

WORLD METEOROLOGICAL ORGANIZATION

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**OVERVIEW OF CURRENT AND EMERGING MAJOR PARTNERSHIPS / REGIONAL  
HYDROMET DEVELOPMENT PROJECTS**

*(Submitted by the Secretary-General)*

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Summary and Purpose of Document

This document provides information on initiation and progress of Regional Development Programmes facilitated by the Development and Regional Activities Department Resource Mobilization Office and Regional Offices

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## Strategic Partnerships and Major Development Projects

### Strategic Partnerships

1. The Resource Mobilization Office is focusing strongly on enhancing its strategic partnerships with key organizations such as World Bank (WB), various Directorates of the European Commission, UN System Partners in particular UNISDR, FAO, WFP, and UNDP, Rockefeller Foundation and Regional Economic Groupings and also with WMO Members for delivery of regional scale development programmes and projects.
2. Significant work is being undertaken in respect of regional programmes for capacity enhancement of NMHS in East and West Africa, South Eastern Europe, Central Asia, the S. Asia, Caribbean and Pacific and the Americas. This capacity enhancement is in cooperation with WMO Members and with the major partners mentioned above, noting that more than US\$40 million was directed to development programmes during the period from 2007 to 2010 through various modalities and partnerships
3. The regional and partnership oriented approach to development assistance for improvement of weather, water and climate services will continue as it has proven to be an effective approach encouraging other WMO members to consider supporting such regional development projects through the WMO and or bi-lateral or other mechanisms.
4. In 2012, 43.5 M CHF of voluntary contributions were received by WMO equaling some 42 % of total annual budget putting WMO on target for the financial period<sup>1</sup>. In addition some 23,398 CHF in concrete pledges (Switzerland, Norway, Canada and others) are also in the system

### Summary Major Programmes / Ongoing Projects Below – Others in Appendix 1

5. An agreement was signed in December 2011 in Durban between the Norwegian Ministry of Foreign Affairs WMO, regarding financial assistance to the programme “Global Framework for Climate Services – (GFCS) Adaptation and Disaster Risk Reduction in Africa”. Norway MFA’s contribution is NOK 56.8 M (approx. USD 10 M) for the period 2011-2015. Highlights from 2012 include: establishing the GFCS Secretariat in Geneva; establishing AMCOMET as a high-level mechanism for the strategic development of weather and climate services in Africa; building capacity and resilience around the prediction of severe weather across East and Southern Africa; and continuing the successful work of building resilience to climate impacts on food security across 15 countries in West and North Africa.
6. The Government of Greece has established a Trust Fund of 2M€ in collaboration with WMO to support Climate Change Adaptation in East and Central Africa (Burkina Faso, Chad, Mali, Niger, Sudan and Uganda) through improvement of climate and weather monitoring networks and enhancement of capacity for development and dissemination of climate information services to support adaptation across economic sectors, especially agriculture, water, and health.
7. Resulting from the Greek Trust Fund, The Global Framework for Climate Services (GFCS) piloted three important activities to achieve a more effective and equal climate service system in West Africa: the National Early Warning > Early Action Workshops, to set up a

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<sup>1</sup> It is relevant to note that Cg-XVI (Resolution 37) “authorizes the Executive Council, during the 16<sup>th</sup> financial period, to incur expenditure from budget funded from Voluntary Contributions estimated at **175 M CHF**, made up of 142 M CHF requested by WMO Budget Office and the WMO Technical Programmes for activities (Project Compendium 2012-2015) and an anticipated 33 M CHF for joint cooperation programmes (such as JCOMM, GCOS, WCRP),

Frameworks for Climate Services at the National level in Burkina Faso, Niger and Mali. The Meteorological Services of the 3 countries were supported to carry out their own stakeholder mapping at the national level and reach out to key individuals and organizations across climate-sensitive sectors in the country. Climate-sensitive sectors included: agriculture, food security, disaster management, health, water, infrastructure and transport as well as energy. The national workshops brought together over fifty representatives from climate-sensitive sectors in each country, as well as farmers, herders and community spokespersons, and representatives from boundary organizations such as communicators, rural radios, farmer platforms, and community-based organizations. At the end of the workshop, roadmaps to build National Frameworks for Climate Services in Burkina Faso, Niger and Mali were developed

8. The World Bank is supporting a 3 year programme for Lake Victoria Region (Uganda, Kenya and Tanzania) "Weather and Climate Service Delivery in the Lake Victoria Region. The focus is on agricultural meteorology and improved early warnings for maritime safety (fishers) as the fatality rate on the lake amongst fishing community is disastrously high (6-8,000 per year). This is predominantly seed funding for the SWFDP for Lake Victoria. This project links to plans for development of a Maritime Communications Centre and Search and Research Service on the Lake.
9. Regarding the above and more generally The Uganda Department of Meteorology, WMO The Norwegian Ministry of Foreign Affairs, MTN Mobile, Ericsson Communications, National Lake Rescue Institute and the Kalangala Fishing community have come together in a unique partnership, and combined mobile technology, weather forecasting expertise and local know-how, to provide a localised weather alert service to fishing villages on Lake Victoria. The service has been tested by over 1000 fishermen on Lake Victoria and is now due to be up-scaled and made more widely available in the next three months. The free-of-charge weather information service will enable fishermen and traders to make informed decisions on, for example, when and where to fish in Lake Victoria, helping to save lives and preserve livelihoods. Reported estimates indicate that as many as 5,000 fishers die in boating accidents on the lake each year because they are unprepared for bad weather conditions.
10. In February 2012, the Ugandan Department of Meteorology launched the agricultural component of the Mobile Weather Alert pilot project in Kasese District in close collaboration with the Grameen Foundation and WMO. The project aims to enhance end-to-end process in agro-meteorological services and to deliver agricultural advisories in conjunction with 10 day, monthly and seasonal forecast more directly to farmers in Kasese District through Community Knowledge Workers. The project will widen out across Uganda.
11. The Rockefeller Foundation is supporting a programme to improve integration of weather information in agricultural extension services in Ethiopia. This is their first engagement with WMO but will hopefully be the commencement of a strong partnership as RF has very active programme in East Africa in support of agricultural development and Risk Index Insurance for farmers. Phase II of this project is being taken up by Irish Aid
12. USAID - OFDA 1 is supporting the programme (7M USD) "Hydrometeorological Disaster Impact Mitigation Projects". The purpose of the programme is to implement activities that lessen the impact of hydrometeorological hazards (floods, cyclones, droughts and disasters) globally. In 2012 most activity focused on the further implementation of the project on "Development and Implementation of International regional Flash Flood Guidance and Early Warning systems", activities undertaken by HRC and WMO during the reporting and development of new FFG project components: (1) Supporting documents were developed to conduct planning meetings for the foreseen new project components in South Asia and South East Europe; (2) The South Asia FFG (SAsia-FFG) planning meeting has been successfully conducted from 26-28 November 2012 at ICIMOD in Kathmandu,

Nepal; (3) and South East Europe FFG (SEE-FFG) have been developed, participants are being invited and the meeting was to be held in Ankara from 22-24 January 2013.

13. WMO and the NMHS of Peru and Switzerland launched an innovative partnership to strengthen climate services in the Andean nation, building on the scientific knowledge and experience of the Alpine country. Although geographically distant, Peru and Switzerland share the same challenges as a result of their mountainous terrain. High mountains have a significant influence over local weather and climate conditions in both countries. Both are frontline witnesses to the impact of climate change on shrinking glaciers. Peru and Switzerland have united under the umbrella of the Global Framework for Climate Services (GFCS) to launch the project CLIMANDES (Servicios climaticos con enfasis en los Andes en apoyo a las decisiones). This GFCS twinning activity seeks to improve climate services for the Peruvian region and to facilitate their incorporation into decision-making. This 3.5 M USD project is funded by Swiss Development Cooperation through the WMO.
14. In October 2012, The Swiss Agency for Development and Cooperation (SDC) and WMO signed an agreement regarding the “Blue Peace –Water Security “in the Middle East: Strategic Management of Hydrological and Meteorological Data and Information Product Generation” project. The overall goal to which this project contributes is to strengthen the delivery of weather, water, and climate services in Middle East countries, to support economic development in agriculture, water resources, energy, and transport sectors throughout the region, manage consequences of climate variability and reduce human and economic losses from hazardous weather events notably floods and droughts. To this end, the project in its initial pilot phase will help key national stakeholders to develop an action plan to improve hydrometeorological standards, processes and capacities, both in-situ and through innovative technologies.
15. A Memorandum of Understanding was signed between Irish Aid and the WMO World concerning cooperation on Food Security in the context of Global Framework for Climate Services (GFCS). The Goal of the Programme is: to strengthen the operational resources of National Meteorological Services to further provide weather / climate information and services to rural farmers and strengthen early warning systems for weather and climate risk management in the agricultural sector. The initial focus will be on AgMet Services in Ethiopia.
16. Environment Canada (EC) and the WMO signed a grant agreement of USD 6.5 million in November for the project titled “Haiti Weather Systems Programme: Climate Services to Reduce Vulnerability in Haiti”. This 5-year project aims at providing essential support to re-establish weather, climate and hydrology forecasting activities in Haiti under the coordination and management of WMO. The Project has four main focus areas: Constructing a building to house the National Hydro-Meteorological Service (NMHS) of Haiti; Undertaking capacity building including training of both scientific and technical personnel and developing a business plan for the NMHS taking into account all aspects of developing a functioning and modern weather, climate and hydrology service; Re-establishing the climatological and hydrological observing networks and implementing a data management system; Developing a wide-reaching dissemination system, to inform stakeholders and the general population of climate related risks.
17. In mid to late 2012 funding was secured from KOICA for the Coastal Inundation Forecasting Project in Fiji - one of three CIFDP Pilots. (Bangladesh is supported by USAID-OFDA and Haiti / Dominican Rep. CIFDP by Canada). KMA has also provided funds for procurement of SAT COMMs system for Lao People’s Democratic Republic, period focussed on FFG System Standardization; Global HydroEstimator (GHE) Adjustment using CMORPH Data; development of Educational and Training Materials - Flash Flood Guidance-specific courses currently completed included: Elements of Hydrology; GIS basics; Flash Flood Guidance Products; CAFFG Products.

18. WMO and Environment Canada signed an agreement of CAD 6.138 million in February 2013 for the project titled "Programme for Implementing the Global Framework for Climate Services (GFCS) at Regional and National Scales". The components of this project will build resilience to climate variability and climate change through the development of Regional and National Frameworks for Climate Services under the GFCS. These are vital activities that will allow the benefits of establishing a global consensus on the need and mechanism for framework for climate services to be felt at national decision-making levels. The project will run from April 2013 to December 2016.
19. The Spanish Programme of Cooperation for West African countries has continued its implementation. The focus of activities is on marine meteorology, agricultural meteorology, health and climate, development financing for countries emerging from conflict or disasters (Sierra Leone, Liberia, Guinea, Guinea Bissau, Togo and Ivory Coast), capacity building in political advocacy and resource mobilization and other activities as agreed between participant countries and the donor. The Programme is managed jointly by the Regional Office for Africa and AEMET.
20. WMO-RIMES Project on "Reducing Risks of Tsunami, Storm Surges, Large Waves and Other Natural Hazards in Low Elevation Coastal Zones": is funded by the UN-ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness in Indian Ocean and Southeast Asian countries and in-kind and cash contributions from WMO and Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) for a total amount of 3,206,414 USD over 24 months starting in May 2011. This project involves capacity building of the NMHSs and other stakeholders in South Asia. Beneficiary countries include Bangladesh, India, Maldives, Myanmar, Sri Lanka, and Thailand. A Working Arrangement was signed between WMO and RIMES in November 2011 for joint implementation of this project.
21. The Korea ODA Agency (KOICA) project<sup>2</sup> commenced in 2009 and has also already resulted in increased support to IGAD Region and ICPAC with the recent signing at the African Ministerial Conference of an MOU between ICPAC and KMA for an ongoing programme of expertise and technology transfer to develop ICPAC further as a Regional Climate Centre. This MOU was signed between ICPAC, KMA and the PRs of IGAD countries (Uganda, Tanzania, Eritrea and Ethiopia). Phase II of this project is now under discussion with KOICA.
22. AECID (Spain) is supporting the SDS and GAW projects in Northern Africa and indicated interest in supporting projects on disaster risk management and climate change in the Americas and West Africa regions. AEMET, Spain is actively involved in discussions with AECID are underway seeking support to projects of NMHSs of countries in West Africa and the Americas region.
23. US NWS continued its 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.
24. The Spanish support to the Programme of Cooperation for the NMHSs of Ibero American countries has continued. In the last meeting of Directors held in Chile in 2010 the programme was reviewed and an Action Plan for 2011-2013 was approved with an allocation of about 2.0 million US\$. The action plan includes four strategic lines: Institutional strengthening and resource mobilization for NMHS, Development of Climate Services, Education and training, and Development of virtual centres for prevention and of extreme events.

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<sup>2</sup> "Regional Climate Framework in Eastern Africa to Support Adaptation to Climate Change" and "Weather and Climate Impact on Community Health and Public Health Services".

25. The National Meteorological Service (NMS) of Mexico began in 2010 the execution of a Strategic Plan aimed at modernizing the NMS in a 10-year implementation plan based on an assessment made with the assistance of WMO in 2009. Furthermore, in order to take advantage of WMO programmes added value to the implementation of the Strategic Plan, the NMS of Mexico and WMO signed an agreement of cooperation to strengthen the support from WMO to this project. The Plan includes four strategic lines of action: 1) *institutional development*; 2) *strengthening of meteorological observing networks*; 3) *development of products and meteorological services*; and 4) *development of infrastructure for climate services*. The Strategic Plan includes an implementation plan with an estimated budget of 100 USD million. The Government of Mexico is supporting the implementation of the Plan recommended by WMO with an initial allocation of 14 USD million in 2010.
26. A new Capacity Building project in support to NMHSs of the Caribbean in partnership with the Association of Caribbean States is ongoing with support of Finland (SHOCs II).
27. Phase II of the joint initiative with UNISDR for S. Eastern Europe implemented by Office for Europe in partnership with UNISDR (each responsible for 1.2M€ of funds).
28. Similarly like in SEE, a Phase 1 Assessment was completed for Central Asia and Caucuses Region funded by the WB Global Facility for DRR. WB and Finland Foreign Affairs has already committed to some investments in the region pending these assessments. UNDP has initiated a 6M Climate Risk Management Programme in the Region and WMO will partner on this. WB is investing 25M.

## Appendix I

### REGIONAL DEVELOPMENT PROJECTS IN PROCESS

Activity/Project	Beneficiary Country/Region	Amount	Funding Agency	Remarks
1. Programme for Implementing the Global Framework for Climate Services (GFCS) at Regional and National Scales.	Caribbean, Pacific, S Asia, Polar and Himalaya	6.138,000 CAD	Govt Canada	Agreement signed March 12
2. Development of Meteorological and Hydrological Services in Haiti in support of Social and Economic Sectors. Project proposal for Medium Term Needs	Haiti	6.500,000 CAD	Govt Canada	Agreement signed Dec 12
3. Implementing the Global Framework for Climate Services (GFCS) – Secretariat Support	Global	1,000,000 CAD	Govt Canada	
4. Implementing the Global Framework for Climate Services (GFCS) – Secretariat Support		400,000 BP	Govt UK	
5. Implementing the Global Framework for Climate Services (GFCS) – Africa	Africa	10,000,000 USD	Norway	Year 2
6. Implementing the Global Framework for Climate Services (GFCS) – Food Security and Health	Africa	10,000,000 USD	Norway	Under development with WHO, WFP, IFRC, CMI, CCAFS/CGIAR
7. East Africa IGAD HyCOS	Uganda, Tanzania, Kenya, Rwanda, Burundi, Ethiopia, Eritrea	5,000,000 €	EU ACP	
8. Climate Services the Andean Region in the context of The Global Framework for Climate Services (GFCS)	Andean	3,300,000 CHF	Swiss Development Cooperation	
9. 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	2,200,000€	EU-COM DG-Enlargement	Phase I 2M € (WMO and UNDP.) Phase II 2.4M € (WMO and UNISDR.)
10. Rehabilitation of the Iraqi Meteorological Organization	Iraq	5,285,000€	Government of Italy	5M€ Soft Loan to Iraqi government. 285,000€ to WMO for Tech Support  ON HOLD
11. Programme for Disaster Risk Reduction (Floods / Drought)	Various Regions	7,000,000	USAID-OFDA	

Activity/Project	Beneficiary Country/Region	Amount	Funding Agency	Remarks
12. <i>Conference of Directors of the Ibero American Meteorological and Hydrological Services</i>			AECID	
13. <i>Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services</i>	West Africa Marine Countries Emerging from Conflict and Natural Disasters Project (Guinea-Bissau, Liberia, Sierra Leone, Ivory Coast and Togo) Management		AECID	
14. <i>Global Atmospheric Watch in the Magreb-Sahara Region</i>	Magreb-Sahara Region	340,000 €	AECID	
15. <i>Sand and dust Storm (SDS) Early Warning System in the West Asia Region</i>	Middle East / West Asia	700,000 CHF	Swiss Development Cooperation	
16. <i>Sand and dust Storm (SDS) Early Warning System in the Magreb Region</i>	Magreb Region	184,000 €	AECID	
17. <i>Pilot Project for the Implementation of an Early Warning System to contribute to disaster risk reduction in Bolivia</i>	Bolivia	415,000 €	AECID	Funds secured by RMO transferred to SENAMHI and Min. of Planning provided by AECID. Administered by UNDP Bolivia.
18. <i>Food Security project in Africa- Flood and Drought</i>	Mali	300,000 €	Government of Italy	
7. <i>Coastal Inundation Forecasting and Related Warning Services in the Area Served by the Fiji Meteorological Service (CIFDP)</i>	Pacific Region	300,000 USD	KOICA	
8. <i>Understanding the Findings of the IPCC Fourth Assessment Report "Climate Change 2007" – Integrating Climate Change Adaptation and Mitigation in Development Planning</i>	Africa	1,000,000€	EU-COM DG Environment	Implemented by IPCC-WMO
10. <i>Regional Climate Centres and Climate and Health</i>	East Africa	600,000 USD	KOICA Korea Int.	Projects under implementation. Second phase is being negotiated.
11. <i>Assessment of NMHS Capacity in Central Asia and Caucasus meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction</i>	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia	150,00 €	GFDRR / UNISDR / Finland	Now 25M Project Implemented by World Bank
12. <i>FinPac Enhancement of Weather and Hydrometeorological Services in Pacific Islands Region</i>	Pacific Islands	2 M€	Gov. Finland	FMI/ SPREP/WMO



Activity/Project	Beneficiary Country/Region	Amount	Funding Agency	Remarks
14. <i>Strategic Plan for development of the National Meteorological Service of Mexico</i>	Mexico	14,000,000 USD	Gov. of Mexico	A Cooperation Agreement was signed between Mexico and WMO to assist the NMS in the implementation of the ten year Strategic Plan
16. <i>SCHOCs II - Strengthening hydrometeorological operations and services in the Caribbean SIDS (SHOCS)</i>	Caribbean NMHSs	500,000 Euros	Gov. of Finland	FMI/ACS/WMO
17. <i>Institutional development of the NMS for improvement of the meteorological services and information in support of socioeconomic sectors of Uruguay</i>	Uruguay	500,000 USD	Gov. of Uruguay	Funds provided by Gov. of Uruguay to NMS to implement part of project. Rest being sought with AECID.
18. <i>Regional Framework for Weather and Climate Services for food aid, food security, maritime transport safety contributing to disaster risk reduction In Lake Victoria region</i>	Uganda, Tanzania, Kenya	750,000 USD	World Bank	
19. <i>Climate Change Adaptation and Improved Climate Services in Sub-Saharan Africa</i>	Sudan, Niger, Burkina Faso, Uganda, Mali	1,000,000 €	Gov. of Greece	
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