Challenges and opportunities for nutrient efficient agriculture in West African cities

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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.

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Es werden die Institutionen genannt, an denen das Vorhaben durchgeführt wurde, und nicht die aktuelle Adresse.