Project summary

ASPIRE - Adaptive Social Protection: Information for enhanced REsilience

Introduction

As part of the Weather and Climate Information Services for Africa (WISER) programme, the UK Government's Department for International Development (DFID) funded ASPIRE in support of the World Bank Adaptive Social Protection Programme (ASPP) in the Sahel. The ASPP aims to reduce poverty in Burkina Faso, Chad, Mali, Mauritania, Niger, and Senegal, by helping nations move away from expensive post-disaster emergency aid towards anticipatory action to ensure long-term food security and climate resilience.
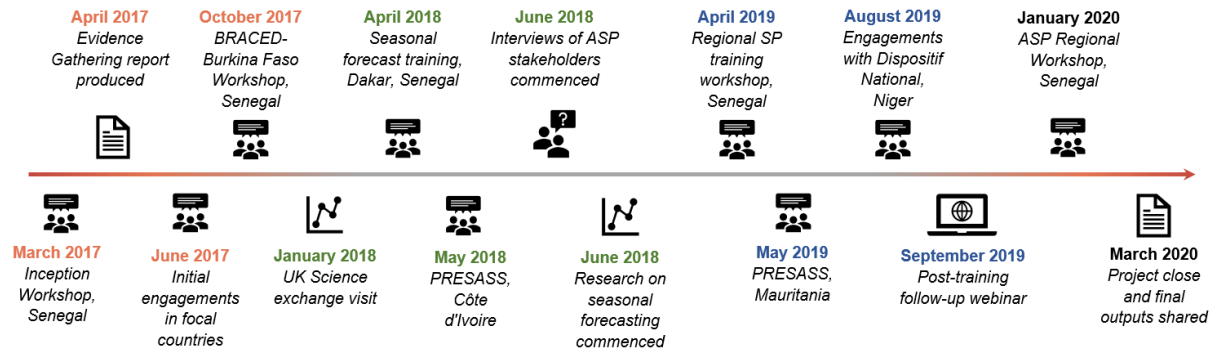
ASPIRE aimed to 1) integrate climate and livelihoods information into social protection (SP) decision-making in the Sahel, to enable regional resilience to climate shocks, and 2) facilitate dialogue between climate service providers and SP stakeholders to contribute to sustainable change. ASPIRE was delivered from March 2017 to March 2020 by a consortium including the Met Office, Walker Institute at the University of Reading, and the Norwegian Refugee Council.

Adaptive Social Protection

SP systems help individuals and families cope with crises and shocks (World Bank, 2019). Adaptive Social Protection (ASP) combines SP with climate change adaptation and disaster risk reduction, aiming to protect poor households from climate and other shocks. ASP implements measures before and during a shock, such as cash transfers, building community assets and investment in public works programmes.

ASPIRE timeline

April 2017
Evidence Gathering report produced

October 2017
BRACED-Burkina Faso Workshop, Senegal

April 2018
Seasonal forecast training, Dakar, Senegal

June 2018
Interviews of ASP stakeholders commenced

April 2019
Regional SP training workshop, Senegal

August 2019
Engagements with Dispositif National, Niger

January 2020
ASP Regional Workshop, Senegal

March 2017
Inception Workshop, Senegal

June 2017
Initial engagements in focal countries

January 2018
UK Science exchange visit

May 2018
PRESASS, Côte d'Ivoire

June 2018
Research on seasonal forecasting commenced

May 2019
PRESASS, Mauritania

September 2019
Post-training follow-up webinar

March 2020
Project close and final outputs shared

Facilitating dialogue between climate providers and SP stakeholders

There is limited understanding of ASP by weather and climate providers and of the value of weather and climate information by SP stakeholders. The project focused on facilitating dialogue between weather and climate service providers, including the regional climate centres – African Centre of Meteorological Application for Development (ACMAD) and AGRHYMET (the Regional Climate Centre for the Sahel region) – and SP stakeholders. The project also provided training to National Meteorological and Hydrological Services (NMHSs) and SP stakeholders in the Sahel region, as well as input to the PRESASS regional climate outlook forum for the Sahel. A key project outcome has been the increased awareness amongst climate and SP stakeholders of the need to align information and systems to enable more effective ASP. This has been achieved through regular meetings, training workshops, and ongoing dialogue between key stakeholders, largely facilitated by the embedded project consultant in Niger.

April 2018: ASPIRE Senegal Workshop hosted by ANACIM in Dakar, Senegal

Research on seasonal forecasting and applications to food security

Another key objective of ASPIRE was to determine how and where seasonal forecasts could be used to inform food security decisions in the Sahel region, and thereby

support the objectives of the ASPP. First it was important to evaluate the performance of past seasonal forecasts generated through the PRESASS forum. Research then assessed the performance of dynamical seasonal forecast models - which represent the physics of the climate system to generate forecasts, as opposed to using statistical methods which base forecasts on past observed climate data - and if and how seasonal climate influences food security in the region.

Research on the performance of seasonal forecasts over Sahelian West Africa (Pirret *et al.*, 2020) found that forecasts generally show positive skill and reliability. However, there are clear limitations and their output should be used alongside information regarding forecast skill and reliability, as well as knowledge of climate variability, to better support decision-making.

Further research has assessed relationships between seasonal rainfall and temperature with crop production in Senegal (Pirret and Daron, 2019). It was found that observed season total rainfall and seasonal average temperature have significant correlations with crop yield. With improved seasonal forecasts, there is potential to provide information on timescales relevant to agriculture and food security decisions, provided information is communicated in appropriate formats that address mixed levels of understanding regarding uncertainties and probabilities.

Training and capacity development of NMHSs and SP stakeholders

The project has supported the technical capabilities of NMHSs (e.g. ACMAD and AGRHYMET) to develop enhanced seasonal forecasts and trained SP stakeholders to better understand how weather and climate information can inform SP decision-making. This has been achieved through numerous training opportunities covering climate monitoring, seasonal climate prediction, data exchange, the use of Geographical Information System (GIS) tools for provision of climate services, and their use for ASP and impact on livelihoods.

The Walker Institute at the University of Reading led ASP training in Dakar, Senegal in April 2019, bringing together SP and climate stakeholders to discuss integrating climate information into SP planning and delivery. In September 2019, a follow-up webinar was held including 11 of the initial attendees from the April 2019 training; 10 participants represented

April 2019: Walker Institute led ASP Training Workshop, Dakar, Senegal.

NMHSs and one represented a national agricultural service. The participant feedback highlighted the value of the training: *"It has opened the window wider to seek to continue collaborating with other departments to get data/info or knowledge to help to inform our programmes". (*Walker Institute, ASP Training*)*

Working alongside experts from a variety of fields, ASPIRE has also produced a series of seasonal forecast training videos which give a broad overview of seasonal forecasts. The videos aim to increase awareness and understanding of seasonal forecasts, to increase their uptake and improve interpretation so that users can make more informed decisions. Topics covered include the science of seasonal forecasting, how forecasts are produced, how they should be interpreted, and where to access information.

The videos can be found on the Met Office 'Science to Services' YouTube channel and will be circulated via WMO to all members for feedback and for their information. We are investigating where else we can connect these training videos to and hope they might be of use under other DFID funded programmes in Africa and Asia.

Lessons Learned by ASPIRE

ASPIRE originally aimed to develop a climate service prototype for the ASPP and to integrate forecast information into SP. This was soon found to be too ambitious within this current programme. The overarching objective was then revised to first focus on initiating a sustained dialogue and conversations between climate providers and SP stakeholders – to bring these groups together and establish a shared understanding and desire to collaborate in future. Limited understanding of the value of engagement across both groups made this process challenging. For example, there was a mixed response in the willingness to engage from NMHSs and SP stakeholders as it wasn't necessarily recognised as a priority. This highlighted the need for improved cooperation between climate providers and SP stakeholders, which ASPIRE has helped to successfully facilitate.

The nascent stages of SP systems already in place in the Sahel, and limited climate information quality, relevance and capabilities, presented obstacles which the project needed to start to overcome. It was identified that within many of the focal countries there was an absence of necessary climate predictive modelling to complement the extensive information systems on food security, nutrition and early warning. In addition,

there is very limited understanding of how weather and climate impact on key livelihoods, highlighting the need to increase this knowledge with both parties and for which ASPIRE has laid groundwork.

There were further challenges in aligning and leveraging from the multiple other ongoing and past programmes in climate resilience due to the number and complexity of parallel initiatives. ASPIRE worked to overcome these challenges by identifying clear synergies between programmes and by focusing on distinct capacity and knowledge gaps which ASPIRE could help address. An example of leveraging opportunities was the BRACED Burkina Faso Seasonal Training Workshop for ANACIM (Agence Nationale de l'Aviation Civile et de la Météorologie) in Dakar, Senegal in October 2017, co-organised by ASPIRE, which brought initiatives together.

Conclusions

ASPIRE has created a strong foundation for the development of climate-informed ASP through the integration of climate and livelihoods information into SP decision-making. This has been delivered through the facilitation of dialogue between climate and SP stakeholders at regular intervals and through high profile regional trainings, forums and events, as well as through valuable seasonal climate research, in order to start the journey towards climate resilience in the Sahel. ASPIRE has helped to:

1) Increase awareness and build relationships between climate and SP stakeholders through targeted workshops and engagement activities, helping to align information and systems to achieve ASP;
2) Conduct focused research on the performance of seasonal forecasts in the region, supporting the regional climate outlook forum, and assessing relationships between seasonal rainfall, temperature and crop production;
3) Introduce Impact Based Forecasting methods which encourage NMHSs to work with users of their weather and climate information in order to co-produce usable and used services;
3) Facilitate training opportunities through numerous workshops and remote engagements, and create opportunities for continued learning through an online portal and seasonal forecast training videos; and
4) Document lessons learned and share these with the climate and SP stakeholders, as well as the World Bank and donor communities, through outputs including research papers and presentations.

For more information on the ASPIRE project, visit the Met Office ASPIRE webpage.

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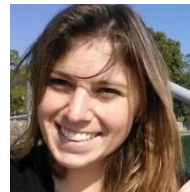Capacity Programmes Lead for International Development

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