DAAD-Förderprogramm: Partnerschaften für Nachhaltige Lösungen mit Subsahara-Afrika - Maßnahmen für Forschung und integrierte postgraduale Aus- und Fortbildung

Projekttitel: Capacity building in climate-smart agriculture and ecological sanitation in Ethiopia (ClimEtSan)

Kooperationspartner: Forschungszentrum Jülich (Projektverantwortlich); Beuth Hochschule für Technik Berlin; Wondo Genet College of Forestry and Natural Resources, Hawassa University, Ethiopia; PRO LEHM, Ecopia

Projektverantwortlicher: Prof. Dr. Nicolas Brüggemann

Kurzbeschreibung des Projekts:

In many developing countries, a lack of sanitation and unprofessional waste management result in enhanced greenhouse gas emissions, lead to a loss of valuable nutrient resources and may cause severe health problems. This project aims to establish an experimental farm that allows both conducting state-of-the art research for site-adapted agriculture and at the same time a capacity building for the re-use of faecal waste compost in climate-smart agriculture. We focus on Ethiopia as a model region because of its urgent need for sanitation, for sustainable waste management and food security, and for its need to establish a productive but climate-smart agriculture.
The experimental farm will be implemented at the Wondo Genet College of Forestry and Natural Resources (Hawassa University, Ethiopia). In the frame of the project, experiments will be conducted to explore and optimize the thermophilic composting of human excrements and other organic waste materials, in part with additions of biochar, to create a pathogen-free and nutrient-rich fertilizer as soil amendment. Several on- and off-site training measures, like seminars, field schools, workshops and an international summer school, will be offered by the German and Ethiopian applicants in close collaboration with local stakeholders. The ClimEtSan project will thereby provide an interdisciplinary capacity building in innovative methodologies of ecological sanitation and waste management (recycling of organic waste and excrements by composting), in environmental pathology, in composting, in stove and biochar production, as well as in the use of composted organic waste substrates to overcome nutrient shortages in the frame of a climate-smart agriculture.