



ASPIRE

Adaptive Social Protection: Information for enhanced REsilience

Inception Report and Implementation Plan

Prepared for: UK Department for International Development

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Contents

1. Introduction.....	3
2. Overview of Implementation Plan	4
3. Overview of Work Package 1: Development of climate services to support ASP	7
4. Activity plan for Work Package 1	9
5. Overview of Work Package 2: Enhancing seasonal forecasting in the region and training SP stakeholders how to use climate information	24
6. Activity plan for Work Package 2	25
7. ASPIRE Theory of Change	32
8. ASPIRE Timeline.....	33
9. ASPIRE Logframe	Error! Bookmark not defined.
10. ASPIRE Monitoring and Evaluation Plan	Error! Bookmark not defined.
11. ASPIRE Risk Register – Implementation Phase	Error! Bookmark not defined.
Annex 1: Glossary	34
Annex 2: The WISER co-production approach	35
Annex 3: Team Structure	39
Annex 4: Stakeholder Analysis - updated 10/8/17	41
Annex 5: Climate information needs of prototype climate services development through SC�PEA	48

1. Introduction

The ASPIRE (Adaptive Social Protection: Information for enhanced REsilience)¹ is a 2.5 year project to provide strategic and technical support to the World Bank's [ASPP](#) (Adaptive Social Protection Programme) and [BRACED](#) (Building Resilience and Adaptation to Climate Extremes and Disasters) in Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal.

To determine where the technical assistance available in this project should focus, a six month inception period gathered evidence on the needs of Adaptive Social Protection (ASP) and BRACED stakeholders in the region through a range of activities. These included a literature review; interviews; a set of use cases; stakeholder mapping; and a series of workshops with the World Bank's ASPP.

The **main conclusions of the evidence gathering phase** were:

- There is increasing evidence to suggest that social protection interventions can dramatically reduce disaster risk and vulnerability to climate change by increasing the adaptive capacity of households and communities through provision of a greater range of livelihood options. However, there is limited evidence of how climate and livelihood information can be successfully integrated into ASP;
- Most countries in the Sahel have existing Social Protection programmes and National Meteorology and Hydrology Departments (NMHSs) these are at very different stages of development/sophistication. The World Bank's ASPP seeks to strengthen national Social Protection infrastructure whilst the Global Framework for Climate Services (GFCS), CREWS and the Africa Hydromet Program (a partnership with WMO, WB, AfDB, UNDP, AFD and WFP) are investing to strengthen NMHSs and early warning systems. However, these initiatives are at initial stages (in Mali, Burkina Faso, DRC) and need to be well integrated with ASP;
- There are some well-adopted tools and initiatives in the Sahel region to monitor drought, food security and nutrition which could support ASP and BRACED, such as the Cadre Harmonisé, HEA, ARC and PRESASS. However, there is a lack of institutional capacity to maintain current level of skills and meet future demands, and existing tools tend to address slow-onset shocks and response mechanisms are still limited to cope with rapid-onset events;
- Seasonal and sub-seasonal timescales seem to have the most potential to drive action to inform ASP decisions. However, seasonal and sub-seasonal climate outlooks are associated with substantial uncertainty. Shorter-range forecasts are also relevant if they are informed by livelihood data to improve impact forecasting and rapid targeting of interventions;
- Communication and inter-agency operating procedures are fundamental to the effective and sustainable use of climate services; and
- Building institutional capacity to maintain current levels of skills and meet future demands is required to establish sustainable services to support ASP.

Based on these insights, the consortium presented a range of implementation options to the UK Department for International Development (DFID) for discussion and review, and these have been consolidated into two key work packages which are described here.

¹ Formerly called the "People-Centred Climate Services in the Sahel" project

Whilst this project was originally designed to support BRACED, it was agreed that since this programme will conclude in December 2017 the focus for implementation should be on ASP. Furthermore, it was agreed that the project should seek to work with both the World Bank’s ASPP and social protection stakeholders within governments at a national level. The project will also move under the [WISER \(Weather and Climate Information Services for Africa\) programme](#) for its implementation phase (2 years).

2. Overview of Implementation Plan

Work Package 1:	Development of climate services to support ASP decision making
Work Package 2:	Enhancing seasonal forecasting in the region and training SP stakeholders how to use climate information

As identified during the evidence-gathering period for this project, initiatives to integrate the activities of ASP and climate stakeholders are at an early stage, and whilst there is value of integrating climate and livelihoods information into ASP, the specific types of climate information needed to inform the design, targeting and scale up of ASP instruments are not clear.

In Work Package 1, ASPIRE will therefore draw on the WISER principles of co-production (Annex 2) to facilitate shared discussion between ASP and climate stakeholders with the aim of designing and delivering tangible tailored services (on a range of timescales) for social protection. Alongside this, Work Package 2 will seek to enhance the underpinning capabilities of seasonal forecasters in the region and improve their relevance for social protection decision making.

The project will be delivered by a consortium of the UK Met Office (lead), Norwegian Refugee Council and the Walker Institute. An Embedded Consultant, Issa Lele Mouhamedou, is already based in the region (Niamey, Niger) and will deliver activities from the work packages and facilitate regional and national coordination between ASP and climate stakeholders. A team structure for the project can be found in Annex 3.

As identified during the inception phase of the project, there are a number of initiatives in the Sahel that are concerned with preparedness (including ASP) and climate service improvement such as:

[ARC](#) (African Risk Capacity), [GFCS](#) (Global Framework for Climate Services), [GFDRR](#) (Global Facility for Disaster Risk Reduction), [UNDP GEF](#) (United Nations Development Program Global Environment Facility), [DRFI](#) (Disaster Risk Financing and Insurance program), [FCFA](#) (Future Climate for Africa), [WASCAL](#) (West African Science Service Centre on Climate Change and Adapted Land Use), and [BRACED](#) (Building Resilience and Adaptation to Climate Extremes and Disasters).

The consortium recognises the need to coordinate with these programmes in order to identify opportunities for collaboration and shared learning. Regular dialogue will be maintained through the Embedded Consultant and the Core Project Team.

The project will move into WISER for the implementation period and progress against the work packages will be monitored through WISER monthly, quarterly and annual reporting, whilst MEL will be recorded against indicators in the WISER logframe that are relevant to this work.

As ASPIRE project will aim to co-produce operational services for social protection, details of the specific technical assistance required cannot be defined until ‘prototype’ services have been designed. It is therefore proposed that aspects of the ‘Agile’ approach to project management are employed so that services (and corresponding technical assistance) can be developed in a flexible and interactive way.

Specific activities, as requirements emerge, will be articulated through ASPIRE’s milestones and reporting processes and the implementation plan will be updated accordingly.

Because meeting ASP user needs for climate information is the central tenant of ASPIRE, the quality of user engagement will be measured throughout the project period and form part of the project’s monitoring, evaluation and learning metrics.

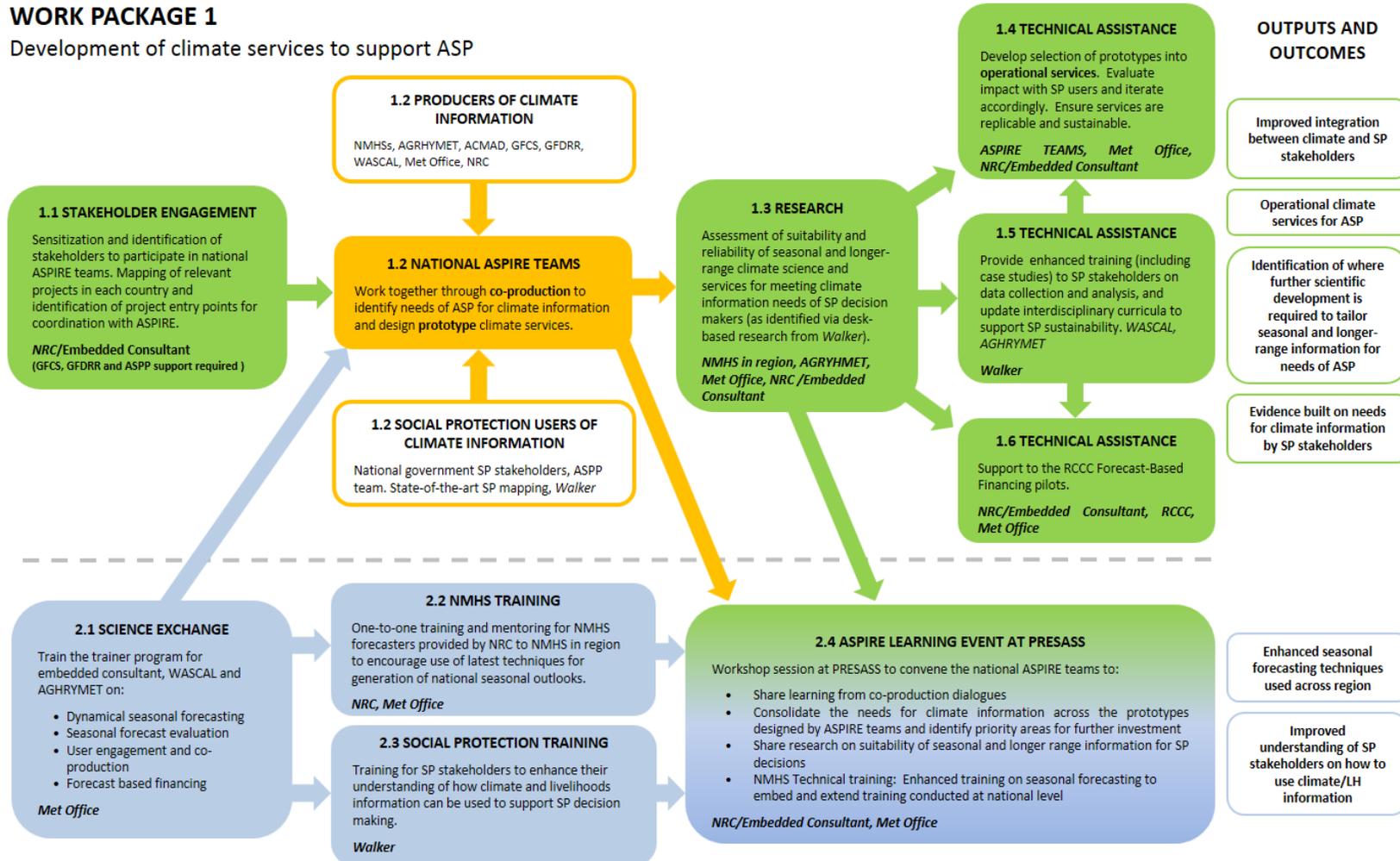
An illustrative overview of the ASPIRE project can be seen in Figure 1.

ASPIRE

Figure 1: Schematic overview of the ASPIRE project

WORK PACKAGE 1

Development of climate services to support ASP



WORK PACKAGE 2

Enhancing seasonal forecasting in the region and training SP stakeholders how to use climate information

3. Overview of Work Package 1: Development of climate services to support ASP

This work package will bring climate information service providers and social protection stakeholders together to create national ASPIRE teams. Through shared understanding and a process of co-production, the ASPIRE teams will design prototype climate services which are tailored to the specific needs of key social protection programmes and stakeholders in the Sahel.

Informed by the needs for climate information identified in the prototype services, the consortium will work with partners in Sahelian NMHSs to evaluate the suitability of forecast methods currently used in the region for meeting the requirements of ASP. It will also explore if improved forecasting methods (pulling through the latest developments in science^[1]) could support NMHSs to develop seasonal outlook services specifically for social protection users.

The consortium will identify where technical assistance is required to support the development of selected prototype services with the aim of generating operational services. Whilst the specific type of technical assistance required will be determined during the development of the prototype services, it is envisaged that technical assistance could include forecaster training and support, model and methods development, communications support, and training for social protection stakeholders in how to use climate information.

Through this work package, the consortium will also provide technical assistance to support the Forecast Based Financing pilots of the Red Cross Climate Centre that are currently being scoped for the ASPP.

The consortium will seek to achieve sustainability of technical assistance provided through this work package through:

- Ensuring any training activities leverage and support existing regional training institutions (e.g. WASCAL). Technical assistance to these supporting institutions could include interdisciplinary curriculum development and enhanced training on data collection and analysis, with exemplars taken from case studies identified by the social protection stakeholders. This will also feed into the further development of the Forecast Based Financing pilots of the Red Cross Climate Centre
- Ensuring any data sets or digital tools provided through ASPIRE are open source and accessible within the region;
- Using Quality Management principles in the development of any operational services that are developed through ASPIRE (for example, standard Operating Procedures and service Information Documents); and
- Engagement with GFCS to make ASP a permanent pillar of National Frameworks for Climate Services in the Sahel.

The work package will be delivered in region through the Embedded Consultant, supported by experts from across the consortium. To leverage the activities and learning in other related projects, the

^[1] For example, pulling through improvements in the Met Office's ability to predict summer rainfall in the Sahel months or even years ahead

Embedded Consultant will have continued engagement with the ASPP, GFCS, GFDRR and other relevant projects and programmes throughout the duration of ASPIRE.

The support of the ASPP will be critical to the success of this work package in order to identify which social protection stakeholders should be involved in the national ASPIRE teams in each of the six focus countries. Similarly, the consortium will work with its partners in NMHSs and with the GFCS and GFDRR Hydromet Programmes to identify which relevant individuals to represent climate service providers.

4. Activity plan for Work Package 1

Activity	Description	Consortium members and external stakeholders involved
<p>1.1 Stakeholder engagement and pre-sensitisation for national SP and climate stakeholders of need to work together to co-develop services in Chad, Mauritania, Mali, Niger, Burkina Faso and Senegal</p>	<p>As indicated in the Evidence Gathering Report, there is currently minimal interaction between climate and social protection stakeholders. Led by the Embedded Consultant and with support of the ASPP team the GFCS and GFDRR, this activity would sensitise SP stakeholders within national governments and national meteorology services to the ASPIRE project. It will identify which stakeholders should be part of the ASPIRE teams (and will subsequently work together to co-design climate services for ASP).</p> <p>It is acknowledged that in some cases, the link between a social protection program and the climate may not be clear and that in these instances it may be necessary for stakeholders from other areas to also be part of the ASPIRE teams e.g. BRACED. For example, where food security indicators are used to trigger scale up in SP programmes, the consortium could explore how food security stakeholders are using forecast information with the understanding that this would have a downstream impact on social protection.</p> <p>Building on the political economy analysis in the evidence gathering phase of ASPIRE, the pre-sensitisation work should also seek to identify what social, political and economic factors in the focus countries may influence the ability to design and deliver services for ASP. This analysis should also explore appetite among climate service providers in the region for modernising forecasting techniques and look at the barriers and enablers to doing this.</p> <p>In parallel, Walker will conduct mapping of ‘state-of-the-art’ SP programmes and conduct desk-based research which will feed into this activity by identifying how ASPIRE can build on learnings from other initiatives (<i>e.g. the Kenya Hunger Safety Net Programme</i>). This will also identify training needs for the development of SP training services (2.3), for the wider SP stakeholders and the ASPIRE team.</p> <p>As part of this activity, the Technical Lead (Kane) will also engage with the GFCS programme to garner support for an ASP pillar to be added to the GFCS National Framework for Climate Services where countries have these.</p> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> • Attendance at regional climate events – PRESASS 2018, 2019 • Attendance at relevant SP events; 	<p>NRC/ consultant</p> <p>Technical Lead (Kane) GFDRR Hydromet Programme GFCS ASPP</p> <p>Walker deep specialists and Walker interdisciplinary PDRA</p>

Activity	Description	Consortium members and external stakeholders involved
	<ul style="list-style-type: none"> • Regular engagement with ASPP regional coordinator, Roland Berehoudougou and National ASPP team and provision of any relevant information about the project; • Regular engagement with Jean Baptiste Migraine of the GFDRR programme; • Regular engagement with Arame Tall (GFCS), the technical lead and the GFCS national coordinators; and • Identification of other primary, secondary and tertiary stakeholders for the programme for knowledge sharing and collaboration (Annex 3). <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Feasibility-to-implementation policy brief to targeted regional institutions and regional/national learning platforms for effective scaling of SP programmes (<i>Walker</i>) 2. Participant lists for ASPIRE teams 3. Stakeholder analysis/mapping document. 4. Updated political economy analysis relevant (building on work already done in the evidence gathering phase) 	

Activity	Description	Consortium members and external stakeholders involved
<p>1.2 National ASPIRE teams formed and engaged in co-producing climate services for ASP.</p>	<p>This activity will build on the success that Service Development Teams (SDTs) have had in the SCIPEA (Strengthening Climate Information and Partnerships East Africa) project in supporting enhancements in seasonal forecasting in East Africa which led by user needs. It will also draw on learnings from other safety net/ASP initiatives, for example the Kenya Hunger Safety Net Programme.</p> <p><i>About SCIPEA: National service development teams were formed in the SCIPEA project to bring those who need seasonal information together (such as agriculture, water, energy and DRR users) with those that produce them. Through this process, the climate service providers were able to understand how seasonal outlooks needed to be tailored to support the specific decisions the users needed to make. Through a process of co-production (Annex 2), the teams designed ‘prototype climate services’ (Annex 5) which articulated which elements of the seasonal outlook users needed and described how the service should be delivered (e.g. email) and, importantly, what action the users would take based upon the information. As an interim output of SCIPEA, it was also identified early on in the formation of the service development teams that all users were feeding back that seasonal outlooks in East Africa were issued too late to support meaningful action and in addition, after the outlook had been issued, monthly updates of the progress of the season were required. Through SCIPEA, these changes are therefore now being made through the East Africa regional climate centre (ICPAC).</i></p> <p>A similar methodology to SCIPEA will be used in this project but where SCIPEA involves a range of users from different sectors, ASPIRE will focus solely on the Social Protection user.</p> <p>The national teams (‘ASPIRE teams’) will be brought together to engage in shared dialogue and understanding of how climate information can be integrated into social protection, with the aim of designing prototype climate services for social protection.</p> <p>The teams will be developed through their knowledge of SP stakeholders and climate information services providers in the region (1.2, <i>Met Office, NRC</i>). Informed by the stakeholder engagement (1.1), the SP state-of-the-art mapping (1.2, <i>Walker</i>) and desk-based research (1.3, <i>Walker</i>), Walker will work with these ASPIRE teams to develop the Training Roadmap for the delivery of a range of ASP training services (2.3, 1.5, <i>Walker</i>). These training services will develop the SP stakeholder capabilities in the delivery of the prototype climate service (<i>Met Office</i>) for</p>	<p>Embedded consultant Technical Lead</p> <p>Met Office climate and user engagement specialists</p> <p>NRC regional specialists NMHS representatives ASPP Country Officers, Task Team Leaders and Regional Coordinator Government Social Protection Stakeholders</p> <p>Walker Deep Specialists and Walker Interdisciplinary PDRA</p> <p>GFDRR Hydromet</p>

Activity	Description	Consortium members and external stakeholders involved
	<p>ASP Programmes.</p> <p>The teams will explore:</p> <ul style="list-style-type: none"> • Which elements of decision making in social protection are linked to climate (directly or indirectly); • What information social protection stakeholders currently use to inform decisions (e.g. on design, targeting and scale up of instruments) and how climate information could be integrated into this; • What level of knowledge social protection stakeholders have about climate - with a particular emphasis on understanding of probabilistic information and uncertainty; • What the thresholds for decision making are in social protection and the consequences of ‘acting in vain’; • What climate information needs to be presented in a service for social protection stakeholders (including specifying timing and format for delivery of information); • What action will be taken by social protection stakeholders when the information (service) is received; • Explore political/economic factors which may influence how information is communicated and actioned by ASP stakeholders; and • How sustainability of services developed by the teams can be sustained. <p>It is anticipated that ASPIRE Teams will include representatives from:</p> <ul style="list-style-type: none"> • The National Meteorology (and Hydrology) department; • GFCS; • GFDRR; • Social Protection programmes in Government; • ASPP Country Officer, Task Team Leaders and regional representatives; and • Other relevant stakeholders in climate and social protection (e.g. WASCAL, ARC, food security, DRR). <p>As ASPIRE teams will be convened throughout the project (to design, develop, test and iterate the service), it is a key success factor that participants in the teams are consistent (where possible).</p> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> • Ideally ASPIRE teams will be convened in Niger, Mali, Senegal, Chad, Mauritania and Burkina Faso. The 	<p>Programme representative</p> <p>GFCS representative</p>

Activity	Description	Consortium members and external stakeholders involved
	<p>pre sensitisation work in activity 1.1 will however indicate if the social protection and climate infrastructure in all countries would support this.</p> <ul style="list-style-type: none"> • Arrange workshops (invites, venue logistics); • Facilitate co-production workshops using format and materials developed for SC�PEA SDT’s; • Share write ups of workshops with consortium, RCCC, DFID and ASPP team; and • Work with Met Office and Walker PDRA to shape activity 1.3 based on insights from ASPIRE teams. <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Set of prototype climate services for ASP; 2. Improved understanding, dialogue and integration between climate and social protection stakeholders. 3. Guidance document for identifying needs of ASP stakeholders for climate information - produced with support of the WISER Fund Manager. <i>Through another WISER project, guidance on co-production is being produced with the aim of provided step-by step support to facilitating coproduction between climate producers and different users groups. The ASPIRE project will be an opportunity to test and refine this guidance in the context of ASP. This guidance could be relevant to other ASP initiatives and programmes such as CSRP and ASIA WCS and will therefore be shared through the WISER Knowledge Management function.</i> 4. It is hoped that through guiding NMHSs through the co-production process for SP users, they will be able to use this when working with user groups with support of the GFCS, GFDRR programme or other climate service initiatives in the region. <i>As evidenced by engagement with these programmes.</i> 5. Training Roadmap for SP stakeholders that feeds into ASP Training (2.3, Walker) and Technical Assistance (1.5, Walker) <p>Notes:</p> <ol style="list-style-type: none"> i. It is proposed that the Niger ASPIRE team should meet in October to dovetail with a planned Red Cross Climate Centre workshop for high level Social Protection Stakeholders, food security and climate stakeholders ii. Focused technical assistance to develop the prototypes developed through this process can only be provided to a selection of prototypes through this project and the consortium will agree which ones to develop into operational services with DFID and the ASPP team. 	

Activity	Description	Consortium members and external stakeholders involved
	<p>iii. ASPIRE teams will be encouraged to explore how information on all timescales is relevant to SP decision making at a national level. However, it is anticipated that shorter range and seasonal information will have the most relevance to social protection programmes that are at the design stage or in operation. The consortium acknowledge that longer range climate information (1-10 years ahead) may be of more relevance to the donor community to influence programmatic planning of social protection interventions and therefore a separate co-production dialogue at a donor/programme level may be of value and an agile approach to the management of the project could support this type of activity.</p>	

Activity	Description	Consortium members and external stakeholders involved
<p>1.3. Research to assess the suitability and reliability of seasonal forecast information for ASP relevant decisions</p>	<p>Based upon the needs for climate information that are identified through the prototype services designed through activity 1.2, this activity will assess the reliability and suitability of climate information to meet ASP needs. This will focus on the information currently available in the region and what could be provided – pulling through the latest developments in forecasting science – and helping to inform the technical assistance and training required.</p> <p>Together with the SP stakeholders and the ASPIRE team, Walker will explore the existing operational SP programmes to identify capacity training needs and develop case studies for the ASP Training delivery in 1.5. In addition, and based on learning from the use cases developed in the inception period, the Walker PDRA will assess seasonal forecasts and the communication thereof, for relevance to SP programmes. Learning from recently funded Walker GCRF projects (ERADACS and El Nino) will inform this activity.</p> <p>This work also provides a platform for undertaking work to support the RCCC FbF pilots as part of activity 1.6.</p> <p>Whilst led by the prototype services designed, it is envisaged that activities will include:</p> <ol style="list-style-type: none"> 1. Exploring long-term climate trends and modes of variability (i.e. acknowledging the changing “normal”) through leveraging work in other related projects (e.g. FCFAAMMA-2050, IMPALA) (<i>Met Office</i>) 2. Work with selected NMHSs to digitise their seasonal forecast maps (usually produced only as pdf documents) for past 15 years of more (using open source QGIS) for comparison with available gridded observational datasets (e.g. CHIRPS, FEWS-NET) and new datasets in development (e.g. ENACTS). (<i>Met Office</i>) 3. Using digitised forecasts, assess reliability of NMHS and PRESASS generated seasonal probabilistic forecasts produced using mainly statistical methods. The Embedded Consultant will mentor the NMHSs through this process using the training received during the science visit (2.1). However, as digitisation and reliability assessment is a lengthy exercise this will be supported by the Met Office’s seasonal experts. <i>The software packages used for these activities will be open source and therefore available to the NMS beyond the period of the project. (Met Office)</i> 4. MO Scientists and NHMS forecasters will assess and compare reliability of their current seasonal tercile forecasts with those produced from dynamical forecast systems of the World Meteorological Organization 	<p>Embedded consultant</p> <p>Technical Lead</p> <p>Walker deep specialists and interdisciplinary PDRA</p> <p>Met Office climate specialists</p> <p>NMHS technical staff</p>

Activity	Description	Consortium members and external stakeholders involved
	<p>(WMO) Global Producing Centres (GPCs) For example, the Global Seasonal Forecasting System Version 5 (GLOSEA5), UK Coupled Forecast System Model Version 2 (CFSv2) and the National Centres for Environmental Prediction’s model from the National Weather Service USA (NCEP). <i>(Met Office)</i></p> <ol style="list-style-type: none"> 5. Assess reliability of forecasts from GPC systems for representing impact-relevant variables for ASP (to be determined in activity 1.2) over their countries. <i>(Met Office)</i> 6. Provide training to NMHS on how to interpret and use GPC data and incorporate into existing seasonal forecasting methods <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> - Conduct baseline assessment of forecasting techniques - Mentoring and training of technical experts in NMHS to deliver the activities above. <p>Outputs/Deliverables</p> <ol style="list-style-type: none"> 1. Improved capabilities in NMHSs of how to digitise seasonal outlooks and assess their reliability. <i>Measured against baseline capabilities at project outset (Met Office)</i> 2. Working paper on reliability assessment of current seasonal tercile forecasts versus GPC generated seasonal forecasts in the Sahel region. Seasonal outlooks are largely based on data produced using statistical methods so this could provide evidence to support the integration of dynamical techniques. <i>Research report shred with relevant stakeholders from Annex 4 (Met Office)</i> 3. Working paper on assessment of GPC generated forecasts for providing information required by ASP stakeholders <i>Research report shred with relevant stakeholders from Annex 4 (Met Office)</i> 4. Consolidation of Training Roadmap from SP Stakeholder Engagement for 2.3 and 1.5 <i>(Walker)</i> 5. Integration of GPC tools into operational forecasting procedures at NMHSs, aligned with training of forecasters in activity 2.2. <i>Assessed by whether forecasters actually reference these datasets after training and would be measured by baseline assessment and post activity assessment. (Met Office)</i> 6. Submitted publication on “Assessment of reliability and communication (linked to GCRF ERADACS and GCRF El Nino (NCAS)) of forecasts and their relevance for applied food security assessments for economic management” <i>Research report shred with relevant stakeholders from Annex 4 (Walker)</i> 	

Activity	Description	Consortium members and external stakeholders involved
	<p>Notes: Whilst the outputs of this activity are largely research paper based, insight gained through this activity will be pulled through to other activities in ASPIRE such as guiding the development of prototypes services (1.4), informing engagement with SP stakeholders (1.5) training NMHS in dynamical forecasting methods (2.2) and the ASPIRE regional learning event (2.4)</p>	

Activity	Description	Consortium members and external stakeholders involved
<p>1.4 Technical Assistance to develop selection of the prototype services developed in 1.2 so they become operational</p>	<p>Work with DFID and ASPP team to identify which prototype climate services (developed by the ASPIRE teams in activity 1.2) to take forward into development and provide the necessary technical assistance to support this informed by SP state-of-the-art mapping (1.2, Walker) and desk-based research (1.3, Walker, Met Office).</p> <p>This prioritisation activity will be informed by the consortium’s understanding how feasible delivery of the prototype services would be in the various the focus countries. It is hoped this will become clear as the ASPIRE teams co-production work progresses but it is anticipated the following factors could influence this:</p> <ul style="list-style-type: none"> - Engagement of ASPP and GFCS in the country; - Capacity and engagement of the NMHS; - Sophistication of SP programmes in the country; and - Political and economic factors which would affect the success of any service delivered. <p>When the prototypes to take forward to delivery have been selected, the exact nature of technical assistance required to produce these will be specified (in September/October 2018). At this stage, it is envisaged that technical assistance for NMHS may take the form of forecaster support and training, monitoring, model development and enhanced two-way communications support to ensure services are ‘packaged’ in line with the needs of stakeholders.</p> <p>The methodology the consortium will use to develop services will build on the successful development of climate services for other sectors through the WISER project. This includes the following elements:</p> <ul style="list-style-type: none"> • Developing ‘Service Description Sheets’ and ‘Standard Operating Procedures’ for the service. These are central tenants of a quality management process in product and service development (and advocated by the World Meteorological Organization) and help to ensure that services can be sustained and replicated if the individuals involved in their development at an NMHS change roles. Furthermore, these can support the replicability of services in other countries; (Met Office) • When services have been developed, these will be provided to ASP stakeholders in test 	<p>Embedded consultant</p> <p>Walker PDRA</p> <p>Technical Lead</p> <p>Met Office climate specialists</p> <p>NMHS technical staff</p>

	<p>mode so that feedback can be sought and iterations made before they move into the NMHS operational service portfolio; <i>(Met Office)</i></p> <ul style="list-style-type: none"> • To support sustainability and continual improvement in the services developed after the project has concluded, the team will work with AGRHYMET and GFCS and GFDRR team to explore how improvements in forecast science and model skill can be pulled through into this and other services provided by the NMHS. <i>(Met Office)</i> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> • Conduct baseline assessment of service delivery processes in NMHS • Conduct baseline assessment of forecasting skills in NMHS • Support the development of selected services through face to face support and coordination of technical assistance required from other consortium members • Work with ASP stakeholders when they are using services in test mode to assess value of these to their decision making and identify where iterations are required. • Share knowledge and learning from this activity with relevant stakeholders in the region and identify where GFCS, GFDRR or other initiatives could support ongoing improvements to forecasts and continued dialogue between SDT members. <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Selection of operational services for ASP <i>As evidenced by Standard Operating Procedures for Services and evidence that these are being supplied to ASP users on an ongoing basis and feedback from ASP stakeholders (Met Office)</i> 2. Improved understanding of service delivery process in NMHS; <i>As evidenced through baseline review of processes at start of project. (Met Office)</i> 3. Improved forecasting skills developed in NMHS through technical assistance provided through this activity. <i>As evidenced through baseline review of skills at start of project (Met Office)</i> 	
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Activity	Description	Consortium members and external stakeholders involved
<p>1.5 Technical Assistance to provide enhanced training to SP stakeholders</p>	<p>This activity works towards building long-term sustainability into the SP programmes in the Sahel. Whilst there are some well-adopted tools and initiatives in the Sahel region to monitor drought, food security and nutrition which could support ASP and BRACED such as the Cadre Harmonisé, HEA, FEWSNET, Rainwatch, and ARC, there is a lack of real institutional capacity to maintain current level of skills and meet future demands.</p> <p>The activities in 1.5 will develop the region’s knowledge base through providing enhanced ASP training to existing regional training institutions (e.g. WASCAL, AGHYMET), regional/national learning platforms and HEIs. Essential technical assistance will therefore include:</p> <ul style="list-style-type: none"> • Extension, translation and introduction of the Walker interdisciplinary MOOC • Underpinning training on data collection and analysis with exemplars taken from case studies identified by the SP stakeholders (1.3, <i>Walker</i>) • 2 day regional training laboratory (<i>Walker</i>) • 6 month online learning review including participants’ developed case studies. (<i>Walker</i>) • Course completion will be recognised through formal certification for successful participants. (<i>Walker</i>) <p>This activity feed into the delivery of the prototype climate services and further development of the Forecast Based Financing pilots of the Red Cross Climate Centre.</p> <p>Sustainability: Training will be incorporated in UoR/Walker institute’s well established programme of on-line distance learning (e.g. e-SIAC: Statistics in Applied Climatology - managed and facilitated by the Statistical Services Centre, with support from the Met Office in the UK, and WMO; Our Changing Climate: Past, Present and Future; and Our Hungry Planet: Agriculture, People and Food Security on the Future Learn Platform. This approach will open interdisciplinary training for climate – responsive ASP beyond the project area and timeframe. Courses are regularly updated and will over time evolve and adapt as the needs of trainees change. Lessons learnt from this project will be described in the paper “Sustainable ASP for the Sahel – Interdisciplinary Training Insights”.</p>	<p>Walker Deep Specialists Walker Interdisciplinary PDRA</p> <p>Social Protection Stakeholders</p>

Activity	Description	Consortium members and external stakeholders involved
	<p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Walker’s Interdisciplinary MOOC course translated French-English (<i>Walker</i>) 2. 2 day regional training laboratory on data collection and analysis at WASCAL (<i>Walker</i>) 3. Accredited 6 month online learning review and course completion certificates for successful candidates (reference Output 1.5e). (<i>Walker</i>) 4. Increased numbers of trained ASP practitioners. 5-7 per project country: Senegal, Mauritania, Mali, Burkina Faso, Niger, Chad. (<i>Walker</i>) 5. Working Paper (Walker Series) “Sustainable ASP for the Sahel – Interdisciplinary Training Insights” 	

Activity	Description	Consortium members and external stakeholders involved
<p>1.6 Technical Assistance to Support to Red Cross Climate Centre's (RCCC) Forecast Based Financing (FBF) initiatives in Niger and Mali ²</p>	<p>The RCCC have been contracted by the World Bank's ASPP to identify opportunities to develop forecast-based-financing programmes in the Sahel.</p> <p>Niger and Mali have been selected as pilot countries for this work but Mali is currently being assessed due to a worsening security situation there.</p> <p>This project is currently in its scoping phase and workshops have taken place to promote dialogue between food security, NMHS and SP stakeholders. Based on the outputs of these, the RCCC are considering whether to develop a national or regional scale FBF programme, or to pilot an initiative at a more localised scale.</p> <p>The Red Cross Climate Centre are due to present the ASPP team with a series of options in October 2017 it is hoped that the scope of work for the 2.5 year implementation period of their programme can be finalised before November so work can commence in December 17.</p> <p>It is envisaged that support from ASPIRE (from the Embedded Consultant and deep specialists) will include:</p> <ul style="list-style-type: none"> • Involvement in scoping study (light engagement) • Support in-depth Feasibility study - focusing on forecasting (information, location, hazards) - help with climate info, also support with actions and stakeholder engagement with social protection • Development of FbF –support to NMS forecasters to provide information for FBF including the development of standard operating procedures for forecast based services • Technical support related to the early warning to assess available forecasts, develop danger levels, menu of triggers in close cooperation with hydro-met services and to build their capacity to deliver early warning for FbF 	<p>Embedded Consultant</p> <p>Technical Lead</p> <p>Met Office Climate Experts</p> <p>Red Cross Climate Centre</p>

	<ul style="list-style-type: none"> • Help validate key steps/milestones and methodology of FbF program and implementing and give technical recommendations • Support the formulation of forecast-based actions through an in-country workshop with relevant stakeholders (HNS, PNSs, government, Met services, etc). <p>A workshop is due to take place in October to convene high level stakeholders in Niger’s government who are involved in EWS, food security and SPS so this could coincide with the Niger ASPIRER team workshop. Creation of an activity based workplan for this work package is therefore anticipated in November 17.</p> <p>Embedded Consultant Tasks TBC</p> <p>Outputs/deliverables TBC</p>	
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5. Overview of Work Package 2: Enhancing seasonal forecasting in the region and training SP stakeholders how to use climate information

Whilst the activities in Work Package 1 focus on the development of prototype services towards the delivery of operational services and a road-map for training service delivery, Work Package 2 will seek to improve the underpinning knowledge and capability of relevant stakeholders, including seasonal forecasting capabilities of climate service providers in the Sahel and training to support SP stakeholders.

This will be achieved through:

- a) A train the trainer programme to support the embedded consultant and regional climate service providers (2.1, *Met Office*)
- b) Updating seasonal forecasting methods in the Sahel to facilitate the generation of national seasonal outlooks by the NMHSs, supported by the Embedded Consultant (2.2, *Met Office, NRC*)
- c) One-to-one Support and training provided by the Walker team to regional institutions and Higher Education Institutes (HEIs) (2.3, *Walker*)

As evidence emerges from Work Package 1 on the needs for climate information, the Embedded Consultant will help forecasters to tailor the outlooks for ASP programmes.

The Regional Learning Event on Seasonal Forecasting (2.4, *Met Office*) to be held at or around the time of PRESASS 19 (2019), will form a major part of this work package and will further enhance the capabilities of NMHS through provision of training from a range of experts from across the consortium. Through convening the national ASPIRE teams, this will also provide enable shared learning from across the project's activities and identify where synergies lie in the needs for climate information by ASP stakeholder's at a national level, and the capabilities of NMHS in the region to provide this.

This event will also be used to pull through relevant insights from other initiatives that are, or will be, working in a similar sphere and explore how they may inform ASPIRE. For example, SHEAR, FATHUM, FCFA, BRACED and the Early Action scoping that is now being tendered through WISER.

6. Activity plan for Work Package 2

Activity	Description	Consortium members and external stakeholders involved
<p>2.1 Science exchange</p>	<p>Based upon the format of science visits for the SCIPEA project, a science visit will be hosted at the Met Office in Exeter for the project's Embedded Consultant. The exchange will deliver training which will then enable the Embedded Consultant to go on to provide seasonal forecast training to NMHS and SP stakeholders in the region.</p> <p>An AGRHYMET and WASCAL representative (to be identified) will also be invited as it is recognised that engagement with these will support the project's sustainability and enable regional scale up of national-level initiatives. This visit by AGRHYMET and WASCAL will then be underpinned by capacity needs assessment and training stakeholders (2.3, <i>Walker</i>) with these by the Walker interdisciplinary PDRA and the Walker team of deep specialists.</p> <p>The visit will provide training, mentoring and work shadowing opportunities in the following areas:</p> <ol style="list-style-type: none"> 1. Developments in modelling, science and methodologies used for seasonal forecasting; 2. Digitisation of seasonal forecasting and using this to run seasonal forecast reliability models. The Embedded Consultant will then use this to train and support NMHS in the region to do this under activity 2.4. 3. Developing a user engagement function at NMHS – drawing on lessons learnt from the WISER Multi Hazard Early Warning System (MHEWS project) and DFID Tanzania's CAROT project; and 4. Facilitating the co-production process (to support activity 2.3). This will provide an opportunity to test the guidance which is being developed on co-production under a current WISER project. 5. <i>Training on forecast based financing from the RCCC (tbc)</i> <p>Any software which is used in the training (for example the QGIS programme for forecast digitisation) will be open-source so that NMHS can continue to use this after the period of the project.</p> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> • Through the pre-sensitisation activity, individuals from AGRHYMET and other regional climate organisations and or programmes (such as WASCAL) will be identified who can to take part in the visit and continue to be engaged with ASPIRE throughout the project. Within AGRHYMET ideally, this will be someone who is 	<p>Embedded Consultant</p> <p>Met Office seasonal experts</p> <p>Met Office International Development experts</p> <p>Met Office Training College</p> <p>AHRYMENT</p> <p>WASCAL</p> <p>Red Cross Climate Centre</p>

Activity	Description	Consortium members and external stakeholders involved
	<p>involved in the organisation of PRESASS and has familiarity with seasonal forecasting methodologies as this project may influence the format and content of PRESASS.</p> <ul style="list-style-type: none"> • Baseline assessment of understanding of participants of SP, co production and dynamical forecasting <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Embedded consultant will able to deliver training to NMHS in region using knowledge gained during the exchange. <i>Evidenced by training that Issa can then deliver to NMHS and evidenced from feedback with NMHS staff</i> 2. Opportunity to engage with AGHRYMET (and WASCAL or other) and explore scope for delivering changes to the seasonal forecast outlooks generated at PRESASS through this project. <i>Evidenced by feedback from other participants in science exchange</i> <p>Notes</p> <ol style="list-style-type: none"> i. Corruption charges involving AGRHYMET may affect the viability of inviting AGHRYMET staff ii. The Work Package budget can only cover attendance of 2 people on the visit but self-funded participants can also be invited (up to 5) 	

Activity	Description	Consortium members and external stakeholders involved
<p>2.2 NMHS TRAINING in seasonal forecasting</p>	<p>A seasonal forecast is a typically a ‘tercile’ forecast which indicates the likelihood of a season with below, normal or above average rainfall and temperatures. Because predictability is lower on these timescales, seasonal forecasts are associated with higher levels of uncertainty than forecasts for days ahead.</p> <p>Seasonal forecasting in the Sahel generally relies on the use of statistical methods. These approaches typically combine past and current climate observations with knowledge of relationships between global and local drivers of the seasonal climate (such as Atlantic sea surface temperatures) to generate an outlook for the upcoming season. The forecasts show the probability of experiencing near normal, above normal or below normal conditions; in the absence of any predictions, there is an equal chance of each of these outcomes.</p> <p>Dynamical methods for seasonal forecasting are now more commonly used around the world. These forecasts require supercomputing capacity, such as that available in the UK, Europe, USA and Japan. The computers run numerical seasonal forecast models (similar to those used in weather and climate prediction) which represent the atmosphere-ocean system. By incorporating observations of the atmosphere and ocean, the models provide comprehensive global forecasts for the weather and climate in upcoming seasons.</p> <p>Through ASPIRE, seasonal forecasters in NMS in the Sahel would be supported to develop their capability in dynamical seasonal forecasting methods.</p> <p>Drawing on training material which is in development for SCIPEA, seasonal forecasters in the Sahel would be introduced to dynamical methods and will be shown how to download global model data (in raw and visualised form) through a data portal developed for SCIPEA (also known as a Climate Prediction Tool). Forecasters would also be trained in multi-model combining and use these techniques to generate a dynamical seasonal outlook in parallel with their statistically based outlook.</p> <p>The technical assistance that will be delivered through Work Package 1 (activity 1.4) will then focus on tailoring this information to develop prototype climate services that can support SP programmes.</p>	<p>Embedded Consultant</p> <p>Seasonal forecasting experts from the Met Office</p> <p>Met Office Training College</p> <p>Met Office International Meteorologists</p>

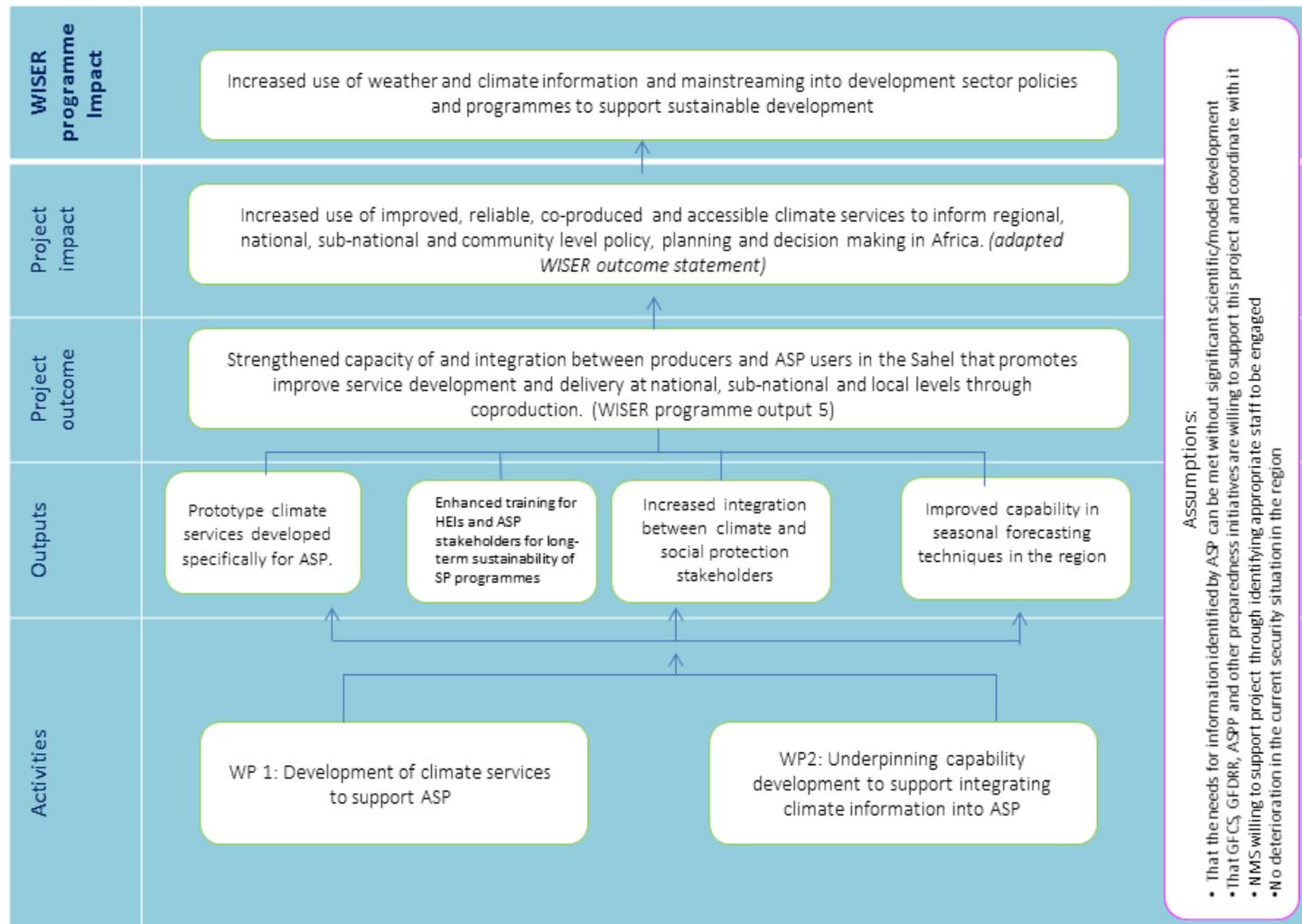
	<p>The Met Office has found that one-to-one training where trainers sit with NMHS forecasters whilst they are doing their day to day activities is often more successful than formal training in leading to more permanent change as it can be tailored to the skills, experience and IT (e.g. broadband speed) of the individual concerned. It also means that staff in NMHS are not taken away from their operational duties.</p> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> - Baseline assessment of how seasonal outlooks at national level are generated by NMHS at start of project and datasets referenced - Embedded consultant to visit all NMHS in region and sit with seasonal forecasting team for a number of weeks to train them in dynamical forecasting <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Dynamical forecasting capabilities of seasonal forecasters in NMHS are enhanced - <i>measured by feedback from NMHS</i> 2. Dynamical methods used by NMHS in national climate outlooks - measured by observed changes to methodologies for outlooks compared to baseline. 	
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Activity	Description	Consortium members and external stakeholders involved
<p>2.3 Training for Social Protection stakeholders in the region.</p>	<p>Informed by the state-of-the-art SP mapping (1.2, <i>Walker</i>) and desk-based research (1.3, <i>Walker</i>), training will be co-developed and then provided by the Walker team to the ASPIRE group, WASCAL, AGHRYMET, HEIs and the wider SP stakeholders (including the BRACED project teams, the Rainwatch Alliance, and other NGO partners) through:</p> <ul style="list-style-type: none"> • Group chats customised by SP programme, convened by the Walker interdisciplinary PDRA (<i>Walker</i>) • FAQ facility and bi-monthly answering service hosted on the Walker interactive website (launching 15th August) and addressed by Walker deep specialists (at bimonthly team meetings) (<i>Walker</i>) • English-French group webinar (linked to 1.5). (<i>Walker</i>) • Online training materials linked to the ASP training (see 1.5). (<i>Walker</i>) <p>These activities underpin the science exchange visit hosted by the Met Office and will support both the design of planned SP programmes, the scale-up of existing initiatives and delivery of further training services (1.5, <i>Walker</i>) that can be sustained.</p> <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Synthesis analysis (group chats, FAQs, online materials accessed) used to design future remote participatory processes and inform training needs (<i>Walker</i>) 2. Finalised ASP Training Roadmap that feeds into 1.5 (<i>Walker</i>) 3. FAQ facility and bi-monthly answering service accessible to SP stakeholders and other users (<i>Walker</i>) 4. English-French group webinar recording (linked to 1.5). (<i>Walker</i>) 5. Number of users accessing online training materials (disaggregated by country, gender, job, SP programme) (<i>Walker</i>) 	<p>Walker Institute</p>

<p>2.4 Regional learning event on seasonal forecasting</p>	<p>A side event is proposed to be held during the PRESASS forums (either 2018 and/or 2019) which will be focused on seasonal forecasting for ASP.</p> <p>The event will convene the national ASPIRE Teams (activity 1.2) and will to provide an opportunity to:</p> <ul style="list-style-type: none"> • Share learning from co-production dialogues • Consolidate the needs for climate information across the prototypes designed by ASPIRE teams • Identify priority areas for further investment in prototype climate services. • Enhanced training on seasonal forecasting to embed and extend training conducted at national level • Share learning from each other and share progress from the national ASPIRE teams and their prototype climate services for ASP; • Consolidate needs for climate information by instrument in the Sahel across timescales; • Share evaluations of current seasonal forecast reliability conducted in 1.3; • Highlight where further work is needed to support the integration of climate information into ASP • Identify priority areas for further investment in prototype climate services. • Provide further training for NHMS in dynamical seasonal forecasting techniques that can support ASP programmes <p>It is hoped that in addition to supporting the national ASPIRE teams and providing training for NMHS to enhance their seasonal forecasts, this event will also serve to build evidence on the specific climate information needs of ASP.</p> <p>The Regional Climate Outlook Forum (PRESASS) has been chosen as it is felt that this offers the best route to sustaining any enhancements made to seasonal forecasting through this project. Logistically, this was also preferable to a separate regional event because the forum already convenes NMS in the region.</p> <p>Embedded Consultant tasks</p> <ul style="list-style-type: none"> • Baseline assessment of current PRESASS content • Support Met Office Seasonal experts to deliver side session at PRESSAS 2018 and 2019 <p>Outputs/deliverables</p> <ol style="list-style-type: none"> 1. Sessions at the PRESASS (or other relevant) forums focusing on seasonal forecasting for ASP As 	<p>Embedded Consultant</p> <p>Technical Lead</p> <p>Met Office Seasonal Forecasting Experts</p>
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	<p><i>evidenced by agenda of PRESASS and or related forums and participant feedback</i></p> <p>2. Paper on learnings from 'development of climate services for ASP'.</p>	
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7. ASPIRE Theory of Change



8. ASPIRE Timeline

WP	Act no.	Description	Month																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Work Package 1	1.1	User engagement																								
	1.2	ASPIRE teams																								
	1.3	Research																								
	1.4	TA - product development																								
	1.5	TA - SP training																								
	1.6	Technical assistance - Support to RCCC FBF																								
Work Package 2	2.1	Science exchange																								
	2.2	NMHS training																								
	2.3	SP training																								
	2.4	ASPIRE learning event																								

Annex 1: Glossary

AGHYMET	Regional Climate Centre for Sahel	ARC	African Risk Capacity
ASPP	Adaptive Social Protection Programme (World Bank)	ASP	Adaptive Social Protection
BRACED	Building Resilience against Climate Extremes	DRF	Disaster Risk Financing (World Bank)
FCFA	Future Climate for Africa Programme	GFCS	Global Framework for Climate Services
GFDRR	Global Framework for Disaster Risk Reduction	HEA	Household Economic Analysis
NMHS	National Meteorological (and Hydrological) Service	PRESASS	West African Climate Outlook Forum - run by AGHYMET
RCC	Regional Climate Centre (AGHYMET for Sahel)	WISER	Weather and Climate Information Services for Africa
WMO	World Meteorological Office		

Annex 2: The WISER co-production approach

Development of the Approach

This approach was developed in response to an identified need to ensure that user engagement is included as a central theme within the WISER Programme, as envisaged in the original programme design. The approach has been used as a basis to develop elements of the programme to specifically identify user needs and but more importantly to set out how WISER can support ongoing processes of engagement between users and producers of weather and climate information, and how this learning can be captured. This approach does not attempt to advocate the use of particular methodologies to do this – rather to present some broad principles, based on emerging knowledge that will be useful for the future development of the programme. The approach was developed and underwent a process of review in late 2016.

Understanding the context

There have been many initiatives to strengthen weather and climate services³ Africa over recent years. However, the availability and uptake of information and services is still relatively low and that this represents both a threat and a lost opportunity in relation to social and economic development.

Various reasons for the limited access, uptake and use of climate information in decision making exist including:

- that it lacks reach, relevance, credibility and legitimacy;
- difficulties users⁴ have in interpreting inherently probabilistic and uncertain forecast information;
- forecast information failing to match users' information needs;
- lack of credible scientific climate knowledge/data, and
- various aspects of resource, political, institutional, and cultural contexts that restrict the ability of users to act on the information they have.

Overcoming these barriers and enhancing the use of climate information requires generating demand for information and the bringing together of a variety of individuals and organizations which, in many cases, have not worked together before and do not have an understanding of each other's ways of working.

Any efforts to support strengthened and enhanced use of climate information to support specific decision making processes need to be informed by a clear understanding of what benefits this can bring for users and the processes through which this can occur. It is also essential to understand any constraints, be they climate or non-climate related, which currently prevent climate information from supporting this decision making process.

Given this, a process of collaboration and co-production between those who use climate services and those who produce them is required. In addition, it means working across a range of time and space

³ See Box 1 for definition

⁴ See Box 1 for definition

scales, from short term extreme events to long term climate change, and from community to district, national, regional and international levels.

WISER aims to support such an approach through implementation of a framework for collaboration and co-production, based on emerging best practice from East Africa and elsewhere. This aims to move beyond a solely linear ‘user needs assessment’ approach, to a more comprehensive, continuous discussion between all relevant stakeholders which recognises the range of processes and actors involved in developing decision-relevant services.

The integration of climate information into decision making provides opportunities for enhancing risk management and resilience by encouraging decisions that minimise exposure to and maximise benefits from uncertain outcomes.

Notes:

1. ‘Weather and climate services’ refers to services across all timescales (past, present future)
2. It is recognised that there are a broad range of people who are defined as ‘users’ and ‘decision makers’ and that these terms can encompass ‘end users’, extension workers, intermediaries, policy makers (among others). As this document provides an overview of the approaches that WISER will adopt, it does not specify the user type in detail here and uses the broad terms ‘user’ and ‘decision maker’.

A co-production approach

Whilst the detail and tools used will vary depending on the context, the broad approach for WISER involves bringing users and producers together to jointly develop products and services. This will be achieved through a co-production and learning process that enables them to better understand one another’s needs, constraints and preferences and supports them to produce and use new or improved information and services. Figure 1 outlines the main questions as well as barriers and enablers to implementation from both the decision maker and climate information provider perspectives, stressing the importance of a continued dialogue between all stakeholders

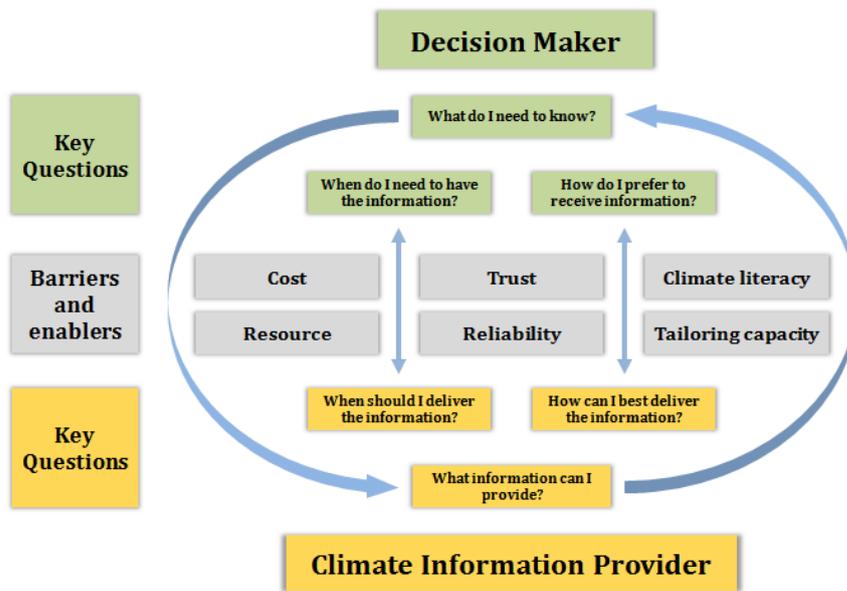


Figure 2: Conceptual diagram showing key questions, primary lines of dialogue (blue arrows) and barriers/enablers to developing and using weather and climate information products and services.

Typical issues the co-production process should seek to address are summarised in Figure 2.



Figure 2: Typical elements of co-production process

Through this type of process WISER aims to ensure that its investments:

- focus on users and service delivery with investments flowing from identified needs to weather and climate services which support poverty reduction and development;
- recognise and understand the different information needs of different users (for example in different sectors, livelihood groups or individuals) and that the specific needs of women, girls, the poorest and disabled are incorporated;
- recognise the role of indigenous and local knowledge, bringing learning from the ways in which indigenous knowledge has gained trust and social authority to inform the development of processes which can support the co-production of decision-relevant climate information;
- support users to demand services and mainstream them into their operations

The process aims to address the following key issues in effective development of new products and services:

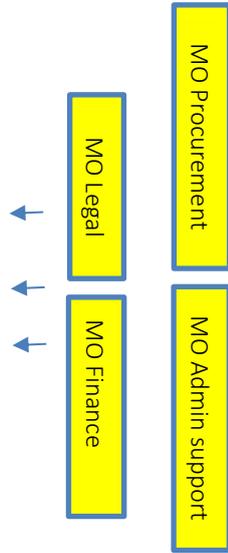
- that true user engagement is not a 'one off' - rather a process that includes continual communication and feedback;
- that using weather and climate information for decision making is new to many individuals and organisations and approaches on how to do this are still emerging;
- that the value of weather and climate information is not necessarily well understood and there is a need to raise demand for improved services;
- that in many situations, recognition of the role of indigenous and local knowledge is critically important in the development of trust in the 'scientific' forecast, and
- that effective communication and interpretation of uncertainty is key in developing trust and strengthening capacities to cope with future climate variability, extremes and change.

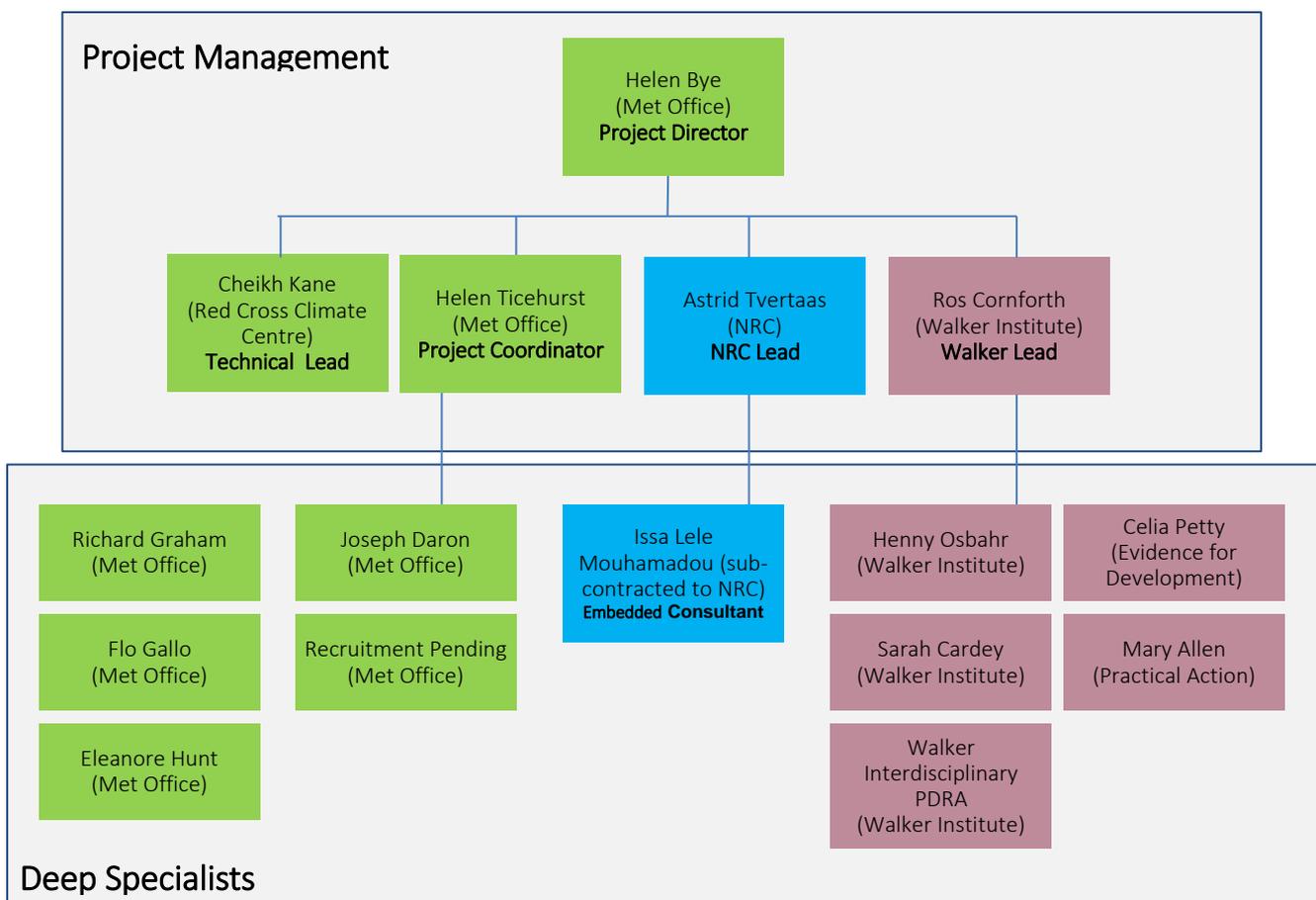
Principles for Weather and Climate Information Services

Whatever approach is followed WISER will have a set of principles for weather and climate information services to guide the co-production process. Although these may be slightly different according to the context they aim to provide some consistency across processes. The draft principles are;

1. Production of credible, reliable probabilistic operational services (ignoring probabilistic nature of information will lead to a potential loss of trust);
2. Understanding and using probabilistic and uncertain information (ensuring good understanding of forecast uncertainty by users and helping producers to feel more comfortable in expressing uncertainty);
3. Relevant, contextual information delivered in a timely way;
4. Appropriate and inclusive access to information and strengthening or establishing continuous channels for dialogue for communication, feedback and review between all stakeholders (increasing access including to the most marginalised using current communication channels, or developing new ones);
5. Trust (gained through combining all of the above while working together to share knowledge between producers, intermediaries and local communities in a participatory manner) and
6. Building the capacity of both the producers and users.

Annex 3: Team Structure





Explanation of roles:

Role	Responsibilities
Project Director	Overall responsibility for project delivering to Logframe, quality assurance, escalation and risk management
Project Coordinator	Overall coordination of project, reporting to WISER FM and DFID on progress against logframe, coordination of outputs, budget management, MEL management, coordination with other initiatives (WISER and non WISER)
Technical Lead	Coordination and management of technical aspects of the project bringing in specialist knowledge of the region. Lead of project reporting from technical perspective
NRC Lead	Management of NRC Embedded Consultant
Walker Lead	Management and coordination of Walker led activities and reporting
Embedded Consultant	Lead on in region implementation of the project, report to Technical Lead and Project Coordinator, lead on stakeholder engagement in region, lead of coordination with other projects and activities in the region
Met Office Deep Specialists	Expertise in short- medium and long-range climate science and its application to climate service delivery. Expertise in user led climate service design and co-production techniques
Walker Deep Specialists	Expertise in monitoring and climate science and expertise in social protection and livelihoods.

Annex 4: Stakeholder Analysis - updated 10/8/17

Will be updated monthly by Embedded Consultant - linked to activity 2.2

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
DFID	Sophie Lawson	s-lawson@dfid.gov.uk	Regular updates on project progress. Discussion of links with other WISER/DFID initiatives.
DFID	Rosalind West	r-west@dfid.gov.uk	Regular updates on project progress. Discussion of links with other WISER/DFID initiatives – particularly Early Action Scoping project
DFID	Kelley Toole (WISER SRO)	k-toole@dfid.gov.uk	Formal reporting as necessary
WISER Fund Manager	Bill Leathes	Bill.leathes@metoffice.gov.uk	Regular updates on project progress. Discussion of links with other WISER/DFID initiatives particularly testing of co-production guidance being developed by WISER Early Action Scoping project
ASPP – Programme Lead	Carlo Del Ninno	cdelninno@worldbank.org	Regular updates on project progress and escalation of risks relating to engagement with social protection stakeholders in ASPIRE. Explore relevance of ASPIRE outputs to other ASP initiatives. Share relevant insight from Early Action Scoping
ASPP – Regional Lead	Roland Berenger Berehoudougou	rberehoudougou@worldbank.org	Regular updates on project progress and escalation of risks relating to engagement with social protection stakeholders in ASPIRE. Regular contact/update meetings to be arrange between Roland and Issa and Sarah Coll Black.
World Bank	Sarah Coll Black	scollblack@worldbank.org	Regular updates on project progress and escalation of risks relating to engagement with social protection stakeholders in ASPIRE. Regular contact/update meetings to be arrange between Roland and Issa and Sarah Coll Black.
World Bank – Climate Advisor to ASPP	Margaret Arnold	marnold@worldbank.org	Regular updates on project progress

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
Red Cross Climate Centre	Cecelia Costella	costella@climatecentre.org	Agree activities for RCCC support through ASPIRE by November. Thereafter, monthly coordination and progress meetings
Red Cross Climate Centre	Meghan Bailey	bailey@climatecentre.org	Agree activities for RCCC support through ASPIRE by November. Thereafter, monthly coordination and progress meetings
GFDRR	Jean Baptiste Migraine	jmigraine@worldbank.org	Sensitisation to the project and garner support from GFDRR. Articulate nature of support required and identification of where this could support GFDRR objectives
GFCS	Arame Tall	Arame.tall@fao.org	<ul style="list-style-type: none"> - Sensitisation to the project and garner support from GFCS - Explore objective of adding ASP pillars to National Framework for Climate Services and to secure support from GFCS in pre-sensitisation and ASPIRE teams. - Identify relevant GFCS events to attend.
AGHRYMET	TBC		<ul style="list-style-type: none"> - Identify key personnel involved in the organisation of PRESASS forum through pre-sensitisation work. - Sensitise them to ASPIRE objectives - Invite them on science visit - Continue to keep them closely involved in project activities - particularly with relevant to research and training in updated seasonal forecasting methods.
WASCAL	Dr Rabini Adamou		<ul style="list-style-type: none"> - Briefed on ASPIRE and agreement to work together
WMO - Director of the Development and Regional Activities Department.	Mary Power	mpower@wmo.int	<ul style="list-style-type: none"> - Helen T to engage with Mary to brief on ASPIRE and the objective to make changes to seasonal outlooks in the Sahel. - Identify who in her team would be most relevant to work with on this and to explore how PRESASS is funded and how WMO could influence PRESASS to consider dynamical techniques.
Met Office Voluntary Cooperation Programme	Karen McCourt	Karen.mccourt@metoffice.gov.uk	<ul style="list-style-type: none"> - Identify where VCP activities in region could support ASPIRE

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
AMMA 2050			
FEWSNET			
Cadre Harmonise			
HEA			
Niger			
NMS Niger - DNM - National Directorate of Meteorology			
Coordinator of the Safety Nets and Cash Transfer Program and Special Advisor to the Prime Minister of Niger	Mr Ali Mory Maidoka		
M&E of Niger Safety Nets Cell	Mr Bassirou Karimou		
SP Officer Niger	Mahamane Maliki Amadou	mmalikiamadou@worldbank.org	Briefed on ASPIRE by Issa. Have identified decision makers in social protection in Niger who will be contacted by Issa to determine who would be relevant for ASPIRE teams.
Coordinator of Niger Early Warning System	Mrs MAriama Tinni		

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
Coordinator of Africa Risk Capacity			
Chef Department P/RRC	Adamour Oumarou		
GFCS Support NRC	Pascal Yaka	pascal_yaka@yahoo.fr	
GFCS National Coordinator	Mr Daouda Yahaya		
Mauritania			
NMS Mauritania - ONM - National Office of Meteorology Services			
SP Mauritania	Matthieu Boris Lefebvre	mlefebvre@worldbank.org	
ASPP Mauritania	Aline Coudouel	acoudouel@worldbank.org	
Burkina Faso			
NMS Burkina Faso - ANAM			

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
Social Protection Officer – Burkina Faso	Rebekka E Grun	rgrun@worldbank.org	
Social Protection Officer – Burkina Faso	Ayaba Gilberte Kedote	akedote@worldbank.org	
GFCS National Coordinator	Burkina Faso: Pascal Yaka	pascal_yaka@yahoo.fr	
Chad			
NMS Chad - DREM Direction des Ressources en Eau et de la Météorologie			
SP Officer, Chad	Djekombe Rony Mba Minko	djekomberony@gmail.com	
ASPP TTL Chad	Giuseppe Zampaglione	gzampaglione@worldbank.org	
Senegal			
NMS Senegal - ANACIM – National Agency for Civil Aviation and Meteorology			

Primary stakeholders (individuals and groups that will be directly affected by project activities)			
Organisation/role	Name	Email	Plan for engagement
ASPP TTL Senegal	Aline Coudouel	acoudouel@worldbank.org	
SP Officer Senegal	Solene Marie Paule Rougeaux	srougeaux@worldbank.org	
GFCS National Coordinator	Alioune Kaere	Alioune.Kaere@fao.org	
Mali			
NMS Mali – Meteo Mali			
ASPP TTL Mali	Phillippe George Leite	pleite@worldbank.org	
SP Officer Mali	KalilouSylla	ksylla@worldbank.org	

Secondary stakeholders : intermediaries such as institutions or organisations that have an interest in this project and its outcome			
Organisation	Name	Email	Plan for engagement
ACMAD			
Africa Risk Capacity (ARC)	AssiaSidibe	Assia.sidibe@africanriskcapacity.org	
DFID	Nicky Jenns	n-jenns@dfid.gov.uk	
DFID	Clare McCrum	c-mccrum@dfid.gov.uk	

ACPC			
USAID			

Tertiary stakeholders : External institutions that have a broader interest in weather and climate services nationally, regionally and internationally			
Organisation	Name	Email	Plan for engagement
African Development Bank			
ECOWAS			
IRI			
FCFA –IMPALA – AMMA 2050	Dave Rowell	Dave.rowell@metoffice.gov.uk	
FCFA –IMPALA – AMMA 2050	Cath Senior	Cath.senior@metoffice.gov.uk	
WAEMU			
ASENCA			

Annex 5: Climate information needs of prototype climate services development through SCIPEA

Consortium	User	Priority requirements to drive PCSs		
Region	FSNWG (Food security)	“Rolling” forecast updates	Longer (1-month) lead	Enhanced spatial distributions
	NECJOGHA (Media)	Spatial distributions	Forecast Interpretation guides	Science inputs to comms. training
Kenya	KenGen (Energy)	Enhanced season onset timing (Seven Forks)	Longer lead time; Enhanced spatial distribution;	Reservoir inflow prediction
	KRCS (DRR)	Enhanced season onset timing (nationwide)	Longer lead time Enhanced spatial distribution;	Impacts (interim proxy could be SPI)
Tanzania	MALF (Agriculture)	Enhanced season onset/cessation timing	District-level downscaling, also rain amounts, temperature and humidity	Crop yield prediction
	MEM (Energy)	Enhanced season onset/cessation timing	Downscaling to sub-catchment	Rainfall exceedence probability
Uganda	MAAIF (Agriculture)	Longer (1-month) lead	Enhanced season onset/cessation timing	Rain amounts and timing of peak seasonal rainfall (early or late)
	MWE (Water)	Similar to MAAIF		
Ethiopia	NDMRC (DRR)	Enhanced season onset/cessation timing	Enhanced spatial and temporal distribution (to district level)	Minimum temperature information
	MoA&NR (Agriculture)	Not yet established		

Farmer feedback at October café: *“The seasons was very harsh on coffee farming all over the country. The first season which is our main coffee planting season witnessed farmers losing millions of coffee trees drying up. I requested during the October café that the meteorologists should prepare special seasonal forecasts with regular updates*