SALLnet workshop: Socio-ecological modeling for multi-functional landscapes

From the 6th to the 10th of December 2021, the South African Limpopo Landscapes Network (SALLnet) hosted a workshop entitled "Socio-ecological modeling for multi-functional landscapes". This workshop was coordinated and run by scientists from the Senckenberg Biodiversity and Climate Research Centre (SBiK-F), Frankfurt, the TROPAGS working group, Georg-August-Universität Göttingen (TROPAGS), and agricultural science department, Fachhochschule Südwestfalen. Participants from seven different countries, including South Africa, Zambia, Ghana, and Germany took part in the workshop. Due to ongoing travel restrictions the workshop was planned and held fully virtual, using a variety of mediums such as plenary online discussions, video lectures, and online presentations.

The aim of the workshop was to familiarize participants with different modelling approaches that include and represent characteristic features of croplands, savanna rangelands, and socio-ecological systems. Although theoretical components laid the foundations of the course, a clear focus was on hands-on, practical sessions that got participants applying the models to their own individually devised use cases and research questions. The workshop focused on the process-based savanna and rangeland vegetation model aDGVM for the first two days led by SBiK-F scientists, followed by two days of the crop simulation model APSIM led by TROPAGS scientists, and agent-based modeling (ABM) for socio-economic applications lead by Jan-Henning Feil. The final day was comprised of presentations on recent aDGVM and APSIM model applications, time for participants to develop own research ideas and to conduct model simulations, and presentations of these ideas and first model results by the participants.

The exchange between tutors and participants proved to be a great experience despite the virtual format of the workshop. The tutor-team is already devising a follow-up workshop to complement this success.