

Challenges and opportunities for nutrient efficient agriculture in West African cities - extension

Initiative: Wissen für morgen – Kooperative Forschungsvorhaben im subsaharischen Afrika (beendet)

Ausschreibung: Natural Resources 2004

Bewilligung: 14.12.2010

Laufzeit: 2 Jahre

Urban agriculture (UA) increasingly supplies food and non-food values to the rapidly growing West African cities. However, with its typically heavy use of fertilizers, agrochemicals, municipal wastes and sewage as inputs to the production of crops, vegetables and livestock feeds, UA bears severe risks of environmental pollution and food contamination. This project therefore aims at quantifying nutrient inputs, transfers and potential problems of UA activities in the three West African cities of Sikasso (Mali), Bobo Dioulasso (Burkina Faso) and Kano (Nigeria), which differ in their population density and biophysical conditions. The project couples process-oriented biophysical research and the use of bioeconomic models with a north-south transfer of knowledge in the quantification and modelling of nutrient fluxes and a south-south transfer of expertise on soil and product contamination with faecal pathogens, pesticides and heavy metals. The project thereby aims at (i) minimizing negative side effects of UA on food safety and environmental health and (ii) in cooperation with NGOs and local administrative bodies developing scientifically sound recommendations at the producers' level to enhance the resource use efficiency and productivity of the UA production systems.

Projektbeteiligte

Prof. Dr. Andreas Bürkert

Universität Kassel

FB 11: Ökologische Agrarwissenschaften

Fachgebiet Ökologischer Pflanzenbau und Agrarökosystemforschung in den Tropen und Subtropen

Witzenhausen

Prof. Dr. Eva Schlecht

Universität Kassel

Fachbereich 11: Ökologische Agrarwissenschaften

Fachgebiet Animal Husbandry in the (Sub-) Tropics

Witzenhausen

Prof. Dr. Oliver Hensel

Universität Kassel

Fachbereich Ökologische Agrarwissenschaften

Fachgebiet Agrartechnik

Witzenhausen

Prof. Dr. Charles Bielders

Université catholique de Louvain
Département des sciences du milieu et de
l'aménagement du territoire (Génie Rural)
Louvain-la-Neuve
Belgien

Prof. Dr. Marnik Vanclooster

Université catholique de Louvain
Département des sciences du milieu et de
l'aménagement du territoire (Génie Rural)
Louvain-la-Neuve
Belgien

Prof. Dr. Herman van Keulen

Wageningen University
Department of Plant Science
Wageningen
Niederlande

Dr. André Bationo

International Center for Tropical
Agriculture (CIAT)
Tropical Soil Biology and Fertility
Institute of CIAT c/o ICRAF
Nairobi
Kenia

Prof. Dr. John Okhienaiye Agbenin

Ahmadu Bello University
Department of Soil Science
Zaria
Nigeria

Dr. Michel Papaoba Sedogo

Centre National de la Recherche
Scientifique et Technologique (CNRST)
Institut de l'environnement et de recherches
agricoles (INERA Kamboinsé)
Ouagadougou
Burkina Faso

Dr. Adama Traoré

National Council for Agricultural
Research (CNRA)
Bamako
Mali

Dr. Abdou Berthé

National Council for Agricultural
Research (CNRA)
Bamako
Mali

Dr. Christian Hülsebusch

Deutsches Institut für Tropische und
Subtropische Landwirtschaft (DITSL)
Witzenhausen

Dr. Luc Hippolyte Dossa

Institut National de l'Environnement et
de Recherches Agricoles (INERA)
Urban Food Project
Station de Farako-Ba
Bobo-Dioulasso
Burkina Faso