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**THE CHANGE STORY**

Part of the co-production of climate information in AMMA-2050 included the development of an atlas containing information about projected future climate changes in West Africa, or climate metrics, that are relevant to supporting medium-term decision making. Such metrics included information on annual rainfall and the number of extreme precipitation days per year.

In line with the capacity building aims of AMMA-2050, it was decided that the production of this atlas would be undertaken by African climate scientists who would be trained and supervised by UK-based climate scientists with more coding experience. The decision was made to combine production of the climate change atlases with a Python scientific language training course for African climate scientists involved in AMMA-2050. The week-long training course was planned and overseen by scientists from the Met Office, the Centre for Ecology and Hydrology – Wallingford, and the University of Leeds with the course held in Leeds in December 2016. Eight African climate scientists were invited to the course with the aim of learning the required skills to produce the climate metrics atlases for AMMA-2050.

Training African scientists in the scientific coding methods needed to analyse ensemble climate data has allowed for improved capacity to interrogate climate change impact projections within the AMMA-2050 scientific team, as well as providing strengthened scientific capacities across a number of West African countries.
While co-production of climate information often focuses on interactions between scientists and decision makers, it also entails the ability of scientists from across different institutions to bring together their respective areas of knowledge. Moreover, sustainable capacities for co-production necessitate the establishment of the required national and regional expertise.

Whilst production of the climate atlases could have been undertaken quicker by the three workshop supervisors (given their prior experience of Python and ability to produce the metrics quickly), such a method would not have improved the capacity of African scientists to expand their own analysis and education. The effort required to organize and lead the Python training workshop, as well as the time spent overseeing the production of atlas metrics by African scientists was substantial.

However, the benefits to partnering institutions and the wider West African region are significant. Such investment in training courses, whilst taking time and effort, provide enough positive outcomes in terms of capacity building to demonstrate the sustainable strengthening of African climate science expertise, one of the principal desired outcomes of the FCFA programme.

Future Climate for Africa’s Areas of Change are:

1. Enhancing scientific knowledge and prediction of African climate and new understanding of the resulting impact on the robustness of future climate change scenarios.
2. Strengthening scientists’ capacities to develop decision-relevant climate information.
3. Increasing the capacities of users/decision making bodies/institutions to appropriately integrate climate information within medium-term decision-making.
4. Approaches that support co-production of decision-relevant climate information and enable channels for on-going dialogue between the providers and users of climate information.
5. Identifying social, political, behavioural and economic barriers to the use of climate information in long-term decision-making, working to elicit solutions which support effective integration of climate risks within decision making across scales, sectors and social groups.
6. Approaches to climate science research and climate-sensitive risks within medium-term decision making which enable active participation and address the specific concerns of women and marginalised groups.