

### Climate-smart agriculture to face climate change and variability in West Africa Dr Robert Zougmore, Regional Program Leader CCAFS West Africa, CGIAR

Climate change will continue to have far-reaching consequences for agriculture that will disproportionately affect poor and marginalized groups who depend on agriculture for their livelihoods and have a lower capacity to adapt. For instance, rain-fed agriculture will remain vital for food security in sub-Saharan Africa, where nearly 90% of staple food production will continue to come from rain-fed farming systems. Responses need to come quickly, with salient and tailored risk management strategies. This should encompass climate-smart planning, management and recovery approaches that will capacitate farmers to reduce their vulnerability to climate induced risks and shocks, increase their investments on improved management practices, enhance productivity and profitability of agricultural enterprises and become more resilient.

Thanks to CCAFS participatory action research on the use of climate information and services within the climate-smart villages, successful case studies implemented with communities show that building on indigenous and modern adaptive measures improved resilience of farmers. Indeed, CCAFS collaborated with the Senegalese National Meteorological Agency (ANACIM) to develop climate information services that are relevant to farmers on a broad scale. Farmers have been involved in every step of the process, helping meteorologists and other specialists package and communicate climate information. Scientists learned about farmers' indigenous knowledge and were able to link some of this knowledge to the weather forecasts. Integrating traditional forecasting methods with scientific forecasting provided insights into knowledge gaps at the local level and increased farmers' trust in scientific forecasting. Farmers were given the opportunity to indicate their specific climate information needs as well as the way they would like to receive climate information. (Ndiaye et al. 2013; Jay 2014; Lo and Dieng 2015). These climate-smart solutions cannot be achieved without improving interactions among scientists and decision makers at all levels of society, especially when the foremost priority is to achieve food security now and in the future.

**Dr Robert Zougmore** is Regional Program Leader CCAFS West Africa, CGIAR

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## EXPO 2015

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