other Members of RA III are also being organized and have already attracted the interest of other Members, particularly training courses on Solar Radiation and its energy use, Earth's Magnetic Field and Space Weather Interaction. We are preparing other courses on the following topics: Hydrology, Agrometeorology and Meteorological Data Management.

Australia

In 2008, Australia's total contribution to the WMO Voluntary Cooperation Programme was US $137,000, being:

- VCP(F): US $50,000
- VCP(ES) through WMO:
  - Emergency assistance to Myanmar after Tropical Cyclone Nargis: US $20,000
  - Contribution to WIGOS-WIS: US $15,000
  - Contribution to GCOS: US $25,000
  - Contribution to INTAD5 meeting in Jeju: US $12,000
  - Contribution to LDC workshop in Port Vila: US $15,000.

In addition, Australia's total contribution to technical cooperation by bilateral and other arrangements was US $372,000, being:

- Provision of instrument calibration kit to Niue: US $7,000
- Contribution to forecasting office in Niue: US $10,000
- Contribution to climate prediction in the Pacific: US $100,000
- Contribution to Pacific Islands Forum consultancy to review weather and climate in the Pacific: US $70,000
- Contribution to tsunami capacity building in the Pacific (Niue, Kiribati, Papua New Guinea): US $100,000
- Contribution to GEO: US $75,000
- Contribution of publications to developing countries: US $10,000.

In 2009, Australia will contribute to the World Climate Conference-3 and cooperate with New Zealand MetService in the joint operation of RANET HF Email to collect and distribute surface observations from the Pacific Island Countries. To counteract the possible impact of the global financial downturn on VCP, Australia intends to mobilize new resources in the following areas:

- Climate change adaptation – from the Department of Climate Change (DCC) and AusAID
- Review of weather, climate and severe weather in the Pacific Island Countries – from AusAID
- Fresh secondment of Australian meteorologist to RSMC Nadi in 2009 – from AusAID under the Pacific Governance Support Program (PGSP)

- Hopefully from 2010, additional fellowships for study in the "Graduate Diploma in Meteorology Course" in the Bureau of Meteorology Training Centre could be provided by AusAID. [Note: Up until now, fellowships were provided to developing countries in the Pacific, Asia and Africa using the regular budget of the Australian Bureau of Meteorology only. But AusAID is now investigating whether meteorology could also be included as an eligible educational field under its Australian Development Scholarships. If so, it will become a second source of funding for the DipMet Course.]

Canada

In 2008, Canada continued its ODA response to the Millennium Development Goals and the G8 Plan of Action for Sustainable Development. Canada has invested in further developing WMO's Global Cryosphere Watch initiative through financial contributions and the secondment of an expert. Canada provided support for the implementation of the Central American and Caribbean Regional GCOS network and the Caricom Community Climate Change Centre in Belize. Canada continued support to the Agrhymet Regional Centre, a specialized technical institution of CILSS (Permanent Interstate Committee for Drought Control in the Sahel).

Through THORPEX contributions, and specifically the TIGGE phase 1 project, Canada's medium range ensemble forecast products are available freely to all WMO Members. Contributions to the GAW include training developing countries' technical support people to operate the Brewer stratospheric ozone measurement equipment. Canada exports and supports NWP-based wind power prediction systems. Canada's Trapped Fetch Waves model has been made available and we have provided training on Extratropical Transition to help develop a greater capacity in forecasters.

With various training activities including experts assigned to evaluate RMTC's and Canada's normal contributions to Trust Funds (e.g., AMDAR, CAEA, GAW, GEO, IPCC, THORPEX) total disbursements for 2008 were approximately US $450,000, somewhat below our forecast of US $570,000.

For 2009, Canada will continue its contribution to Trust Funds that help support scientific and technical capacity building activities. It will be investigating investments in the WMO Integrated Global Observing System (WIGOS) Demonstration Project for Regional Association IV. Canada will complete its project with the Agrhymet Regional Centre in 2010. There will be concentrated efforts on improved understanding of polar influences on Earth's climate through building legacy programmes to the Third International Polar Year (IPY). The Sustaining Arctic Observing Network initiative undertaken under the auspices of the Arctic Council and Canada's proposal for a High Arctic Research Institute should help build capacity in northern monitoring. Canada will make available Green KenueTM an advanced data preparation, analysis and visualization tool for hydrologic modellers. The software is available at: http://chc.nrc.gc.ca/Numerical/Downloads/Green_Kenue_e.html. Total disbursements for 2009 are expected to be approximately US $400,000.

In closing, Canada needs to seek greater synergy between capacity building activities conducted by International Organizations (IOC, GEO, WMO, and UNEP). Critical to this enterprise will be increased rigour in determining the socio-economic benefits and valuation of the data, products and services provided by NMHSs. Canada needs to integrate this thinking into its activities to support the World Climate Conference-3 (WCC-3) which has as its theme "Climate Prediction for Decision Making: Focusing on Seasonal to Inter-annual Timescales".

Contribution to Capacity Building Activities Calendar Year 2008 Canada	
Item	**Value USD**
Agrhymet Regional Centre	50,000
GCOS Central America and Caribbean Regional Action Plan Implementation & Caricom Community Climate Change Centre	50,000
Agrhymet Regional Centre	40,000
Training Activities Including RMTC Evaluations	50,000
Trust Funds (AMDAR, CAEA, GAW, GEO, IPCC, THORPEX)	200,000
ODA portion of WMO Assessed Contribution (4%)	60,000
Total Contributions	**450,000**

VCP(F)	VCP(ES) - WMO	VCP(ES) - Bil	Sub Total	Total
Nil	**Nil**	**450,000**	**450,000**	**450,000**

Estimated Contribution to Capacity Building Activities Calendar Year 2009 Canada	
Item	**Value USD**
GCOS Central America and Caribbean Regional Action Plan Implementation & Caricom Community Climate Change Centre	50,000
Agrhymet Regional Centre	40,000
Earth Observation initiatives (e.g., SAR Workshop)	TBD
Other planned Bilateral activities	50,000
Trust Funds (AMDAR,CAEA, GAW, GEO, IPCC, THORPEX)	200,000
ODA portion of WMO Assessed Contribution (4%)	60,000
Total Contributions	**400,000**

VCP(F)	VCP(ES) - WMO	VCP(ES)- Bil	Sub Total	Total
Nil		**400,000**	**400,000**	**400,000**

China

Item	Descriptions of Projects		Total cost (USD)
1	Study Tour	Symposium on Strengthening NMHSs' External Relations and Field Study (13-23 October 2008, China)	89,000
2	Training and Fellowships	International Training Course on Climate and Climate Change (5-24 June 2008, Beijing Component of RTC-Nanjing)	187,550
		International Training Course on Satellite Meteorology (8–17 October, 2008, Beijing Component of RTC-Nanjing)	8,984
		International Training Course on Weather Modification (27 October–7 November 2008, Beijing Component of RTC-Nanjing)	26,953
		International Training Course on Agrometeorology (19 May-17 June 2008, RTC-Nanjing)	99,511
		International Training Course on Satellite and Radar Meteorology (15 September–29 October 2008, RTC-Nanjing)	11,000
		International Training Seminar on Management for Meteorological Administrators (11 to 29 November, 2008, RTC Nanjing)	80,859
		Pakistan / a fellowship to one Pakistan Meteorologist for PhD Programme	8,500
3	Donation of Instruments and Equipment through WMO	Myanmar / Provision of Meteorological instruments	25,394
		DPRK / provision of 350 sets of radiosondes and 600 balloons	17,262
		Pakistan / Provision of one set of MICAPS Forecasting System	4,492
4	Donation of Instruments and Equipment by bilateral arrangements	Mongolia / Provision of two Sand/Dust Storm Monitoring Stations	261,146
		Kazakhstan / Provision of one Sand/Dust Storm Monitoring Station	130,573
5	VCP(F)	Including VCP(F), IPCC Trust Fund, THORPEX Fund and IPY Trust Fund	37,000
	Total		**988,224**

Expected Contributions of China to the WMO VCP in 2009:

(a) Study Tour

A Symposium on Strengthening NMHSs' External Relations and Field Study will be organized in late August or early September 2009. About 15 senior officials responsible for international cooperation in NMHSs will be invited to the symposium and field study.

(b) Training and Fellowships

1. International Training Course on Multi-hazard Early Warning (RTC-Nanjing, 8-26 June 2009);

2. International Training Course on Meteorological Information and Service (RTC-Nanjing, 12 October-8 November 2009);

3. International Training Course on Agrometeorology (RTC-Nanjing, 16 November-4 December 2009);

4. International Training Course on Weather Modification (Beijing Component of RTC-Nanjing, 6-17 July 2009);

5. International Training Course on Climate and Climate Change (Beijing Component of RTC-Nanjing, 9-28 July 2009);

6. International Training Course on Multi-hazard Early Warning along Costal Areas (Beijing Component of RTC-Nanjing, 22 October-10 November 2009);

7. International Training Course on Satellite Meteorology (Beijing Component of RTC-Nanjing, tentatively in November 2009).

(c) Donation of Instruments and Equipment

DPRK/Provision of a PC Cluster.

(d) Donation of fund

US $10,000 to IPCC Trust Fund
US $10,000 to WMO Trust Fund for Voluntary Cooperation Programme
US $12,000 to WMO THORPEX Fund
US $5,000 to WMO WIS Trust Fund.

Finland

Pacific Island Countries:

- Project initially approved by Ministry for Foreign Affairs of Finland (MFA), pending for final approval (expected April 2009)
- Project is a bilateral capacity building cooperation between SPREP and FMI but will benefit all PIC NMHSs
- Project budget is €500k for 2009-2011
- Project duration is three years
- Project has three components: support to QMS implementation in the aviation weather services of PIC NMHSs, communicating with the society to increase the visibility of the NMHSs and support to strategic planning and socio-economic impact study for the region.

Southern Africa:

- Project approved by MFA
- Public awareness of the role of meteorology in the region and project planning and awareness-raising to support a major infrastructure project in the region
- Bilateral cooperation between Republic of Finland and SADC

- Project budget is €800k for 2009-2010
- Project duration is 12 months.

Croatia:

- EU Twinning project to support the establishment of air quality monitoring and management system in Croatia
- Budget €700k
- Project duration is 12 months.

Central Asia:

- Facts finding mission to identify areas of technical cooperation between Central Asian countries and Finland in the area of meteorology, environmental monitoring and the development of weather products and services
- Budget €42k
- Project duration two months aiming to identify and establish a larger cooperation project.

In the pipeline

South American Andean Countries:

- Initial study concept approved by MFA
- Feasibility study to establish the added value of early warning systems in the Andean region to prevent loss of life and property associated with extreme weather events
- Budget to be determined
- Bilateral cooperation between CAN and FMI.

Peru:

- Bilateral capacity building project between SENAMHI and FMI
- Budget €500k over three years 2009-2011
- Main focus on building the capacity of SENAMHI to design, implement and operate an AWS observation network and manage the data associated. Second major component is to support the development of the new organization of SENAMHI under the Ministry of Environment
- Approval from MFA expected April 2009.

Nepal:

- Bilateral capacity building project to support the development of early warning systems in Nepal
- Budget €500k over two years 2009-2010
- Approval from MFA expected April 2009.

France

1) Contribution from France to the VCP in 2008:

Donor Member	VCP (F)	VCP(ES)				Total Contribution
	Euros	Equipment and Services through WMO	Equipment and Services by bilateral agreements	Training/fellowships	VCP(ES) including fellowships Sub-total	Euros
France		0	49,380	1,304,538		1353918

2) In 2009, France will maintain its contribution to the VCP through Equipment and Services by bilateral agreement and training.

In 2008, France contributed 1,353,918 € to VCP- Equipment and Services by bilateral agreements and to VCP-Training and Fellowships through bilateral agreements.

Equipment and services through bilateral agreements

1) Experts services

In 2008, nine experts from Météo-France carried out technical assistance missions in several countries including Algeria, Romania, Morocco and Tunisia for an estimated cost of 49,380 €.

2) Training and fellowships

In 2008, Météo-France welcomed about 122 trainees and scientists, in particular as part of the ALADIN project, from countries such as the Czech Republic, Romania, Bulgaria, Georgia, Indonesia, Macedonia, Ivory Coast, Croatia, Morocco, Algeria and Tunisia, for an estimated cost of 1,304,538 €.

In 2009, France will maintain its contribution to VCP-Equipment and Services by bilateral agreements and to VCP-Training and Fellowships at the same level as in 2008.

France also mobilized significant resources for the follow-up and the launching of other technical cooperation operations, in particular:

Support to the training activities in RA V

In 2008, the Regional Service of Météo-France in New Caledonia organized, in cooperation with WMO, a training course on aeronautical meteorology. The course co-financed by the French Economic, Social and Cultural Co-operation Fund for the Pacific Region (FFP), the Region “Nouvelle Calédonie”, and Météo-France, was attended by 11 participants from Region V. In 2009, a training course on the Forecasting of Severe Weather Events, also co-financed by FFP and Météo-France will be organized in Tahiti, French Polynesia, for the benefit of forecasters from RA V.

Hycos

In 2008, France continued providing support for the implementation of the WHYCOS programme and of its regional components, in particular: CARIB-HYCOS: IRD, in collaboration with WMO, started the preliminary phase in March 2008 by country consultations and visits. The proposals of

the first phase were endorsed by the Steering Committee of the project which held its first meeting in La Martinique from 21 to 23 October 2008 in order to settle the list of actions to be undertaken during the second phase. It includes the acquisition of a IBM server to be put in operation at the Regional Centre in May 2009, the organization of a training session for a trainee in charge of the development and the management of the website and a call for tender for the purchase of hydrometric and computer equipment.

Support to the WMO activities and programmes through trust funds

In 2008, France provided a financial support of 11,500 € to several Technical Conferences and workshops organized by WMO. It also contributed to the AMDAR, IPCC and THORPEX Trust Funds for amounts of 21,000 €, 200,000 € and 30,000 € respectively.

Support to the ACMAD Centre and to AMMA

In 2008, France continued mobilizing significant resources for the ACMAD Centre and for the capacity building of the NMSs under the AMMA project.

The support to ACMAD includes a financial contribution from the French Ministry for Foreign Affairs of 165,000 € covering the salary and the mission expenditures of the technical assistant as well as a support from Météo-France to the ACMAD's PRESAO activities.

VigiRisC Project (total cost 4 M€, FGEF contribution 2 M€)

In 2008, the Steering Committee of the French Global Environment Facility (FGEF) gave its agreement for a financial 2M€ contribution to the project VigiRisc, the objective of which is to strengthen the capacities of African countries for risks prevention and socio-economic impacts related to climate variability and change through relevant and adapted tools. This project, the total cost of which is estimated at 4 M€, should last three years and will contribute significantly to the objectives of the ClimDev-Africa programme. The signature of the funding agreement between the FGEF and the ACMAD Centre, the beneficiary of the FGEF subsidy and the Executing Agency in charge of the management and implementation of the project took place in January 2009, allowing the project to start in 2009.

AOC project (total cost of the project, 3M€, FGEF contribution: 1.2M€)

At the FGEF Committee in November 2008, FGEF confirmed its commitment (1.2 M€) to this project under two conditions: further financial contributions of the order of 1 M€, launching of the ECOWAS general policy for Climate Change within which this project should be developed. The objective of this project is to develop a strategic framework to address the adaptation to climate change in these two domains (water and agriculture). It will include a component of capacity building which could lead to an improvement of climate observation networks.

ACC-COI project (total cost of the project 3,65 M €, FGEF contribution: 1M €)

This project, submitted to the steering Committee of the FGEF in March 2007, was accepted definitively for an amount of 1M € in 2008. The recruitment of a technical assistant to the IOC dates back to September 2008 and the project, the purpose of which is to establish a regional cooperation between the IOC Members regarding climate change has already started: a first meeting of all the stakeholders of this ACC-COI project is being organized at Port-Louis, Mauritius, on 24 and 25 February 2009.

Germany

Germany has continued to provide assistance in education and training and fellowships, mostly on a bilateral basis, and especially for short-term fellowships on a cost-sharing basis in the field of research and development.

Germany has also continued its efforts in support of WMO-sponsored training courses. In 2008, the International Satellite Meteorology Seminar for participants from central and eastern European countries took place at the DWD's Meteorological Training and Conference Centre in Langen. DWD hosted the classroom part of the 2008/2009 EUMETCAL radar seminar. In the framework of EUMeTrain the German contribution was to provide e-learning materials.

In addition to supporting the National Meteorological Services of developing countries in the introduction of regional numerical weather prediction, the DWD carried out once again a two-week Regional NWP Training Workshop in July 2008.

In connection with the CM SAF (Satellite Application Facility on Climate Monitoring) Germany supported a CLIPS showcase (WMO's Climate Information and Prediction Services) at the Meteorological Service of Armenia. Germany was able to support the South East Climate Outlook Forum with a financial contribution.

For all seminars held at the DWD Meteorological Training and Conference Centre, accommodation expenses are reduced for participants from developing countries and countries with economy in transition.

Meanwhile, 28 developing countries and countries with economy in transition are being supported in the operational use of the DWD NWP model by providing them with the corresponding boundary data.

In connection with the tasks arising from its commitment to WMO, Germany continues to support, for example, the WMO RA VI Regional Dobson Calibration Centre and the GAW Training and Education Centre, both at Hohenpeißenberg, and bore once more the expenses for the GAWTEC training courses.

Furthermore, Germany was involved in the reconstruction of the IT communication infrastructure of the Georgian Meteorological Service. A DWD expert stayed in Tiflis to analyse the current infrastructure and to advise on further developments.

In co-operation with the Meteorological Institute Mozambique (INAM) Germany supported the establishment of a basic flood warning system for the river Rio Save and provided appropriate training.

Together with the Meteorological Service of Tonga, Germany established a radio network on three islands of Tonga to assure a stable transfer of data. This network connects Tonga with RANET (Radio and Internet - Data Pacific Ocean) and ENWIN (Emergency Managers Weather Information Network) and will be used as an early warning system in case of disasters.

Germany supported again the focal point of the United Nations Framework Convention on Climate Change (Permanent Representative of Mali with WMO) in the preparation and distribution of climate data from Mali.

For the second time, Germany was able, through the GCOS Co-operation Mechanism, to contribute an amount of EUR 10.000 to GCOS for radiosondes and the renovation of Chisinau weather station in Moldova.

In August 2008, the International German Summer School of Hydrology (IGSH) was held at the Ruhr University of Bochum. The IGSH is a platform for conveying hydrological knowledge in two-

week courses with annually changing topics. The 2008 course focused on hydrological modelling, groundwater modelling and modern components to flood management and was supported by the German IHP/HWRP National Committee. It was attended by representatives of China, Egypt, Kenya, Palestine, Russian Federation, Senegal, Turkey, Viet Nam and Zambia.

In 2009, the main topics of the summer school will be sediment transport and modelling. A further project of the German IHP/HWRP National Committee provided e-learning modules of water-related issues. Topics available in 2008: Storm Water Management; Water Resources Management and Hydrology (I and II). In 2009, a new course will describe the interrelations between meteorology and hydrology.

In cooperation with the Meteorological Service of Mozambique (INAM), the DWD has developed a project proposal which has already been adopted in the first weeks of 2009 to be started in 2009. This project not only aims at providing the Meteorological Service of Mozambique with access to the DWD's NWP model but also at procuring the necessary hardware and assuring its installation on the sites as well as the training of the staff members.

In February 2009, the DWD will host the classroom phase of the next EUMETCAL Radar Seminar. The next EUMETCAL Workshop will also be organized by the DWD in November 2009.

In the first months of 2009, Germany was already able to contribute to GCOS through the GCOS Co-operation Mechanism by providing the Armenian State Hydrometeorological and Monitoring Service with radiosondes.

Germany will continue to provide technical assistance, mostly on a bilateral basis and taking into consideration the relevant recommendations of WMO bodies. In addition, emphasis will be placed on support to WWW System Support Activities by means of seconded experts, training, etc.

Japan

In 2008, Japan made a cash contribution of US $128,000 to the VCP(F) and VCP-related activities through the WMO. Further to its budgetary contribution, Japan provided training activities to the value of US $250,000 and several types of in-kind support by Japanese manufacturers during the year.

Contributions to the Voluntary Cooperation Programme (VCP) by Japan in 2008

(1) The Japan Meteorological Agency (JMA) conducted a three-month Group Training Course in Reinforcement of Meteorological Services with funding support from the Japan International Cooperation Agency (JICA). The course was offered to eight participants from eight countries (Bangladesh, Cambodia, Fiji, Iran, Laos, Myanmar, Tonga and Vanuatu) from 16 September to 12 December 2008. This course aimed at promoting activities to reinforce the meteorological services of each country applying meteorological data/products such as numerical weather prediction, satellite images, and climate information.

(2) In 2008, three meteorological instrument manufacturers in Japan generously offered in-kind support to the following countries through the VCP:

Myanmar *1)	Automatic Weather Station （Meisei Electric Co. Ltd)
Sri Lanka *2)	Sonde Ground Receiving Station (Meisei Electric Co. Ltd)
	Balloons (TOTEX)
Maldives	Balloons (TOTEX)
Armenia	Balloons (TOTEX)
Uzbekistan	Wind Vane/Anemometer (Koshin Denki Kogyo Co. Ltd)

*1) VCP (F) was also provided for emergency disaster assistance.
*2) Some radiosondes have been provided by funding from Japan and the VCP(F).

VCP-related activities by Japan in 2008 and prospects for 2009

(1) Training events

On-the-job training for typhoon forecasters, funded by the Typhoon Committee, was offered to two forecasters from Republic of Korea and Thailand at RSMC Tokyo Typhoon Center from 23 July to 1 August 2008. A Training Seminar on Climate Information and Forecasting started in 2008. The first seminar was conducted at Tokyo Climate Center from 4 to 7 November 2008, offered to 13 participants from 12 countries.

JMA bilaterally offered training events and sent experts for technology transfer to several countries (Argentina, Bangladesh, China, Indonesia, Malaysia, Pakistan and Thailand).

(2) Grant Aid Projects

A two-year Grant Aid Project (total: US $15 million) was completed in February 2008 in Bangladesh for the improvement of the meteorological radar system at Cox's Bazaar and Khepupara. Another Grant Aid Project (total: US $9 million) was launched in June 2007 in Bangladesh, aimed at the establishment of a meteorological radar system at Moulvibazar. This radar system will be installed in March 2009.

A Grant Aid Project (total: US $7 million) was launched in August 2007 in Sri Lanka for the improvement of the meteorological and disaster information network. The project aims to install 38 automated weather stations (AWS). Some follow-up training events will be conducted for using these AWS and applying their data to weather forecast.

A Grant Aid Project (total: US $29 million) is going to be launched in 2009 in the Philippines for the improvement of the meteorological radar system. Three radar systems at VIrac, Aparri and Guiuan and a data satellite communication system will be installed under this project.

(3) Technical Cooperation Projects

A 1.5-year JICA technical cooperation project on the rehabilitation and improvement of civil aviation in Cambodia was successfully finished in March 2008. An MTSAT data-receiving/analysis system and aeronautical meteorological equipment were installed under this project. The dispatch of three experts was also included in the project.

A three-year JICA technical cooperation project on development of human capacity for weather forecasting and data analysis in Mongolia was successfully completed in October 2008.

A JICA technical cooperation project on developing human resources for meteorology and hydrology in Lao PDR started in July 2006. This followed the installation of a meteorological radar system and an MTSAT data-receiving/analysis system in February 2006 under a Japanese two-year Grant Aid Project. This technical cooperation project is scheduled to continue until the beginning of 2010.

Technical cooperation projects for China-Japan Weather Disaster Research Centre (December 2005 - July 2009), Meteorology Training for Fiji and neighbouring countries (July 2007 - December 2009) and Enhancement for Adaptation to the Impact of Climate Change in Argentina (June 2008 - June 2009) are underway.

A Technical cooperation project in Bangladesh on development of human capacity on operation of weather analysis and forecasting is to be launched in 2009. This is to follow-up the Grant Aid Project for the improvement of the meteorological radar system mentioned above.

In 2009, Japan will continue to support the improvement and enhancement of meteorological and hydrological services of NMHSs in developing countries through the VCP and related activities including training/fellowship, in-kind contributions by private companies in Japan, and bilateral cooperation under the Official Development Assistance scheme.

New Zealand

The New Zealand (NZ) contribution to the VCP (US $1.2 million) is predominantly bilateral in nature via a mix of direct NZ government overseas development assistance and joint programmes and activities with other development partners, the Met Office UK, US NOAA Global Climate Observing System (GCOS) Programme and the Australian Bureau of Meteorology being the primary ones. The goal of NZ and its partners' assistance is to further enhance the capacity of NMHS of Small Island Developing States of the South Pacific (Pacific SIDS) to operate and manage their own meteorological, including climatological and hydrological, affairs. Funding from NZ comes out of the NZ Ministry of Transport (MOT) contract, managed by MetService and the NZ Climate Change Development Fund, managed by NZ Ministry for the Environment (MfE). Priority areas of assistance include:

- Ensuring the continuing quality and integrity of data gathered in Pacific SIDS in accordance with the Global Observing System (GOS) of the World Weather Watch (WWW);
- Ensuring the continuing quality and integrity of climate data gathered in Pacific SIDS as part of the GCOS programme;
- Providing facilities for the Global Telecommunications System (GTS) via maintaining a Regional Telecommunication Hub (RTH) on the GTS for the purpose of relaying observations to and from Australia and Pacific SIDS National Metrological Centres (NMCs) and other islands and relaying forecasts, analyses and other messages to and from Australia and the Pacific SIDS NMCs;
- Hosting and operating the HF/RANET Pacific Regional hub;
- Providing backup service to the Regional Specialized Meteorological Service (RSMC) Nadi/Fiji Meteorological Service (FMS) during the tropical cyclone season;
- Implementing the NZ climate change development assistance programme;
- Managing Trust Funds as agreed from time to time with other organizations funding Pacific SIDS data acquisition, data management and telecommunication systems.

<u>Highlights from 2008</u>

NZ Ministry of Transport (MOT) contract

Technical assistance and advice via remotely and in-country visits were provided to Cook Islands, Fiji, Kiribati, Niue, Samoa, Tokelau, Tonga and Tuvalu and MetService restored and upgraded a number of inactive Global Surface Network (GSN) stations in Kiribati. Four in-country routine preventative maintenance visits to Kiribati, Niue and Tuvalu and were completed in 2008 under this programme.

Pacific HF/RANET regional hub, Wellington

Installation of the Pacific HF/RANET regional hub for Pacific SIDS in Wellington, a joint initiative between the Australian Bureau of Meteorology (BoM) and MetService.

WMO Least Developed Countries Capacity Building Workshop, Port Vila, Vanuatu, 6 to 10 October 2008

Provided human resource support for the workshop.

NZ Climate Change Development Fund (CCDF

Financial and scientific support for the Climate Change Risk and Adaptation in the Pacific Islands project (ClimRAP) and the Pacific Island Data Rescue projects.

Island Climate Update (ICU) bulletin

This multi-national project funded by NZAID and coordinated by NIWA continued in 2008. It provides seasonal forecasts for Pacific SIDS as well as analyses of the state of ENSO and tropical cyclones. Twelve issues were published in 2008. A workshop reviewing the project was held in Port Vila, Vanuatu in August 2008.

Pacific HYCOS Project

Development and calibration of Flood Warning systems for the Navua and Rewa basins in Fiji. This project is funded by the European Union (EU), managed by SOPAC with technical scientific advice provided by NIWA.

Global Climate Observing System (GCOS) Upper Air Network (GUAN)

(i) Joint NZ (MetService) and Met Office UK Pacific Fund (PF) Trust Fund

MetService and Met Office UK continued to provide ongoing financial, administrative and technical assistance and advice to GUAN stations in Tarawa (Kiribati), Funafuti (Tuvalu), Penrhyn and Rarotonga (Cook Islands). Assistance includes provision of funding for day-to-day operation, procurement and supply of consumables, spare parts, financial management, reporting, remote support and in-country technical preventative and restorative maintenance visits. The programme also provided telecommunication (HF/RANET) and computer systems to the participating Pacific SIDS. Direct financial assistance to upgrade and refurbish local Met Service offices in Funafuti and Tarawa were provided under the PF. A new mSTAR AWS was installed on Tarawa in December 2008.

(ii) Joint NZ (MetService) with the US NOAA GCOS Programme - Technical Support Programme for the Pacific (TSP)

A joint partnership project, under the New Zealand/US Climate Change Partnership bilateral agreement, between MetService and the US GCOS Programme (based at NOAA's National Climatic Data Centre) on establishing a regional TSP on behalf of supporting GCOS systems in the region started in 2004. The goal of the programme is to provide a technical support and programme management solution to ensure that upper-air programmes that are part of the GUAN, as well as some GCOS Surface Network (GSN) sites and operated in Pacific SIDS are effective. The TSP is modelled on existing support programmes that MetService provides for other GUAN programmes in the Pacific (e.g., Met Office Pacific Fund (PF)). Like the PF, the TSP provides day-to-day operation, procurement and supply of consumables, financial management, reporting, remote support and in-country technical preventative and restorative maintenance visits to those Pacific SIDS GUAN stations (Port Moresby (PNG), Bauerfield (Vanuatu), Honiara (Solomon Islands) and Nadi (Fiji) and Rarotonga) not covered under the Met Office UK PF and NZ PAC

contract. Four administration and routine preventative maintenance in-country visits to Port Vila, Port Moresby and Honiara were completed in 2008.

Uganda Department of Meteorology (UDM)/US NOAA/NZ (MetService) GCOS and RANET Joint Technical Support Project for Africa

This project is modelled on the Pacific TSP and PF. It provides direct funding to UDM to service GCOS and RANET equipment in Africa, monitor GUAN/GSN Network performance, assess country needs and provide training where appropriate to advance activities of GCOS and RANET in Africa. The project is funded via the US RANET Programme Manager at NOAA who is supported by USAID, and works closely with the US GCOS Programme.

Tonga Early Warning System (RANET) Project

NZ (MetService) assisted Tonga to purchase five HF/RANET systems to disseminate severe weather warnings and data to/from outer islands in Tonga. The project is a joint initiative between Tongan government (Tonga National Emergency and Management Office (NEMO) and Tonga Met Service), MetService and Munich Re Foundation, Germany. Training of TMS staff on RANET systems and procurement of system components have been completed.

<u>2009/10 VCP Plan</u>

New Zealand will continue its commitment to programmes described above. Funding is expected to remain static in 2009/10 fiscal year. The projects we expect to support include:

- The review of Pacific regional meteorological services (the SPREP review);
- A continuation of the support NZ currently provides to Pacific SIDS (Kiribati, Tuvalu, Samoa, Tokelau Islands, Tonga, Niue and Cook Islands) under the New Zealand MOT Contract;
- A continuation of the support NZ provides to the GUAN stations at Funafuti (Tuvalu), Tarawa (Kiribati), Penrhyn, Rarotonga (Cook Islands), Port Moresby (PNG), Honiara (Solomon Islands), Bauerfield, Port Vila (Vanuatu) and Nadi (Fiji) (with Met Office UK PF and US NOAA GCOS TSP Programme);
- Continuing support to Kiribati Met Service to restore and upgrade their GSN observing and telecommunication (HF/RANET) networks (jointly with US NOAA TSP, Met Office UK and the Australian Bureau of Meteorology);
- Hosting the meeting of the Severe Weather Forecasting Demonstration and Disaster Risk Reduction (SWFDDRP) Working Group, Wellington, April 2009;
- Running the 2009 MetService/Victoria University of Wellington (VUW) “Meteorologist” training course;
- Funding the participation of selected Pacific SIDS meteorological/climate experts and researchers to the 9th International Conference on Southern Hemisphere Meteorology and Oceanography, 9 to 13 February 2009 (http://www.bom.gov.au/events/9icshmo/);
- In-country training and technical support will be provided to the observers and operators of the GSN, GUAN and RANET systems in selected Pacific SIDS;
- Implementation of the NZ MfE funded CLimRAP project,Pacific SIDS Data Rescue and ICU;
- Continuation of bilateral technical advice and support to individual Pacific SIDS on an ‘as need’ basis. Projects already received approval and funding for 2009 include:

    - Fiji; Upgrade of SAWS AWS network
    - PNG: the PNG GSN Restoration Project
    - Kiribati: Restoration of GSN silent stations
    - Tonga: the Tonga Early Warning System (RANET) project
    - Tokelau: Upgrade of the Nukunonu AWS
    - Pitcairn Islands; Annual maintenance and calibration of AWS network

- Tuvalu: Installation of the mSTAR AWS and RANET systems for Vaitupu Island as well as hosting Tuvalu Met Service technician in Wellington (training attachment to our engineering and electronics lab)
- Cook Islands: upgrade of the Rarotonga Upper air facility to sondes/temp status
- Samoa: Climate Early Warning System Project (CLEWS)
- Uganda; the GCOS RANET technical support for RA I; Africa with Uganda Department of Meteorology (UDM).

Republic of Korea

As part of its Voluntary Cooperation Programmes contributions KMA is conducting a wide range of training programmes and cooperative projects for countries that need support in meteorological technology and operations, in partnership with KOICA. In addition, KMA independently provides National Meteorological Services of ASEAN Members and other countries with support and collaboration when necessary.

In conjunction with KOICA, KMA offered a variety of training programmes such as its 2008 training programme on ICT (Information and Communication Technologies) for meteorological services. It has also organized a training workshop on aviation with meteorology for ASEAN Members in cooperation with ASEAN, and other bilateral cooperation projects with Mongolia's NAMHEM (National Agency for Meteorology, Hydrology and Environment Monitoring) and the Malaysia Meteorological Department. The project for building an early warning system for disaster prevention in the Philippines, in progress since 2007, reached successful completion in 2008. The database building project for NAMHEM's meteorological observational data, started in 2008, will continue in 2009.

KMA organized a programme on ICT for meteorological services from 26 May to 27 June 2008. 16 trainees from 15 countries participated. The programme, which was started in 2006, provides training on basic ICT required for weather services and new ICT implemented by WMO. Building on KMA's experience, the programme provided development guidelines for ICT-based meteorological services, and helped stimulate such development, in addition to strengthening Members' capacity in basic meteorological ICT. (USD 94,600)

KMA offered a training programme on analysis of COMS (Communication, Ocean & Meteorological Satellite) data from 18 September to 9 October 2008, for 13 participants from 12 countries. This programme, which was offered for the last two years, sought to promote a general knowledge of the application and analysis of meteorological satellite data, and furnished practical information that would enable Asian-Pacific countries to receive and apply satellite data once COMS is launched in 2009. It was also intended to build capacity for analyzing extreme weather events such as typhoons, Asian dust, and fog by employing satellites, and to use such capacity as a stepping stone for developing application techniques for meteorological satellite data, so as to mitigate meteorological disasters in Asian-Pacific countries (US $76,000)

KMA offered its Expert Programme for Climate Prediction in Asia-Pacific from 22 September to 7 November 2008, for nine climate experts from five developing Asian-Pacific countries (US $87,700). This programme seeks to contribute to human capacity building in developing countries and further, to enable them to apply this to climate prediction operations in the trainees' respective countries for improved climate services, by sharing KMA's technology and expertise in climate prediction and application of climate prediction information through international networks. (US $87,700)

Following in the steps of the ASEAN-ROK Training Workshop on NWP Products in 2006, KMA organized the ASEAN-ROK Training Workshop on Aviation Meteorology from 10 to 14 November 2008, under the auspices of the Ministry of Foreign Affairs and Trade (MOFAT). 15 trainees from 8 ASEAN Members participated. The workshop contributed to safe, economical and efficient aviation

in ASEAN Members through the sharing of expertise and technology for aviation meteorology. It also laid the underpinnings for a cooperative network that will help develop technologies and share information on aviation meteorology. (US $100,000)

As part of the bilateral cooperation agreed upon in its bilateral cooperation MOU with Mongolia's NAMHEM, KMA transferred its independently developed WebFAS (Web Forecast Analysis System) technology to the latter, and hosted a training programme on meteorological technology for regional heads of NAMHEM from 13 to 17 October 2008. (US $13,000) It also offered on-the-job training from 5 to 10 August 2008, which provided three employees of NAMHEM's Aviation Meteorology Centre with the opportunity to acquire aviation meteorology techniques. The trainees gained exposure to aviation meteorology services, ISO 9001 certification, AMOS, etc.

KMA welcomed one NWP specialist from the Malaysia Meteorological Department to its headquarters, so as to help build NWP models and data assimilation systems. The visit, which took place from 13 to 21 November 2008, provided an introduction to NWP models (WRF) and data assimilation (3DAVR), as well as their installation and porting.

The following lists the development programmes organized by KMA for two years with support from KOICA.

KMA, in conjunction with KOICA, has been conducting a two-year (2008-2009), US $1.3 million project for "Climate Data Rescue and Modernization of Preserving System in Mongolia" for the NAMHEM headquarters and three provincial data repositories. The project consists of support for the compilation of printed meteorological observational data and equipment, development of a system for managing and preserving climate data, expert missions and technology transfer, and invitation training at KMA for NAMHEM personnel. As part of this project, KMA invited three data management specialists from NAMHEM to attend its Training Program on Database Management in Climate Data in 2008. KMA experts also visited NAMHEM to help recovery of climate data by installing data recovery equipment. (US $1,300,000)

KMA implemented another joint project with KOICA in 2007-2008, which aims to build an early alert and monitoring system for disaster mitigation in the Philippines. As part of this effort, KMA arranged for a delegation of meteorologists to visit the Philippines in November 2007 for preliminary discussions on this project, and signed a bilateral cooperation MOU in December 2007 so as to facilitate a harmonious and successful completion of the project as well as future progress for bilateral cooperation in meteorology. KMA built the early warning system by installing the necessary equipment. It also organized two onsite training workshops in two of the three project areas (Aurora, Iloilo and Lanao) for public servants in the relevant areas, who received training in disaster mitigation and maintenance of the early warning system. Through these efforts, this two-year (2007-2008) project was successfully completed.

For 2009, KMA plans to continue the training programmes it offered in 2008 in cooperation with KOICA. The database-building project for NAMHEM's meteorological observational data will be pursued as well. Through KOICA, the Korean government is sponsoring a new WMO support programme for the African region, and KMA is soon to launch a new training workshop, "Building capacity in the African region for responding to meteorological disasters".

The VCP for 2009 is as follows:

KMA plans to continue programme on ICT for meteorological services, previously offered in 2007 and 2008. The 2009 programme will take place from 23 May to 27 June 2009, with 15 participants from 15 countries. (USD 90,000) The 2009 curriculum will be refined to take into account KMA's past experience with the training and requests from trainees.

KMA will offer a training programme on analysis of COMS data in 2009 for the third time (previously offered in 2007 and 2008); this year's budget is US $70,000. As the COMS launch is

scheduled for the end of 2009, KMA plans to build upon its accumulated training experience to continue providing information on using and receiving COMS data.

In the wake of the equipment installation in 2008, KMA plans to continue project for "Climate Data Rescue and Modernization of Preserving System in Mongolia" in the year 2009 in collaboration with KOICA, by developing a system for managing and preserving climate data, and continuing its expert missions and technology transfer for the NAMHEM headquarters and three data depositories. Another invitation training programme at KMA is planned for May 2009 for two NAMHEM employees. The project is expected to reach completion by the end of 2009.

Through KOICA, the Korean government has pledged its participation in two WMO cooperative development projects for the African region, and is negotiating the respective MOUs. One project consisting of building a "Regional Climate Framework in Eastern Africa to Support Adaptation to Climate Change" and the other is entitled "Weather and Climate Impact on Community Health and Public Health Services". After signing the MOUs with WMO, KOICA plans to provide approximately US $600,000 (US $400,000 for the framework project and US $200,000 for the impact project).

In partnership with KOICA, KMA plans to offer a training programme entitled "Building capacity in the African region for responding to meteorological disasters", so as to maximize the effects of the ongoing KOICA-WMO joint project supporting capacity building in the African region for responding to meteorological disasters. 15 trainees from 15 African countries will participate in this programme, scheduled for 16-30 May 2009 (US $150,000). The programme is expected to contribute to enhanced capacity of meteorological services in the African region for responding to meteorological disasters.

Russian Federation

In 2008, US $85,700 was allocated from the Roshydromet budget for training which included covering trainees' traveling expenses, accommodation and subsistence, software and teaching aids and teacher's fees.

As part of VCP, 60 hydrometeorologists from NMHSs of Armenia, Belarus, Kazakhstan, Tajikistan, Lithuania, Estonia and Mongolia were trained in Russia in 2008. Workshops on aviation meteorology were organized in Belarus and Ukraine which were attended by 50 technicians. In May 2008 an international workshop was held in the Russian State Hydrometeorological University in St Petersburg entitled "Use of new learning technologies for training and retraining of hydrometeorologists" for the staff of NMHSs from RA II and RA VI. Forty experts from 17 countries including Switzerland, China, Syria, Pakistan, Turkey, Laos, Nepal, Belarus, Ukraine, Uzbekistan and Russian Federation attended this workshop.

Last year, 142 students received education in St Petersburg Hydrometeorology University, primarily from the former CIS, Asia and Africa, six having WMO fellowships. A total of US $473,000 was spent from the Russian Federation budget for this purpose.

Within the WMO VCP, Roshydromet purchased a workstation "hydrologist-forecaster" and satellite terminal "Mitra" for Tajikistan in 2008 and will supply it this quarter. Another "hydrologist-forecaster" complex was purchased for Belarus. The equipment purchased by Russia in 2008 under the technical cooperation programme is worth US $53,000.

Roshydromet has launched the virtual satellite laboratory website in the Russian language for guidance on preparation of satellite products, primarily in the former CIS countries http://meteovlab.meteorf.ru. US $107,000 was spent for development and maintenance of this website.

Approximately US $718,700 was spent by Russian Federation for all activities related to VCP. A similar amount is planned to be used next year for the same kind of activities.

South Africa

SAWS funded the AMDAR programme over the entire Southern African region to the tune of approximately US $70,000. This is important for expanding the upper-air observations and complements the limited upper-air sounding over our sub-region.

Angola (Q1, 2008) - In response to the WMO and Angolan NMS request, SAWS *installed weather display software* and conducted *training* for Angolan forecasting staff. This is essential for modernizing forecasting services, particularly for the Aviation sector.

Swaziland (Oct 2008) - Technical assistance with the *installation of a UPS for the LDS* provided by SAWS experts. Also installed SUMO software and configured network to allow for sharing of data in realtime. This is essential for tracking severe weather systems over our region and improving our weather warning services.

Botswana (Dec 2008) - SAWS *Installed the TITAN software*- The sub-regional radar network now operates in realtime and shared amongst participating countries. This is also important for tracking severe weather systems and improving weather warning services in the sub-region.

MASA Secretariat - SAWS is currently serving as the Secretariat of this meteorological association and absorbing the related costs. MASA is concerned with regional collaboration towards meteorological development. MASA has identified several key themes which include: capacity building, met infrastructure and meteorological applications.

Spain

In 2008, Spain contributed in cash to several multilateral or bilateral co-operation projects supported by WMO and related to the goals of VCP. Spain also mobilized resources in favour of development projects and technical assistance. Training activities for staff of NMHSs of other Members also continued in 2008.

1. VCP Trust Fund

There was no direct contribution to the VCP, all the activities having being managed through agreements with WMO and the receptor countries.

2. Multilateral activities in Regional Associations III and IV financed through bilateral agreements with WMO

In 2006, Spain established a Trust Fund in WMO to finance the activities of the “Ibero American Co-operation Programme” agreed with 20 NMHSs of Ibero America and Portugal. The contribution to this fund was US $1.707.552 in 2007 and US $1.740.803 in 2008, although this amount was received by the WMO in January 2009. The Trust Fund has been kept at WMO for financing present and future activities.

The highlights from those implemented during 2008 were:

- CLIBER (Clima Iberoamericano) project for studies of the current situation and development of NMHSs infrastructures. In 2008 the project was addressed to the NMHSs of Costa Rica, El Salvador, Honduras, Nicaragua, Panamá, Paraguay and Uruguay. Two consultants were working in the project and staff of the State Meteorological Agency of

Spain (AEMET) has been also involved. The 2007 CLIBER projects of Guatemala, Dominican Republic and Haiti were presented to donor agencies and governmental institutions.

- Activities within the framework of Madrid Action Plan were initiated during 2008. User workshops were held in Chile and Peru, followed by a training course on Evaluation of Socioeconomic Benefits of Meteorological Information. Learning-Through-Doing pilot projects with selected users sectors have been implemented since then with the assistance of two consultants, one specialized in management and marketing and the other in socioeconomic assessment.

- Training activities in South and Central America: Satellite Meteorology, Use of NWP products, Seasonal Forecasting, Climate Change scenarios, Operation of EUMETCast reception stations, flooding management and use of automated hydro-meteorological weather stations. Spain has financed the training (in co-operation with EUMETSAT in satellite courses) of around 300 students, including travel, daily allowance, local organization, etc.

- Organization of a meeting of communication officers, and another one of distance learning experts.

- Support to the creation of a Virtual Centre for Forecasting of Adverse Phenomena through co-operation between Argentina, Brazil, Paraguay and Uruguay. A meeting was organized in Curitiba and the participation of the delegates was fully financed.

- Administration of the programmes, maintenance of a web page, etc.

The expenditure from the Trust Fund during 2008 can be estimated at around US $788.000 (of which training is around US $300.000) plus US $94.980 of overhead costs (travel expenses) financed directly from the AEMET budget. In addition, 38 people from AEMET and other Spanish institutions have been involved in all these activities with an average of dedication of 15 days on a full-time basis.

The Spanish Cooperation Agency supported directly the daily maintenance of delegates and local cost for the training activities being held in their Training Centers of Santa Cruz de la Sierra (Bolivia) and Cartagena de Indias (Colombia), with a direct cost of US $9.961.

Spain contributed in cash with US $220.500 to the WMO Trust Fund for financing the CIIFEN Centre for Research on El Niño in Guayaquil (salary of international director and operations).

3. Multilateral activities in Regional Association I (Africa) financed through bilateral agreements with WMO

During the meeting of Directors of the NMHSs of the North and West African countries, held in Las Palmas de Gran Canaria (Spain) from 17 to 19 October 2007, the Las Palmas Action Plan in order to develop and implement development activities in meteorology and related activities was approved. To support these activities, Spain established in 2007 a Trust Fund in WMO to finance the activities of the “West Africa Co-operation Programme”.

In 2008 Spain has contributed to that Trust Fund with US $2.249.100, although this amount was received by the WMO in January 2009. Nevertheless, as most of the US $1.837.500 transferred in 2007 was not all used in 2007 so it covered expenditure of projects developed during 2008. The last amount transferred in January 2009 will be used during 2009 for the activities programmed in the meeting of Directors of the NMHSs held in November 2008 through the Niamey Action Plan.

The highlights from the activities implemented in West Africa during 2008 were:

- Implementation of an agrometeorology project, consisting on an initial coordination meeting, a training seminar for focal points and the development of Roving Seminars for farmers in Burkina Faso, Mali, Mauritania, Senegal and Niger.

- Organization of a coordination meeting for the design of a marine meteorology project in the West African Coast (Mauritania, Senegal and Cape Verde) and definition of the terms of reference for its implementation.

- Urgent needs projects for Least Developed Countries, in particular, Liberia, Sierra Leone and Guinea-Bissau.

- Organization of a management workshop for Directors of NMHS.
- Organization of the meeting and participation of delegates at the conference of NMSs Directors.

- Administration of the programmes, maintenance of a web page, etc.

The expenditure from the Trust Fund during 2008 can be estimated at around US $370.000 (of which training around US $140.000) plus US $35.561 of overhead costs (travel expenses) financed directly from the AEMET budget.

Spain contributed with US $262.909 to the WMO Trust Fund for financing the African Centre of Meteorological Application for Development (ACMAD), in particular capacity building, research and general operations.

4. Training Fellowships

During 2008, nine students from Ibero America continued their participation in the two-year international Course on Applied Meteorology organized by AEMET in Madrid. Estimated costs including fellowships granted to the students were US $273.424.

5. Other technical activities

The Izaña Center of Atmospheric Research of AEMET, in close collaboration with Barcelona Supercomputing Center (BSC) and the Spanish Scientific Research Council (CSIC), offered to host the WMO European/African/Middle East Regional Centre Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS).

The Izaña Center also collaborated closely with Algeria and Argentina in several observation campaigns in Sahara and Antarctica.

The overhead of all these activities is estimated at US $18.042.

6. Organization of conferences and meetings

In 2008, Spain contributed to WMO with US $147.000 for the organization of the WMO World Climate Conference.

Spain organized the Conference of Ibero America NMSs Directors held in Panama supporting all delegates and financing local cost with a total expenditure of US $67.761.

Outlook for 2009

During 2009, the highlight will be the use of the available funds for the two main co-operation projects in South and Central America and West Africa, which reach approximately US $2.660.522

for the Ibero American Trust Fund and US $3.716.628 for the African Trust Fund. The amounts transferred for ACMAD and CIIFEN are still fully available for 2009 activities.

Spain will continue its contribution to the WMO cooperation activities. However the final figures will depend on remaining funds available during this period and, therefore, will be defined in the following months.

The training activities for staff of less developed Members will continue through the finalization of the current long-term training course and the beginning of the new two-year course during the second term of the year. The collaboration of the Spanish International Cooperation Agency for Development (AECID) will also continue with the support of their Training Centres in Ibero American.

Switzerland

Switzerland is continuously operating the following central facilities in favour of the GAW Programme:

- World Calibration Centre and Quality Assurance/Science Activity Centre for ozone, carbon monoxide and methane at the Swiss Federal Laboratories for Materials Testing and Research (EMPA, Dübendorf): EMPA provides calibration services, station audits, trainings and operational support of the global GAW network;

- World Optical Depth Research and Calibration Centre (WORCC) at the World Radiation Centre (Davos): The WORCC is providing quality control and quality assurance for the operational aerosol optical depth measurements at a dozen of global GAW stations;

- A calibration centre for infrared radiation is maintained at the World Radiation Centre (Davos);

- European UV Calibration Centre at the World Radiation Centre (Davos).

Following a decision of the Swiss Federal Government, Switzerland will continue its involvement with the World Radiation Centre Davos. As in the past, the World Radiation Centre will be jointly financed by the Swiss Federal Government, the Canton of Grisons and the township of Davos.

MeteoSwiss and EMPA regularly provide capacity building and consumables to the global GAW station in Kenya.

With regard to RA VI, in 2008 the Permanent Representative of Switzerland was in the function of elected President. In addition Switzerland supported the following with a cash contribution:

- RA VI Office for Europe.
- Switzerland has sponsored the GEO-Secretariat in Geneva with cash contributions.
- Switzerland sponsored some WMO Technical Conferences with cash contributions.
- Switzerland supported the GCOS Cooperation Mechanism with a cash contribution.

The Swiss voluntary contributions for 2009 will be in approximately the same order as for 2008.

United Kingdom

2008 VCP Plan

The main UK contribution to the VCP is funded as part of the UK Public Weather Service (PWS). The Customer-Supplier Agreement for the UK PWS sets some priorities:

- Improved protection of life and property of British Citizens overseas through the provision of sustainable public weather services by developing country National Meteorological and Hydrological Services (NMHSs).
- Sustained, and optimally improved, levels of observation data available on the WMO Information System (WIS).
- Increased access to forecast and observational data from developing country NMHSs via the World Weather Information Service.
- Ensure the continued unrestricted exchange of data and products, and effective results of WMO Programmes.

In addition, the Met Office, UK, seeks to mobilize resources from other donors.

Highlights from 2008

Observations
Continued support was provided to the GUAN stations at Seychelles and Gough Island and funds were provided to GUAN stations on Pacific Islands through the Pacific Fund managed by Met Service New Zealand. During the year, the station at Penrhyn, Cook Islands ceased operating, and it was not possible to sustain this station. The equipment will be transferred to Rarotonga, to upgrade that station for radiosonde operation.

Forecasting
GRIB data from the Africa LAM continued to be disseminated via the EUMETCAST system and by website as graphical products.

A Met Office Chief Forecaster was provided to assist in delivery of the SWFDP-RA I training package at SAWS in Pretoria in November. The Met Office has continued to provide MOGREPS-15 probabilistic forecast products in support of the project and to actively participate in the SWFDP-RAI Management Team.

The annual Met Office WMO Aviation Seminar was developed and delivered to 20 delegates from RA I, RA II and RA VI by the Met Office at Sultan Qaboos University in Muscat, Oman, using facilities and support provided by the OMD.

Climatology
Further development of the Climsoft climate data management system was undertaken, including work on enabling data from Climsoft to work with other data sources using XML. Partial funding for a developers workshop was provided; this will now be held in Lusaka in April 2009.

Two e-SIAC courses were delivered to a total of 75 delegates.

The f-SIAC course was delivered at the IMTR in Nairobi, Kenya during August and September 2008 with assistance from Roger Stern of Reading University SSC. Funding was provided for six delegates from RA I to attend the training course.

Technical support was provided for a PRECIS (regional climate change impacts) workshop held at ICPAC, Nairobi in November.

IT and communications
A partnership was established with Computer Aid International, a UK charity that supplies refurbished second-user PCs. This project is providing hardware and training to enable climatic data to be held and used locally within Uganda.

Applications
The TV Weather presentation system in Togo was upgraded to a studio system, with the help of a trainer from DMN Benin. A studio system and on-site training were provided for the Cook Islands at Rarotonga.

Two TV Weather Presentation training workshops were held in Nairobi on the new software, WeatherEye PC, for all the English- and Portuguese-speaking countries previously assisted with TV weather presentation systems. This was delivered with the help of trainers from Kenya, Uganda and Swaziland. Each participant NMS received a laptop PC with the software. A website for support was set up.

Human Resources Development
Delegates from Malawi and South Africa successfully completed their studies for an MSc at the University of Reading. MSc Fellowships were awarded to delegates from Tanzania and South Africa and these began in September 2008.

A delegate in Rwanda was sponsored for a MBA course locally.

The Royal Meteorological Society started providing paper copies of journals to RMTCs in addition to the on-line access already provided to all developing country NMHSs.

Financial support was provided to the WMO LDC workshop in Vanuatu.

A course in Management by e-Learning was developed and run twice. This aims to provide an introduction to relevant management tools for middle-level managers in NMHSs of developing countries. There were 46 students for the first run and 36 for the second.

2009 VCP Plan

The UK will continue its commitment to the targets outlined above, although funding from the UK PWS is expected to be less than during 2008. The projects the UK expects to support include:

Observations
UK support will continue to the GUAN stations at Seychelles, Gough Island (with SAWS), Funafuti and Tarawa, and upgrades to sonde operation at Rarotonga (with New Zealand MetService). Support for the GUAN station on St Helena will be transferred from the UK observations budget to the VCP budget. A target for the year is to move to BUFR reporting of sonde data from all the supported stations.

A number of raingauges with data-loggers and cellphone communications will be provided to Seychelles to provide alerts of severe rainfall events at remote locations.

Forecasting
The Africa LAM will continue to be provided free of charge to NMSs in RA I and innovative ways of developing and delivering additional products will be explored. It is planned that the SAWS SA12 model will also be provided via GeoNetCast; once this is operational, the Africa LAM will be reconfigured in November to 12Km over Northern Africa (with an overlap to the SA12 area). Both models are expected to have additional levels.

MOGREPS-15 probabilistic forecast products will continue to be provided in support of the Severe Weather Forecasting Demonstration Project for Southern Africa, as well as support for the training component.

The Met Office will also be providing support for the Severe Weather Forecast and Disaster Risk Reduction Demonstration Project in the South-west Pacific (SWFDDP-RAV) through the provision

of MOGREPS-15 probabilistic forecasting products (including tropical cyclone tracks), membership of the Regional Management Team and training delivery.

The annual Met Office WMO Aviation Seminar will be delivered in Turkey during October.

Climatology
Climsoft will continue to be developed in association with WMO and the Statistical Services Centre at the University of Reading; a project in Malawi is being funded to implement Climsoft and link to a World Bank project which has provided AWSs.

Financial support will be provided to facilitate the delivery of e-SIAC courses in January and October.

IT and communications
A project on localization of data input and use in Uganda will continue; a similar one in Zambia is being planned.

Applications
Further training and maintenance support will be provided to the operators of the Media Weather Presentation Systems. The roll-out of the WeatherEye-PC software package will continue, with a training course for the Francophone Africa countries to be held in Senegal, and continuing on-line advice, support and training materials. Training and help with setting up a TV broadcast service will be provided in Guyana.

Human Resources Development
Continuing support will be provided to the two MSc students in order to complete their studies, and two further students will be funded during the next academic year.

A third run of the 'Management by e-learning' training course for middle-level professional staff in developing country NMHSs will be delivered in September – November 2009. A follow-up course on Performance Management will be developed and run in June; the target group will be those who completed the first MeL course.

United States of America

Summary of US VCP Activities and Contribution in 2008 ($1,884,610)

A. Promote hurricane and tropical cyclone preparedness and coordination with vulnerable WMO Member states particularly in the Caribbean and Pacific regions through technical assistance. Activities include:

1) Support to the annual WMO Region IV Hurricane Committee Conference and Hurricane Awareness Tour. $120,792

2) Support for the Hurricane Attachment Programme at NOAA's Tropical Prediction Center which brings weather service personnel and emergency managers from vulnerable members to train at the centre to learn about forecasting, preparedness, and public outreach during hurricane season. $63,500

3) Contribution to the WMO Typhoon Committee annual trust for capacity building activities related to the Region V Typhoon Committee in the Pacific Region. $27,000

4) Hurricane/Island Strikes Curriculum Assessment. $33,323

5) Hydrogen Generator Parts and Shipping. $3,995.

B. Provide technical assistance and training for developing countries to improve the forecasting capabilities of meteorological and hydrological professionals. Activities include:

1) "Training Desk Programmes – African, Tropical, and South American": Managed by NOAA/NWS National Environmental Center for Environmental Prediction (NCEP), in collaboration with the WMO, this programme provides participants with practical training in weather and climate forecasting. Funds are used to support travel, stipends, expert trainers, coordination with WMO, insurance, equipment, facilities, and the development of materials. $424,480

2) "Training Desk Programme – Pacific": Managed by NOAA/NWS Pacific Region, in collaboration with the WMO, this programme provides participants from island nations with practical training in weather and climate forecasting. Funds are used to support travel, stipends, expert trainers, coordination with WMO, insurance, equipment, facilities, and the development of materials. $252,258

3) Development of a Hydro-meteorological Forecasting Workshop – workshop on hydrological forecasting and end-to-end warning systems. $28,000

4) Flash Flood Forecasting Resource Guide. $42,200

5) Numerical Weather Prediction – WRF model case studies. $60,000

6) Disaster Risk Reduction – pilot project training materials. $42,000

7) Funds reserved for unscheduled training activities, such as the translation of NWS training materials for international partners. $125,062.

C. Provide support and expertise to WMO and Global Earth Observing (GEO) partners for capacity building activities. Activities include:

1) WMO AMDAR Panel – support for capacity building activities to improve upper-air observations and data collection using commercial airplanes. $61,000

2) Global Earth Observing System of Systems (GEOSS) strategic plan for communications in the Americas. $66,000

3) WMO Pacific Regional Association – support for meetings. $44,000

4) Global Telecommunications System maintenance. $40,000

5) RANET – installations and development in the Pacific and Africa. $55,000

6) The Observing system Research and Predictability Experiment (THORPEX) – T-PARC Experiment. $45,000

7) WMO Integrated Global Observing System Region IV Pilot Project. $110,000

8) TECO/CBS – support for participation in technical conference. $42,000

9) WMO Technical Cooperation and Training Programme – support for the participation of WMO Members in conference on the societal benefits of public weather services. $127,000

10) Direct Read-out Conference – support for WMO Members to participate. $17,000

11) Data Rescue. $55,000

ANNEX V

MAJOR REGIONAL DEVELOPMENT PROJECTS 2008

1. Strategic Partnerships and Major Development Projects

The optimal situation in terms of extra-budgetary support to NMHS and the Secretariat is for programmatic rather than project funding and preferably in respect of regional development programmes as it will be impossible to service developing countries needs comprehensively on a one-to-one basis. Whilst this is the ultimate aim the current situation is a mix of project and programmatic funding with the trend still being towards project support but some regional programmes are underway.

Summary major programmes / projects below – others in **Appendix 1**

ODA / Development Banks

- The 1st Phase of the joint initiative with World Bank / UNISDR / WMO (with support of Finland) for S. Eastern Europe was completed with publications of a series of assessment reports on: Disaster Risk in SEE, Risk Insurance Markets, and Status and Investment Plan of Hydrometeorological Services (www.wmo.ch/pages/prog/rp/RegionalActivitiesRAVI.html) Based on these assessments several countries are directing WB Loans to investment in HydroMet (Albania, Croatia, Montenegro, Moldova, and Macedonia). WMO-RMO Office prepared a proposal for European Commission DG Enlargement as part of a 2M€ project which is now under contract. This project will be implemented by the Office for Europe in partnership with UNDP (each responsible for 1M€ of funds). An Inter-Agency Coordinating Committee has been established to synergize on activities comprising WMO, WB, UNISDR, UNDP, and EC-DG/E will also participate.

- World Bank funded SEE RCOF and we are continuing to work with them in SEE. The EU Funded and WMO/UNDP implemented project for DRR in SEE will work closely with WB funded initiatives arising from the WB/ISDR/WMO review of capacity in the region.

- On the above lines a similar Phase 1 Assessment has begun for Central Asia and Caucuses Region funded by the WB Global Facility. A consultant from the sub-region (Armenia) has been recruited for the Hydromet Component which has just commenced. A Coordinating Body of the above agencies has been established. At a recent meeting of the IACC, Finland joined to the project and will provide assistance to the HydroMet Assessments including a BCA of proposed investments. Finland Foreign Affairs has already committed to some investments in the region pending these assessments.

- A similar partnership programme development activity is under discussion for South East Asia and Pacific Region with WB SE Asia Office.

- Finland continues to support NMHS Development Activities. A Capacity Building project has been approved for the Pacific Islands region which is currently being planned with SPREP with involvement of WMO Sub-Regional Office in Apia and the RO and RMO. Discussions on SADC region support are still ongoing.

- The Spanish support to the Programme of Cooperation for the Ibero American countries has continued with a focus on capacity development and operational activities and in parallel preparation of development projects for most countries (**Appendix 2** to see 2009 Annual Plan of Activities).

- A new Spanish Programme of Cooperation with West African countries has commenced. The fund currently stands at more than 2.5 M€ for investment in (2nd Annual) Programme of Activities agreed with the NMHS Directors at Programme Planning Meeting in Niamey, Niger in Nov 2008. The focus of activities is on Marine and Agricultural Meteorology, Development Financing for Countries Emerging from Conflict (Sierra Leone, Liberia and Guinea Bissau), Capacity Building in Political Advocacy and Resource Mobilization and

other activities as agreed between participant countries and the donor. The Programme is managed by the Regional Office for Africa.

- Discussions between RMO and Korea ODA Agency (KOICA) have resulted in support to projects in Africa to the tune of US $600,000 in the area of Climate and Health and support to Regional Climate Centre. Korea Met. Admin (KMA) with KOICA is supporting complimentary activities for training for relevant countries in Seoul.

- Korea Met. Admin. seconded their Adviser on Relations to Democratic People`s Republic of Korea to RMO/RAP for four months to initiate programme of development for DPRK using WMO channels and funded by the Ministry of Unification. This is now in progress. RMO/RAP facilitated discussions with DPRK Mission Geneva.

- AECID (Spain) is supporting the SDS and GAW projects in Northern Africa and indicated interest in supporting a project on disaster risk management in Haiti and Dominican Republic developed under the Programme of Cooperation for Iberoamerican NMHSs. Discussions are underway seeking support to projects in other countries in Africa and the Americas region.

- US NWS has initiated a major capacity building programme through WMO covering a range of existing and new activities; Training Desks; Fellowships; support to WIS; Socio-economic benefit areas; Climate Data Recovery programmes etc

In the pipeline

- The World Bank is working with WMO in the formulation of a development project for SENAMHI Bolivia aimed at supporting the national programme on disaster risk reduction. The development plan prepared under the Programme of Cooperation for Iberoamerican NMHS is being used as the basis for the new project. A mission to Bolivia to coordinate the project is foreseen early this year.

- Development projects for the NMHSs of Panama, Costa Rica and El Salvador, prepared during 2008 under the Programme of Cooperation for Iberoamerican NMHSs were submitted for consideration to national and international funding agencies based in these countries. Panama would support its own project, while the project in El Salvador will be supported using funds from a FAO project that addresses the same subject and complemented by national funds. Development projects were also prepared for the NMHS of Honduras, Nicaragua, Ecuador, Paraguay and Uruguay. WMO/AEMET missions are being organized to these countries in the first half of 2009 seeking support for the implementation of these projects. The Inter-American Development Bank (IDB) has offered partial support to the projects in Honduras, Uruguay and Paraguay.

- Ireland (Irish Aid) has indicated strong interest in working with WMO but discussions continue. Irish Aid supports the harmonization of Aid as per the Paris Declaration and would prefer to enter into an integrated financing arrangement that would include other “like minded” donors (UK, Scandinavian and Norwegian countries) and will explore with us how we might achieve this. Main interest is in Sub-Saharan Africa for Climate Change and Food Security.

- Discussions are underway with Finland for Capacity Building support to NMHSs of the Great Caribbean in partnership with the Association of Caribbean States.

- On going discussions with Inter-American Development Bank (IDB) representatives in the areas of climate change and natural disasters, and climate and water leading to the development of cooperation programme with concrete activities in support to common Members in the Americas region.

APPENDIX 1

DEVELOPMENT AND REGIONAL ACTIVITIES DEPARTMENT (DRA)
Resource Mobilization Office
(2007-2008)

Development Projects Funded					
Activity/Project	Beneficiary Country/Region	**Amount**	**Equivalent in CHF***	**Funding Agency**	**Remarks**
1. *Pilot Project for the Implementation of an Early Warning System to contribute to disaster risk reduction in Bolivia*	Bolivia	415,000€	622,500	Spanish International Development Agency (AECID)	Funds negotiated by RMO and approved by AECID. Administered by UNDP Office in Bolivia.
2. *Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction*	Croatia, Turkey, FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia	2,000,000€	3,000,000	EU-COM DG-Enlargement	2M€ committed. Two components at 1M€ each. 1M€ to be implemented by WMO and 1M€ by UNDP.
3. *Rehabilitation of the Iraqi Meteorological Organization*	Iraq	5,285,000€	7,927,500	Government of Italy	5M€ Soft Loan to Iraqi Government. 285,000€ to WMO for Technical Support
4. *Global Atmospheric Watch in the Magreb-Sahara Region*	Magreb-Sahara Region	340,000€	510,000	AECID	Funds negotiated by RMO and transferred to WMO. Project under implementation by ARE
5. *Sand and Dust Storm (SDS) Early Warning System in the Magreb Region*	Magreb Region	184,000€	276,000	AECID	Funds negotiated by RMO and transferred to WMO. Project under implementation by ARE
6. *Food Security project in Africa - Flood and Drought*	Mali	300,000€	450,000	Government of Italy	Funds transferred to WMO. Project under implementation by AGM
7. *Review of Delivery of Weather and Climate Services and Related Warning Services in the Area Served by the Fiji*	Pacific Region	80,000 AU	85,000	AUSAID	RMO secured funds from AUSAID – transferred through BoM Australia to Pacific Islands Forum

APPENDIX 1

Development Projects Funded					
Activity/Project	Beneficiary Country/Region	**Amount**	**Equivalent in CHF***	**Funding Agency**	**Remarks**
Meteorological Service					for project management
8. Understanding the Findings of the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report "Climate Change 2007" – Integrating Climate Change Adaptation and Mitigation in Development Planning	Africa	1,000,000€	1,500,000	EU-COM DG Environment	Implemented by IPCC-WMO
9. USA – NOAA Technical Cooperation Programme: Various Activities	ALL	US$1,096,180	1,260,607	US State NOAA	
10. Operational Observing and Forecasting System in the Caspian Sea for the Protection of Infrastructures and the Environment - Preparatory Phase	Caspian Sea	45,000€	67,500	NATO	In association with Ente per le Nuove tecnologie, l'Energia e l'Ambiente – ENEA. Dpt ACS, Spezia Italy
11. Regional Climate Centres and Climate and Health	East Africa	US$ 600,000	690,000	KOICA Korea Int. Aid Agency	Commitment given for 3 projects which are under discussions internally
12. Assessment of NMHS Capacity in Central Asia and Caucuses meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia	150,00€	225,000	GFDRR / UNISDR / Finland	
13. Development of Hydrometeorological Services in Pacific Islands Region	Pacific Islands	500,000€	750,000	Govt Finland	FMI/ SPREP/WMO
Total			**17,364,107**		

APPENDIX 1

Projects in Pipeline

1. Establishment of a Hydrometeorological Early Warning System in Dominican Republic and Haiti	Dominican Republic and Haiti	US$7,200,000	AECID and IDB	Cooperation Agreement between AECID and Govt. of D. Republic to be signed in August 2008 to support the project
2. Improvement of the early warning system for disaster risk reduction and climate change impact in Costa Rica	Costa Rica	US$3,500,000	Potential funding agencies IDB, AECID	Project presented to national authorities and funding agencies in Costa Rica in Oct 2008
3. Development of the early warning system for disaster risk reduction of hydrometeorological events in El Salvador	El Salvador	US$4,300,000	FAO and national funds	Project presented to national authorities and funding agencies in El Salvador in 2008. Funding will come from FAO and national funds
4. Development Project for enhancing the Capacity Building of SENAMHI contributing to Disaster Risk Reduction in Bolivia	Bolivia	US$500,000	World Bank	Negotiations with WB in Bolivia. Funds in process of approval.
5. Strengthening and Modernization of the NMHS of Panama	Panama	US$3,200,000	National funds	Project will be funded mostly by national funds.
6. Institutional development of the NMS for improvement of the meteorological services and information in support of socioeconomic sectors of Uruguay	Uruguay	US$2,500,000	IDB and UNDP and possibly CIDA	Project proposal completed, mission scheduled in early April 2009 to discuss project support with funding agencies and national authorities.
7. Institutional strengthening of the NMHS to support the socioeconomic development of Paraguay	Paraguay	US$3,000,000	IDB, UNDP and AECID	Project proposal completed, mission scheduled in early April 2009 to discuss project support with funding agencies and national authorities.
8. Implementation of a Hydrometeorological Early Warning System for Disaster Risk Reduction in Ecuador	Ecuador	4,914,000	Ecuadorian Planning Agency	SEMPLADES (Planning Agency of Ecuador) is considering the support for the project.

9. W CC 3 participation by LDC	TBA	US$45,000	Asia Pacific Network	1st Stage accepted 2nd Stage submitted and request for additional information answered.
10. Pacific RCOF 2009	Pacific Region	US$45,000	Asia Pacific Network	1st Stage accepted 2nd Stage submitted and request for additional information answered.
11. WCC 3 participation by LDC	TBA	29,000 GBP	Commonwealth Secretariat	1stStage submitted
12. Agrhymet Extension Services in Ethiopia	Ethiopia	TBA	Rockefeller Foundation	
13. Sub-Saharan Africa: Climate Change and Food Security	Sub-Saharan Africa:	TBA	Govt Ireland	Under discussion

APPENDIX 2

Programme of Cooperation for Iberoamerican NMHS
PANAMA ACTION PLAN 2009-2010

Action	Planning/Comments
	Institutional development
31. Suggestions by the SMHIs for new topics to be included on the website, publish it at its final address, www.meteorologia-iberoamericana.org, from January and use it as a medium of communication between SMHIs, having regard in particular to the demand for horizontal cooperation needs. Each SMHI to appoint a content manager so that the site can be updated with information from the various countries.	Each PR to appoint content managers. January. Make the site operational. January. Site maintenance contract. All year round.
32. Implement the CLIBER project in Colombia and present the projects carried out to the authorities of Guatemala, Honduras, Nicaragua, Paraguay and Uruguay.	CLIBER Colombia: - Hire a project manager. - Coordination visit and selection of consultants in early May (three days). Personnel: 2 WMO, 1 AEMET, manager. - Conduct studies at IDEAM (lasting 10 days). Two AEMET consultants, 1 external consultant, Project Manager: Second half of June - Draft project: July - Submit project (three days) in early November. Personnel: 2 WMO, 1 AEMET, manager Submit CLIBER 08 projects. Personnel: 2 WMO, 1 AEMET, manager - Guatemala-Honduras-Nicaragua: February. 3 days/country Paraguay-Uruguay: March. 3 days/country
33. Follow up the execution of the CLIBER project through the active participation of the WMO Regional Offices in Costa Rica and Paraguay and with the support of the WMO Resource Mobilization Office.	- Draft terms of reference for heads of Regional Offices - Make at least one four-day visit to each of the 12 countries - Carry out at least three WMO/AEMET missions to support the launch of specific projects. Personnel: 2 WMO, 1 AEMET, 4 days. - Consultancy on suitability of projects. One consultant, one month.

34. Over the first half-year adapt all the necessary modules of a database management system presented by the WMO expert at the Conference, so that it can be used in hydrometeorology. Implement this system during the second half of the year in two SMHIs, selected from those that expressed an interest to the WMO Secretariat in having the system, preferably one from RA-III and the other from RA-IV, ensuring that they have the minimum equipment and personnel needed to carry out the project. During this process training workshops will be run for participants from any interested SMHIs.	- First six months run by Carlos Cervantes (120 days) with support from a Chilean meteorology expert, who will go to Mexico for one week. - Installation of the system (30 days) in Uruguay in July - Run a workshop in the last week of July, open to all SMHIs, with the support of an AEMET instructor. - Installation with another SMHI, one month between September and October. Carlos Cervantes with support (10 days) of a Mexican consultant and the Chilean expert.	
35. Organize two meetings and workshops between NMHSs and the various sectors of users in Panama and Mexico, in the context of the monitoring of the follow-up to the Madrid Action Plan, with assistance from representatives of the neighbouring meteorological services.	- Panama, Forum between ETESA and user sectors: 2 and 3 March. Consultant already hired. - Mexico, Forum SMN and user sectors + workshop: 11-15 May. Attended by representatives from five neighbouring countries.	
36. Launch two new pilot projects for practical learning about NMHS relationships and the key user sectors, in Panama and Mexico. Migrate the computer platform used to carry out the projects that are currently under development to the Conference website.	- Continue with projects for Chile and Peru. Experts already hired. - Launch projects in Mexico and Panama o Hire two experts (19 days per country) o Hire consultant for project follow-up - Migrate the platform: February	
37. Continue support for the implementation of the project Virtual Centre for Monitoring, Forecasting and Warning of Severe Weather Events of Southeastern South America.	- Arrange a meeting of project participants to assess progress.	
38. Hold a meeting in Fortaleza, if possible in February, to begin implementing the Virtual Centre model in Northern South America, with the participation of Colombia, Venezuela, Surinam, Guyana, French Guiana and Brazil, plus other interested countries.	- Meeting in Fortaleza 2-4 March	
39. Extend the Virtual Centre initiative to other geographical areas.	- Feasibility study for Central America and the Caribbean. - Representatives to attend the Fortaleza meeting, with a specific meeting on 5 March.	
40. Appoint a delegation to take part in the next RIOCC meeting.	- Coordinate with the RIOCC secretariat the participation at its next meeting of three Iberoamerican permanent representatives and an AMET representative.	
41. Support the participation of Iberoamerican experts in World Climate Conference-3, with a view to presenting the region's experiences related to the theme of the Conference.	- Geneva, 31 August to 4 September - Appoint one expert per country.	
	Training / coaching human resources	

42. Hold further itinerant courses on the use, installation and maintenance of automatic hydrometeorological stations, in cooperation with the WMO Hydrology and Water Resources Programme, in Brazil, Colombia, Chile, Cuba, and, when the recently acquired systems are operational, in Guatemala and Venezuela.	- 2 weeks/course - 2 WMO instructors + AEMET expert - Forecasts: o Cuba: 23 March to 3 April o Colombia: first half of May o Brazil and Chile to be confirmed, second half of the year o Venezuela and Guatemala probably in 2010	
43. Hold a further round of courses on the use of products of the European Centre for Medium-Range Weather Forecasts and Satellite Meteorology at the AECID training centres.	- Seventh course on satellite meteorology. Cartagena de Indias, 14-25 September - Fourth course on using the ECMWF model: Santa Cruz de la Sierra, 28 September to 2 October	
44. Hold a workshop on coastal flooding in Cuba.	- One week, from mid-May to end of June - Attended by representatives of all SMHIs with maritime responsibilities - Two instructors from WMO and one from Cuba	
45. Hold the annual seminar of the Prohimet network in El Salvador, on “Hydrometeorological forecasting and urban flooding issues”.	- One week, between October and November. - 15 to 30 participants - Coordinated with WMO HWRP	
46. If requested, hold a seminar on hydrology monitoring and forecasting in Honduras.	- Pending a request by the PR of Honduras - Lasting eight days, preferably late March - Given by 5 to 7 experts from the Prohimet network	
47. Hold a further course on “Generation of regional climate-change scenarios” in Venezuela for SMHIs.	- Pending the appointment by the PR of Venezuela of a focal point for the course. - Three-day course, as for the two previous courses - Some 10 instructors - One participant per SMHI	
48. Hold a course on “Climatological processing of data series”, organized by CIIFEN in Lima.	- Five-day course, proposed in the second half of June. - One participant per SMHI - 2 instructors (1 expert and 1 CIIFEN).	
49. Hold a further Iberoamerican workshop on seasonal forecasting (TIPE-II), at the CIIFEN facilities in Guayaquil.	- Five-day course in Guayaquil, preferably in the second half of October - Around 20 participants.	
50. Hold a distance-learning course on “Introduction to strategic management for meteorological services” in cooperation with the CEDDET Foundation, between March and May 2009.	- Course free of charge to SMHIs - 9 March to 10 May - Registration on line at www.ceddet.org.	
51. Request the Iberoamerican Regional Training Centres and the Chilean Department of Meteorology to prepare a distance-learning course for the training of meteorology observers.	- The WMO will consult the DMN of Chile and the training centres on the possibility of preparing the courses	
52. Have the working group of meteorology training specialists prepare a catalogue of training needs for the SMHIs and the available distance-learning courses, analysing their economic feasibility and their official recognition.	- WMO will seek an expert in meteorological training for this task	

53. Support the holding of several courses on integrated flooding management, using the instructors trained in 2008.	- Given in each SMHI by the instructors trained in 2008. - National participants - There is a request from Uruguay. Probably in the second half August. - Requests likely from Mexico and Bolivia - Coordinated by WMO HWRP.	
54. Support the requests of the SMHIs for hydrology courses in accordance with the guidelines of the WMO Strategy on Education and Training in Hydrology and Water Resources	- Practical workshops, lasting five days. - Two teachers - A course for water surveyors will probably be run in Guatemala	
55. Support requests for training of officials from SMHIs in other areas to improve their institutional management.	- Plan a workshop lasting about two weeks on operational statistical forecasting tools or visualization systems. - Designed by Juan de Dios del Pino - Additional instructors from Brazil, Argentina and Chile	
	Strengthening operational management	
56. Set up a technical forum on the Conference's website to post problems and possible solutions relating to the installation and operation of the EUMETCast system.	- The forum area of the website has been designed - José Prieto (EUMETSAT) is prepared to moderate the forum	
57. Identify which products obtained by GOES satellites should be incorporated into the EUMETCast system, proposing that the Permanent Representative of Costa Rica should arrange for their inclusion with the responsible bodies of the NOAA.	- Meeting of PR of Costa Rica with those responsible at NOAA	
58. Support the holding of a workshop in Brasilia for the setting-up of a communications system for RA-III based on internet VPN technology	- 2-6 March in Brasilia - Participants: specialists in meteorological telecommunications from RA-III	
59. Each SMHI to appoint a focal point responsible for communication to set up a working group, coordinated by the SNET of El Salvador, with the support of the IMN of Costa Rica, to implement the conclusions of the workshop on relations between the media and SMHIs carried out in Santo Domingo, setting up an appropriate forum on the website.	- Ask PRs for a contact point - Set up a specific forum in the relevant area of the website.	
60. Earmark an item in the Programme's Trust Fund for measures linked to strengthening operational management through technical assistance from experts and knowledge interchange.	- Applications will be evaluated by WMO and the Programme Secretariat	
	Follow-up actions	
61. Additional support for meetings of climate fora for Central and South America	Places and dates to be determined by the member countries of Mercosur and CRRH for Central America	
62. Sixth meeting of the Conference of SMHI Directors	Dominican Republic, November 2009	

APPENDIX 2

ANNEX VI

CAPACITY BUILDING IN THE WMO SYSTEM PRIORITIES FOR 2009 AND BEYOND

1. INTRODUCTION

This document outlines the issues and priorities for capacity building of the developing country Members for 2009 and beyond as offered by various WMO Technical Programmes: Observing and Information Systems (OBS), Weather and Disaster Risk Reduction Services (WDS), Global Climate Observing System (GCOS), Climate Database Management Systems (CDMSs), Climate Prediction and Adaptation (CLPA), Least Developed Countries and Small Island Developing States (LDCs and SIDS) and Education and Training, AMDAR and Regional Office for Europe.

In view of the recent trends of WMO programme priorities and of requests for technical assistance from NMHSs, special attention should be given in 2009/10 to that as stated by Congress; the focus of the VCP shall comply with the WMO Strategic Plan 2008-2011 and contribute to all of the expected results areas, with particular focus on Expected Result 9 "Enhanced capabilities of NMHSs in developing countries, particularly LDCs, to fulfil their mandates" on weather, climate and water.

1.1 Observing and Information Systems (OBS)

Issues

Taking into consideration the great need for Improvement of telecommunications at regional or sub-regional level offering solutions to implement more cost-effective networks, such as managed networks, IP VPN networks via Internet, and making use of PC technology and cheaper software the following should be considered:

- CBS developed Implementation Plan for the Evolution of the Global Observing System (http://www.wmo.int/pages/prog/www/OSY/WorkingStructure/index.html) that together with the Statements of Guidance (http://www.wmo.int/pages/prog/sat/Refdocuments.html#SOG)
- Vision for the GOS in 2025 (to be considered by CBS-XIV, March 2009) (see report in http://www.wmo.int/pages/prog/www/OSY/Reports/ICT-IOS5-Geneva2008.pdf) should be used as strategic planning documents for observing systems. They clearly describe the gaps in the GOS and should be used as guidance for technical co-operation activities.

Priorities related to the Information Systems and Services (ISS)
Immediate and priority actions for GTS

- The connection of NMCs to the GTS for the exchange of observational data and processed information, using leased lines, managed networks or Virtual Private Network (VPN) connections via the Internet; in some cases including the connection between RTHs;

- The connections from RBSN stations to NMCs or centres with similar functions for the collection of basic observational data;

- Installation of meteorological satellite direct broadcast receivers to allow Members to obtain observational data, satellite data and products at centres with limited connectivity.

1.2 Weather and Disaster Risk Reduction Services (WDS)

Issues

It is essential that investments in new equipment of hardware and software be well planned in the context of sustainable infrastructure - sustainable from both human expertise and capital replacement terms and into the future. One-time acquisitions without operational support and maintenance usually have a short life span in terms of effectiveness.

- In the GDPFS (i.e., forecasting) area, the SWFDP as a project has strongly proven the importance of improving access to and use of existing "modern" NWP/EPS outputs from major centres of the GDPFS, before embarking on implementing limited area models in the NMHS of developing countries. The latter should be considered when the ground has been well prepared, and sustainability of the investment is assured.

- There are many initiatives that support NWP, including new acquisitions of equipment and training activities, however, within regions, there is need for a better coordination of bilateral assistance implemented by Members and the assistance that the WMO Secretariat organizes on behalf of Members.

- The SWFDP concept and model as it is being carried out in Southern Africa, seems to effectively facilitate progress within a sub-region that has some affinity among NMHSs: i.e., a shared vision to commit to the project. Thus within this grouping, it can more effectively coordinate investments, in observational equipment, in connectivity relative to exchange of important data and information, and in the forecasting process for severe weather and other hazards that might be common among the countries (i.e., regionalized approach to building operational infrastructure of the WWW, and service delivery). Shared vision and requirements builds shared motivation and critical mass. This model could be adopted elsewhere.

Priorities

- Support to the replication of the SWFDP concept developed for Southern Africa in other regions/sub-regions groupings where NMHSs share common problems, vision and commitment.

1.3 Aeronautical Meteorology AMDAR

Issues

The AMDAR system uses existing aircraft and airline infrastructure including standard installed high quality sensors for wind, temperature and turbulence plus height (pressure), time and position and their onboard avionics and communications hardware and software, plus an AMDAR software package that is aircraft and avionic and communication type specific. Below are some consequences:

- The AMDAR programme is currently limited to the type of aircraft that can be equipped with AMDAR software and the current suite of AMDAR capable aircraft used by operational AMDAR programmes is starting to be upgraded to aircraft that currently cannot be fitted with AMDAR software.

- A letter was sent to all WMO Permanent Representatives at the end of 2006 asking for an additional contribution to the AMDAR Trust Fund that would help finance a special software pilot project involving the development of AMDAR software for Airbus A320, A330/A340 aircraft. This development would have facilitated the integration of new

sensor data, including water vapour, turbulence and icing, in the avionic and communication software for all new and existing Airbus A320, A330/A340 aircraft. The implementation of the software solution would allow these model aircraft to be easily AMDAR equipped and would also permit properly equipped aircraft in the future to report water vapour measurements and turbulence. This request for additional funds was unsuccessful and hence this project did not progress.

Priorities

- The AMDAR programme has considered the sustainability of AMDAR measurements within the GOS and WIGOS an important part of integration of AMDAR into WIGOS. It agreed on the necessity of the development of a generic software solution applicable for any aircraft brand and design, including regional aircraft, to eliminate the risk of data gaps due to the phasing out of AMDAR compatible aircraft and introducing new non-compatible ones for which a dedicated software solution would need to be developed. It is envisaged that with this development any NMHS would have the ability to work with their national airline to activate an aircraft for AMDAR reporting without any major and costly software development that would be borne by the NMHS.

1.4 Global Climate Observing System (GCOS)

In January 2008, the GCOS Secretariat and the Caribbean Community Climate Change Centre (CCCCC) collaborated to organize a strategy meeting in Belize to address implementation of projects contained in the May 2003 GCOS Regional Action Plan for Central America and the Caribbean (CAC). The meeting brought together representatives of regional climate organizations, funding agencies, and countries with a commitment to improved climate observations in the CAC region and Mexico to consider several high priority proposals. Several potential development partners indicated interest in one or more of the proposals. The meeting also agreed to undertake a number of actions designed to provide stronger leadership, enhanced coordination, and increased momentum for GCOS implementation in the region. The CCCCC has indicated its willingness to provide regional leadership to facilitate coordination and implementation of projects.

- The Technical Support Project (TSP) for the Americas continues to function well and in fact has been extended by an additional six months. Funding for this TSP is being provided by the United States and Canada.

- A TSP will soon be established in the southern part of Africa. The invitation to bid has been issued. This project is funded by KNMI.

Regarding station maintenance / upgrades:

- Hydrogen generators are being provided to the Seychelles, Niger and the Côte d'Ivoire. These units will replace aging and inoperative units and are being funded by KNMI and the UK Met Office.
- The observing instruments at the GSN station in Tbilisi, Georgia are being replaced through an agreement with the UKMO, funded by USA.
- Replacement equipment is being provided to the GSN station at Aragats, Armenia, funded by USA.
- The GSN station at Chisinau, Moldova is being renovated, funded by Germany.
- Radiosondes are being provided to the GUAN station at Dar es Salaam, funded by Switzerland.
- Support was provided to several GUAN stations that experienced equipment failures. Replacement parts were provided to Galapagos, Dar es Salaam and Harare.

Issues

- Hydrogen generators are still a major problem as the first generation of units are now 30 years old and failing. There are few current suppliers and their units have had a poor performance record and they are technically difficult to support. In Africa, many of the support staff are apprehensive, even after several bouts of training. Replacement parts are expensive also.

- As funds are less than in previous years, GCOS is addressing surface station renovations more than upper-air as they are much less expensive to cover but do require much more input on GCOS part to define specs and evaluate bids. Assistance from Members in this regard, managing projects on our behalf is therefore invaluable. Currently UKMO and NZ provide support in this way. *[Ideally support could also come from USA, Brazil, India, Russia, Japan and China, as language and technical issues such as manuals and equipment displays in these languages often pose problems to GCOS.]*

- The WMO procurement function has become very problematic. It is very difficult to buy some items competitively, such as radiosondes for specific systems, support for name brand units, and equipment that is standard in a particular country. Our attempts to justify sole source in such cases have generally failed. A consideration of this procedure would be very helpful to Members.

Priorities

- Upgrade of the GCOS Upper Air Network (GUAN) station in San Cristobal, Galapagos Islands, Ecuador using funds provided by Spain. This important station has obsolete observing equipment and also needs radiosondes. The contract was awarded to Vaisala, and Ecuador will be able to buy radiosondes at a substantially reduced rate for an additional four years.

- GUAN Upper Air Observing workshop is being planned for India in March 2009 to focus on correct observing techniques, including hydrogen generator safety. All GUAN stations in the region will be invited, as well as all interested vendors. The workshop is being organized by the World Weather Watch (WWW) and GCOS, and the instructors were provided by the UK Met Office (UKMO). Funding is provided through the US Systems Improvements funding.

- Training on hydrogen safety and balloon handling has apparently never been taught, and considering that there have been a few fatal accidents, this is therefore an important area where WMO can help its Members and CIMO agrees.

1.4.1 The Climate for Development in Africa Programme (ClimDev Africa)

ClimDev Africa was noted in last year's GCOS contribution to the VCP meeting. ClimDev Africa has been slow to get underway, but concerted efforts on the part of the African partners and a consortium of likely donors, led by the UK's Department for International Development (DFID), has resulted in the completion of a Framework Programme Document at the end of October 2008. This document indicates that ClimDev Africa will be implemented by a new body, the Africa Climate Policy Centre (ACPC), which will be housed in the UN Economic Commission for Africa in Addis Ababa. The United Kingdom and Sweden have pledged initial funding for the Programme amounting to about $22 million, and other donors are likely to indicate additional contributions during the course of 2009. A ClimDev Trust Fund will be managed by the African Development Bank. Both GCOS and WMO are expected to have seats on the ClimDev Africa Steering

Committee, and, by this means, will be in an excellent position to further facilitate improvements in climate observing systems in Africa. The next steps will be to establish the ACPC Secretariat at UNECA, recruit staff, and draft detailed project implementation documents and plans. It is hoped that initial projects, including projects to address Africa's climate observing needs, data rescue, and data management, may be implemented by the second half of 2009.

1.5 Climate Database Management Systems (CDMSs)

The CCL Expert Team on Climate Data Management including Metadata is developing a framework to help CDMSs providers describe their systems as best as possible and to give detailed information for a performance evaluation by WMO.

Issues

- Most Climate Database Management Systems (CDMSs) providers are working on new version of their software to take into account the feedback of the users and also to take advantage of the recent developments in technology.

- A light version of CLIDATA using a free Oracle License was developed for small climatological databases.

Priorities

- A workshop to discuss different aspects of the future version of the CLIMSOFT system and its integration within the WMO Information System (WIS) is scheduled to take place in Lusaka, Zambia. This workshop will gather users, developers and database experts.

- There are still many developing countries not using the new CDMSs due to lack of funding for equipment and training. There is a need to organize more training sessions in the use of the CDMSs as training is a key issue to their better use in the countries. These training events request the support of the WMO VCP.

1.5.1 Data Rescue

Issues

- Several data rescue programmes for African climate records, have resulted in the recovery and digitization of an important amount of invaluable historical climate records. However, there is a concern about archiving the rescued data under non-standard archiving conditions which endanger the integrity of data. There is still a need for Mmembers to adopt recommended safeguards of data storage in properly constructed archives complying with WMO recommended practices when using scanners and/or digital cameras.

Priorities

- High priority should be given to activities related to climate data rescue.

1.6 Climate Prediction and Adaptation (CLPA)

1.6.1 Agricultural Meteorology Programme

Issues

- Meteorological Support for Desert Locust Monitoring and Control.

In 2005 and 2006, WMO and FAO co-sponsored Regional Training Workshops on Meteorological Information for Locust Monitoring and Control for Francophone and Anglophone Countries. These workshops were in response to the 2003-04 Desert Locust outbreak in Africa and stressed the need for better collaboration between the NMHSs and the National Locust Control Centres (NLCCs) for Desert Locust Monitoring and Control.

- Roving Seminars on Weather, Climate and Farmers in Latin America and West Asia

The Roving Seminars on Weather, Climate and Farmers started as a pilot programme of the WMO Agricultural Meteorology Programme which funded Roving Seminars in Ethiopia and India in 2007. In 2008 and early 2009, the State Meteorological Agency of Spain (AEMET) funded 50 Roving Seminars in five West African countries (Burkina Faso, Mali, Mauritania, Niger and Senegal). These seminars, with technical coordination from WMO, strived to secure rural farmers' self reliance in West Africa by informing them about effective weather and climate risk management and the sustainable use of natural resources for agricultural production. The seminars also provided crucial feedback from rural agricultural community to the National Meteorological and Hydrological Services so that they can improve their services and products to this important sector. More information can be obtained on the web page: http://www.wmo.int/pages/prog/wcp/agm/roving_seminars/index_en.html. While the Roving Seminars have been successful, they have been limited to Africa and parts of Asia. There is considerable interest in Latin America and West Asia regions to organize these seminars for the benefit of their farmers.

Priorities

- Support is being requested for the secondment of an NMHS staff member for a period of about six months to one year from a Desert Locust affected country (North, West, and East Africa, and Southwestern Asia) to FAO Headquarters and the estimated cost is € 35,000.

- Support is being requested to expand the Roving Seminars to Latin America/West Asia in 2009-10 and the estimated cost of organizing 25 seminars is US $50,000.

World Climate Applications and Services Programme (WCASP) and Climate Information and Prediction Services (CLIPS)

Priorities

- Development of capacity and skill in, and improved techniques for, seasonal to inter-annual prediction, through Regional Climate Outlook Forums (RCOFs). Funding is requested to help support training in essential skills for seasonal prediction including the use of products disseminated by Global Producing Centres for Long Range Forecasts (GPCs) and Regional Climate Centres (RCCs), developing a regional consensus and coordination process through RCOFs. Requested funding support for 2009-10 is US $50,000

- Implementation of Regional Climate Centres (RCCs). Funding would help support potential developing country institutions to augment their operational capabilities and demonstrate the mandatory functions for the designation as WMO RCCs, within the overall implementation plan as agreed by the concerned Regional Associations. For 2009-10, funding of US $50,000 is requested.

- Training workshops to develop national climate services. Funding would help organize training sessions, focusing on developing and least developed countries, to build the required expertise to take up climate services at the national level and meet the sector-specific needs for climate information. Interpretation of global and regional products (accessed through GPCs, RCCs and RCOFs) in the national context and also effectively participating in the two-way feedback mechanism will be some of the main aspects in the proposed training sessions. Estimated cost of organizing these training workshops in 2009-10 is US $50,000.

Research Department

Issues:

1.7.1 Training and Planning meetings for Forecast Demonstration Projects using the TIGGE-GIFS (THORPEX Interactive Grand Global Ensemble-Global Interactive Forecast System)

The TIGGE project of WWRP-THORPEX consists of ten operational centres providing forecast output that contains information from each ensemble member of the ten ensemble forecast systems creating a multi-model ensemble of ensembles. TIGGE output is archived at three centres for research. However, TIGGE recently demonstrated real-time capabilities for the T-PARC (THORPEX Pacific Asian Regional Campaign) project when tropical cyclone track forecasts from eight ensemble forecast systems were made available in real-time. EC-LX encouraged the transition of TIGGE-GIFS to operations including forecast demonstration projects aimed at reducing human suffering, mitigating costs and delivering benefits in developing nations. Discussions between the CAS and CBS related entities within the WMO have proposed a series of TIGGE-GIFS forecast demonstration projects for prediction of tropical cyclones and subsequently for heavy rainfall. These FDPs would utilize the cascading principal of the SWFDP project as the six tropical cyclone Regional Specialized Meteorological Centres (RSMCs) and the six Tropical Cyclone Warning Centres (TCWCs) are proposed to be the focal points for the TIGGE-GIFS FDPs on tropical cyclone. **The training schedule is under development, but we seek 25,000 CHF for these events in 2009 with similar funds requested for the next several years.**

1.7.2 Planning for WWRP-THORPEX Africa

The implementation of THORPEX is carried out in large part through regional committees, such as the THORPEX African Regional Committee consisting of representatives from African NHMSs. The EC recommended the WMO support the development of the THORPEX Africa Plan (see WMO-No. 1032 Paragraphs 3.1.26). The African Regional Committee has responded with an ambitious proposal for a programme of research, operational transition and capacity building for Africa. The committee-produced African Regional Science and Implementation Plans are being sent out to all the PRs of Member countries in Africa for their comments. The PRs are also encouraged to nominate contact points in their countries. In addition, a workshop will be held at the Abdus Salam International Centre for Theoretical Physics (ITCP) to begin work on two critical aspects of the THORPEX African Plan: i) Development of a forecast manual for West Africa that is based on lessons learned from the modelling, forecasting and observational aspects of the AMMA Campaign; ii) Development of a High Impact Weather Information System for Africa that contains an archive of weather events, their impacts on Africa and eventually a measure of the predictive skill for these events using operational numerical weather prediction systems. For major disasters, this information system will rely heavily on available disaster data sets, but the intent is also to include those smaller events identified by African NHMS and end users that have a large accumulative effect on Africa. Such information will prove useful for increasing the visibility of and demonstrating the need for NHMSs in Africa, while also identifying the path toward mitigation (e.g., improve predictive skill in modelling systems, better access to state-of-the-art model products, overcome communication of forecast information to users). **We seek 30,000 CHF from VCP for this meeting to supplement funds from other sources to allow a broad participation of African scientists**.

1.7.3 Sand and Dust Storm Warning, Advisory and Assessment Systems (SDS-WAS) Project

The SDS-WAS project is a response to user needs for improved prediction of sand and dust storms with an accompanying development and utilization of forecast products. Such storms have large detrimental impacts on countries within and surrounding desert and arid regions. Two regional nodes are being formed for the SDS-WAS project and these nodes will be responsible for collecting, archiving and disseminating predictions from those research and operational models that have the capacity to model sand and dust storms. The dissemination will be through a web portal that contains all model output in a common plotting convention on a common grid. The two regional nodes are the Asian regional node hosted by the Chinese Meteorological Administration and a node for EU, northern Africa and the Middle East hosted by Spain through a partnership between the Barcelona Supercomputing Centre (BSC), the Spanish State Meteorological Agency (AEMET), and the Earth Sciences Institute 'Jaume Almera' (IJA-CSIC). Both regional nodes have developing countries within their area of service, particularly the EU-northern Africa-Middle Eastern node. Participants at the first meeting of the SDS-WAS in Tunis, Tunisia concluded that their second meeting would take place in late 2009 and would include training sessions on the usage of SDS-WAS products. **Approximately 15,000 CHF of funding is sought for these training sessions**.

Research department long-term priorities

1.7.4 WWRP-THORPEX Africa

The implementation of THORPEX Africa will be a 5 to 10 year effort to improve forecasting of high-impact weather over Africa. THORPEX Africa will have the following deliverables: i) Strengthening forecasting science, operations and user networks; ii) Increasing trained human resources to strengthen research on Limited Area Modelling, data assimilation, prediction and applications; iii) Enhancing infrastructure for observing, forecasting and communication high-impact weather forecasts. This long-term effort requires considerable investments totalling several million CHF over the 5 to 10 year period. The topics of interest to THORPEX Africa are:

- Recommendations on an optimum observing network for Africa
- Enhanced use of non-conventional observing technologies in Africa
- Improvement of telecommunication facilities in Africa (WIS-Africa) for high impact weather
- Identification and lowering of barriers to advancing predictive skill for African high-impact events
- Contributing to the development of seamless forecasting information system for Africa
- Development of a High Impact Weather Information System for Africa
- Upgrading verification and assessing costs and benefits
- Enhancing capacity building and user engagement over the continent.

1.7.5 Sand and Dust Storm Warning, Advisory and Assessment Systems (SDS-WAS) Project

Spain has made major efforts to support surface aerosol measurements in Africa that will aid in advancing prediction for numerical weather prediction models that forecast sand and dust (see EC report WMO-No. 1032 Paragraphs 4.1.12) . Such surface measurements are extremely valuable for verifying and eventually initializing sand and dust storm models. Another necessary aspect of the verification for sand and dust models and other modelling efforts that incorporate aerosols is the vertical profile of aerosols. Such measurements are obtained over many locations by networks of vertically profiling backscatter lidars. However, such measurements are lacking near the Saharan Desert, which is the largest source of atmospheric sand and dust. Several nations of Africa are

developing or have the technological capacity to maintain appropriate backscatter lidar systems with the assistance of partnerships from experts elsewhere, but such nations can easily afford the purchase of such lidars. A major funding effort (up to several million CHF) will be needed primarily to purchase, but also to help maintain a small number of backscatter, vertically profiling systems for Africa to support SDS-WAS and other modelling efforts that contain aerosols such as GEMS (Global and regional Earth-system (Atmosphere) Monitoring using Satellite and in-situ data).

1.8 Least Developed Countries and Small Island Developing States (LDCs and SIDS)

Issues

In addition to requirements for equipment and technical expertise, there is a need to strengthen capacity in developing countries, in particular LDCs and SIDS, through:

- Improved advocacy on the contribution of NMHSs products and services in achieving the MDGs,

- Improved management skills of administrators and managers of NMHSs.

Priorities

In this regard, priority should be given to:

- Pilot and demonstration projects on socio-economic benefits valuation adapted to LDCs and SIDS. The regular budget supports the formulation activities while extra-budgetary resources are required for the national/regional implementation of such projects.

- Management workshops for senior and middle level managers, including training by e-learning, Extra-budgetary resources required.

- Development plans of NMHSs to meet special needs of LDCs and SIDS, including national coordination and strategic planning seminars/workshops to stress national ownership.

A draft pamphlet on “WMO’s contribution to the achievement of the MDGs” will be reviewed by EC-CB before EC-LXI (probably by e-mail).

1.9 Education and Training Programme

(Refer Doc. 2 also)

Priorities

The main priority areas for VCP support to education and training, in particular for personnel from developing countries includes the following:

- Short-term fellowships (up to six month’s duration) for training in specialized fields such as management skills and upgrade courses for non-degree staff providing aeronautical meteorological services, group training, and continuing education and training (CET);

- Very short-term fellowships (less than a month) for training on the emerging new needs in fields such as information technology, communication and data processing systems, use of data from observation systems, use and maintenance of observation systems and climate related training;

- Support to RTCs and National Training Centres (NTCs) for the improvement of training facilities and the performance of instructors.

WMO would like to reiterate its appreciation to VCP donor Members for their generous contributions and appeal to them to further increase their contributions to the fellowships programme in order to meet the increasing demand from developing countries.

1.10 Regional Office for Europe

Issues

- The following NMS are still not connected to the Regional Meteorological Data Communication Network (RMDCN): Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Cyprus, Georgia, Israel, Kazakhstan, Malta, Moldova, Monaco, Syria, and Ukraine. Some countries are actively attempting to join, but there are financial and technical barriers.

- The Russian Federation initiated the iimplementation of the WIGOS Demonstration Projects; the project is considered to be implemented by other RA VI Members subject to availability of resources.

- As the technologies underpinning WIS are new, there is a need to develop expertise across the region and also outside the region, both in nearby regions and globally. The already developed 'twinning mechanism' could be used for this, as well as the more conventional workshops and training sessions and the Regional Training Centres.

- Climate Monitoring and Climate Watch Systems form part of the WMO initiatives in regional capacity building, to help NMHSs to implement a climate watch system to contribute in preventing climate related hazards such as floods, windstorms, droughts, heat waves and landslides, but these initiatives would require extra-budgetary resources and partnerships. Climate watches can be a major challenge for RA VI Members that lack the prediction skills on seasonal scale, but could have some practical utility on the monthly scale.

- A South Caucasus Showcase CLIPS project based on inputs from several experts in the field has been developed. The main goal of the project is to develop a Long-Range Forecast system in the region and demonstrate application of the products in the management of agriculture, energy, water resources, transport, public health, environmental protection, etc.

Priorities

- Connecting all RA VI Members to the Regional Meteorological Data Communication Network (RMDCN) is seen as a priority.

- To facilitate the connection to RMDCN and the implementation of WIS in the region, intensification of the twinning programme is recommended, as well as the more conventional workshops and training sessions and the Regional Training Centres.

- Further support is needed for the implementation of the Sava project in combination with the SEE Hydromet initiative under one umbrella project with two components now: hydrological and meteorological capacity building.

ANNEX VII

Resource Mobilization Office

1.1 Summary 2007- 2008 Activities

Resource Mobilization Office

1.2 Summary 2007- 2008 Activities

1. Establishment of the Resource Mobilization Office (RMO) 2007

Development of RMO Mission Statement and Resource Mobilization Strategy for 2008-2011 (Appendix 2), noting that the proposed Strategy is aligned with the WMO Strategic Plan, in particular Expected Results 7 and 9.

> Main focus of the RMO: supporting the National Meteorological and Hydrological Services to enhance the level of in-country and external support and funding to activities aimed at development of NMHS to reach the levels of services needed to support the protection of life, property and food security, with particular emphasis on the developing countries, Least Developed Countries (LDCs) and Small Island Developing States (SIDSs) and in keeping with the Regional Strategic Plans and Strategic Development Plans.

EC-LX 2008 supported the proposed approach (Mission Statement) and Resource Mobilization Strategy for 2008-2011 (Appendix 3) presented by RMO and in particular the proposed focus on supporting the NMHS to enhance the level of in-country and external support and funding to activities aimed at development of, with particular emphasis on, the LDCs and SIDS, post conflict countries, etc.

Main Areas of Focus as agreed:

(a) VCP Programme

(b) Strategic Partnerships

- Overseas Development Assistance Programmes ODA – strong focus on "emerging" economies who are new actors in AID
- Development Banks, WB, ADBs, IADB
- European Commission
- Private Sector Partnerships
- Foundations

(c) UN System Resident Coordinator and Country Programmes

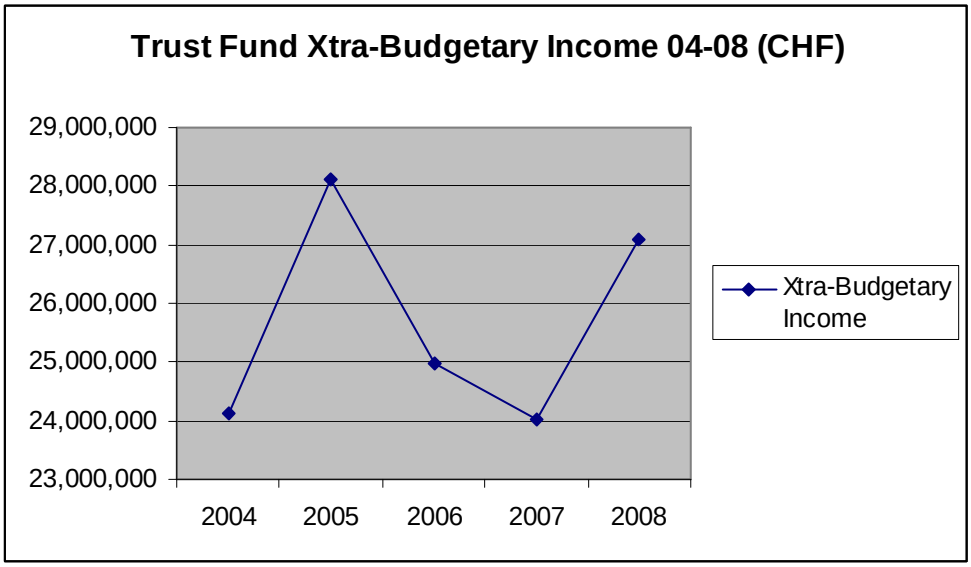
(d) Assisting NMHS to find financing opportunities at National level especially through capacity building, using INTAD Networks

(e) Demonstration of Socio-Economic Benefits of NMHS Products and Services

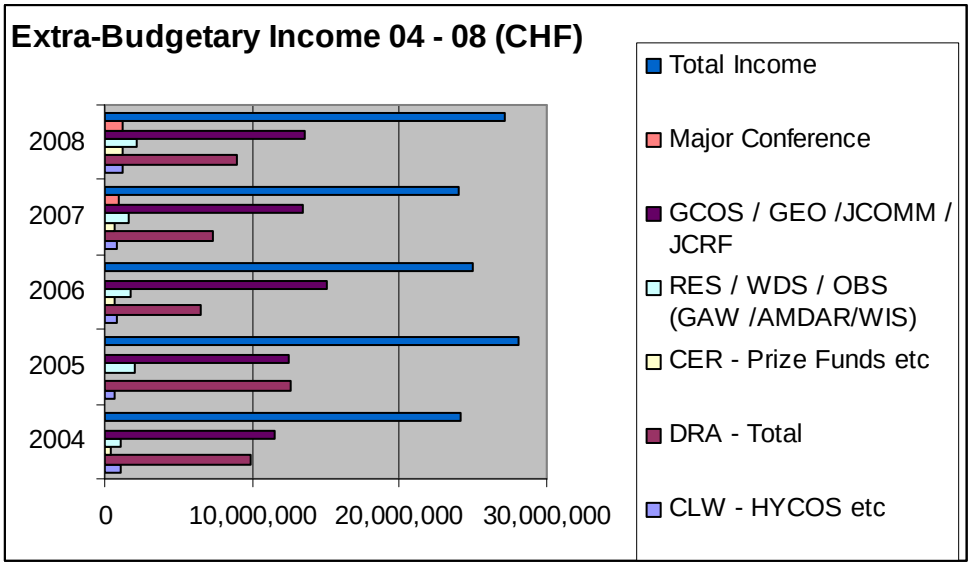
(f) Advocacy and Marketing (WMO and NMHS)

2. Trends in Extra-Budgetary Support to WMO Activities

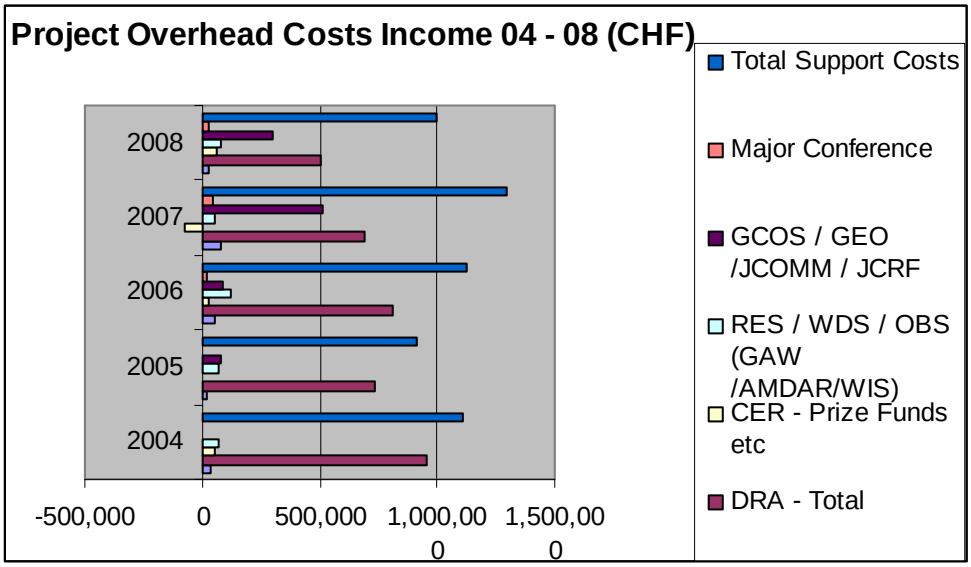
Trust Funds income in the period 2004 to 2008 was relatively constant as is illustrated below and hovered between CHF 24 million and CHF 29 million.



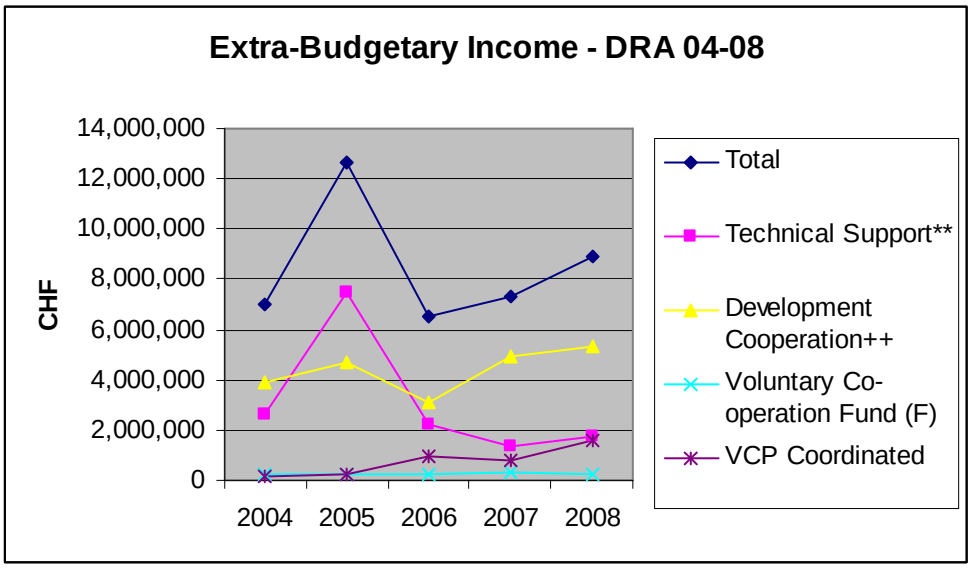
It is a useful exercise to consider the breakdown in the above figures from a resource mobilization perspective to obtain a true picture of the contribution of extra-budgetary Trust Funds to WMO programme areas overall. As the chart below illustrates, funds for development cooperation activities through the Development and Regional Activities Department account for approximately 40% of trust fund income. Close to 50% of Trust Fund income goes to "normative activities" and mainly to the funds supporting GCOS/GEO/JCOMM/WCRP, etc. The remaining 10% or so covers activites of CLW (HYCOS for the most part, WDS, OBS, etc.



In considering the issue of support costs accruing from the above Trust Fund activities, the Development Cooperation Funds through the DRA have generally tended to account for the bulk of levied Support Cost income but the trend is changing slightly. On the other hand the "normative" funds (GCOS/GEO/JCOMM/WCRP, etc.) account for less than 10% on average but this trend is also changing.

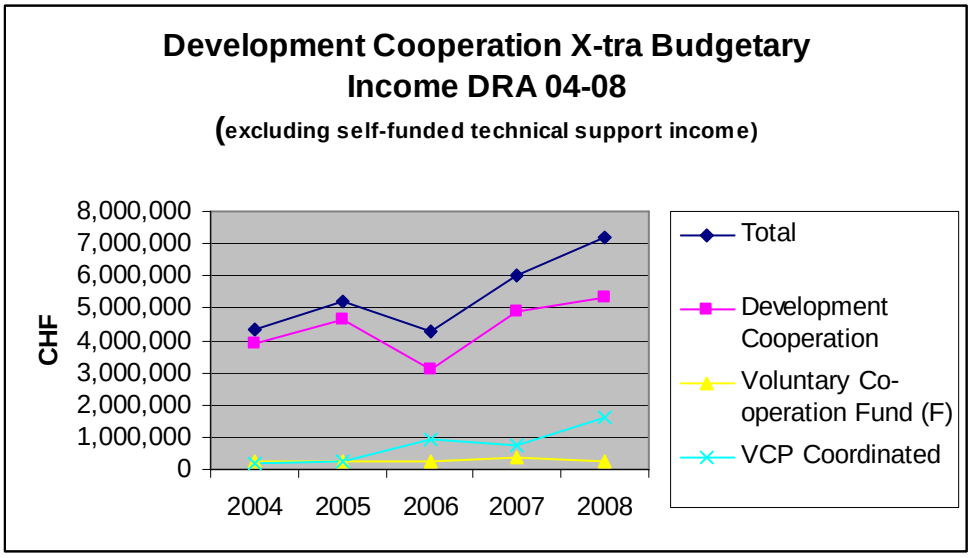


In looking at the trend in “true” development cooperation activities, i.e., the activities through the VCP and DRA Trust Fund activities generally that are focused purely on enhancing the capacity of NMHS in developing and least developing countries, there would appear to be a decline during this period as illustrated below but withl an increasing trend in recent years..



** Development Activity funded by recipient country and managed by WMO
++ Development Activity funded by 3rd party

However, if one excludes “Technical Support” activities, i.e., those activities which are funded by the beneficiary country as opposed to cooperation activities that are funded by a third party member country or other external entity, there is in fact a general upward trend in financing support, as illustrated below. It remains to be seen what impact the current global financial crises will have on this positive trend.



3. RMO Strategy Implementation Update

Voluntary Cooperation Programme (Refer Doc. 2)

VCP activities focused on:

- Review of outstanding VCP requests and discussions with Scientific Programmes and Regional Offices concerned in order to support valid projects using the VCP(F).
- Response to VCP Members' requests for assistance using the VCP(F), the Emergency Fund or through the VCP Coordinated Programme.
- Strengthening working relationship with Scientific Departments and Regional Offices.
- Strengthening working relationship with VCP IPM.

Strategic Partnerships and Major Development Projects

The optimal situation in terms of extra-budgetary support to NMHS and the Secretariat is for programmatic rather than project funding and preferably in respect to regional development programmes as it will be impossible to service developing countries needs comprehensively on a one-to-one basis. Whilst this is the ultimate aim the current situation is a mix of project and programmatic funding with the trend still being towards project support.

The Philosophy is to maintain efforts on securing or maintaining support from traditional donors (IPM, VCP). RMO will focus on potential new donors especially **Emerging ODA Donors**: Changes in the global economy are impacting on the ODA scene that offer opportunities for WMO with new donors emerging even as the traditional donors (USA, UK, France) are reducing their support. RMO will focus strongly on these countries including Korea, Ireland, China, Spain and Nordic countries in particular. An area so far unexplored also is the Middle East, therefore RMO should also consider what opportunities lay there and what the best approach to tapping into them may be.

i) ODA / Development Banks (Refer Doc. 4)

ii) Private Sector

Exploring potential for public-private sector interaction related to the financing of NMHS. Initial focus is on enlisting the assistance of the UN Global Compact Office in NY and its Network and on Industry Associations to which we are already linked (OGP, HMEI). Some focus on WCC-3 at present.

As a starting point we are developing a document (Consultant) that provides a "business case" or argument as to why Private Sector Entities should support the work of WMO in key sectors (Agriculture, Maritime, Transport, Energy, Disaster Risk Reduction, etc.) to stimulate interest of and discussion with international corporations in these sectors and for wide distribution through Global Compact Network.

- A trial project is underway in partnership with the Global Humanitarian Forum to engage with Ericcson Communication to support installation of ground stations in three countries in East Africa with communications support provided by a local cell phone provider.

- We have entered into initial discussions with ORANGE Telecommunications concerning potential collaboration in West Africa.

- Exploratory discussions are underway with Norwegian HydroPower Company for potential collaboration on assessment of Climate Change Impacts on HydroPower potential in S.E. Europe and other regions.

iii) Foundations

- Discussions with Rockefeller Foundation have secured their interest in agricultural related activities in Africa including the proposed meeting on Climate Change in West African Agriculture. RF is currently awaiting a proposal from WMO related to extension on weather and climate and agriculture in Ethiopia.

- MacArthur Foundation has announced a new Climate Change Adaptation Initiative which will also be explored.

- Discussions have been opened with the GEF in advance of a mission in March.

Missions to initiate engagement with various entities including developing financing proposals are detailed in Appendix 1.

3.3 EC Working Group on Capacity Building (Refer Docs 10 & 10A)

(EC-CB) was convened at the margins of the EC 2008. The meeting was attended by many Members of the IPM as well as the "official" EC-CB Members. Recommended to establish several task teams to address topics including:

- Resource Mobilization
- WCC -3
- Visibility of NMHS / Socio-Economic Value of NMHS Products and Services

3.4 Engagement with "One UN"

D/RMO sits on the UNDG Working Groups on: UN Resident Coordinator System; RC Programming Issues; Non-Resident Agency Task Team (NRA-TT) and maintains a watching brief UNCT Joint Funding Issues.

Note: Liaison within the UN System with respect to One UN requires more focus than WMO can provide at present. There is an incredible volume of communications from these groups and RMO presently can only maintain a watching brief and respond to the most important documentation. Building relationships at the operational level with UN Country Offices is the key but it is a struggle with current staffing. The EC DG Enlargement Project for S.E. Europe will be implemented by WMO (1 M € and UNDP 1 M €) and should be an excellent opportunity to engage NMHS with the UNCT and UNDAF process and provide a case study for other regions.

The biggest achievement in 2008 was for the first time ever to have incoming UN RCs spend three hours at WMO HQ for a briefing on the organization.

A Reference Compendium of UNDP Country Offices, UNDAF Focal Areas and key contacts has been developed and will be updated as time allows.

3.5 INTADS

Seminars on resource mobilization at National and Regional levels provided at two regional workshops of advisers on external relations to PRs for RA I and RAs II/V, [INTAD-I (Africa), INTAD-II (Asia) and INTAD-V (South-West Pacific)]. Follow up support to Pacific with respect to development of GEF National Projects.

3.6 Funding Agency Database

A Funding Agency Database has been developed in Access and will be updated quarterly. It is envisaged to secure interns when possible to “mine” the DB for project opportunities. This will be made available to S & T Programmes following the update of the DRA Website.

3.7 Socio-economic value of NMHS products and services

- Reference Compendium on Case Studies and Methods has been collated.
- Training Programme for NMHS in Advocacy under development.
- Planning for additional Case Studies.

MISSIONS CARRIED OUT BY THE RESOURCE MOBILIZATION OFFICE
(Period: August 2007 to December 2008)

Mission Title and Place	Dates	Purpose	Participant
1. European Commission, Brussels	**10 -11.09.07**	**EC/WMO strategic Partnership Discussions in DRR, Climate Adaptation and Regional Initiatives for enhancement of NMHS Capacities.**	**M. Power**
2. First GEO Donor Capacity Building Symposium, Sevilla	**10 -11.09.07**	**To participate in the "Linking Strengths for Sustainable Earth Observations"**	**F. Villalpando**
3. World Bank and US-National Weather Service. Washington	**19 - 21.09.07**	**World Bank/WMO Partnership Discussions in DRR, Climate Adaptation and initiation of US/Canada Trans-boundary EWS demo. Projects**	**M. Power**
4. Meeting of West Africa NMHSs. Las Palmas, Gran Canaria, Spain	**16 -19.010.07**	**Participate in the West Africa NMHSs Directors Meeting to launch the Programme of Cooperation for West Africa countries**	**M. Power** **F. Villalpando**
5. WMO/UN-ISDR/WB/NMHSs Sub-regional Meeting on the Feasibility Study in the South Eastern Europe and the Sava River Basin Project, Zagreb, Croatia.	**24 - 25.10.07**	**To familiarize with the outcomes of the feasibility studies in SEE carried out by the WB/UN-ISDR/WMO experts, Mr B.Tammelin and Mr M. Andjelic and to agree on the further development and implementation of the projects in the sub-region.**	**M. Power**
6. Programme of Cooperation for Iberoamerican NMHSs, Bolivia, Ecuador, Paraguay	**29.10-9.11.07**	**Discuss feasibility studies for NMHSs of Bolivia and Ecuador with national authorities and potential funding agencies based in these countries** **Participate in the Fifth Conference of Directors of NMHSs of Iberoamerican countries. Presentation of progress made in project proposals developed for Bolivia, Ecuador, Guatemala, and Haiti and Dominican Republic**	**F. Villalpando**
7. ACP Secretariat, Brussels	**6.11.07**	**ACP- WMO strategic Partnership Discussions in DRR, Climate Adaptation and Intra-ACP Regional Initiatives for enhancement of NMHS Capacities.**	**M. Power**
8. Valencia, Spain	**10 -11.12.07**	**Participation with D/RAM in the coordinating meeting with INM, Spain on the Implementation of the Programme of Cooperation for NMHSs of Iberoamerican countries**	**F. Villalpando**
9. Implementation Strategy Management for Central America	**28 - 30.01.08**	**Presentation on the WMO Resource Mobilization Office in support of GCOS Action Plan for**	**F. Villalpando**

and the Caribbean, GCOS Action Plan		**Central America and the Caribbean**	
10. Helsinki	**15.02.08**	**Discuss major funding proposal with FMI and Finland Foreign Affairs for the Pacific**	**M. Power**
11. Seminar for Experts and Senior Managers on NATO Standards and Project Evaluation Procedures, focusing on Hydro-Meteorological Aspects. Regional Centre for Arms Control, Zagreb, Croatia	**20 - 22.02.08**	**To familiarize with the process for funding under the NATO Science for Peace Programme and also facilitate a side meeting with the PRs and Directors of SEE NMHS regarding the proposal to DG-Enlargement for implementation of actions described in the feasibility studies in SEE carried out by the WB/UN-ISDR/WMO.**	**M. Power**
12. Iberoamerican Climate project Feasibility Studies, INM, Madrid	**21 - 22.02.08**	**Participate in the briefing session for coordinators and INM Staff to participate in the project feasibility studies to be carried out in 2008 for NMHSs of Costa Rica, El Salvador, Honduras, Nicaragua, Panama, Paraguay and Uruguay**	**F. Villalpando**
13. Informal Planning Meeting of the VCP, Pretoria, Africa and WMO Workshop of Advisers on External Relations for RA I (Africa)	**10 - 15.03.08**	**Exchange of views with VCP donors on the VCP Programme and other technical cooperation activities and opportunities.** **Participate in the workshop designed to provide opportunity for exchanging views and experience on external relations of NMHSs so as to further enhance external relations of NMHSs in Africa and propose ways to engage the INTAD in technical cooperation and resource mobilization activities**	**M. Power** **F. Villalpando**
14. Early warning system project proposal presentation in Dominican Republic and Haiti and Participation in the Annual Session of the Inter-American Development Bank (IDB), Miami, USA.	**31.03-8.04.08**	**Presentation of Early Warning System project proposal to national authorities and funding agencies based in Dominican Republic and in Haiti.** **Participate in the Annual Meeting of the Inter-American Development Bank (IDB) and take opportunity to discuss the collaboration between WMO and IDB in areas of natural disasters and climate change; and attend the seminars on *Climate Change in Today's Global Agenda* and *Confronting Natural Disasters in a Changing Environment*.**	**F. Villalpando**
15. WMO Workshop of Advisers on External Relations for RA I I	**28.04-2.05.08**	**Participate in the workshop designed to provide opportunity for exchanging views and**	**M. Power**

(Asia) and RA V (Pacific)		**experience on external relations of NMHSs so as to further enhance external relations of NMHSs in Africa and propose ways to engage the INTAD in technical cooperation and resource mobilization activities.** **Meet with Korean International Cooperation Agency (KOICA)**	
16. UNDG Working Group on UN Resident Coordinator System FAO Rome	**28 - 29.05.08**	**UNDG Working Group on UN Resident Coordinator System.**	**M. Power**
17. Seoul, Korea	**03.06.08**	**Resource person at 2nd Seoul ODA International Conference and further discussions with KOICA on funding support for Africa**	**M. Power**
18. NMS Santo Domingo and Inter-American Development Bank (IDB) Washington, DC	**09 - 14.06.08**	**Discuss D. Republic-Haiti project proposal with national authorities and funding agencies including AECID (Spain), IDB and Ministry of Finances** **Discuss with IDB focal points for climate and water, and climate change and natural disasters, concrete areas of cooperation between WMO and IDB in the Americas Region**	**F. Villalpando**
19. European Commission, Brussels	**07 - 08.08**	**Discussion on potential opportunities for partnerships and funding for WMO programmes including Disaster Risk Reduction and other relevant areas**	**M. Power**
20. Podgoricia	**Oct. 08**	**Informal Meeting of Met Directors of South Eastern Europe (ICEED) to discuss WB/WMO/UNIDR initiative and European Commission Project**	**M Power**
21. AEMET, Madrid	**9 - 12.09.08**	**Review of progress made of CLIBER project proposals for the NMHS of Costa Rica, El Salvador, Honduras, Nicaragua, Panama, Paraguay and Uruguay**	**F. Villalpando**
22. Panama, Costa Rica, El Salvador	**20 - 28-10.08**	**Presentation of CLIBER project proposals to national authorities and funding agencies**	**F. Villalpando**
23. Moldova		**Regional Conference – Role of NMHS in DRR and side meetings**	**M Power**
24. Panama	**27 - 29.11.08**	**Participation in the Sixth Conference of Directors of Iberoamerican NMHSs and discussion of the CLIBER project**	**F. Villalpando**

		with Directors of 12 NMHSs	
25. Niger	**11 – 15.11.08**	**Participation to Planning Meeting for the Programme of Cooperation of Spain and West Africa**	**M Power**
26. Tashkent	**7 – 12.12.08**	**RA II Regional Association Meeting**	**M Power**

Appendix 2

WMO RESOURCE MOBILIZATION OFFICE
MISSION STATEMENT

RMO Vision

National Meteorological and Hydrological Services (NMHS), in particular those in developing countries, LDCs and SIDS, adequately resourced and delivering efficient services in support of protection of life, property and environment and thereby contributing effectively to their national socio-economic development process.

RMO Mission

In line with the WMO Strategic Plan, in particular Expected Results 7 and 9, the RMO will support NMHS and WMO Scientific and Technical Programmes to enhance the level of in-country and external support and funding to programmes and projects aimed at development of NMHS to reach the levels and range of services needed to support the protection of life, property and environment and ensure the security of food production, energy and water resources, with particular emphasis on the developing countries, LDCs and SIDS and in keeping with the Regional Strategic Plans and Strategic Development Plans.

Guiding Principle

To enhance the level of in-country and external support to NMHS it is imperative to advocate strongly on the importance of the NMHS and their products and services in support of the national development process. This will require demonstrating the value and contribution of WMO Scientific and Technical Programmes and NMHS products and services to the reduction of poverty overall and to a wide range of key sectors including agriculture, health, energy, water, transport disaster risk reduction and early warning systems and adaptation to climate change. In line with the Madrid Action Plan, it will be critical to demonstrate the real socio-economic value of investments in, and of the contribution of WMO/NMHSs to the national development agenda.

Resource Mobilization in WMO – the Fundamentals

- In the context of WMO operations, RM means both availing of ad hoc opportunities for development of small- to medium-scale projects in response to calls from various modalities and more importantly developing in parallel, a strategic programme of activities aimed at securing sustained resourcing for Member Countries NMHS.
- The current VCP mechanism for supporting activities in NMHS through facilitation of the provision of funds, equipment and services by developed country NMHS is a valuable element of RM but is “gap filling” rather than “development” oriented. RM activities will need to focus significantly on strengthening the VCP mechanism but additionally mobilization of significant resources for multi-annual and multi-country activities will require strategically engaging other key funding agencies.
- In the current financing environment it is critical that the wider national and regional socio-economic development context is taken into account such as the contribution of activities to achievement of MDGs, National Development Plans and Action Plans of LDCs and SIDs.
- Significant in-country financing opportunities could exist through the national budgeting processes, Overseas Missions and Embassies, the UN “One UN” country funds, GEF and other mechanisms. RM will need to focus on assisting NMHS to avail of these in-country financing opportunities through training seminars and direct support.
- One of the most significant challenges is to find an alignment between the stated priorities of the donors and the priorities identified within Regional Strategies and national plans.
- Securing extra-budgetary resources to allow WMO Technical Programmes to engage in development activities is also a significant priority.

Appendix 2

WMO RESOURCE MOBILIZATION OFFICE
MISSION STATEMENT

OPERATING PRINCIPLES

The RMO services and activities will be focused on addressing development needs of the NMHS in Member countries as directly identified and expressed by the Members. The RMO will work in close cooperation with the WMO Regional Offices and WMO Technical Programmes in all aspects of its work programme.

The focus of RMO will be to:

At the Global and Regional Level:

- Identify development needs at regional and national level in association with RAs, PRs and Regional Offices
- Sensitize development partners and national governments to the value of NMHS products and services and the benefits that building greater capacity can bring to a variety of users
- Develop a comprehensive understanding of the needs and operations of funding agencies and development partners, including their project cycles, modalities and priorities and transmit this information to WMO Programmes, Regional Offices and PRs
- Facilitate development of and source financial support for high-impact hydro-meteorological infrastructure and service development projects by engaging with existing and potential development partners for establishment of multi-annual framework agreements and partnerships agreements for joint regional and national interventions
- Engage and establish mutually beneficial relations with the private sector and establish private-public partnerships as appropriate
- Strengthen collaboration with NMHS of developed countries and forge links between these and NMHS of developing countries with a view to continuation of existing VCP support and also increasing number of countries contributing to VCP and engaging in major bilateral programmes of cooperation
- Engage the Advisers on External Relations and associated networks in resource mobilization and technical cooperation activities at national and region levels.

At the National Level:

- Assist NMHS to avail of funding opportunities within the national system through raising their political and public profile; understanding and engaging in investment planning processes such as for national GEF, ACP, Development Bank and UNDAF planning processes and national fiscal processes
- Assist NMHS to demonstrate the socio-economic value of their products and services and through case studies to inform their governments and communities on this through targeted social-marketing mechanisms
- Advocate for the role of NMHS in Climate Observations and Climate Change Adaptation and Disaster Risk Reduction
- Assist NMHS to engage and establish mutually beneficial relations with the private sector and establish private-public partnerships as appropriate.

VCP Programme Coordination:

- Coordinate and enhance the efficiency and timelines of VCP (VCP(F) & VCP(ES)) applications and approval process
- Increase current VCP support base (number of donor countries and amount of funds) and accelerate delivery of the WMO Voluntary Cooperation Programme (VCP Trust Fund and VCP Coordinated) working closely with Regional Offices

- Seek to expand the financial and other support to Regional Specialised Centres
- Facilitate partnerships with other UN Organizations and with particular emphasis on WMO engagement in the UN “Delivering as One” Process

Appendix 2

Resource Mobilization								
T.L.O. (Top Level Objective)	**Strategic Thrust**	**E.R. (Expected result)**	**KPI (Key Performance Indicator(s))**	**Deliverables WMO Operational Plan**	**Key Performance Targets WMO Operational Plan**	**Main Outputs RM Office**	**Summary of Main Activities (Refer to annual work plan for specific action and schedules)**	**Timeline** 2008 / 2009 / 2010 / 2011
(II) To improve the delivery of weather, climate, water and related environmental information and services to the public, governments and other users	Service Delivery	(VII)Enhanced capabilities of Members to provide and use weather, climate, water and environmental applications and services	1. Number of Members having undertaken or used studies related to social and economic benefits of weather, climate, water and air quality services 2. Number of Members reporting increased value of weather, climate and water services to user groups 3. Number of Members seeking and providing improved Integrated Flood Management	Extra budgetary resources are increased from VCP donors, Members, UNDP and financial institutions and development partners for VCP, UNDP and Trust Fund projects for priority capacity development programmes and capacity-building activities in developing countries	• 10% increased timely delivery of technical assistance in 2008-2009 and 15% more in 2010-2011 with Members' satisfaction • Developed and approved projects from extra-budgetary resources increased by 20% by 2011	1. Increased financial support to WMO Programmes and NHMS for high-impact hydro-meteorological infrastructure and services development projects.	• Identify and catalogue the key focus areas of the various development partners and donors and develop and maintain a donor database • Continually update and keep informed WMO Porgrammes and PRs and NMHS of these priorities and opportunities. • Identify needs at regional and national level in association with RAs, PRs and Regional Offices • Advance regional collaboration activities between the Members and WMO and Development Partners. • Support preparation of regional and national development strategies for NMHS • Facilitate liaison between proponents and donors and assist preparation of proposals consistent with donor funding priorities and that address key development challenges (MDGs, SIDS and LDC priorities) and demonstrate a contribution to key sectors (disaster risk reduction, poverty alleviation, agricultural productivity, food security, adaptation to climate change, water resources management, alternative sources of energy, protection of the environment	
				Technical cooperation	• 5% more Members'	2. Increased support base for		

Resource Mobilization											
T.L.O. (Top Level Objective)	**Strategic Thrust**	**E.R. (Expected result)**	**KPI (Key Performance Indicator(s))**	**Deliverables WMO Operational Plan**	**Key Performance Targets WMO Operational Plan**	**Main Outputs RM Office**	**Summary of Main Activities (Refer to annual work plan for specific action and schedules)**	**Timeline 2008**	**2009**	**2010**	**2011**
				programmes and projects including VCP are effectively implemented through further integration into regional activities for development.	involvement of VCP- and TCO-related activities each year; and increased number of coordinated projects geared to the implementation of regional and global initiatives.	the VCP (F and ES) and WMO Technical Cooperation Activities and streamlined VCP processes.	• Review VCP processes and procedures to seek opportunities for streamlining the applications/approval process. • Strengthen and expand the base of international support for VCP (VCP(F) & VCP(ES)) for capacity-building and technical and technology transfer. • Seek to augment VCP type activities through national, bilateral or multilateral programmes, trust fund arrangements and other sources. • Assist Members through collaborative efforts to implementation activities for WMO technical and scientific Programmes under other technical cooperation programmes, • Facilitate activities / meetings of Executive Council Advisory Group of Experts on Capacity Building. • Coordinate input of VCP donors through the annual Informal Planning Meeting on VCP for effective support of assistance geared to Members' priority requirements.				
(III) To provide scientific and technical expertise and				Strengthened strategic partnerships with the UN system	Regular and increased contacts and negotiations with strategic partners;	3. Strong partnerships with development agencies and	• Review the status of WMO partnership relationships with funding agencies and strategic partners (agreements, MOUs,				

Resource Mobilization								
T.L.O. (Top Level Objective)	**Strategic Thrust**	**E.R. (Expected result)**	**KPI (Key Performance Indicator(s))**	**Deliverables WMO Operational Plan**	**Key Performance Targets WMO Operational Plan**	**Main Outputs RM Office**	**Summary of Main Activities (Refer to annual work plan for specific action and schedules)**	**Timeline** 2008 / 2009 / 2010 / 2011
advice in support of policy and decision-making and implementation of the agreed international development goals and multilateral agreements				including UNESCO and its IOC, UNEP, UNFIP, UNOCHA, ISDR, FAO, UNDP, UNOPS and UN Resident Coordinators, in order to ensure that WMO's inputs and interests are taken into account in the development of the UN system-wide policies; concluding agreements in particular with the European Commission (EC), the World Bank (WB), the Inter-American Development Bank (IDB) and the African and Asian Development Banks on specific projects in the areas of natural disaster prevention and mitigation, water resources management,	at least one MoU and one joint project proposals with partners per year.	MOU and collaborative arrangements for programme implementation in support of WMO Technical Programmes and NMHS development.	working agreements, etc). • Establish the funding priorities of major development agencies and transmit this information to WMO Programmes, Regional Offices and PRs. • Engage with potential development partners for establishment of multi-annual framework agreements and partnerships agreements for joint regional and national intervention in support of the above. • Identify and engage with key regional and national focal points of regional and international development agencies including UNDP, WB, UNEP, EU-ACP, EC, Regional Development Banks, major Overseas (AID) Development Agencies and Private Foundations. • Represent WMO in the UNDG Forum • Develop and maintain a donor and Focal Point Data Base. • Facilitate NMHS and WMO engagement in the “Delivering as One UN” process including strong emphasis on engagement with UNDP New York and in Regional Forums for UN Resident Coordinators and UN Country Teams to raise the profile of WMO in this process. • Represent WMO in the UNDG	

Resource Mobilization								
T.L.O. (Top Level Objective)	**Strategic Thrust**	**E.R. (Expected result)**	**KPI (Key Performance Indicator(s))**	**Deliverables WMO Operational Plan**	**Key Performance Targets WMO Operational Plan**	**Main Outputs RM Office**	**Summary of Main Activities (Refer to annual work plan for specific action and schedules)**	**Timeline** 2008 / 2009 / 2010 / 2011
				agricultural production and the protection of the environment.		4. Increased profile for WMO and NMHS at national, regional and international levels	Non Resident Agency Task Team and the MDG-Gap Task Team. • Advocate for the role of WMO/NMHS in Climate Observations and Climate Change Adaptation and Disaster Risk Reduction. • Advocate role of WMO/NMHS in sustainable development/achievement of MDGs at relevant regional and global meetings. • Strategically and opportunistically make presentations on WMO-NMHS contribution to the development agenda to groups of funding agencies and Development Partners.	
(II) To improve the delivery of weather, climate, water and related environmental information and services to the public, governments and other users	Partnerships	(IX)Enhanced capabilities of NMHSs in developing countries, particularly LDCs, to fulfil their mandates	1. Increasing the ability of Members to plan, monitor and assess weather, climate and water phenomena more effectively in support of national development	Weather, climate and water services mainstreamed into the LDCs and SIDs national and regional development plans and strategies, including Poverty Reduction	NMHS profile/visibility improved in 40 LDCs and SIDs, including increased government support and use of weather, climate and water services in designing and implementing	5. Strategies and Tool Kits to enhance in-country support for NMHS (from national fiscal allocations and in-country embassy funds and UN country funds).	• Training and Support NMHS to link to national development planning processes and internal policy and budgeting processes. • Support NMHS to link to development agencies with offices in their countries and understand the planning and allocation processes. • Support NMHS to link to Missions and Embassies in	

Resource Mobilization								
T.L.O. (Top Level Objective)	**Strategic Thrust**	**E.R. (Expected result)**	**KPI (Key Performance Indicator(s))**	**Deliverables WMO Operational Plan**	**Key Performance Targets WMO Operational Plan**	**Main Outputs RM Office**	**Summary of Main Activities (Refer to annual work plan for specific action and schedules)**	**Timeline** 2008 / 2009 / 2010 / 2011
			plans and policies; 2.Successfully implementing capacity-building activities that improve service delivery; 3. Enhancing the capabilities of Members to support poverty alleviation programmes; and 4. Increasing the opportunity for effective participation of candidates from developing countries and LDCs in training events and technical meetings, which leads to institutional capacity-building?	Strategies Capacities of NMHSs in LDCs enhanced in strategic planning, management, communication and resource mobilization	development initiatives.		their countries and understand the planning and allocation processes of these offices. • Assist NMHS to demonstrate the socio-economic value of their products and services and to inform their governments and communities on this through target social-marketing mechanisms. • Advocate for the role of NMHS in Climate Observations and Climate Change Adaptation and Disaster Risk Reduction. • Disseminate Case Studies highlighting actual and potential services and impacts of the NMHS products. • Organize training on resource mobilization and related activities at the national and regional office level.	
	Capacity-building					6. Case Studies demonstrating positive impact of NMHS products and services in poverty alleviation and sectoral benefits	• Identify and document “Success Stories” where the products and services of NMHS have made a significant contribution to the support and sustainability of economic activities and or the protection of live property. • Develop appropriate communication products for dissemination of these cases.	
						7. Establishment of Socioeconomic	• Socio-Assessments in a range of economic, social and climatic settings to act as Threshold	

Resource Mobilization											
T.L.O. (Top Level Objective)	Strategic Thrust	E.R. (Expected result)	KPI (Key Performance Indicator(s))	Deliverables WMO Operational Plan	Key Performance Targets WMO Operational Plan	Main Outputs RM Office	Summary of Main Activities (Refer to annual work plan for specific action and schedules)	Timeline			
								2008	2009	2010	2011
						value of hydrometeorological institutions and services in a range of country and economic development settings	Case Studies for setting value benchmarks • Training seminars and workshops; advisory services, socio-economic assessment and social marketing tools and methodologies adopted				

ANNEX VIII

REVIEW OF VCP PROJECTS WITH NO SUPPORT CIRCULATED DURING THE PERIOD 2004 TO 2008

Review of VCP projects with no support circulated during the period 2004 to 2008

A review of **123 unsupported VCP projects** circulated during the period 2004 to 2008 was carried out with the purpose of obtaining a diagnostic of trends and as a basis for discussion on possible actions to support some or a grouping of these outstanding VCP projects.

Table 1 shows a summary of unsupported projects by field of cooperation and by region. The complete list of unsupported VCP projects is given as **Annex VIII** of this report.

Key findings

1. RA I has the greatest number of unsupported VCP projects (44 project or 36%) followed by RA II (37 / 30%) and RA VI (17 / 14%).

2. VCP requests for upper air observing systems support rank most numerous (26%) followed, CDMS and climatological activities (20%) and (18%) and meteorological application activities (17%), respectively of the outstanding VCP projects.

3. A total of 18 VCP projects include requests for the establishment of new upper air stations or upgrading the existing ones, covering some 30 sites. These VCP requests should be reviewed jointly by GCOS, OBS and DRA, in particular those requesting the establishment of new stations.

4. A number of countries have submitted VCP requests that clearly demonstrate that in these countries what is really required are major development programmes. Countries include amongst others, Afghanistan, D.R.R of Korea, Haiti, Myanmar, and Republic of Moldova. Donors are invited to consider the development of joint initiatives with WMO to assist these NMSs.

5. For a large number of VCP requests the estimated cost of the equipment requested is beyond the usual scope of VCP funding (i.e. radar system, AWS observing networks, etc)..

6. VCP requests submitted by various countries requesting assistance under the same thematic (telecommunications, CDMS requested by African and Eastern Europe countries), could be considered as regional VCP projects and presented as such to VCP donors.

Proposed actions

1. Undertake a review of unsupported VCP projects requesting the establishment of new upper air stations by GCOS, OBS and relevant Regional Office (DRA) with a view of select those that are well justified and commence mobilizing support for these installations as a group project.

2. VCP projects requesting the establishment of CDMS (CLIDATA, CLIMSOFT, CLIWARE) are suggested to be reviewed by OBS, CLW and DRA and consider cost and maintenance of CDMS, in particular where databases require annual renovation of licences (ORACLE in the case of CLIDATA).

3. Consider if the VCP requests could be dealt with on a regional scale and in particular under Thematic areas such as CDMS, Telecommunications, Climate Data Rescue and Invite donor members to participate with WMO in joint initiatives for development of regional projects grouping common VCP requests made by NMS in a region.

4. Increased utilization of VCP (F) to support selected VCP requests that have not yet received support from donors and are still valid and required. Specific cases include VCP projects in the areas of PWS, telecommunications and others that are generally considered beyond the funding limits of the VCP-F. This would require increased replenishment of VCP-F by members with an emphasis on increasing the donor base in terms of number of contributing members.

Table 1. List of unsupported VCP projects approved for circulation during the period from 2004 to 2008, by field of cooperation and by Regional Association

Field of Cooperation	Total	RA I	RA II	RA III	RA IV	RA V	RA VI
1. Upper air observing stations	26	**8**	**9**	**1**	**3**	**2**	**3**
2. Surface observing stations	8	**3**	**1**	**0**	**3**	**0**	**1**
3. Satellite receiving stations	6	**0**	**4**	**0**	**0**	**0**	**2**
4. Weather radar stations	3	**2**	**1**	**0**	**0**	**0**	**0**
5. Telecommunication systems	14	**7**	**0**	**3**	**0**	**4**	**0**
6. Data processing systems	11	**2**	**5**	**0**	**0**	**1**	**3**
7. Research and training centre activities	1	**1**	**0**	**0**	**0**	**0**	**0**
8. CDMS and climatological activities	24	**7**	**7**	**1**	**0**	**2**	**7**
9. Hydrological activities	6	**2**	**4**	**0**	**0**	**0**	**0**
10. GAW and environmental protection activities	1	**0**	**0**	**0**	**0**	**0**	**1**
11. Meteorological Application activities	13	**10**	**0**	**1**	**0**	**2**	**0**
Aeronautical meteorological activities	1	**0**	**1**	**0**	**0**	**0**	**0**
Agricultural meteorology activities	0	**0**	**0**	**0**	**0**	**0**	**0**
Marine meteorology and oceanographic activities	5	**2**	**2**	**0**	**1**	**0**	**0**
Public weather services							
12. Other fields	4	**0**	**3**	**0**	**0**	**1**	**0**
Total	123	44	37	6	7	12	17
Percentage %	100	36	30	5	6	10	14

ANNEX IX

VCP PROJECTS REQUESTS FROM 2004 TO 2008
WITH NO OFFER OF SUPPORT

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	CONGO	WCP/2/2/1	Provision of a CLIDATA Climate Database Management System (CDMS)	2004 No	 1 server and 3 workstation PCs with the necessary software (Oracle 8i)
1	ETHIOPIA	AEM/3/1/2	Upgrading of the satellite-based distribution system for WAFS data and products	2004 No	US $20,000 1 Matra Marconi VSAT antenna, mount, receiver and LNB; data capture and display computer system; 1 printer; 1 UPS; spares
1	GAMBIA	TE/5/3/1	Provision of Internet connection	2004 No	£1,000 1 HP D220 Desktop PC and 1 year subscription fee
1	GUINEA BISSAU	OB/2/2/2 (Revised)	Rehabilitation of meteorological, climatological and agrometeorological observation networks	2004 No	 various meteorological instruments and equipment
1	MALAWI	HY/5/1/1	Hydrological data rescue	2004 No	US $8,000 1 PC with printer, scanner and accessories; software; and installation and training
1	SAO TOME AND PRINCIPE	TE/6/3/1	Provision of a RETIM2000 receiving system and a SYNERGIE system	2004 No	 a RETIM2000 receiving system and a SYNERGIE system as well as training
1	GUINEA BISSAU	AEM/3/1/1	Provision of a satellite-based distribution system for WAFS data and products	2004 No	 a satellite-based distribution system for WAFS data and products
1	NAMIBIA	WCP/4/1/1 (Revised)	Climatological data rescue	2004 No	US $15,000 equipment (digital camera and related full set of accessories and consumables) and training to operate DARE system

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	BURUNDI	DP/1/1/1	Provision of a weather information system	2005 No	$25,000 a weather information system with all necessary accessories and operational software, and installation and training
1	BURUNDI	TE/6/3/1	Provision of a RETIM2000 receiving system	2005 No	$35,000 a complete RETIM system, and installation and training
1	BURUNDI	TE/4/1/4	Connection to the Global Telecommunication System (GTS) using a VSAT	2005 No	$17,000 a VSAT system, and installation and training
1	EGYPT	DP/4/2/1	Replacement of an educational HRPT system	2005 No	 an educational HRPT/CHRPT system
1	ZAMBIA	OB/1/3/2	Provision of an electric hydrogen generator	2005 No	 1 Hogen 20 electrolyzer hydrogen generator
1	SUDAN	WCP/2/1/2	Provision of a CLIDATA Climate Database Management System (CDMS)	2005 No	US $40,000 CLIDATA CDMS hardware and software with 1 laserjet printer and 1 UPS
1	ETHIOPIA	DP/1/1/1	Provision of a Geographical Information System (GIS)	2005 No	US $54,593 GIS software, hardware, installation and training
1	GUINEA	AEM/3/1/2	Upgrading of a SADIS station at NMS Conakry	2005 No	US $30,000 a SADIS 2G receiver; replacement of SADIS 1G PC; MESSIR-VISION software upgrade

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	GUINEA	WCP/2/1/3	Provision of a CLIDATA Climate Database Management System (CDMS)	2005 No	 a CLIDATA CDMS hardware and software
1	NIGER	PWS/1/1/1 (Revised)	Provision of TV weather presentation equipment	2005 No	 2 digital cameras, 2 PCs, 2 Betacam video recorders, 1 studio lighting projector, 1 video scan mixer/converter, and
1	GAMBIA	AEM/3/1/2	Provision of a SADIS second-generation system	2005 No	 Hardware and software for SADIS 2G package
1	ETHIOPIA	AEM/3/1/3	Upgrading of SADIS visualization software	2005 No	EUR 34,660 SADIS vusualization software upgrade
1	MADAGASCAR	AEM/3/1/2	Provision of a SADIS second-generation system	2005 No	 a SADIS 2G receiver: a VSAT two-way reception system and a data-processing and display system (workstation)
1	ZAMBIA	HY/5/1/1	Hydrological Data Rescue	2005 No	US $13,000 1 PC with DVD and CD writer and accessories; 1 laptop PC; software/consumables; and consultancy
1	SUDAN	OB/2/2/5	Provision of meteorological instruments and spare parts for surface synoptic stations	2005 No	 conventional meteorological instruments for wind; pressure; temperature; humidity; evaporation; radiation and
1	SUDAN	OB/1/2/14	Upgrading of DigiCORA upper-air systems at Khartoum and El Fasher	2005 No	EUR 240,000 2 complete DigiCORA upper-air systems; auxiliary equipment and consumables

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	SUDAN	OB/1/2/15	Enhancement of pilot balloon observations	2005 No	EUR 170,000 5 theodolites; 5 laptop PCs; auxiliary equipment and consumables
1	BURUNDI	AEM/3/1/2	Upgrading of a SADIS system at NMS Bujumbura	2005 No	US $30,000 1 SADIS 2G receiver; replacement of SADIS 1G PC; and MESSIR-VISION software upgrade
1	MALAWI	OB/1/3/1	Provision of hydrogen generators for Chileka and Kamuzu International Airport upper-air stations	2005 No	 2 Hogen 20 or equivalent hydrogen generators
1	ETHIOPIA	OB/4/3/1	Restoration of MRL-5 weather radar	2005 No	US $50,000 radar data display software; spare parts; and expert mission for installation
1	SUDAN	TE/4/2/1 (Revised)	Provision of an Automatic Message Switching System (AMSS)	2006 No	EUR 313,230 MESSIR-COMM hardware and software; MESSIR-VISION hardware and software; MESSIR-Aero pilot meteorological briefing
1	MOROCCO	OB/1/2/1	Provision of two DigiCORA MW31 radiosounding systems and three hydrogen generators	2006 No	EUR 850,000 2 complete DigiCORA MW31 radiosounding systems and 3 hydrogen generators
1	CAMEROON	AEM/3/1/1	Provision of a SADIS second-generation system	2006 No	US $16,000 1 SADIS 2G satellite receiving system
1	UNITED REPUBLIC OF TANZANIA	OB/1/2/4	Provision of upper-air systems and a hydrogen generators for Kigoma and Mtwara	2006 No	US $850,000 2 DigiCORA III upper-air systems and hydrogen generators with consumables

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	UGANDA	OB/1/2/6	Upgrading of the Entebbe Upper-air Station	2006 No	Upgrade to MW12; 1 hydrogen generator; 1 DCP; 1,600 RS92 radiosondes and balloons; 1 PC and 1 printer
1	COTE D'IVOIRE	PWS/1/1/1	Provision of a media weather presentation system and training of weather presenters	2006 No	a media weather presentation system (camera, PC and software, video recorder and digital camera) and training of
1	CONGO	AEM/3/1/1	Provision of a SADIS second-generation system	2006 No	1 SADIS 2G package (hardware and software)
1	TOGO	WCP/4/1/1	Meteorological and climate data rescue and data management	2007 No	US $35,000 Computer hardware and software for climate data rescue and data management
1	SEYCHELLES	AEM/3/1/3	Upgrading of a Satellite-based Distribution System (SADIS) for WAFS data and products	2007 No	US $35,000 a SADIS 2G equipment
1	TOGO	TE/5/3/1	Internet connection	2007 No	US $30,000 1 server PC, 2 workstation PCs, 1 laptop, 2 printers and connection fee
1	MAURITANIA	OB/4/1/1	Provision for the aquisition of two close-range radars for Tintane and Kaedi	2008 No	
1	GABON	OB/2/6/1	Rehabilitation of the meteorological network and capacity building of the Meteorological Service	2008 No	CFA Francs 5,600,000

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
1	ZAMBIA	TE/1/1/1	Provision of communication equipment for 2 meteorological stations affected by flash floods	2008 No	USD 31,956
1	UGANDA	WCP/4/1/1	Improvement of medium range and seasonal forecasts in Uganda (DARE project)	2008 No	USD 19690
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	DP/1/1/2	Establishment of a new NWP system using PC-cluster	2004 No	1 set of PC-cluster facility composed of 16 PCs
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	HY/3/1/1	Establishment of a hydrological information management system in SHMA	2004 No	1 server PC and 2 workstation PCs; 2 CD rewritable Drives; 1 scanner; and 1 printer
2	KAZAKHSTAN	DP/1/1/1	Provision of the updated GIS Meteo software for the modernization of the data processing system	2004 No	US $23,178 update of GIS Meteo software
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	PWS/1/1/1	Provision of a television weather presentation system	2004 No	1 PC and peripherals (2 CD writers, etc.); photographing equipment; weather forecaster presentation equipment
2	UZBEKISTAN	WCP/2/2/1	Provision of a CLIWARE Climate Database Management System (CDMS)	2004 No	US $4,000 CLIWARE CDMS software and training
2	UZBEKISTAN	OB/3/3/1	Provision of a satellite receiving system for India's KALPANA satellite	2004 No	US $9,000 a satellite receiving ground station for KALPANA satellite

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
2	KYRGYZSTAN	OB/2/2/2	Provision of meteorological instruments and equipment for Naryn GCOS surface network station	2004 No	US $18,500 meteorological instruments and equipment, including thermometers; hygrometers, barometers, etc.
2	TURKMENISTAN	OB/1/2/3	Upgrading of the upper-air system in Ashgabat	2004 No	US $285,000 an upper-air system and consumables (radiosondes, balloons and chemicals)
2	TURKMENISTAN	WCP/2/2/1 (Revised)	Provision of a CLIWARE Climate Database Management System (CDMS)	2005 No	US $20,200 CLIWARE CDMS hardware and software
2	UZBEKISTAN	OB/1/2/1	Restoration of the upper-air sounding systems	2005 No	 restoration of 3 upper-air sounding systems
2	MYANMAR	HY/5/1/1	Hydrological data rescue	2005 No	US $62,000 4 PCs with UPS; 2 CD writers; 2 laser printers, etc., HYDATA software and training
2	MYANMAR	HY/4/1/1	Provision of a flood forecasting system for the Delta areas	2005 No	US $80,000 5 sets of: automatic water level gauge; SSB; and installation and training
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	OB/1/2/7	Restoration of Hamhung Upper-Air Station	2005 No	US $30,000 an upper-air system, a hydrogen generator, etc.
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	OB/9/1/1	Provision of temperature chambers	2005 No	US $15,000 2 pieces of temperature chambers; 2 pieces of harmful gas purifier; 2 pieces of of auto mercury

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
2	SRI LANKA	OB/1/2/7	Replacement of the WF33 wind-finding radar system and a hydrogen generator at Colombo	2005 No	 a WF33 wind-finding radar system and a hydrogen generator
2	MONGOLIA	HY/3/1/2	Hydrological data rescue	2005 No	US $17,000 HYDATA software; 2 workstation PCs; and training of 2 specialists
2	MONGOLIA	OB/1/2/5	Upgrading of the four upper-air observing systems	2005 No	EUR 23,000 equipment and software upgrade of 4 DigiCORA III systems and training of 1 staff member
2	MONGOLIA	WCP/2/2/1	Provision of a CLIWARE CDMS and training	2005 No	US $10,000 a CLIWARE CDMS and training
2	MYANMAR	OB/1/2/7	Upgrading of the DigiCORA upper-air system	2006 No	EUR 50,270 upgrading of the Mandalay DigiCORA upper-air system
2	KYRGYZSTAN	DP/1/2/1 (Rev. 3)	Provision of "Persona-miss" software and hardware for meteorological data processing for the period 1992-2005 and beyond	2006 No	US $16,720 4 PCs and peripherals; Persona-miss software; installation and training
2	PAKISTAN	OB/1/2/6	Upgrading of rawinsonde stations at Karachi and Quetta/Peshawar	2006 No	US $140,000 2 MW21 DigiCORA III Sounding Systems and installation
2	LAO PEOPLE'S DEMOCRATIC REPUBLIC	PWS/1/1/2	Provision of a TV Weather Presentation System	2006 No	US $45,000 repair of weather presentation room; supply of complete TV studio equipment; and training of staff

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
2	LAO PEOPLE'S DEMOCRATIC REPUBLIC	WCP/4/1/1	Climate data rescue and data management	2006 No	US $63,000 3 PCs; 3 digital cameras; 1 server PC; 3 workstation PCs at HQ and 6 workstation PCs for provincial stations; 2 printers and CDMS
2	LAO PEOPLE'S DEMOCRATIC REPUBLIC	OB/2/2/2	Provision of meteorological instruments for seven surface synoptic stations	2006 No	US $126,000 complete sets of analogue classical meteorological instruments sufficient for seven surface synoptic stations
2	LAO PEOPLE'S DEMOCRATIC REPUBLIC	OB/9/1/1	Provision of a meteorological instrument inspection kit	2006 No	 a meteorological instrument inspection kit
2	BANGLADESH	OB/1/2/2	Rehabilitation and replacement of the upper-air sounding systems	2006 No	EUR 180,000 2 complete Vaisala DigiCORA MW31 system
2	THAILAND	OB/1/2/4	Replacement of RS80 upper-air system with RS92 upper-air system	2006 No	£331,600 5 sets of RS92 (403 MHz GPS) upper-air systems, and installation
2	REPUBLIC OF YEMEN	WCP/4/1/1	Climatological Data Rescue	2006 No	 ecovery of historic data from UK; digital cameras; computers, etc. for data rescue; and installation and training
2	VIET NAM, SOCIALIST REPUBLIC OF	OB/3/2/2	Provision of a meteorological satellite receiving system for FY-2C	2006 No	US $30,000 1 FY-2C satellite receiving station, including software, training and expert services
2	TAJIKISTAN	DP/1/2/2	Provision of Persona MIS and MIP system	2007 No	 Persona MIS and MIP system

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	OB/4/1/1	Provision of a meteorological radar for improvement of nowcasting	2007 No	 a meteorological radar (JY16-32) system
2	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	DP/1/2/1	Provision of PCs for hydrometeorological data and information processing in National Data Centre	2007 No	US $19,260 2 server PCs; 25 PCs; and 2 printers
2	UZBEKISTAN	OB/9/1/1	Provision of calibration devices for meteorological instruments	2008 No	EUR 518,000
2	Kyrgyzstan	AGM/1/1/1	Improving of agrometeorological services for agricultural sector	2008 No	USD 27000
2	REPUBLIC OF MALDIVES	OB/1/2/5	Acquisition of upper-air observing system for the National Meteorological Centre	2008 No	EUR 60495 for radiosonde and USD 6734.80 for baloons radiosonde and baloons
2	KAZAKHSTAN	WCP/2/2/1 (Rev.)	Provision of CLIWARE (CDMS)	2008 No	USD 22105 CLIWARE
3	BOLIVIA	TE/2/3/1	Replacement of the ISCS workstation	2004 No	US $40,000 1 ISCS workstation, software, installation, and training
3	URUGUAY	TE/2/3/1	Replacement of the ISCS workstation	2004 No	US $50,000 1 ISCS workstation

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
3	URUGUAY	OB/1/2/1	Provision of an upper-air observing system and consumables	2004 No	 a radiosonde system with upper-air consumables for two years and hydrogen generation equipment
3	CHILE	AEM/3/2/1	Provision of a meteorological briefing system for aeronautical users	2004 No	US $3,000 aeronautical briefing equipment (software and screen; closed-circuit TV system for dissemination)
3	PARAGUAY	WCP/4/1/1	Climatological data rescue	2006 No	US $27,600 financial assistance to cover the staff costs for the data input, validation and homogenization
4	BAHAMAS	OB/2/1/3	Rehabilitation of the meteorological observing network after Hurricanes Frances and Jeanne	2005 No	US $85,700 4 aerovane systems; 3 Stevenson screens; 3 AWSs; 10 rain gauges; 12 thermometers (max and min)
4	BARBADOS	OB/1/2/3	Replacement of a standby electric generator for upper-air observations	2005 No	US $20,000 a stadby electric generator and its installation
4	COSTA RICA	OB/1/2/13	Provision of upper-air consumables	2006 No	US $71,200 400 radiosondes Vaisala RS92-SGP; and 400 TOTEX 600g balloons
4	Costa Rica	OB/1/2/1	Acquisition of one year consumable for the GUAN Costa Rica station	2007 No	US$71,200
4	Dominica	PWS/1/1/2	Provision of Automatic Weather Stations (AWS) and associated equipment for weather forecasting and public information service	2007 No	US$30,000

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
4	Dominica	OB/2/3/1	Provision of the Automatic Weather Station and associated equipment for weather forecasting and public information service	2007 No	US$30,000
4	Nicaragua	OB/4/1/1	Rehabilitation of the meteorological observing network	2007 No	US$80,000
4	Colombia	TE/2/3/2	Upgrading of the RMTN workshop in Colombia	2008 No	US$44,000
4	HAITI	OB/1/2/1	Rehabilitation of the meteorological observing network	2008 No	USD 386,500
5	PAPUA NEW GUINEA	WCP/4/1/1	Climatological data rescue	2004 No	2 PCs; 1 scanner; 1 laser fiche; 1 digital camera; and 1 UPS
5	SAMOA	AEM/3/1/1	Installation of an International Satellite Communication System (ISCS) workstation for WAFS data and products	2004 No	US $20,000 a feasibility study; provision and installation of ISCS workstation; training and public awareness
5	SOLOMON ISLANDS	WCP/2/2/1	Upgrading of Climate Database System	2004 No	US $15,000 1 server PC and 4 workstation PCs with UPSs
5	PHILIPPINES	AEM/3/1/3	Upgrading of the WAFS receiving system	2005 No	US $77,000 a WAFS/Metlab Server/Client Reception and Display System

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
5	PHILIPPINES	DP/1/1/EX	Expert services for training on applications of Numerical Weather Prediction (NWP) products	2005 No	 expert services for a two-week training programme
5	PHILIPPINES	OB/3/7/EX	Expert services for training on analysis and applications of MTSAT data	2005 No	 expert services for the two-week training programme for technical personnel in the analysis and application of MTSAT data
5	SOLOMON ISLANDS	OB/1/2/2	Establishment of a new upper-air station at Santa Cruz	2005 No	AUD 531,352 1 radiotheodolite system; 1 DigiCORA III system; 400 350g balloons; 400 RS92-SGP radiosondes; 30 helium gas
5	PHILIPPINES	OB/2/2/1	Rehabilitation of the meteorological observing network	2006 No	US $80,000 replacement of damaged meteorological instruments and equipment
5	SOLOMON ISLANDS	TE/1/1/1	Improvement of meteorological telecommunication for the collection of observational data from surface stations and dissemination of tropical cyclone warning to communities	2006 No	US $23,356 remote SSB/digital HF radio systems; and installation of the equipment
5	SOLOMON ISLANDS	TE/5/3/1	Upgrade of Internet access facilities	2006 No	US $50,262 3 server PCs; 2 firewalls; 2 switches; 1 network printer and Internet service upgrade for two years; 2 PCs; 1 HF radio
5	VANUATU	TE/5/3/1	Upgrading of Internet access facilities	2006 No	US $17,500 firewall installation; and 2-year Internet fees through ISP
5	KIRIBATI	TE/5/3/1	Internet upgrade	2006 No	AUS $33,000 Computer equipment (11 PCs, 8 printers, etc.) and Internet connection fee (2 years)

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
5	PHILIPPINES	OB/1/2/11	Provision of 400 sets of GRAW radiosonde transmitters for Laoag upper-air station	2007 No	US $200,000 400 GRAW radiosonde transmitters Model DFM -97TU/GPS
5	PHILIPPINES	OB/9/1/2	Upgrading of the WMO Regional Instrument Centre (RIC) in the Philippines	2007 No	US $2,293,442 1 closed-type wind tunnel; 16 calibration chambers; etc.
6	UKRAINE	DP/1/2/1	Provision of a Persona data processing system for hydrometeorological data rescue	2004 No	US $17,255 hardware (4 PCs, 2 scanners, 2 printers and 4 UPSs) and application software including Persona
6	ARMENIA	WCP/2/2/1	Provision of a CLIDATA Climate Database Management System (CDMS)	2004 No	US $36,000 Hardware and software for CLIDATA CDMS; and training
6	GEORGIA	WCP/2/2/1	Provision of a CLIWARE Climate Database Management System (CDMS)	2004 No	US $9,495 2 PCs, commercial software and CLIWARE software, installation and training
6	SYRIAN ARAB REPUBLIC	OB/3/6/1	Provision of a METEOSAT Second Generation (MSG) ground receiving system and related training	2005 No	1 MSG ground receiving system and related training
6	REPUBLIC OF MOLDOVA	DP/1/2/1	Provision of Persona MIS and MIP software updates	2005 No	upgrading of computer software (Persona MIS and MIP)
6	BELARUS	ENV/1/1/1	Enhancement of the GAW environmental monitoring station at Berenzinsky Reserve	2005 No	US $87,500 1 PM-10 particle meter; 1 surface ozone analyser; 1 automatic precipitation sampler; 3 vacuum pumps; and training of specialists

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
6	LEBANON	WCP/2/2/1	Provision of a CliSys Climate Database Management System (CDMS)	2005 No	US $50,000 CliSys hardware and software and installation
6	REPUBLIC OF MOLDOVA	OB/2/3/2 (Revised)	Provision of 12 Automatic Weather Stations (AWSs) and software	2005 No	US $300,000 12 AWSs with software for transmission and display the data
6	REPUBLIC OF MOLDOVA	OB/1/2/3	Replacement of the radiosounding system at Kishinev upper-air station	2005 No	 a new radiosounding system and upper-air consumables
6	CROATIA	OB/1/2/2	Upgrading of two radiosonde ground stations	2005 No	US $100,000 upgrading to DigiCORA III for 2 stations; installation and training
6	THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	WCP/2/2/1	Provision of a CLIDATA Climate Database Management System (CDMS)	2005 No	 1 CLIDATA CDMS (1 server and 5 workstation PCs; software; and training
6	REPUBLIC OF MOLDOVA	WCP/2/1/2	Provision of a CLIDATA Climate Database Management System (CDMS)	2006 No	 CLIDATA hardware and software; Oracle and Windows software package
6	THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	OB/1/2/2	Provision of 400 radiosondes and balloons	2006 No	EUR 55,200 400 sets of radiosondes Vaisala RS92-KL and TA200 balloons
6	THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	DP/1/1/2	Provision of a Synergie meteorological workstation	2006 No	 a Synergie meteorological workstation

VCP PROJECTS REQUESTS from 2004 to 2008 with no offer of support

Region	Country	Project Indicator	Project Title	Year Donor	Estimated cost requested VCP requested items
6	THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	OB/3/6/1	Provision of a EUMETCast satellite receiving station	2006 No	EUR 5,000 a EUMETCast satellite receiving station
II	Cambodia	OB/2/2/1	Rehabilitation of the 9 Automatic Weather Stations	2008 No	US$35,000

ANNEX X

(ABRIDGED FINAL REPORT OF THE FIFTY-SIXTH SESSION OF THE EXECUTIVE COUNCIL)

RESOLUTION 19 (EC-LVI)

WMO PROGRAMME-SUPPORT COST POLICY

THE EXECUTIVE COUNCIL,

NOTING:

(1) The decisions of Fourteenth Congress contained in the *Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress* (WMO-No. 960), general summary paragraph 10.1.14,

(2) The report of the Joint Inspection Unit on Support Costs Related to Extrabudgetary Activities in Organizations of the United Nations System (JIU/REP/2002/3),

CONSIDERING that:

(1) The findings of the cost measurement exercise carried out by the Secretariat indicated that less and less donors complied with the standard programme-support cost rate of 14 per cent for the recovery of such costs incurred for the management of extrabudgetary activities,

(2) Regular budget resources increasingly supported the management of extrabudgetary activities during the thirteenth financial period (2000-2003),

NOTING that the cost measurement methodology used highlighted the following:

(1) Programme-support costs are classified under two categories, namely, variable and fixed,

(2) Variable costs are incremental costs that would not be incurred if the Organization did not administer extrabudgetary funding including the work effort directly affected by transaction volume,

(3) Fixed costs are a share of the Organization's fixed expenditures for infrastructure attributed to extrabudgetary funding on the basis of the work measurement, and

(4) Only variable costs should be recovered through the programme-support cost arrangement,

TAKE INTO ACCOUNT that the above cost measurement methodology and the review of the WMO programme-support cost arrangement are in line with the latest outcome of the United Nations system-wide review of the programme-support cost issue;

DECIDES:

(1) To Establish a programme-support cost recovery rate of 13 per cent for technical cooperation projects, including VCP projects, for which the following flexibility might be granted, even cumulatively where applicable:

(a) In the case where the recipient government is the donor and the recipient/donor assumes responsibilities for certain functions which could otherwise be performed by the WMO Secretariat, a reduction in the rate by up to 2 per cent shall be granted, which corresponds to the amount of savings resulting from the assumption of the responsibilities by the recipient government;

(b) In the case where the technical cooperation project consists only of the procurement of equipment, supplies or materials, a rate of 9 per cent shall be applied instead of 13 per cent;

(c) In the case where the donor accepts simplified reporting with a narrative report describing the use of funds and the results achieved, the reduction in the rate by 1 per cent shall be granted, on the understanding that the financial performance will be reported within the framework of the statutory biennial closure of accounts;

(2) To establish a rate of 7 per cent for funds-intrust which finance those normative activities which supplement regular budget programmes with no component of technical cooperation activities;

(3) To confirm the 12 per cent rate for support costs for the management of the funds for Junior Professional Officers ;

(4) To agree that the rates for UNDP projects should be those set by the UNDP Executive Board;

REQUESTS the Secretary-General**:**

(1) To take measures to apply the WMO new programme-support cost policy to future agreements with donors for extrabudgetary activities as of January 2005;

(2) To take measures with a view to compensating for the costs of incremental

(variable) services provided by the WMO Secretariat for administering the funds-in trust for GCOS, IPCC and JCRF, consistent with any agreements in place with WMO's partners in these activities;

(3) To revise the presentation of the budget and financial statements for GCOS, IPCC and JCRF to include not only the cash income and expenditures in the funds-in-trust, but also the staff and services contributed through the WMO regular budget, including provisions for office space and financial administration, and any similar contributions of staff or resources made by other sponsors;

(4) To establish appropriate procedures to protect WMO from the currency risk caused by changes in the relationship between the Swiss franc in which programme-support costs are incurred, and other currencies (in particular the United States dollar) in which the programme-support cost income is credited to WMO;

(5) To ensure that the following charges are included as direct costs when concluding agreements with donors and designing terms of reference for funds-in-trust: (*a*) telephone and postage costs; (*b*) staff travel for specific technical cooperation project operations, monitoring and evaluation; and *(c)* costs of technical services such as project appraisal, technical monitoring and evaluation;

(6) To monitor the implementation of the new programme-support cost policy during the 2004-2005 biennium; and

(7) To report to the fifty-eighth session of the Executive Council in 2006 on the progress made in the implementation of this resolution.

ANNEX XI

RULES FOR THE UTILIZATION OF THE WWW IMPLEMENTATION SUPPORT REVOLVING FUND OF THE VOLUNTARY CO-OPERATION PROGRAMME

Name of the fund

1. Within the Voluntary Co-operation Programme the WWW Implementation Support Revolving Fund is established by the Executive Council for the purpose of funding temporary measures to support maintenance and continued operation of existing vital WWW key elements when an interruption in the operation of such an element would cause serious disturbance to WWW global or regional operations.

2. The fund shall provide loans in the form of spare parts, equipment, consumables, expert services, facilities and other support.

3. There shall be no cash loans.

4. "Temporary" shall be defined as no more than six months*.

5. The Revolving Fund shall be established within the Voluntary Co-operation Fund from monies set aside from the VCP(F) by an initial allocation of US $125,000. Cash deposits shall be accepted as contributions of Members to the fund, from which expendables could be purchased. These deposits may be specified for certain types of consumables or spare parts.

Administration of the fund

6. The fund shall be administered by the Secretary-General in accordance with the financial regulations of the Organization supplemented by the provisions of the present rules and any supplementary directives or interpretation of these rules that may be decided upon by the Executive Council.

7. In connection with the Revolving Fund administrative expenses incurred by WMO will be met by an overhead charge at the rate applicable to UNDP projects on the actual cost of the items ordered by WMO on behalf of the recipient Members.

Procedures for the utilization of the fund

8. The utilization of the fund shall be based upon official requests from Members of WMO to support temporary measures for the continued operation of:

(i) WMO/RTHs on the Main Telecommunication Network and interconnecting segments;

(ii) Key upper-air stations;

(iii) RTHs on regional telecommunications networks and their main regional circuits;

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* to be reviewed in the light of experience and inquiries

(iv) NMCs and their circuits to the associated RTH.

9. Each request shall be prepared on a special request form (see attachment) and shall specify the following details:

(a) WWW facility to which the request is related;

(b) Temporary support needed (spare parts, equipment, consumables or services);

(c) Name and address of recommended manufacturer or supplier;

(d) Quantity, description and reference number;

(e) Arrangements for reimbursement to WMO;

(f) Estimated total cost of the temporary support (including freight, insurance and overhead charges);

(g) Exact designation of the consignee and whether or not the addressee is the local UNDP Resident Representative;

(h) The office responsible for the receipt and the payment of the WMO invoice.

10. The approving authority for granting support from the fund shall rest with the Executive Council or between sessions of the EC with the President of WMO; however the Secretary-General is authorized to approve requests for support not exceeding US $10,000.

11. After approval of the request the WMO Secretariat shall make the necessary arrangements for the provision of support requested;

International bidding procedures shall apply whenever appropriate.

12. Copies of the WMO purchase order shall be forwarded to:

(i) The Permanent Representative of the requesting Member;

(ii) The Resident Representative of the UNDP in the country concerned.

If for some reason the request cannot be met, the requesting Member shall be appropriately advised.

13. Expenses concerning the temporary support cost, including freight, insurance and overhead charges, shall be reimbursed in US dollars, or in another readily convertible currency if acceptable to the Secretary-General of WMO, by the recipient Member. Payments in any other freely convertible currency than the US dollar will be converted into US dollar at the UN rate of exchange prevailing on the date of credit to WMO. The recipient Member will meet any loss of exchange resulting from the payment in non-US dollar currency of the sums due to WMO. The recipient Member undertakes to effect such reimbursement within 24 months as from the date of issue of the corresponding invoice by WMO. If not repaid within 24 months, the recipient shall not receive further assistance under this fund.

14. No claim for cash advances against the fund can be made by the recipient Member to meet charges related with customs duties or clearance, demurrage and inland transportation.

15. The Executive Council shall have the authority to extend the repayment period for a loan or to forgive a loan.

16. WMO will not be held responsible for:

(i) Late execution of the orders received;

(ii) Delays by the suppliers in the execution of the orders placed;

(iii) Price increases due to currency fluctuations and/or inflation;

(iv) Damages or losses at the place of destination, including incidents which may result from inspection by the local customs authorities.

ADDITIONAL GUIDELINES

17. Upon receipt of a request for materials by a Member, it should be decided whether the Revolving Fund should be used for payment or whether the request is met under VCP (VCP(F) or (ES) as the case may be). For VCP support the rules for the use of VCP apply.

18. As far as possible expert services would be provided from voluntary contributions of Members through secondment; WMO may pay travel and/or per diem from VCP allocations to expert services.

19. The use of facilities or provision of services in kind would be arranged through the WMO. The charges would be those customarily encountered in the process of the Member providing the facilities or services.

20. All arrangements for the provision of equipment under the Revolving Fund would be made through WMO. The recipient would be liable for charges, if any, for transportation, storage, maintenance or insurance.

21. "Other support" as referred in paragraph 2 would be defined jointly by the donor, recipient and WMO at the time the need arises. In general, however, it would only be that support which could fit into the spirit and interest of paragraph 1.

Review of these rules

22. The Executive Council may wish to review these rules from time to time in light of experience gained and make any changes as appropriate.

ATTACHMENT

Request for temporary support (spare parts, equipment, consumables or services) under the WWW Implementation Support Revolving Fund of the Voluntary Co-operation Programme

VCP Reference No.:
(To be completed by WMO)

MEMBER:

WWW facility which the request is related to:

Type of existing equipment:

Year of purchase:

Name and address of recommended manufacturer or supplier:

Item No.	Quantity	Description, Type No., Catalogue Remarks, etc.	Estimated cost US $

Total cost incurred with the temporary support is not to exceed US $....., including overhead charges.

Shipment: Air or surface

To: The Resident Representative of the UNDP in:
Address:
or exact designation of the consignee

ATTN: Permanent Representative of ..... with WMO

Address to which invoices should be submitted (if other than the address of the Permanent Representative)

The undersigned will make the necessary arrangements with the appropriate authorities in his country for the reimbursement of expenses related to the provision by WMO of the temporary support listed above, including shipping costs, insurance and overhead charges, within 24 months after receipt of related invoices. All charges related with customs clearance and inland transportation will also be for the account of the undersigned.

The Permanent Representative of ..... with WMO.

.....
(signature)

.....
(date)

ANNEX XII

REQUEST CONSIDERATION BY CBS
CHAIR EXECUTIVE COUNCIL WORKING GROUP ON CAPACITY BUILDING

Tyrone Sutherland, Chair EC-CB and 2nd Vice President WMO
March 2009

The Executive Council Working Group on Capacity Building (EC-CB) held its first formal session since establishment in the historic Croatian city of Dubrovnik from 18 to 20 March 2009. On this occasion, the meeting was held jointly with the Informal Planning Meeting (IPM) of the Voluntary Cooperation Programme (VCP) under the joint chairmanship of Mr Tyrone Sutherland (British Caribbean Territories – EC-CB) and Mr. Steve Palmer (IPM – UK). In addition, the meeting was attended by nominated EC-CB Members or their representatives from the Cook Islands, Finland, Korea, Namibia and Spain, along with IPM representatives of Australia; Canada; China, Croatia, France; Germany; Japan, New Zealand, Republic of South Africa, Russian Federation, Sudan, UK and USA.

The EC–CB informs the CBS of its roles as outlined in its Terms of Reference on aspects of its work relevant to the CBS workplan. CBS and EC-CB goals align in supporting and implementing robust and sustained global observing systems. On the one hand, CBS provides for the technical specifications and implementation plans while EC-CB seeks to mobilize resources to support or augment the networks, particularly in Developing and Least Developed Countries (D&LDCs).

Considering that the major scientific and technological advances in meteorological and related applications occurring under the auspices of the WMO and partners are international in nature, the meeting noted that these impact the NMHSs in all WMO Member States. As a result, all Member States will need to embrace and adapt to these advances in a coordinated manner for the advancement of the global systems for the benefit of all. The Meeting cited the development of WIGOS and WIS as an example of this, both being critical to all Members and strongly interconnected. It is evident, however, that all Members cannot yet identify a specific plan to introduce these, particularly in developing countries, SIDS and LDCs.

EC-CB therefore requests the CBS to work closely with the EC-CB to inform each other on plans and expected outcomes to ensure that the EC-CB captures all assistance needs and also is aware of those that are or may be provided by WMO and its partners to developing country Members. Specifically, it is hoped that the CBS Workplan identifies this relationship with the EC-CB in their activities as outlined in the CBS Operating Plan. Of particular interest are those efforts to:

- migrate to and to fully participate in WIS and WIGOS
- support Global Observing Systems in Developing and Least Developed Countries
- support Technical Cooperation activities
- promote use of ensemble products

To assist the EC-CB in focusing its advocacy and resource mobilization activities, the Meeting identified the following specific activities that could benefit from CBS attention:

i) WIS/WIGOS

EC-CB commended the WMO progress on building the WIS and WIGOS, but observed that at this stage of development, it was essential that WIS implementation be progressed at country and regional scales in the developing country context in order to demonstrate how such countries can benefit of uptake of WIS concept.

EC-CB therefore **requests** CBS to inform EC-CB in the formulation of implementation projects for the migration to WIS and WIGOS in developing countries. EC-CB may then be able to assist in resource mobilization, the evaluation of their success, analysis of lessons learned and the cost-benefit derived from their implementation.

ii) Global Observing Systems in D&LDCs

EC-CB noted with concern that many GSN/GUAN stations are silent and that the majority of the VCP requests for assistance relating to the reactivation of silent stations and the provision of consumables for GUAN stations were not being adequately supported by donor Members. The meeting noted that upper-air observations from the GUAN stations in particular constitute a "global public good", but that the burden of these observations falls disproportionately on the developing and least developed countries hosting these sites, particularly the SIDS. The Meeting noted that there is an existing provision in the UNFCC documents that commits signatories to fund the cost of observations essential to global climate monitoring.

EC-CB therefore **requests** CBS to support efforts by the Secretary-General of WMO and all GCOS partners to ensure the need for essential data is communicated through the WCC-3 and to UNFCC Processes with hope to activate this provision at CoP XV at Copenhagen in 2009.

EC-CB also **requests** relevant CBS bodies to inform the EC-CB of efforts to optimize global observing systems to assist EC-CB in its work to mobilize resources that help sustain or augment the networks.

iii) Advice on Technical Cooperation

EC-CB noted that there is currently a significant burden on the Technical Staff within the WMO Secretariat with respect to formal technical endorsement of specifications and technical evaluations for equipment and instruments for Voluntary Cooperation and Emergency Assistance Projects for developing country Members.

EC-CB therefore **requests** relevant CBS bodies to assist the Department of Development and Regional Activities by identifying a mechanism or group of experts to help evaluate specifications and procurement of equipment and services through the VCP(F), Emergency Assistance or Trust Fund projects related to observing systems.

iv) Global Data Processing and Forecast System

The Meeting noted the importance in developing countries of early warnings of hazardous weather events through ensemble NWP products, and the benefits derived from training in and using these for instance through the Severe Weather Forecasting Demonstration Project in Southern Africa.

EC-CB **requests** CBS to consider these training requirements in their work plan for 2008-2011 to assist the EC-CB and the Panel of Experts on Education and Training to mobilize resources.