



## Template for CREWS Project Presentation Note to the Steering Committee

<b>1</b>	<b>Project Title</b>	<b>Strengthening national capacities for EWS Service Delivery in Burkina Faso</b>	
<b>2</b>	<b>Project Reference</b>	CREWS/CProj/03/Burkina	
<b>3</b>	<b>Geographic coverage</b>	Burkina Faso (national)	
<b>4</b>	<b>Timeframe</b>	3 years, January 2017 – December 2019	
<b>5</b>	<b>Total cost of CREW contribution</b>	<b>US\$2,192,200</b>	
<b>6</b>	<b>Implementing Partner</b>	<b>World Meteorological Organisation</b>	
		a. Allocation Requested for Execution by Government	N/A
		b. Allocation Requested for Execution by Partner	US\$1,940,000
		c. Fees of Implementing Partner:	US\$252,200
		d. Total:	US\$2,192,200
<b>7</b>	<b>Additional Implementing Partners</b>	<b>N/A</b>	
		a. Allocation Requested for Execution by Partner	N/A
		b. Fees of Additional Implementing Partner:	N/A
		c. Total:	N/A
<b>8</b>	<b>Other Partners</b>	World Bank/GFDRR ,Burkina Faso National Council for Emergency Relief and Rehabilitation (CONASUR), Direction Générale des Ressources en Eau (DGRE), Burkina Faso National Council for Environment and Sustainable Development (CONEDD), Ministries in charge of Agriculture and Livestock, Food Security organizations in Burkina Faso, Media, private telecom companies and rural radio networks in Burkina Faso, National Research Institutes (Ouaga University, INERA, etc), the WMO RA VI RCC Network and its member NMHSs (Météo-France, DWD and KNMI), other WMO NMHSs, centers and partners e.g. NOAA, IRI, AEMET, AGRHYMET, ACMAD, UNISDR, George Mason University (USA), and the Global Water Partnership West Africa.	
<b>9</b>	<b>Project Recipient/Beneficiary</b>	National Meteorological Service of Burkina Faso (Direction General de la Météorologie) – Ministry of Transports, Urban Mobility and Road Safety	
		Financial Contribution	N/A
<b>10</b>	<b>Total Project Amount</b>	<b>US\$2,192,200</b>	
<b>11</b>	<b>Main objective</b>	To improve operational capabilities in Burkina Faso to produce and deliver hydrometeorological services for early warning, contributing to risk reduction for relevant national sectors with an emphasis on flood-related risks and improved early warning and risk information for agriculture and food security. The main focus is on building the capacity of the National Meteorological Service and strengthening its cooperation with key sectoral ministries, departments and other stakeholders working in the above areas to put in place complete systems that deliver warnings and relevant information to end-users. This will be achieved through developing capabilities on data management, observation network monitoring and control, implementation of analysis, monitoring and forecast tools for weather and climate early warning, as well as strengthening the interface	

		with information users. Enhancement of these basic capabilities will be complemented with support for integration of early warnings into national processes. The project will draw on advanced technical expertise from cooperating institutions to ensure access to relevant data, products, tools, training and equipment. The selected sectors addressed by the project will provide showcases for development of additional services subsequently. Several additional on-going or planned projects which the current project complements are identified below.
<b>12</b>	<b>Initial state of play - project rationale</b>	
	a. Vulnerability, exposure to risks, disasters impacts (on people and economy)	<p>Burkina Faso is a landlocked country in West Africa. Its population is estimated at 18.1 million inhabitants with at least 45 percent of the people living on less than US\$1.25 per day . With limited natural resources, the economy is dependent on agricultural production, including livestock-raising and agro-forestry, and this accounts for approximately 34% of the GDP with close to 80% of the active population employed in the sector.</p> <p>Burkina Faso has three climatic zones characterized by a short rainy season and a long dry season. The country's NAPA highlights major risks related to climate variability consist of droughts, floods, crop pest invasions, strong winds, dust storms, heat waves and seasonal epidemics and these are having a negative effect on most sectors such as agriculture and livestock and water management.</p> <p>Between 1991 and 2009, Burkina Faso has experienced 11 major floods which have affected 383,203 people and claimed 93 lives, three major droughts which have affected 96,290 people, and many episodes of epidemic diseases.</p> <p>Climate studies conducted within the framework of the NAPA indicate that temperatures across the country are anticipated to rise by 0.8°C by 2025 and by 1.7°C by 2050 and enhanced rainfall seasonal variability is expected.</p> <p>A national action plan on climate services, supported by the Global Framework for Climate Services (GFCS), was endorsed in Burkina in April 2016, identifying baseline needs, gaps priorities for investment on climate services in Burkina Faso.</p>
	b. Status of the EWS, DRM agencies and NHMSs, actors / players present	<p>DGM currently has a monitoring network of 68 weather and climate stations and 120 rain gauge stations but they need improved control and maintenance procedures and resources. DGM operates one satellite receiver station, PUMA 2010, and has access to AMESD imagery provided by the EU. A climate database is operational but improvements are needed on data transfer from their own stations and from stations operated by external partners. Continuity of observations is a prerequisite for effective early warning services.</p> <p>Early warning systems are in place but with limited capacity for providing disaster and food security related warnings to be able to trigger effective action. Weather forecasts are provided to media have lead times of 24 hours. There is limited mapping of high-risk areas or centralised information for documenting risks or disasters in a systematic way.</p> <p>There is a need to improve the human resource base to use technical infrastructure and interpret results at DGM and other institutions involved in generating and using risk information and early warning. This need for capacity development limits the use of available data, products and tools for</p>

		<p>DRR.</p> <p>Regional early warning systems in the Sahelian countries are in place to produce alerts for food insecurity and reflected at national structures like the Groupe de Travail Pluridisciplinaire (GTP) or Interdisciplinary Working Groups . There is a need to improve the generation of multi –risk warning at national scale and sub-national scales.</p> <p>The establishment of an integrated multi-hazard early warning system with priorities on food security, flood warning, water resources management and health in Burkina Faso has been identified as an urgent priority for investment in Burkina’s Climate Services National Action Plan.</p>
	<p>c. Projects and programs dealing with EWS and hydromet under implementation or preparation</p>	<p>Strengthening climate information and early warning systems (EWS) for climate resilient development and adaptation to climate change in Burkina Faso (2014 – 2019) (US\$ 4 Million) -- -Implemented by UNDP with funding from GEF -LDCF. This project aims to strengthen meteorological, hydrological and climate monitoring capacity, early warning systems to respond to situations caused by extreme weather conditions and ensure adaptation planning of at national level. The project is installing 50 AWS and 100 GPRS rain gauges, strengthening human resources by training relevant technicians, implementation of an operational early warning system and ensuring data, products and weather information is of quality and are available at the user level.</p> <p>Climate Services for Increased Resilience in the Sahel – Implemented by WMO with funding from USAID (1M \$US). This project seeks to enhance the capacity of the Sahel region to develop and use climate services in climate sensitive sectors, through three outcome areas:</p> <p>Outcome 1 -- Increased resilience through the enhanced development, delivery and use of tailored climate information products at regional level</p> <p>Outcome 2 -- Enhanced decision making processes at the national level through integration of climate information into decision making in climate sensitive sectors</p> <p>Outcome 3 -- Enhanced cooperation in the region for the development and use of climate products and services.</p> <p>Specifically, for Burkina the following equipment will be covered under the project:</p> <ul style="list-style-type: none"> <li>• Acquisition and installation of a HPC cluster with full job scheduler, 28 CPUs with 10 cores per CPU (280 cores) and with models and tools to improve weather forecasting and climate modelling at finer spatial scale - 100 K USD</li> <li>• Acquisition of 8 Workstations connected with HPC for the analysis of climate data, simulation and elaboration of agrometeorological products - 40 K USD</li> <li>• System UPS for HPC to enable power control - 7 K USD</li> <li>• cooling system for the computer room (of about 25 m2) - 3.5 K USD</li> </ul> <p>In addition, training for the team responsible for weather forecasting and climate modeling (16 K) is also included.</p> <p>A Project Proposal for the Green Climate Fund is under development by World Bank and Burkina Faso authorities to strength resilience to climate related risks by improving institutional capabilities on meteorology, hydrology and early warning. Expected funds from GCF are 25 M \$US, should the project be approved.</p>

	<p>d. Positioning of CREWS support: complementarity and synergies with the existing programs</p>	<p>Burkina’s National Meteorological Service (DGM) , under the authority of the Ministry of Transport is responsible for the management of the meteorological observation network, collection, processing and archiving of climatological and meteorological data, and the development and dissemination of weather and agro-weather and –climate information.</p> <p>The project will support DGM to improve their capabilities on weather and climate hazards monitoring and forecasts, providing technical and operational inputs from the WMO network that will contribute to and leverage outcomes from UNDP and WB projects. These latter projects are expected to make a major contribution to infrastructure development and provide valuable resources for EWS strengthening. WMO and DGM will focus on developing core capacities which are fundamental to EWS functioning, in areas such as observation network operating procedures, data management, weather and climate forecasting and advanced monitoring tools. The project will provide also a specific EWS products and processes validation in selected sectors.</p> <p>These efforts will support the further development of the national EWSs structures in the country, CONEDD and CONASUR and to provide valuable inputs for DRR and management of risks in climate-sensitive sectors. A user interface platform with DRR stakeholders will be strengthened and climate services tailoring to meet user needs in this sector strengthened, with the development of Standard Operating Procedures to guide integration of climate services and early warning alerts into sectoral planning and national preparedness to climate-related hazards disasters. These products and services will be piloted in areas of the country already identified in the planning process for the WB GCF project currently in preparation, in particular in Ouagadougou, Bobo-Dioulasso, Banfora, Bama, Tougouri, Manni, Markoye, Sebba, Solenzo rural areas for flood early warning and in Bérégadougou, Niangoloko, Valleys of Kou and Sourou, Bam lake, Banzon plain, Nord Region and Titao for agricultural meteorological and climate services. This will set the stage for significant upscaling of the results achieved after the current project is ended. Coordination between UNDP, WB and WMO as institutions leading projects will therefore be crucial and achieved through a Project Steering Committee, described further below.</p>
<p><b>13</b></p>	<p><b>Project design</b></p>	
	<p>a. Project Outputs)</p>	<p><b>Component 1.</b> Basic systems. (US\$ 945K)</p> <p>Reinforcement of DGM and DGER technical capabilities in observation, data bases, numerical weather &amp; floods model forecast, and to access to improved seasonal to sub-seasonal forecasts, weather and climate monitoring and analysis.</p> <p>1a. Assessment of observation network processes and needs in Burkina Faso. On-going and planned UNDP and WB projects are programmed to inject nearly 30 M \$US in weather observation equipment. This component of the current project will conduct an assessment on the observational needs for DGM and other Burkina institutions to meet the requirements of a multi-hazard Early Warning implementation. A review of maintenance, data quality control, technical support needed and periodical upgrades will be conducted on this component, including an update of the WMO OSCAR metadata observation data base. The results of the assessment will be used by the DGM to operate and maintain the enhanced network, and as a basis for on-going WMO technical support. A purchase of soil moisture sensors to reinforce monitoring capabilities on crop status and flood risks based on soil status is also added. This component will support WMO WIS and WIGOS programmes in Burkina.</p>

		<p>1b. Data base improvement. Consolidation of CLIDATA and CLIMSOFT databases, improved management and inter-accessibility with other existing institutional databases. Implementation of advanced statistical tools for climate analysis and training for NMS staff and cooperating institutions.</p> <p>1c. Short term forecast capabilities. Enhancing availability of Numerical Weather Prediction (NWP) products from the Global NWP centres and NWP Limited Area Model Guidance from the WMO Regional Specialised Meteorological Centre (RSMC)-Dakar for use in short range weather forecast. Links with other national CREWS project in the region (Mali and Niger). Trainings on the interpretation and use of NWP products and satellite information in weather forecasting and warning services for high-impact weather, in coordination with Météo-France and other Global NWP centres and RSMC Dakar. Improve capacity of the DGM on NWP usage in severe weather forecasting and improve engagement of DGM with stakeholders and users including disaster managers, hydrologist, agriculture sector and media and introduce impact-based forecasting and warning services. Tailoring of those messages to most used broadcast channels, local languages and establishing functional mechanisms for feedback between providers and users. Training on forecasters on communication and training media in weather and climate. Previous consultation in Burkina in connection with Associated Programme on Flood Management (APFM) regional workshop on needs assessment and project proposal development for Western African countries (November 2016). An Information workshop on Flood Guidance System to develop the implementation plan with DGRE.</p> <p>1d. Sub-Seasonal to seasonal forecast. Development of an objective seasonal forecasting scheme for Burkina Faso, with skill measures that will be communicated to users accompanying the forecasts. This will be partly based on the WMO Sub-Seasonal to Seasonal Project to provide daily forecasts for the next 60 to 90 days. National forecasts will add value to, and be based on, outputs from an objective regional forecasting scheme for the Sahel, the development of which will be initiated in parallel including with complementary (non-CREWS) funding. The regional seasonal forecasting model will similarly benefit other countries in the region. In Burkina Faso, forecast products will be communicate to, and tailored products co-produced with, decision-makers through National Climate Outlook Forums and structures derived from the on-going National Framework of Climate Services planned activities. AMMA project results relevant to Burkina Faso would provide the required scientific underpinnings for those activities.</p> <p>1e. Analysis and nowcasting tools. Early Warning capabilities on extreme weather and extreme climate events based on experiences from European institutions and recommendations from the Commission of Climatology. Improved use of Sand and Dust Forecast Centre products. Equipment, software and applied techniques will be combined with ground data, remote sensing (satellite and radar) and numerical weather models in monitoring products to produce weather warnings and climate and weather advisories. The project will provide technical support to run the existing SYNERGIE workstation and an upgraded satellite receiver station provided by the MESA project and EUMETSAT. Products to be delivered include, among others, hourly and daily reports on weather conditions, sand and dust advisories, vegetation-water bodies-grass weekly conditions and outlooks, flood warnings, drought monitoring and watches, climate watches and combined warning alert maps, mostly focused on the agriculture and flood/water management sectors</p>
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**Component 2.** Support to Early Warning System development. (US\$ 645K). Weather and climate information will be translated into EW alerts and agriculture advisories related with climate and weather hazards in an understandable format that will be co-produced with the user stakeholders. For the DRR sector, key issues include formats and thresholds for warning derived from existing risks maps and elaboration of combined risks maps according to identified hazards, impacts and vulnerability data. This component of the project will support current initiatives planned or under implementation through other projects providing inputs for addressing floods and drought risks to crops and livestock. Building on the development of Burkina's National Action Plan for Climate services, the user interface platform bringing together climate and DRR users will be strengthened and its operation supported, for sustained tailoring and delivery of climate information to address needs of the DRR users in Burkina. Capacities of DRR sector stakeholders will be strengthened to improve their access, understanding and use of climate information and related early warning alerts.

This component will be carried out in alignment with the WMO policy on Gender mainstreaming, taking into account findings from METAGRI projects about unequal participation from women in relation with men in Roving Seminars and with consideration for the following critical principles:

- Attention to gender equality in the recruitment process of all consultants and third parties to be involved in the project
- Attention to gender equality when selecting participants to the regional trainings and workshops
- Specific consultation actions to secure participation of women in design and in use of weather and climate services , to ensure the appropriate consideration of the specific needs of women in decision making related risk management for floods and agriculture and food security
- Awareness raising on gender for NMHS staff involved in service delivery with a focus on (a) different but important roles played by women in agriculture and pastoralism in rural communities; (b) strength women's roles in agriculture decision making and their potential contribution to improving met services; and (c) good practice in agromet services with special attention to female farmers and herders.

2a. Risk information and forecast products for flood Early Warning. Institutional stakeholders should have capabilities to receive warning alert information in formats and through channels previously agreed and distribute to those concerned users and to activate response and emergency plans at their adequate level.

Co-producing warnings means to define thresholds, formats and transmission mechanisms agreed by all stakeholders and final users to avoid delays and EWS malfunction. The project will support richer and more complete products and better decision making systems to avoid damages and losses through a participatory approach. Products will be improved and refined through this dialogue and feedback process.

The first step will be identification of flood prone areas and flood causes for urban and nearby areas already identified through prior consultations as a focus for piloting the system. An assessment of national capabilities on flood forecasts for those areas will be conducted also at early stages. This process would be conducted in close coordination with DGRE, in parallel with capacity building actions and development of cooperation between DGRE and DGM, to ensure and efficient use of short term weather forecasts and

nowcasting products on flood early warning. Finally, improvement on TV, web pages and weather warning radios broadcasts will be improved or developed.

2b. Risk information and forecast products for agriculture and food security. This component focuses on the provision of advance information for use by agriculture and food security stakeholders in a set of pilot regions identified through prior consultation namely, Bérégadougou, Niangoloko, Kou and Sourou Valleys, Bam Lake, Banzon Plain, Nord Region and Titao. The specific information needs of these stakeholders will be identified through additional consultation undertaken through the project. Drought is a known hazard, due to high inter-annual variability, being associated with severe losses in lives and property in the Sahel in the past. The project will strengthen the connection between DGM, the Ministry of Agriculture and the EWS structures on Food Security as a means of conveying information to, and receiving feedback from final users. DGM and WMO have developed a long term cooperation in Burkina with the METAGRI project where other partners, as the Ministry of Agriculture, were involved. Roving Seminars with farmers conducted by multidisciplinary working teams have been evaluated as successful in improving community-level farms management. The Seminars convey agricultural advisories based on climate forecasts and crop modelling, and crop condition estimates based on information from satellite. Information from these products have been provided to farmers together with training in the use of simple plastic rain gauges. For further capacity building, a more advanced approach is the Community Participatory Approach as, for example, the University of Reading Participatory Integrated Climate Services for Agriculture (PICSA) approach, used to train intermediaries in a number of countries in Africa. This is a seven step process that uses both historical climate data and seasonal forecasts as well as mid season updates, working with farmers to support their livelihood decision making using a number of participatory tools. PICSA mainly targets the extension services but has recognized the need for a mixed and tailored approach where different elements (such as extension services and radio) complement each other. Ideally the approach should be coupled with programmes supporting farmers with inputs. Such approaches will be adapted based on stakeholder articulation of needs and draw upon tailored products developed with enhanced data and products output under component one.

**Component 3. Institutional strengthening. (US\$ 50K)**

Long term development plan for DGM. Short-term, project-level, investments are significantly more effective if they contribute to the incremental development of capacities according to a long term development plan for an NMHS. This component will incorporate activities and results achieved through the implementation of the current project into a long term development plan.

**Component 4. (Support process). Management. ( US\$ 200K)**

The project will finance the following activities: (i) in country project manager; (ii) technical design and integration of project components and (iii) the project steering and implementation committee. The project manager will be locally recruited by DGM and WMO and hosted by DGM. Administrative management, safeguards, quality control and contract management will be the responsibility of WMO. Equipment procurement is currently envisioned to be undertaken by the WB, contingent on the establishment of a project unit that will support the GCF project currently being prepared.

		<p><b>Component 5 (Support process).</b> Monitoring and Evaluation. ( US\$ 100K)</p> <p>This component includes an independent impact assessment of the information flow from the basic systems enhanced by the project to decision makers for the two key sectors addressed: DRR and agriculture/food security. The evaluation will be initiated early in 2019. This independent assessment will be used for final project M&amp;E that will also be covered by this component, following overall CREWS M&amp;E procedures.</p>
	b. Implementing time frame	See <b>Attachment 1</b>
	c. Contribution to CREWS Programming Framework	<p>Outputs of Country Projects</p> <ol style="list-style-type: none"> <li>1. Assessments of institutional capacities of NMHSs, user needs, on-going and planned programmes and socio-economic benefits of hydromet services and early warning systems. <ol style="list-style-type: none"> <li>1.1 Assessment and plan for observing system enhancement and maintenance (as a project output under component 1a)</li> <li>1.2 Assessments for implementation of climate and weather data bases (project component 1b)</li> <li>1.3 Assessments for development and implementation of improved severe weather forecasts and flood warnings (project component 1c)</li> <li>1.4 Assessments for implementation of seasonal forecasts according best regional and international practices (project component 1d)</li> </ol> </li> <li>2. Risk information and early warning for severe weather/floods and agriculture and food security. <ol style="list-style-type: none"> <li>2.1 Development of risk information and forecast products for severe weather/flood Early Warning (component 2a)</li> <li>2.2 Development of risk information and forecast products for agriculture and food security (component 2b)</li> </ol> </li> <li>3. NMHSs' service delivery improved including development of impact based capacity and tailored information for risk management. (component 2a and 2b)</li> <li>4. Long-term development plans for NMHSs, including the need for system interoperability at the national and regional levels (component 3). <ol style="list-style-type: none"> <li>4.1 Long term development plan for DGM (component 3)</li> </ol> </li> <li>5. High priority and high impact small scale investments, including supply of critical observation and ICT equipment (component 1)</li> <li>6. Targeted education and public awareness programmes available for warning systems and related public action (leveraged from on-going and planned projects).(components 2a and 2b)</li> </ol>
	d. Logical framework with indicators	See <b>Attachment 2</b> . Detailed budget for each activity listed at the logical framework is provided under independent file



14	<b>Organization and operating procedure</b>	
	a. Institutional framework	<p>The project will contribute directly to the implementation of Burkina’s National Action Plan for Climate Services, and its result areas map onto the identified priorities for investment defined and endorsed by national stakeholders within this strategic plan.</p> <p>Project Focal Points of the beneficiary and resource institutions will serve as the Project Steering Committee (SPC) of the project. These will include WMO and WB representatives as well as DGM and ACMAD representatives, UNDP and other relevant government departments. Its role is to guide the implementation of the project activities, with support from WMO-WB. The project will be implemented in line with WMO Project Management Procedures and administrative procedures, including contracts, in-country logistics and hospitality arrangements, will be carried out according to established WMO Rules and Procedures. Implementation will require the use of resources for technical assistance, outsourced services through standard letters of agreement with WMO Centers and Services. Management of funds allocated to WMO will be the responsibility of the WMO and will be in accordance to UN Procedures for Financial Management, Audit and Reporting.</p> <p>All activities will be directly executed by WMO and the GFDRR, directly and through contractual agreements. Additional executing partners, in country or abroad, will participate in the project implementation by providing resources for operation, maintenance and investment, providing staff to support project implementation, developing terms of reference and participating in selection committees for procurement.</p> <p>To facilitate project implementation a Project Implementation Cell (PIC) will be established within DGM, bringing together the required expertise from across the organization, and strengthening its capacity with consultants, where needed. DGM will perform day-to-day project implementation activities and will also function as a Secretariat for the Steering Committee. The team will comprise of the following main functions: (i) Project Coordinator – the Director General of DGM; (ii) In country Project Manager; (iii) DGM Focal Points ; (iv) Administrative and Financial support staff (to be designated or recruited). The in-country Project Manager recruited to support the project and based in DGM will collaborate with an in-country advisor deployed by the GFCS based in the Burkina Faso United Nations office. This collaboration will support and facilitate connections between the DGM and non-meteorological stakeholders as well as between the project and projects being implemented by international organizations.</p> <p>With respect to funds transferred by WMO to the DGM, the main responsibilities of DGM will be to (a) prepare annual implementation plans for the project activities, as well as the annual budget, for Project Steering Committee approval; (b) carry out all work related to local fiduciary functions including procurement, financial management, disbursement, audit, reporting and monitoring and evaluation. DGM will be responsible for local fiduciary management and procurement in compliance with WMO regulations as articulated in standard Letters of Agreement, and with those of the World Bank with respect to matters related to equipment procurement. In addition, DGM will interact with relevant stakeholders, including NGOs and municipalities, to guide them in the implementation process where necessary. DGM will be responsible for organizing all state level training programs involving the concerned state level line ministry, national and international research and development institutions, including</p>

		NGOs operating in the country.
	b. Monitoring and evaluation system	<p>The Project will make use of the established Monitoring and Evaluation Process used at the WMO, taking into account the CREWS M&amp;E framework. The Project Steering Committee will meet every six (6) months to evaluate the progress made on the Project as outlined in the LogFrame (attached as Annex 2) and Timeline (attached as Annex 1). Evaluation reports will be made available to all Project Stakeholders, including development partners.</p> <p>With the assistance of the project manager funded by the project, DGM will be responsible for the coordination of M&amp;E activities using funds transferred through standard Letters of Agreement, their consolidation, and the preparation of periodic fiduciary and M&amp;E reporting, including impact and output indicators as well as annual audit of project's financial statements working in close collaboration with its national partners within the National Framework on Climate Services. The project M&amp;E system will be based on the Logical Framework and implementation arrangements described herein. PIC will bear the responsibility of data collection on the ground for each component's agreed indicators following procedures and methods established within each involved Ministry.</p> <p>An independent consultant budgeted under supporting component Monitoring &amp; Evaluation, will help DGM on carrying project impact assessment through identify relevant process on the information flow from observation to final decision making at user level using few test users in the two relevant sectors. That assessment would be conducted in the second half of 2018 and would help to validate project approaches and to suggest improvements for the last year of implementation.</p>
<b>15</b>	<b>Project viability and sustainability</b>	
	a. Main identified risks	<p>The risks identified below include key policy, institutional, and implementation risks; which include (1) environmental and social safety related risks; (2) lack of adequate institutional capacity for implementation; (3) constraints in financial management capabilities; (4) limited procurement experience and (5) security and vandalism.</p> <p>The overall risk rating for the project is moderate, based on the nature of the proposed activities, the capacity of the implementing entity and the available support through the World Bank during implementation. Strong mitigation measures will be established to ensure that risks do not compromise the successful implementation of the project. Ongoing dialogue with the government and intermittent workshops as well as training will also be arranged in order to make sure that the project is implemented in a risk-informed manner and meets client demands and needs.</p>
	b. Critical assumptions	<p>The project was prepared under the assumption that some basic services will be provided at a national level (seasonal and daily forecasting, ten-day agro-meteorological reports, etc.). More specialized services (such as flood forecasting systems, personalized agro-meteorological information services, warning reports to anticipate impacts, etc.) will be provided to selected zones to be identified based on the following criteria: (i) presence of specific hydro-meteorological natural hazards; (ii) exposure of populations and critical infrastructures (urban zones, roadblocks, irrigation, transport, hospitals, schools, etc.); and (iii) presence of investment projects, which would allow for an optimal utilization of hydro-meteorological services (notably towards crop producers, livestock herders, fishermen, hydropower generators, aviation and other transport related sectors, extractive industries, local government, micro-insurance and urban planners).</p>

		<p>For the economic analysis, assumptions include (i) equipment such as computers and tablets would have an average life of 3-4 years, vehicles and hydromet stations would have an average life of 7-10 years, while new buildings would have a life-span in the range of 30-40 years; (ii) Operations and maintenance (O&amp;M) costs are assumed at 15% of project investments and (iii) Burkina Faso GDP growth rate will continue at about 5%, therefore a discount rate of 5% is used to calculate the Net Present Value (NPV).</p>
	<p>c. Judgment on the project sustainability</p>	<p>While priority needs within the national services responsible for hydrology, meteorology and early warning were clearly greater than available resources, sustainability considerations including allocation of adequate O&amp;M funds and ability to recruit and retain qualified workforce are the main factors which determined the total amount and composition of the project.</p> <p>Alignment of project activities with Burkina’s National Action Plan for climate services, and the user interface platform bringing together climate and DRR sectoral experts, will ensure sustainable implementation of project achievements beyond the timeframe of the project. The follow-up support expected from the WB GCF project will assist in consolidating and advancing on project gains.</p>

Annex 1- Time table - Strengthening NMH capacities for EWS Service Delivery in Burkina Faso

TASK	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Component 1a</i>												
Assessment of observation network processes and needs in Burkina Faso												
(i) Integration of national hydrometeorological observing systems in OSCAR/Surface	X	X	X									
(ii) Assessment of observation systems. Recommendations on improvements			X	X	X	X	X					
(iii) Pilot-activity: Assessment and implementation of soil moisture sensors for crop assessment and flood management		X	X	X	X	X						
<i>Component 1b</i>												
Data base improvement												
(i) CDMS Implementation				X	X	X	X	X				
(ii) Training in statistics and basic tools for climate services									X	X	X	X
<i>Component 1c</i>												
Short term forecast capabilities												
(i) Enhancing availability of NWP products from Global NWP centres including Meteo France and other European partners for use in short-range forecasting,			X	X	X	X	X	X	X	X	X	X
(ii) Develop LAM modelling capabilities at DGM linked with GFCS-USAID project. Provide foreign guidance and support						X	X	X	X	X	X	X
(iii) Hydrological observation assessment and flood forecast modelling.		X	X	X	X	X	X	X	X	X	X	
(iv) Capacity development of DGMN on interpretation of the available NWP products and satellite information and making best use of it in short-range forecasts and warnings							X	X	X	X		
<i>Component 1d</i>												
Seasonal to sub-seasonal forecast												
(i) Access to the hindcast datasets available. Météo-France, WMO experts. (Forecast method development / Enhancement)	X	X	X	X								
(ii) Calibration by best observation sets (applied to seasonal and sub-seasonal)					X	X	X	X				

TASK	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>(iii) Forecast co-production (global, regional, national) Tailored derived products for sectors developed.</i>					X	X	X	X	X	X	X	X
<b>Component 1e</b> <i>Analysis and nowcasting tools</i>												
<i>(i) Nowcasting tools . SAF</i>			X	X	X	X	X					
<i>(ii) Sand and Dust Warnings and Advisories for sectors</i>			X	X	X	X	X					
<i>(iii) Climate watch. Improving Drought Monitoring, extreme weather and climate events, including dry spells, rain onset, crop status, forest fire risk and pasture status</i>		X	X	X	X	X	X	X	X	X	X	X
<b>Component 2 a</b> <i>Risk information and forecast products for flood Early Warning</i>												
<i>i) Identification of flood prone areas and flood causes</i>		X	X	X								
<i>ii) Assessment of national capabilities on flood forecast for urban or near-by areas</i>		X	X									
<i>iii) Co-development of severe weather and flood forecasts. Special activities for women in communities with the aim to improve risk management</i>			X	X	X	X	X	X	X	X	X	
<i>iv) Pilot testing and evaluation of flood warnings in areas identified in WB GCF proposal (in preparation) based on prior stakeholder consultation</i>			X	X	X	X	X	X	X	X	X	X
<i>v) Recommendations and specifications for observing and forecast system improvement and product enhancement based on pilot test (to be addressed to WB GCF project funding)</i>						X	X	X	X	X	X	X
<i>(vi) Enhance multi-channel weather forecast and warnings communication systems . Delivery of tailored products for women in rural communities to reinforce awareness</i>					X	X	X	X	X	X	X	X
<b>Component 2 b</b> <i>Risk information and forecast products for agriculture and food security</i>												
<i>i) Stakeholder consultation to identify most critically needed products which are also feasible within capacity and technical constraints. Special consultations for women in rural communities</i>	X	X	X	X								
<i>ii) Development of identified products (e.g. drought monitoring, severe weather, season onset, sub-seasonal and seasonal forecasts). Development of tailored products targeted to women taking into account their specific roles in rural communities</i>				X	X	X	X	X				
<i>iii) Pilot testing and evaluation of agriculture warnings in areas identified in WB GCF proposal (in preparation) based on prior stakeholder consultation.</i>						X	X	X	X			
<i>v) Recommendations and specifications for observing and forecast system improvement and product enhancement based on pilot test (to be addressed to WB GCF project funding)</i>								X	X	X	X	

TASK	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>(v) Introducing impact-based forecasts and risk-informed warnings for improved decision making by the users</i>										X	X	X
<i>Component. 3 Institutional strengthening.</i>												
<i>Long term development plan for DGM</i>			X	X	X	X	X	X				
<i>Component 4 Support Process Management</i>												
<i>(i) Set up of Steering Committee</i>	X	X										
<i>(ii) Contract in country project officer and administrative support staff</i>	X	X										
<i>Component 5 Support Process Monitoring and Evaluation</i>												
<i>(i) Impact assessment – Information flow – Selected users</i>									X	X		
<i>(ii) Intermediate and final reports</i>						X	X				X	X

## Annex 2. Concise logical framework

Task	Baseline	Main Outputs	Proposed indicators	Means of Verification	Expected Results
<b>Component 1a</b> <i>Assessment of observation network processes and needs in Burkina Faso</i>					
<i>(i) Integration of national hydrometeorological observing systems in OSCAR/Surface</i>	INFORMATION AS IMPORTED AT VOLUME A	ALL NATIONAL STATIONS REPRESENTED WITH METADATA	OSCAR BURKINA FASO UPDATED	REGIONAL WIGOS CENTRE	USERS ARE ABLE TO ACCESS OBSERVATIONAL METADATA
<i>(ii) Assessment of observation systems. Recommendations on improvements</i>	REPORTS FROM SAP-IC AND NFCS PROCESS	NATIONAL WIGOS IMPLEMENTATION PLAN NATIONAL WIS IMPLEMENTATION PLAN	PLANS ARE DELIVERED	APPROVED BY NATIONAL AUTHORITIES	USERS ARE ABLE TO ACCESS OBSERVATIONAL DATA
<i>(iii) Pilot-activity: Assessment and implementation of soil moisture sensors for crop assessment and flood management</i>	REPORTS FROM SAP-IC AND NFCS PROCESS CAGM TASK TEAM ON SOIL MOISTURE	IMPLEMENTATION PLAN DEVELOPED SOIL MOISTURE DATA AVAILABLE	SENSORS INSTALLED	APPROVED BY NATIONAL AUTHORITIES	SOIL MOISTURE DATA AVAILABLE FOR FLOOD MANAGEMENT AND CROP ASSESSMENT
<b>Component 1b</b> <i>Data base improvement</i>					
<i>(i) CDMS Implementation</i>	CLIDATA OPERATIONAL AT HQ	CLIMSOFT OPERATIONAL AT STATIONS	NUMBER OF OPERATIONAL INSTALLATIONS IN STATIONS	ON SITE ASSESSMENT AND REPORTING	COMPUTERISED ARCHIVING, MANAGEMENT AND USE OF CLIMATE DATA AT HQ AND STATIONS
<i>(ii) Training in statistics and basic tools for climate services</i>	BASIC CLIMATOLOGY KNOWLEDGE	IMPROVED SKILL TO PRODUCE CLIMATE PRODUCTS ACCORDING CCL RECOMMENDATIONS	LIST OF CCL PRODUCTS IMPLEMENTED	ASSESSMENT AND REPORT AT HQ	CLIMATE SERVICES DELIVERED IN WATER MANAGEMENT AND AGRICULTURE/FOOD SECURITY
<b>Component 1c</b> <i>Short term forecast capabilities</i>					

<p><i>(i) Enhancing availability of NWP products from Global NWP centres including Meteo France and other European partners for use in short-range forecasting,</i></p>	<p>RSMC DAKAR ACTUAL STATUS</p> <p>SYNERGIE AVAILABLE PRODUCTS AS OBTAINED DURING WORKSHOP ON SEVERE WEATHER FORECASTING IN NOVEMBER 2015 AND MENTIONED IN THE REPORT</p>	<p>ENHANCING AVAILABILITY OF DAKAR RSMC PRODUCTS INCLUDING RSMC WEBSITE AND DISSEMINATION ENHANCEMENTS FOR BURKINA FASO (AND LATER FOR MALI AND NIGER)</p> <p>IMPROVE METEO FRANCE SYNERGIE NWP PRODUCTS AVAILABLE</p>	<p>RSMC DAKAR WEBSITE ENHANCED AND AVAILABILITY OF NWP PRODUCTS AND GUIDANCE</p>	<p>ON SITE ASSESSMENT AND CONFIRMATION BY RSMC DAKAR AND DGM</p>	<p>NWP PRODUCTS AND GUIDANCE ARE AVAILABLE FOR DGM FOR IMPROVED WEATHER FOCASTING AND WARNING SERVICES</p>
<p><i>(ii) Develop NWP Limited Area modeling (LAM) capabilities at DGM linked with GFCS-USAID project. Provide foreign guidance and support</i></p>	<p>NO</p>	<p>CAPACITY DEVELOPMENT OF DGM ON LAM WITH SUPPORT OF GLOBAL NWP CENTRE(S) SUCH AS NOAA/NCEP</p>	<p>LAM BECOME FUNCTIONAL AT DGM</p>	<p>ON SITE ASSESSMENT</p>	<p>DEVELOPMENT OF LAM PRODUCTS</p>
<p><i>(iii) Hydrological observation assessment and flood forecast modelling.</i></p>	<p>REFERENCE: COUNTRY NEEDS ASSESSMENT REPORT ON INTEGRATED FLOOD MANAGEMENT</p> <ul style="list-style-type: none"> <li>- SOME FLOOD CONTROL STRUCTURES ARE IN PLACE</li> <li>- SOME EARLY WARNING CAPACITY EXISTS BUT IS NOT NATIONALLY CONNECTED</li> <li>- LIMITED HYDROLOGICAL MODELLING CAPACITY</li> </ul> <p>LOCAL ASSESSMENT OF NEEDS IN FLOOD RISK MANAGEMENT</p>	<p>INTRODUCTION TO INTEGRATED FLOOD MANAGEMENT AND THE FLASH FLOOD GUIDANCE SYSTEM</p> <p>FLASH FLOOD GUIDANCE SYSTEM PLAN PROPOSAL AND INITIATE PILOT (CONCURRENT WITH COMPONENT 2 A)</p> <p>CAPACITY DEVELOPED ON INTEGRATED FLOOD MANAGEMENT PROJECT PROPOSAL FORMULATION</p> <p>OUTLINE OF IFM PROJECT PROPOSALS AVAILABLE</p>	<p>PROJECT PROPOSALS DEVELOPED FOR THE IMPLEMENTATION OF IFM STRATEGIES</p> <p>EXPRESSION OF INTEREST FOR THE DEVELOPMENT OF A FLASH FLOOD GUIDANCE SYSTEM (FFGS) AT THE COUNTRY LEVEL WITH SPECIFIED FUNCTIONALITY</p> <p>AGREEMENT ON FFGS DESIGN AND FEASIBILITY (E.G., NATIONAL FFG, RIVERINE MODULE, URBAN FLASH FLOOD MODULE, LANDSLIDE SUSCEPTIBILITY)</p>	<p>COMMUNICATION OF PROJECT PROPOSALS AND EXPRESSION OF INTEREST BY NATIONAL STAKEHOLDERS</p>	<p>PROJECT PROPOSALS ARE DEVELOPED AND ATTRACT FUNDING FROM DONOR AGENCIES</p> <p>FFGS COUNTRY PLAN ON HOW TO IMPLEMENT OPERATIONAL SYSTEM INCLUDING TRAINING</p>
<p><i>(iv) Capacity development of DGMN on interpretation of the available NWP products and satellite information and making best use of it in short-range forecasts and warnings</i></p>	<p>LIMITED USE OF NWP</p>	<p>SPECIALIZED TRAINING WORKSHOP(S) ON INTERPRETATION AND USE OF NWP PRODUCTS AND SATELLITE BASED INFORMATION IN IN DAY TO DAY SHORT-RANGE FORECASTING AND WARNING SERVICES INCLUDING FOR HIGH IMPACT WEATHER</p>	<p>SEVERAL FORECASTERS OF DGM TRAINED</p> <p>SEVERAL REPRESENTATIVES OF DGM STAKEHOLDERS AND USERS INCLUDING DISASTER MANAGEMENT AND CIVIL PROTECTION AUTHORITIES, MEDIA, AGRICULTURE SECTORS, HYDROLOGISTS TRAINED</p>	<p>REPORTING</p>	<p>SHORT-RANGE FORECASTS AND WARNINGS IMPROVED</p> <p>DGM ENGAGEMENT WITH STAKEHOLDERS AND USERS IMPROVED FOR DEVELIRY OF SERVICES</p>



<b>Component 1d</b> <i>Sub-seasonal to seasonal forecast</i>					
<i>(i) Access to the hindcast datasets available. Meteo-France, WMO experts. (Forecast method development / Enhancement)</i>	AMMA RESULTS AND CURRENT OPERATIONAL PRACTICES	SELECTION OF A SET OF MODELS TO BE USED FOR BURKINA	VERIFICATION STATISTICS OF HINDCAST DATASETS FOR BURKINA FASO	EXPERT REPORT	IMPROVED SCIENTIFIC KNOWLEDGE AND METHODOLOGY AVAILABLE FOR THE REGION
<i>(ii) Calibration by best observation sets (applied to seasonal and sub-seasonal)</i>	CCL AND CBS GUIDANCE	OPERATIONAL APPROACH FOR SUB-SEASONAL TO SEASONAL FORECAST FOR BURKINA FASO	DGM STAFF TRAINED ON SEASONAL & SUB-SEASONAL FORECASTING	GUIDANCE ON METHODOLOGY AND OPERATIONAL PRACTICES	METHODOLOGY ASSOCIATED WITH OPERATIONAL PRACTICES AVAILABLE FOR THE REGION
<i>(iii) Forecast co-production (regional (ACMAD), national) Tailored derived products for sectors developed.</i>	CURRENT RCOF-NCOF PRACTICES	S2S PRODUCTS FOR WATER MANAGEMENT, AGRICULTURAL ADVICES AND FLOOD WARNINGS	CONTRIBUTIONS OF BURKINA FASO TO RCOFS TAILORED PRODUCTS COMMUNICATED TO NATIONAL STAKEHOLDERS THROUGH NCOFS	RCOF/NCOF STATEMENTS EXPERT REPORT AND USERS FEEDBACK	-BASIN MANAGEMENT ADVISORIES IMPROVING WATER SAVINGS AND ENERGY PRODUCTION - CROP MANAGEMENT ADVISORIES TO SECURE CROPS AND IMPROVED FOOD PRODUCTION -IMPROVED FOOD SECURITY DECISIONS
<b>Component 1e</b> <i>Analysis, nowcasting and climate watch tools</i>					
<i>(i) Nowcasting tools . SAF-NWC</i>	AMESD AND PUMA SATELLITE RECEIVERS	IMPROVED SEVERE WEATHER CONVECTIVE CELLS TRACKING AREAL RAINFALL ESTIMATION FROM SATELLITE	LIST OF IMPLEMENTED PRODUCTS	REPORT FROM DGM AND EFFECTIVE BROADCAST WHEN REQUIRED	IMPROVED RAINFALL EVENTS MONITORING IMPROVED WARNINGS ON SEVERE WEATHER AND HEAVY RAINFALL EVENTS
<i>(ii) Sand and Dust Warnings and Advisories for sectors</i>	INTERNET BROADCAST FROM BARCELONA SAND AND DUST FORECASTING CENTER	REGULAR USE OF SDS PRODUCTS SDS WARNINGS DELIVERED	LIST OF IMPLEMENTED PRODUCTS NUMBER OF SDS WARNINGS DELIVERED	FEEDBACK FROM USERS	IMPROVED EARLY WARNING ON SDS

<i>(iii) Climate watch. Improving Drought Monitoring, extreme weather and climate events, including dry spells, rain onset, crop status, forest fire risk and pasture status</i>	PUMA STATION, AMESD STATION, CLIDATA AGROMETEOROLOGICAL BULLETIN (DEKADAL BULLETIN)	CLIMATE WATCH BULLETINS FOR AGRICULTURE, WATER AND DRR IMPROVED AGRICULTURAL BULLETINS WATER MANAGEMENT BULLETINS	LIST OF USERS AT EACH SUB-CATHEGORY USER FEED-BACK REPORTS	USER SURVEY ON-SITE ASSESSMENT	IMPROVED DECISION MAKING IN WATER MANAGEMENT AND AGRICULTURE DISASTER RISK REDUCTION BY ISSUING CLIMATE WARNINGS
<b>Component 2 a</b> <i>Risk information and forecast products for flood Early Warning</i>					
<i>(i) Identification of flood prone areas and flood causes</i>	LOCAL KNOWLEDGE EXISTS	PRIORITIZED LIST OF MAJOR DAMAGE CENTRES REQUIRING FURTHER ATTENTION	ASSESSMENT OF EACH DAMAGE CENTRE AND INDICATION OF BEST APPROACH TO MAP FLOOD RISKS	REPORT EVALUATION BY DGRE	USERS BETTER UNDERSTAND CAUSES OF FLOODING AND FLOOD RISKS FOR VARIOUS WATER LEVELS
<i>(ii) Assessment of national capabilities on flood forecast for urban or near-by areas.</i>	RELATIVELY LOW	ASSESSMENT OF STAFF COMPETENCIES AND TRAINING PLAN			STARTING POINT FOR NATIONAL PROPOSAL ON FLOOD RISK REDUCTION
<i>(iii) Co-development of severe weather and flood forecasts (user consultation including civil protection, hydrologist, meteorologist and other uses, and tailored forecast-joint training) Special activities for women in communities with the aim to improve risk management</i>	RELATIVELY LOW	USER CONSULTATION INCLUDING CIVIL PROTECTION, HYDROLOGIST, METEOROLOGIST AND OTHER USES, AND TAILORED FORECAST-JOINT TRAINING	LIST OF IMPROVED PRODUCTS	EVALUATION BY DGRE AND CIVIL PROTECTION	FLOOD RISK AWARENESS ON COMMUNITIES IMPROVED FLOOD WARNINGS
<i>(iv) Pilot testing and evaluation of flood warnings in areas identified in WB GCF proposal (in preparation) based on prior stakeholder consultation. Community based approach for flood management</i>	IDENTIFIED NEEDS TO FOCUS ON URBAN FLOOD MANAGEMENT	DEVELOP URBAN FLOOD FORECAST PILOT  INITIATE COMMUNITY BASED FLOOD MANAGEMENT (CBFM) PRACTICES FOR COMMUNITY HAVING PILOT APPLICATION	IMPLEMENTED MODEL FOR THE PILOT APPLICATION  IMPROVED COMMUNITY RESPONSE TO PENDING FLOOD EVENTS	FORECAST SYSTEM RUNNING IN NATIONAL CENTRE EXISTENCE OF A CBFM TEAM IN TARGETED COMMUNITY	IMPROVED CAPACITIES AT THE LOCAL LEVEL TO PREPARE, RESPOND AND RECOVER FROM FLOODING

<b>(v) Recommendations and specifications for observing and forecast system improvement and product enhancement based on pilot test (to be addressed to WB GCF project funding)</b>	FRAGMENTED NATIONAL EARLY WARNING SYSTEM (EWS) FOR FLOODS	DETAILED WORK PLAN ON HOW TO UPSCALE PILOT TO NATIONAL EWS FOR FLOODS	DETAILED WORK PLAN AVAILABLE	WORK PLAN SHARED WITH POTENTIAL DONORS	IF FUNDED ENHANCED NATIONAL EWS FOR FLOODS
<b>(vi) Enhance multi-channel weather forecast and warnings communication systems</b>  <i>Delivery of tailored products for women in rural communities to reinforce awareness</i>	OLD TV STUDIO AT DGM NEED FOR MORE COMMUNICATION CHANNELS	ADOPTING A COMMON ALERTING PROTOCOL(CAP) FOR COMMUNICATION OF WEATHER WARNING IMPROVED TV STUDIO IMPROVED WEB SITE REGULAR DELIVERY OF WARNINGS BY WEATHER WARNING RADIOS	NUMBER OF WARNINGS COMMUNICATED IN CAP FORMAT EXPRESSION OF SATISFACTION WITH QUALITY OF WEATHER BULLETINS BY THE NATIONAL TV BROADCAST AND VIEWERS	ON SITE ASSESSMENT AND REPORT BY NATIONAL BROADCASTER	WARNINGS AVAILABLE IN CAP FORMAT; WEB SITE CARRIES A WARNINGS PAGE WITH INFORMATION ON ADVISORIES IMPROVED TV AND RADIO WEATHER BULLETINS
<b>Component 2 b</b>  <i>Risk information and forecast products for agriculture and food security</i>					
<b>(i) Stakeholder consultation to identify most critically needed products which are also feasible within capacity and technical constraints.Special consultations for women in rural communities</b>	METAGRI PROJECTS DOCUMENTS	RISK ASSESSMENT AND MANAGEMENT ADVICE FOR AGRICULTURE	COMMUNITY PARTICIPATORY APPROACH AND ROVING SEMINARS MEETINGS HELD LIST OF PROPOSED PRODUCTS	STAKEHOLDERS FEEDBACK	USERS INVOLVED ON DEVELOPMENT OF NEW PRODUCTS
<b>(ii) Development of identified products (e.g. drought monitoring, severe weather, season onset, sub-seasonal and seasonal forecasts)</b> <i>Development of tailored products targeted to women taking into account their specific roles in rural communities</i>	METAGRI PROJECTS DOCUMENTS	PRODUCTS REVISED AND IMPROVED NEW PRODUCTS	LIST OF PRODUCTS	STAKEHOLDERS FEEDBACK	NEW AGRICULTURE SUPPORT PRODUCTS DEVELOPED AND ACCESSIBLE
<b>(iii) Pilot testing and evaluation of agriculture warnings and advisories in areas identified in WB GCF proposal (in preparation) based on prior stakeholder consultation</b>	WB GCF PROPOSAL	PRODUCTS VALIDATED	LIST OF IMPROVEMENTS FROM INITIAL STATUS LIST OF NEW PRODUCTS	STAKEHOLDERS FEEDBACK	IMPROVED AGRICULTURAL MANAGEMENT AT PILOT COMMUNITIES

<i>(Iv) Recommendations and specifications for observing and forecast system improvement and product enhancement based on pilot test (to be addressed to WB GCF project funding)</i>	WB GCF PROPOSAL	RECOMMENDATIONS AND SPECIFICATIONS WB GCF PROJECT SUPPORT DOCUMENTS	DOCUMENTS DELIVERED	FINAL DOCUMENT ACCEPTED BY STEERING COMMITTEE	FEED BACK TO WB GFC IMPROVED BULLETINS AND ADVISORIES FOR AGRICULTURE
<i>(v) introducing impact-based warnings services for improved decision</i>	THRESHOLD BASED WARNING SERVICES	WARNING TO INCLUDE INFORMATION ON LIKELY IMPACTS	ESTIMATION OF AVOIDED LOSSES	NUMBER OF IMPACT-BASED WARNINGS ISSUED TO DISASTER MANAGEMENT AND TO AGRICULTURAL SECTOR	SAFER PUBLIC AND MORE RESILIENT SECTORS INCLUDING EFFICIENT AGRICULTURE COMMUNITIES
<b>Component. 3a</b> <i>Institutional strengthening.</i>					
<i>Long term development plan for DGM</i>	THE NATIONAL PLAN FOR IMPLEMENTATION OF CLIMATE SERVICES, EVALUATION REPORT ON NATIONAL CAPACITY FOR RISK REDUCTION AND EMERGENCY RESPONSE IN BURKINA FASO	FIVE YEAR STRATEGIC DEVELOPMENT PLAN IMPLEMENTATION PLAN RESOURCE MOBILISATION STRATEGY	QUALITATIVE ASSESSMENT THROUGH COLLECTION OF DATA AND CONSULTATIONS FIRST DRAFT OF STRATEGIC PLAN EVALUATION OF THE STRATEGIC PLAN FIRST DRAFT FINAL DRAFT OF THE STRATEGIC PLAN DEVELOPED, APPROVED AND ACCEPTED	STRATEGIC PLAN COMPLETED ON TIME AND MEETING ESTABLISHED TERMS OF REFERENCE AND APPROVED BY THE DIRECTOR OF DGM	IMPROVED DECISION MAKING PROCESS REGARDING FUTURE GOVERNANCE OF DGM CLEAR STRATEGY OUTLINED FOR 5 YEARS FOR DGM OPPORTUNITY TO TRACK PROGRESS OF ORGANISATIONAL DEVELOPMENT AND APPLY ADEQUATE CORRECTIVE MEASURES
<b>Component 4</b> <i>Support Process: Management</i>					
<i>(i) Set up of Steering Committee</i>	PARTICIPATING STAKEHOLDERS	FOCAL POINTS FROM PARTICIPATING INSTITUTIONS	DOCUMENTED TERMS OF REFERENCE NO. OF FOCAL POINTS IN PLACE	RECORD OF FIRST MEETING	COMMITTEE SET UP TO GUIDE THE IMPLEMENTATION OF THE PROJECT ACTIVITIES
<i>(ii) Contract in country project officer and administrative support staff</i>	LOCAL STAFF	1 IN-COUNTRY PROJECT MANAGER 1 ADMINISTRATIVE SUPPORT STAFF 1 FINANCIAL SUPPORT STAFF	DOCUMENTED TERMS OF REFERENCE NO. OF STAFF IN PLACE WORKING ON THE PROJECT QUALITY OF SERVICE	DGM STAFFING RECORDS	APPROPRIATELY SKILLED AND MOTIVATED STAFF RECRUITED TO MANAGE AND ADMINISTER THE PROJECT
<b>Component 5</b> <i>Support Process: Monitoring and Evaluation</i>					

<b>(i) Impact assessment – Information flow – Selected users</b>	BASELINE STATISTICS ON INFORMATION FLOW FOR THE SELECTED USERS FROM DGM AND RELEVANT IN-COUNTRY MINISTRIES AND STAKEHOLDERS	IMPACT ASSESSMENT REPORT WITH KEY RESULTS ON CHANGES OF INFORMATION FLOW FOR SELECTED USERS	PERCENT INCREASE OF INFORMATION FLOW	USER ASSESSMENT SURVEY	IMPACT ASSESSMENT REPORT WILL HELP TO VALIDATE PROJECT APPROACHES AND TO SUGGEST IMPROVEMENTS FOR THE LAST YEAR OF IMPLEMENTATION
<b>(ii) Intermediate and final reports</b>	PROJECT DOCUMENT	THE INTERMEDIATE AND FINAL REPORTS PREPARED AND SUBMITTED TO PROJECT STEERING COMMITTEE	REPORTS COMPLETED ON TIME AND MEETING THE ESTABLISHED QUALITY CRITERIA	FINAL DOCUMENTS ENDORSED BY THE PROJECT STEERING COMMITTEE AND ACCEPTED BY THE CREWS STEERING COMMITTEE	REPORTS MEET REQUIRED QUALITY CRITERIA, PROVIDE CLEAR AND USEFUL INFORMATION ON OUTCOMES, ACHIEVEMENTS, BEST PRACTICES, LESSONS LEARNED AND RECOMMENDATIONS FOR FOLLOW UP PROJECT ACTIVITIES