






CREWS PROJECT STATUS REPORT

1. Project title	West Africa Region: Seamless operational forecast systems and technical assistance for capacity building	2. Project reference	CREWS/RProj/02/West Africa CREWS/RProj/02/West Africa AF
3. Lead IP	WMO	4. Other Implementing Partners	World Bank
5. Reporting period	January – June 2020		
6. Reporting focal point	Jean-Baptiste Migraine - jbmigraine@wmo.int Makoto Suwa - msuwa@worldbank.org Lorenzo Carrera - lcarrera@worldbank.org Rob Reid - rreid@worldbank.org (Sierra Leone)		
7. Project overview	<p>Project objective: to strengthen regional entities to engage with national hydrometeorological agencies in the region to improve risk information and early warning services at national level</p> <p>The project develops capacities within existing institutions in line with their mandates : (i) AGRHYMET (CILSS) for food security and regional climate services; (ii) RSMC Dakar (ANACIM) for severe weather forecasting and WIGOS coordination; (iii) NMHSs for crosscutting support to regional activities + flash flood guidance.</p> <p>Beneficiaries are the 19 Members of PRESASS and PRESAGG: Benin, Burkina Faso, Cameroon, Central African Republic, Cap Verde, Chad, Côte d'Ivoire, the Gambia, Ghana, Guinea Bissau, Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.</p> <p>The regional project is complementary to the national projects in Burkina Faso, Chad, Mali, Niger and Togo, and also contributes to demonstrate capacities for urban flood forecasting in Sierra Leone. While provision of meteorological, hydrological, climate and early warning services is clearly a national responsibility, a number of support functions can be best performed at regional scale, with economies of scale and enhanced quality of services resulting for specialized regional cooperation, including for cascading approaches for numerical weather prediction (under the leadership of Dakar as regional specialised meteorological center), flash flood guidance</p>		

	<p>(building upon enhanced numerical weather prediction capabilities and AGRHYMET training capabilities), climate watch and climate analysis (building upon ACMAD and later AGRHYMET as regional climate centers), training of meteorological and hydrological staff (with EAMAC and AGRHYMET, both in Niamey), etc. The World Bank has recently started the preparation of hydromet and early warning investments in West Africa under the West Africa Food System Resilience Program (P172769), through which the project outcomes and impacts could be scaled up.</p>
<p>8. Progress summary</p>	<p>Before the reporting period:</p> <ul style="list-style-type: none"> - Funding decision on project proposal from CREWS Steering Committee on 7 Aug 2018; - 2 sessions held as part of West Africa Hydromet Forum (Abidjan, 19-21 Sept 2018): Setting-up a CREWS Community of Practice and Consultation on elements of the CREWS West Africa project; - Institutions have been invited to setup the Steering Committee; - WMO project team invited to provide guidance to ECOWAS for the development of a West Africa Flood Management Strategy (7 Nov 2018); - ACMAD represented the Africa RCC in WMO International Workshop on Global Review of Regional Climate Centre Operations, Pune India, 12-14 Nov 2018; - 15 countries participated in SWFDP Training Workshop on numerical weather prediction (NWP) interpretation, use of common alerting protocol (CAP) for warning dissemination, Lomé, 20-30 Nov 2018 - First meeting of the Steering Committee on 19 Dec 2018; - A briefing note for project upscaling from 1.8 million USD to 5.3 million USD was submitted to CREWS SC on , which in return requested WMO to lead the development of a proposal (3.5 million USD); - Weather and hydrological forecasters from Burkina Faso, Mali and Niger were trained on flash flood forecasting during (i) the West Africa Flash Flood Guidance System inception workshop, Dakar, Senegal, 25-27 June 2019 and (ii) the Global Flash Flood Guidance System inception workshop, Antalya, Turkey, 4-8 November 2019 - A partnership was signed with KNMI on 20 Dec 2018 and with DWD on 11 Sept 2019; - A Joint WMO - KNMI - WB mission in AGRHYMET (Niamey) was held on 15-17 Jan 2019; - A joint WMO - DWD - KNMI mission to AGRHYMET (Niamey) was held on 5-7 Nov 2019; - The Second meeting of the Project Steering Committee was held on 12 Nov 2019. <p>During the reporting period:</p> <ul style="list-style-type: none"> - The technical description of the sub-components was updated: <ul style="list-style-type: none"> - 1.1 & 1.2 - Assessment of observation processes and needs / Database improvement (WACA&D) - 1.3 - Data base on impacts of Climate Extreme events (WACE) - 1.4 - Early warning system integration, operational procedures and seamless service delivery - 2 - Analysis and Climate Watch Services (WACWS) - 3 - Improved short- to medium-range forecast capabilities focusing on severe weather (SWFDP) - 4 - Flash Flood Forecast (FFGS) - 5.1 & 5.2 - Subseasonal to seasonal forecast (PRESASS)

	<ul style="list-style-type: none"> - 5.3 - Pilot drought services (AgM) - The proposal for Additional Financing (CREWS/RProj/02/West Africa AF) was proposed on 20 January 2020 and approved by CREWS SC on 28 Feb 2020; - The agreements with UK Reading University was signed on 10 Feb 2020, with IRI on 28 Feb 2020, and with HRC on 17 Apr 2020; - A detailed work plan for strengthening the Dakar RSMC for provision of severe weather forecasting guidance to all PRESASS and PRESAGG Member States, and for provision of flood forecasting guidance, is under development. - Both WB and WMO have dealt with administrative processing to receive the additional financing. Related activities are expected to start soon.
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9. Project Performance

Interpretation of color coding		
	High	Good progress; on track in most or all aspects of delivery
	Medium	Moderate progress or on track in some aspects of delivery
	Low	Less than moderate or poor progress. Not on track in critical areas of its delivery. Requires remedial attention

	Rate of expenditure	Rate of delivery	Alignment of Objectives
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Coding	●	●	●
Narrative	954,782 CHF (52%) expended to date, out of which 112,112 (6%) during the reporting period, for a total 1,834,555 USD received. In addition, 655,040 CHF are committed (total is 88% for expenses + obligations).	The progress is satisfactory, as reflected in the report of the 2nd meeting of the Project Steering Committee held on 12 Nov 2019.	Project remains strongly aligned to the initial objectives, and recent developments with 2 new countries supported by CREWS (Chad, Togo) are even providing a stronger justification for supporting regional cooperation with this regional project.

10. Risk Management Status

Risk Status	<p>Risks remain moderate, as identified at the proposal stage, and have evolved in relation with:</p> <ul style="list-style-type: none"> - the undergoing enlargement of AGRHYMET mandate to take over the Regional Climate Center function from ACMAD in the near future; - the accreditation of ANACIM (Dakar) as regional specialised meteorological center for severe weather forecasting in June 2019, which is facing difficulties in upgrading its high performance computer to serve the member countries with numerical weather predictions, thus compromising the expected results of the severe weather forecasting component; - Chad and Togo joining as CREWS beneficiary countries since July 2019, resulting in a need to expand the coverage of regional services to additional countries, including for data exchange, severe weather forecasting, climate prediction and flash flood forecasting; - Travel restriction due to the ongoing Pandemic situation would inevitably slow down some of the activities.
Measures to address	<p>The additional risks are being addressed with :</p> <ul style="list-style-type: none"> - additional consultations, such as (i) missions with AGRHYMET (Niamey, Jan and Nov 2019), and (ii) joint WB-WMO workshop with ANACIM, AGRHYMET and ACMAD (Dakar, June 2019); - transfer of knowledge to AGRHYMET (Niamey) and ANACIM (Dakar) to ensure sustainability of project outputs after project completion; - upscaling the project (see project proposal) from 1.8 million USD to 5.3 million USD (approved by CREWS SC on 28 Feb 2020);

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| | - frontload activities that can be implemented remotely. Due consideration is given not to compromise the quality of outputs in reprioritizing activities. |
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11. Contributions to CREWS Output(s)

11.1 National Output(s)

n/a

11.2 Regional Output(s)

CREWS Regional Output(s): Institutional and human capacities at Regional WMO and Intergovernmental organizations to provide regional climate and weather services to LDCs and SIDS increased

State Project Output(s) in this section	Overall Project Target	Target for reporting period	Progress by January 2020	Progress by June 2020
1. Proposal for a data and metadata exchange collaboration framework outlining stations to be included in the regional dataset, including recommendations for incorporating missing or new stations into the WMO WIGOS and WIS systems (OSCAR/Surface, WDQMS, GTS and WIS/GISCs) and forward looking plan for establishing a regional WIGOS center - The inception report is available and a regional workshop towards the setup of a regional WIGOS center is being planned (see Concept Note).	100%	25%	25%	25%
2. West Africa Climate Assessment & Dataset (WACA&D) system open to use for NMHSs and regional institutions (ACMAD, AGRHYMET, NBA (Niger), OMVS (Senegal), LCBC (Lake Chad), VBA (Volta), OMVG (Gambia) and MRU (Mano)), with supporting training at regional level and tools materials in French and English - Based upon the inception report , a	100%	70%	60%	70%

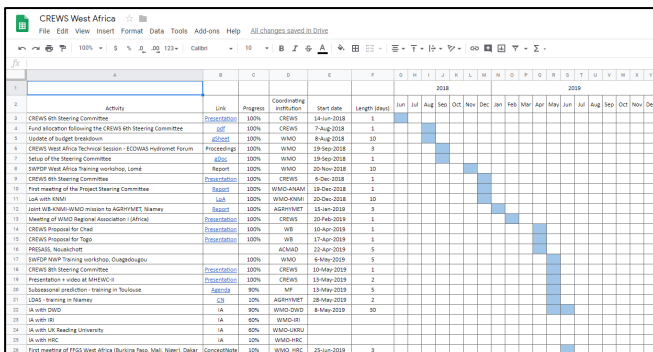
local version of the tool is available in KNMI (see presentation).				
4. <i>West Africa hydro-met and Climate Extreme database (WACE), involving a standard typology of high-impact event types and the assignment of a Universal Unique Identifier (UUID), with supporting training and guidance materials in French and English - A consultation between DWD, AGRHYMET and CREWS countries was held on 11 May 2020 (see progress report).</i>	100%	50%	25%	50%
5. <i>Climate Watch Service (with automatic update) - based upon monitoring products based on Satellite Application Facility on Climate Monitoring (CMSAF) and Global Precipitation Climatology Centre (GPCC) for West Africa (including software, guidance document and training), with supporting training and guidance materials in French and English. A consultation between DWD, AGRHYMET and CREWS countries was held on 11 May 2020 (see progress report).</i>	100%	60%	25%	60%
6. <i>West Africa Severe Weather Forecasting System online, in line with SWFDP guidebook, with RSMC Dakar Training Desk and supporting training and guidance materials in French and English - During the last reporting period, the detailed work plan was updated. Forecasters from NMHSs have access to products from ECCC, NOAA/NCEP, UKMO, Meteo-France, RSMC Dakar. An updated planning was developed for 2020-2022, taking into account the approval of the additional financing.</i>	100%	50%	50%	50%
7. <i>West Africa Flash Flood Guidance System online, with supporting training and guidance materials in French and English - A partnership agreement with HRC was signed. In addition, during the last reporting period, a detailed work</i>	100%	40%	20%	40%

plan for 2020-2022 was developed, taking into account the approval of the additional financing.				
8. <i>Development of CREWS West Africa Community of Practice.</i> Exchanges have been formalized with nomination of focal points by countries for respective work packages. The matrix listing synergies between CREWS and related projects was further updated to ensure optimal use of funding available for severe weather (CREWS, SAWIDRA, CDSF), climate (ACP-EU, CREWS), civil protection and food security.	100%	20%	15%	20%
9. <i>Recommendations and technical specifications for the development pilot services on early warnings for agricultural severe drought in West Africa.</i> An Implementation Agreement has been signed with UK Reading University in Feb 2020 and a first report has been delivered on comparisons between TAMSAT 3.0 and TAMSAT 3.1 versions in Ghana. Conversations with Mali, Niger and Burkina Faso Met. Services are undergoing to expand improved TAMSAT products to those countries. In a second phase Togo and Chad would be included .	100%	20%	10%	25%
10. <i>Recommendations related to dissemination of seasonal and monthly prediction products and services in West Africa.</i> Negotiations are ongoing with IRI.	100%	20%	20%	20%
11. <i>Proposed principles for Standard Operating procedures for early warning (e.g. food security, riverine flooding) and rapid warning (e.g. severe weather, flash flooding) including recommendations for (i) standard operating procedures and (ii) user interfaces - to ensure access to information as decision making support by users (hydrologists, civil protection, food security, others).</i> Terms of reference are being drafted.	100%	10%	10%	10%

12. Contributions to Value Propositions

<p>Gender Sensitive</p>	<p>The project considers gender equality in itself a key development objective, with direct demonstrated impacts in terms of increasing productivity, improving the impact of development for future generations, and making institutions more representative. To this end, the project promotes approaches aimed at eliminating the differences between men and women in accessing economic opportunities and in productivity, as well as to help give women a stronger voice within society.</p>
<p>Multiplier</p>  <p>SERVIR   </p>	<p>The project mobilizes specific expertise to guide investments such as AfDB SAWIDRA, EU Climate Services (8 million EUR) and WB Hydro- Meteorological Services Modernization (P166987)</p>
<p>People-centred</p> 	<p>The project mobilizes expertise to support AGRHYMET, working directly with countries' multidisciplinary working groups to track food security and nutrition.</p>
<p>Promote Coherence</p>	<p>The project mobilizes expertise from regional and global centers (Dakar RSMC, Météo-France, DWD, KNMI, ECMWF, UK Reading, HRC) to support AGRHYMET and RSMC Dakar along with their respective (upcoming) RCC and RSMC mandate.</p>
<p>Innovation & Solution-oriented</p> 	<p>The project makes available information from global and regional centers to national meteorological and hydrological services. Cascading forecasting is substantially improving the lead time and accuracy of forecasts and warnings.</p>
<p>Unique</p>	<p>The seamless approach to early warning supported by the project is unique, possible in relation with the multiplier effect and coherence.</p>

13. Visibility products



Activity	Link	Progress	Coordinating institution	Start date	Length (days)	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CREWS 6th Steering Committee	Presentation	100%	CREWS	14-Jun-2018	1																			
Final Allocation following the CREWS 6th Steering Committee	pdf	100%	CREWS	7-Aug-2018	1																			
Update of Budget breakdown	pdf	100%	WMO	8-Aug-2018	10																			
CREWS West Africa Technical Session - ECOWAS Hydroret Forum	Proceedings	100%	WMO	19-Sep-2018	3																			
Series of 6th Steering Committee	pdf	100%	WMO	19-Sep-2018	5																			
SWFDP West Africa Training workshops, Lomé	Report	100%	WMO	20-Nov-2018	10																			
CREWS 6th Steering Committee	Presentation	100%	CREWS	6-Dec-2018	1																			
Final meeting of the Project Steering Committee	Report	100%	WMO/AMM	18-Dec-2018	1																			
Link with KMAI	Link	100%	WMO/KMAI	20-Dec-2018	10																			
Joint WMO/AMM/UNEP mission to address 'NET' matters	Report	100%	AMM/NET	13-Jan-2019	3																			
Meeting of WMO Regional Association (Africa)	Presentation	100%	CREWS	20-Feb-2019	1																			
CREWS Proposal for Chad	Presentation	100%	WB	10-Apr-2019	1																			
CREWS mission for Niger	Presentation	100%	WB	17-Apr-2019	1																			
PREWAS, Nouakchott			ACMAD	22-Apr-2019	5																			
SWFDP West Training workshops, Ouagadougou		100%	WMO	4-May-2019	5																			
CREWS 6th Steering Committee	Presentation	100%	CREWS	10-May-2019	1																			
Presentation + video at MHEWCA		100%	CREWS	13-May-2019	2																			
Discussional presentation, training in Toulouse	Report	100%	WP	13-May-2019	3																			
Local Training in Niamey	CR	100%	AMM/NET	28-May-2019	2																			
IA with DWD	IA	100%	WMO/DWD	8-May-2019	10																			
IA with MZ	IA	100%	AMM/NET																					
IA with UK Reading University	IA	100%	WMO/UKRU																					
IA with HRC	IA	100%	WMO/HRC																					
Final meeting of PREWAS West Africa (Burkina Faso, Mali, Niger, DRC)	Report	100%	WMO/HRC	25-Jun-2019	3																			

WMO project management spreadsheet



Project presentation

14. Supporting documents

- Project proposal approved by CREWS Steering Committee (Aug 2018) - [pdf](#)
- Additional financing approved by CREWS Steering Committee (Feb 2020) - [pdf](#)
- SWFDP WA - Report of the Technical Planning Meeting (Sept 2017) - [doc](#) (funded by WMO)



- SWFDP WA Implementation Plan (Sept 2017) - [doc](#) (funded by WMO)
- Terms of reference of the CREWS West Africa Steering Committee - [gDoc](#)
- FFGS WA - Report of the Technical Planning Meeting (June 2019) - [doc](#)
- Approved report of the first session of the CREWS West Africa Steering Committee (19 Dec 2018) - [gDoc](#)
- Draft report of the second session of the CREWS West Africa Steering Committee (12 Nov 2019) - [gDoc](#)
- Draft Inception Report for [1.1 - Assessment of observation network processes and needs](#) and related [presentation](#)
- Draft Inception Report for [1.2 - Climate data base improvement \(WACAD\)](#) and related [presentation](#)
- Draft Inception Report for [1.3 - Data base on impacts of extreme events \(WACE\)](#) and related [presentation](#)
- Draft Inception Report for [1.4 - Early warning system operational procedures](#)
- Draft Inception Report for [2 - Analysis and climate watch tools](#) and related [presentation](#)
- Draft Inception Report for [3 - Improved forecast capabilities focusing on severe weather \(SWFDP\)](#)
- Draft Inception Report for [4 - Flash Flood Forecast \(FFGS\)](#) and related [presentation](#)
- Draft Inception Report for [5.1 & 5.2 - Subseasonal to seasonal forecast](#) and related [presentation](#)
- Draft Inception Report for [5.3 - Pilot drought monitoring services](#) and related [presentation](#)
- Partnership agreement with [KNMI](#)
- Partnership agreement with [DWD](#)
- Partnership agreement with [UoR](#)
- Partnership agreement with [IRI](#)
- Report on establishment of a CREWS Community of Practice Session in Sept 2018 (Abidjan) - [gDoc](#)
- Report of the consultation on the 9 elements of the CREWS West Africa project in Sept 2018 (Abidjan) - [gDoc](#)
- Mission report following the joint KNMI - DWD - WMO mission to AGRHYMET in Nov 2019 - [gDoc](#)
- Overall project planning spreadsheet for the CREWS West Africa project - [gSheet](#)