Project LANDSURF

Land surface processes as a determinant of climate change in Africa –
scenarios, high-resolution modeling and development of a stakeholder data portal

Summary of the 2nd End-user Workshop on

"Evaluation of the Decision Support System (DSS)"

The LANDSURF project conducted its 2nd participatory workshop on 26 June 2023 to present and evaluate a first version of the Decision Support System (DSS), which is being developed in this project. The DSS has been co-designed and co-developed with end-users, and while much of its focus is on the agricultural sector, its content can also be used to inform decision-makers on food security, water management, and risk management. Up to 28 participants from six different countries (Burkina Faso, Ghana, Niger, Nigeria, Togo, and Germany) attended the virtual workshop hosted by the German Climate Service Centre (GERICS) and provided feedback on the first application of the DSS.

At the beginning of the workshop, the LANDSURF coordinator and head of the Institute of Geography and Geology at the University of Würzburg, Prof. Dr. Heiko Paeth, highlighted the importance of co-designing and co-developing the DSS with the users for West Africa in his welcome speech. Afterwards, Dr. Torsten Weber from the Climate Service Center Germany (GERICS) reported on the end-user prioritised climate indicators and identified needs for the DSS, and Dr. Katrin Ziegler from the University of Würzburg showed how the climate indicators were calculated and what difficulties had to be overcome. Subsequently, Lorenz König from the University of Halle presented the current development status of the web-portal and the upcoming features that will be integrated into the DSS.

The second part of the workshop focused on the content to be included in the DSS, and the purposes for which the DSS can be used. Specifically, Dr. Insa Otte from the University of Würzburg showed results on past land use change derived from remote sensing data, Dr. Daniel Abel from the University of Würzburg explained the inherent uncertainties of climate model projection data and how we aim to deal with these within in the DSS, and Dr. Jan Bliefernicht from the University of Augsburg presented results from the WASCAL WRAP 2.0 FURIFLOOD project. Moreover, in order to demonstrate practical applications of the DSS, Dr. Imoleayo E. Gbode from the Federal University of Technology Akure (FUTA), Dr. Jean-Bosco Zoungrana from University of Ouagadougou, and Alina Schürmann from the University of Halle showed how the DSS can be used to obtain information on e.g. projected rainfall at local, district, national, and regional levels.

The third part of the workshop was dedicated to receiving feedback from the end-users, who were given the opportunity to test the DSS prior to the workshop. Susanne Schuck-Zöller from

the Climate Service Centre Germany (GERICS) led the discussion guided by a Google Jamboard (see picture below), where end-users have posted their comments on the content, functionality, and usefulness of the DSS.

During the workshop, the project members received first positive feedback on the DSS from the end-users, as revealed by the ZOOM surveys. Thereby, the end-users stated that 2/3 of them had already tested the DSS before the event, and the majority of the end-users liked the visualisation of the results, rating it a 4 on a scale of 1 to 5. A more detailed survey of the workshop conducted and the end-user friendly design of the DSS is planned. The third end-user workshop is scheduled for the first quarter in 2024, when the alpha version of the web-based DSS will be released. This will allow the project to incorporate minor changes into the system until the end of the project in May 2024.