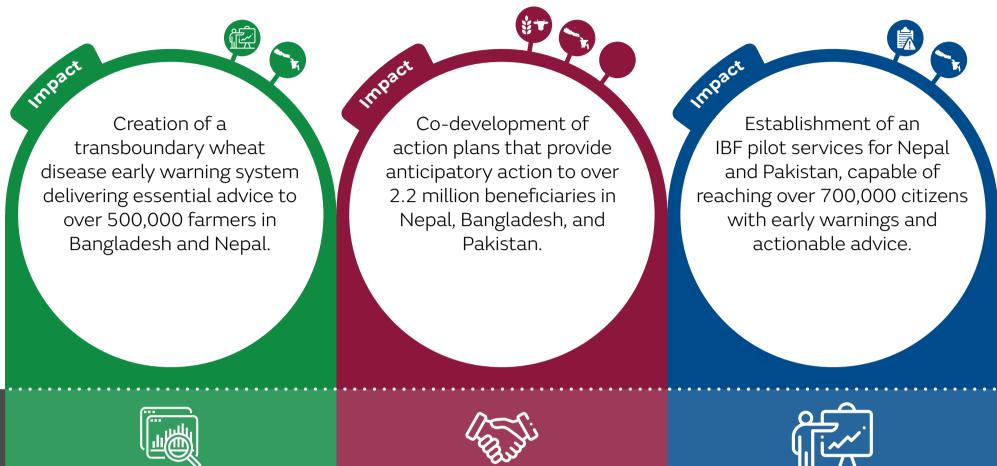
Impact Based Forecasting (IBF)

The purpose of this project was to engage with key partners and stakeholders to increase the use of reliable co-produced weather information at regional, national and local levels to support improved disaster risk reduction and more resilient planning and decision making in South Asia.





To reduce the devastating impacts of wheat diseases on small scale farmers in South Asia through development of a forecasting model and system for disseminating early warnings and advisories.

Improve collaboration between National Meteorological and Hydrological Services, stakeholders and disaster risk reduction responders, clarifying their roles in protecting lives and livelihoods of vulnerable communities during severe weather.



Improve forecasting capability, verification and use of remotely sensed data by National Meteorological and Hydrological Services in South Asia.



More than 18,000 coordinated field surveys undertaken using electronic tools to monitor the incidence of wheat diseases.



17 stakeholder training and co-development workshops.

Co-development of The Future of Forecasts: Impact-Based Forecasting for Early Action guide with the Red



Development of a IBF pilot service for Bangladesh, focused on the impact of Tropical

Cyclones in 13 coastal districts, capable of reaching 1.5 million citizens.

Cross Climate Centre. The guide focuses on the role of stakeholders within the IBF process.

Development and delivery of 4 regional and 7 national level tailored technical training courses. Technical support to NMHSs in the development of IBF services.

User Groups

Identified Need

ctivity

Project



Partners

Met Office



Government of Nepal Ministry of Energy, Water Resources and Irrigation Department of Hydrology and Meteorology



Meteorological





Islamic Republic of Afghanistar **Civil Aviation Authority** Meteorological Department











Strengthening Climate Information Partnership South Asia (SCIPSA)

The aim of the Strengthening Climate Information Partnership South Asia (SCIPSA) project was to bring together regional and national climate information providers, users and researchers to strengthen seasonal forecasting activities and advice services to vital sectors in South Asia.

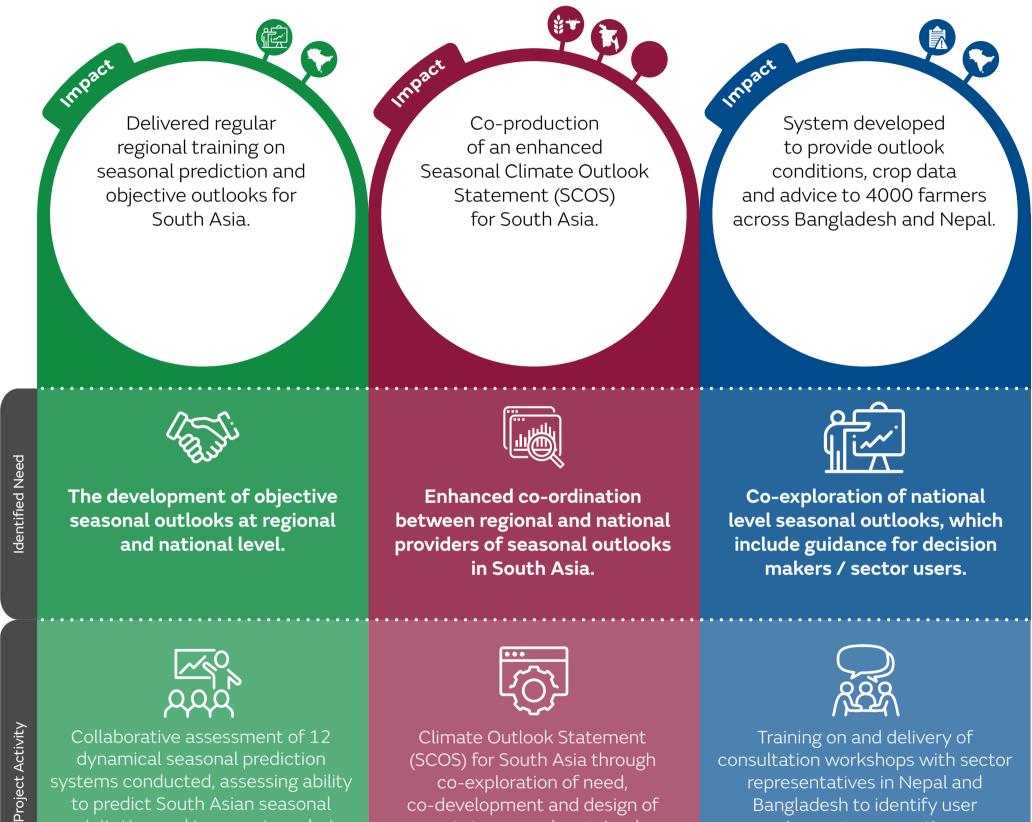


Bangladesh to identify user

requirements, perception on

usefulness of seasonal outlooks,

and potential for enhancements.



systems conducted, assessing ability to predict South Asian seasonal precipitation and temperature during two key monsoon seasons; southwest (June-September) and

co-exploration of need, co-development and design of prototypes, and sustained co-delivery of enhanced product.

northeast (October-November)

User Groups



Partners

Section Met Office





Climate Analysis for Risk Information and Services in South Asia (CARISSA)

The purpose of this project was to improve the uptake and use of regional climate change information across South Asia.



Impace Co-development of relevant, useful and accessible climate information to guide adaptation planning and investment decisions in the Nepal hydropower sector to help achieve climate resilience.

Pakistan Meteorological Department (PMD) able to generate climate grids to monitor variability and apply this data to impact models. For Enhanced capability to develop and apply new sea-level projections to coastal risk assessments and coastal management decisions.



Lack of reliable and relevant information on future changes to extreme rainfall and flooding, and how this affects hydropower in Nepal, and therefore the ability to make informed adaptation decisions and policy.



Observational weather and climate records in Pakistan are underexploited in climate analysis and modelling meaning that they cannot be used to support climate modelling research to explore climate variability and change for the country.



Coastal communities in Bangladesh and Pakistan are highly exposed to changes in sea-level. Yet coastal risk management and planning decisions have previously relied only on global sea-level change projections which are unable to capture the greater fluctuations of local changes in sea level.



Generation of sea level projections for the 21st century, synthesis of results through reports and a journal paper, science-policy webinars, and a collaborative project led by Bangladesh Institute of Water Modelling (IWM).



Followed a novel "distillation" approach to co-explore needs of hydropower stakeholders and develop new information about present and future climate, including process-based evaluation and analysis of observations and climate model data.



Trained 15 members of PMD to use Climate Grid software to develop their own gridded observation datasets to support

Project

climate monitoring and research.

User Groups



National Meteorological and Hydrological Services organisations



Disaster risk sector



F

Water industry

Partners

Met Office







Government of Nepal Ministry of Energy, Water Resources and Irrigation Department of Hydrology and Meteorology





Pakistan Meteorological Department



Bangladesh University of Engineering and Technology







VALUE

The purpose of this project was to address the limited empirical evidence of the scope and scale of the potential benefits of weather and climate services in the South Asia region.

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National Meteorological and Hydrological Services (NMHSs) have a broad understanding of methods for evaluation socio-economic benefits of their services.

Pakistan Meteorological Department (PMD) able to determine the impacts, including socio-economic benefits and costs of the services they provide to farming communities.



Lack of information which details the benefits of weather and climate services in the South Asia region, despite this being an important part of justifying investment in the provision and delivery of such information.



Production of a condensed guidance document detailing different methodologies which can be applied to capture socio-economic benefits, along with advantages/disadvantages of using each method, and examples of how each method has been applied to weather and climate service evaluation.



To identify areas where agro-meteorological advisories produced and disseminated by PMD could be improved, taking into account the different information needs of men and women.



The project conducted a study to evaluate the current provision of weather and climate information services in Pakistan by PMD. This focused on agricultural meteorological advisories for cotton and wheat farmers in the Punjab and Sindh provinces where rising temperatures, more frequent flooding and prolonged droughts threaten productivity.

User Groups





Partners

≫ Met Office





