

## **Extension Phase of Senior Fellowship for Dr. Henri Tonnang: "Increased smallholder farmer's productivity by efficient use and application of environmental friendly insect pests control strategies"**

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

Ausschreibung: Postdoctoral Fellowships "Resources, their Dynamics and Sustainability - Capacity-

Development in Comparative and Integrated Approaches"

Bewilligung: 26.06.2018

Laufzeit: 2 Jahre

This proposal is the continuity of a previous project titled "Improved application strategies for entomopathogenic fungi (EPF) as biological control agents in integrated pest management (IPM) of agricultural pests" aiming to increase smallholder farmer productivity by efficient use and application of environmental friendly insect pests control strategies. This will be achieved by using existing information (obtained from previous projects) to develop tools (mobile phone applications) embedded with optimum strategies to reduce pre and post harvest losses due to major insect pests such as fruit flies (*Ceratitis cosyra* (Walker), *Bactrocera invadens*), thrips (*F. occidentalis*, *Megalothrips sjostedti* (Trybom)) and the fall army worm recently introduced in Africa. The research component will reposed on developing spatial and temporal growth and interaction dynamics models to understand, both within fungal communities and between fungi and the insect pest system interactions. These models will further be used to predict climate change impact assessments of potential use and application of the selected EPF isolate to control targeted insect pests.

### **Projektbeteiligte**

#### **Prof. Dr. Hartmut Stützel**

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## Open Access-Publikationen

Optimizing spatial positioning of traps in the context of integrated pest management

Decision Support System for Fitting and Mapping Nonlinear Functions with Application to Insect Pest Management in the Biological Control Context

Exploring the Mechanisms of the Spatiotemporal Invasion of *Tuta absoluta* in Asia