



## CREWS PROJECT STATUS REPORT

1. Project title	West Africa Region: Seamless operational forecast systems and technical assistance for capacity building	2. Project reference	<a href="#">CREWS/RProj/02/West Africa</a>
3. Lead Implementing Partner	WMO	4. Other Implementing Partners	-
5. Reporting period	June - Nov 2019		
6. Reporting focal point	Jean-Baptiste Migraine <a href="mailto:jbmigraine@wmo.int">jbmigraine@wmo.int</a>		
7. Project overview	<p><b>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</b></p> <p>The project develops capacities within existing institutions in line with their mandates : (i) <a href="#">AGRHYMET</a> (CILSS) for food security and <a href="#">regional climate services</a>; (ii) RSMC Dakar (ANACIM) for <a href="#">severe weather forecasting</a> and <a href="#">WIGOS</a> coordination; (iii) NMHSs for crosscutting support to regional activities + <a href="#">flash flood guidance</a>.</p> <p>Beneficiaries are the 17 Members of <a href="#">PRESASS</a>: Benin, Burkina Faso, Cameroon, Central African Republic, Cap Verde, Chad, Côte d'Ivoire, the Gambia, Ghana, Guinea Bissau, Guinea Conakry, Mali, Mauritania, Niger, Nigeria, Senegal, and Togo.</p> <p>The regional project is complementary to the national projects in Burkina Faso, Chad, Mali, Niger and Togo. 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 (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.</p>		

## 8. Progress summary




Before the reporting period:

- 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;
- [Joint WMO-WB mission in AGRHYMET](#) (Niamey) on 15-17 Jan 2019;
- 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);
- A partnership was signed with [KNMI](#) on 20 Dec 2018.

During the reporting period:

- The technical description of the sub-components were updated:
  - [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 \(PRESASS\)](#)
  - [5.3 - Pilot drought services \(AqM\)](#)
- Burkina Faso, Mali and Niger joined the flash flood guidance system ([FFGS](#)); agreement with HRC yet to be signed;
- 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
- [Partnership agreement with DWD](#) was signed on 11 Sept 2019;
- Draft partnership agreements were prepared with [UK Reading University](#) and [IRI](#);
- A [joint WMO - DWD - KNMI mission to AGRHYMET](#) was held on 5-7 Nov 2019;
- The [Second meeting](#) of the [Project Steering Committee](#) was held on 12 Nov 2019;
- The [proposal for 1st additional financing to the project](#) was submitted to the CREWS Steering Committee on 20 Nov 2019, to ensure support from regional components to Chad, Sierra Leone and Togo.

## 9. Project Performance

	Rate of expenditure	Rate of delivery	Alignment of Objectives
<b>Coding</b>			
<b>Narrative</b>	842,670 USD (46%) expended to date, out of which 385,257 USD (21%) during the reporting period, for a total 1,834,555 USD received. In addition, 655,040 USD are committed (total is 82% 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

<b>Risk Status</b>	<p>Risks remain moderate, as identified at the proposal stage, and have evolved in relation with:</p> <ul style="list-style-type: none"> <li>- the undergoing enlargement of AGRHYMET mandate to take over the Regional Climate Center function from ACMAD in the near future;</li> <li>- 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;</li> <li>- 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;</li> <li>- the delay in the preparation of the West Africa Regional HydroMeteorological Services Modernization Program Phase I (<a href="#">P166987</a>) by the World Bank.</li> </ul>
<b>Measures to address</b>	<p>The additional risks are being addressed with :</p> <ul style="list-style-type: none"> <li>- 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);</li> <li>- transfer of knowledge to AGRHYMET (Niamey) and ANACIM (Dakar) to ensure sustainability of project outputs after project completion;</li> <li>- upscaling the project (see <a href="#">project proposal</a>) from 1.8 million USD to 5.3 million USD (submitted to CREWS SC on 10 May 2019).</li> </ul>

## 11. Contributions to CREWS Outputs

<b>CREWS Regional Output: Institutional and human capacities at Regional WMO and Intergovernmental organizations to provide regional climate and weather services to LDCs and SIDS increased</b>				
Project-specific Outputs	Overall Project Target	Target for reporting period	Progress by June 2019	Progress by Nov 2019
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 <a href="#">inception report</a> is available and a regional workshop towards the setup of a regional WIGOS center will be held in 2020 in Casablanca.	100%	25%	20%	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 <a href="#">inception report</a> , a local version of the tool is available in KNMI (see <a href="#">presentation</a> ).	100%	60%	40%	60%
4. 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 - Based upon the <a href="#">inception report</a> , the partnership with DWD was signed on 11 Sept 2019 and an update on the way forward was presented at the CREWS Steering Committee meeting on 12 Nov 2019 (see <a href="#">presentation</a> ).	100%	25%	20%	25%
5. 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.	100%	25%	10%	25%

Based upon the <a href="#">inception report</a> , the partnership with DWD was signed on 11 Sept 2019 and an update on the way forward was presented at the CREWS Steering Committee meeting on 12 Nov 2019 (see <a href="#">presentation</a> ).				
6. <i>West Africa Severe Weather Forecasting System online, in line with <a href="#">SWFDP guidebook</a>, with RSMC Dakar Training Desk and supporting training and guidance materials in French and English</i> - Consultation with Member States and regional organizations took place in Abidjan, 19-21 Sept 2018 ( <a href="#">ECOWAS Hydromet Forum</a> ), and led to the development of an <a href="#">inception report</a> . Forecasters from NMHSs have access to products from ECCC, NOAA/NCEP, UKMO, Meteo-France, RSMC Dakar. A training on NWP interpretation took place in Lomé in Nov 2018, focusing on interpretation of NWP products and satellite based information and making its best use in forecasts/warnings of severe and high impact weather from nowcasting to short- and medium-range. Korea Meteorological Administration (KMA) kick-started the WA SWFDP website, online since Sept 2018. During the last reporting period, a detailed work plan for 2020-2022 was developed, as a basis for the 1st request for additional financing.	100%	50%	50%	50%
7. <i>West Africa Flash Flood Guidance System online, with supporting training and guidance materials in French and English</i> - Burkina Faso, Mali and Niger formally joined the flash flood guidance system (FFGS); 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. The partnership agreement with HRC is yet to be signed. In addition, during the last reporting period, a detailed work plan for 2020-2022 was developed, as a basis for the 1st request for additional financing.	100%	20%	10%	20%
8. <i>Development of CREWS Community of Practice</i> . WMO and WB organized together sessions during (i) the ECOWAS Hydromet Forum (Sept 2018, see <a href="#">CREWS Community of practice</a> ), (ii) the MHEWC-II (May 2019), (iii) the meeting of heads of ECOWAS NMHSs (Oct 2019) and Understanding Risks West and Central Africa (Nov 2019).	100%	15%	10%	15%

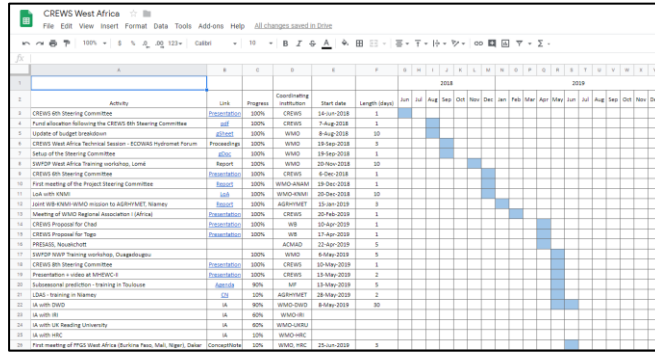
Exchanges are still in an informal mode, and participation needs to be extended from its current core (Burkina Faso, Mali, Niger) to include all institutions and countries benefiting from hydromet investments in Africa (Chad, Togo, VBA, NBA, AGRHYMET, DRC, Madagascar, Côte d'Ivoire, Freetown). Members recommended close coordination between national and regional projects to ensure more optimal use of funding available for severe weather (CREWS, SAWIDRA, CDSF), climate (ACP-EU, CREWS), civil protection and food security.				
9. Recommendations and technical specifications for the development pilot services on early warnings for agricultural severe drought in West Africa. Negotiations are ongoing with UK Reading University.	100%	20%	10%	20%
10. Recommendations related to dissemination of seasonal and monthly prediction products and services in West Africa. Negotiations are ongoing with IRI.	100%	20%	10%	20%
11. 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). Terms of reference are being drafted.	100%	10%	10%	10%

## 12. Contributions to Value Propositions

<p><b>Gender Sensitive</b></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><b>Multiplier</b></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><b>People-centred</b></p> 	<p>The project mobilizes expertise to support AGRHYMET, working directly with countries' multidisciplinary working groups to track food security and nutrition.</p>
<p><b>Promote Coherence</b></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><b>Innovation &amp; Solution-oriented</b></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><b>Unique</b></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

13.1. Insert or copy any links to press releases, videos or communication pieces that include social media links



Activity	Link	Progress	Coordinating Institution	Start date	Length (days)	2018	2019
CREWS 0th Steering Committee	<a href="#">Presentation</a>	100%	CREWS	14 Jun 2018	1	■	
Fund allocation following the CREWS 0th Steering Committee	<a href="#">inf</a>	100%	CREWS	7 Aug 2018	1		■
Update of Budget Description	<a href="#">inf</a>	100%	WMO	8 Aug 2018	10	■	
CREWS West Africa National Session - ECOWAS Hydroneum Forum	<a href="#">Presentation</a>	100%	WMO	19 Sep 2018	1		■
Setup of the Steering Committee	<a href="#">inf</a>	100%	WMO	19 Sep 2018	1		■
Zeroth West Africa Training workshop, Lomé	<a href="#">Report</a>	100%	WMO	20 Nov 2018	100	■	
CREWS 0th Steering Committee	<a href="#">Presentation</a>	100%	CREWS	6 Dec 2018	1		■
First meeting of the Project Steering Committee	<a href="#">Report</a>	100%	WMO-AHAM	19 Dec 2018	1		■
Link with WMO	<a href="#">inf</a>	100%	WMO-AHAM	20 Dec 2018	10	■	
Joint WBA-AHAM-WMO mission to AGHYMET, Niamey	<a href="#">Report</a>	100%	AGHYMET	15 Jan 2019	1		■
Meeting of WMO Regional Association (Africa)	<a href="#">Presentation</a>	100%	CREWS	20 Feb 2019	1		■
CREWS proposal for Chad	<a href="#">Presentation</a>	100%	WB	19 Apr 2019	1		■
CREWS Proposal for Togo	<a href="#">Presentation</a>	100%	WB	17 Apr 2019	1		■
PRELIMS, Niamey/Chad	<a href="#">inf</a>	100%	AGHYMET	22 Apr 2019	1		■
Workshop training workshop, Ouagadougou	<a href="#">inf</a>	100%	WMO	8 May 2019	1		■
CREWS 0th Steering Committee	<a href="#">Presentation</a>	100%	CREWS	10 May 2019	1		■
Preparation - video on AMERICA	<a href="#">Presentation</a>	100%	CREWS	13 May 2019	1		■
Subnational prediction - training in Toulouse	<a href="#">Report</a>	60%	AF	13 May 2019	1		■
LOAD - training in Niamey	<a href="#">inf</a>	10%	AGHYMET	28 May 2019	2		■
IA with DPO	<a href="#">inf</a>	60%	WMO-DPO	8 Jun 2019	10	■	
IA with IR	<a href="#">inf</a>	60%	WMO-IR				■
IA with UK Reading University	<a href="#">inf</a>	60%	WMO-UKRU				■
IA with HRC	<a href="#">inf</a>	10%	WMO-HRC				■
First meeting of PDS West Africa (Burkina Faso, Mali, Niger, DRC)	<a href="#">Communication</a>	10%	WMO-HRC	25 Jun 2019	1		■

### Project management spreadsheet



### Project presentation (updated 5 Nov 2019)



## 14. Supporting documents

*List and annex to the report any documents providing details on project activities such as reports of training sessions, summaries of high-level discussions etc.*

- Project proposal approved by CREWS Steering Committee (Aug 2018) - [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](#)
- 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](#)
- Signed partnership agreement with [KNMI](#)
- Signed partnership agreement with [DWD](#)
- Draft partnership agreement with [UoR](#)
- Draft 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](#)