Funding for the Sustainable Waste-based Insect Farming Technologies Project

March 16, 2023 | Paul Donahue
Topics: Society | Water & Development

Black Soldier Flies and the transformation of organic waste into marketable products has been a main research area of the Municipal Solid Waste Management group at Eawag for more than 12 years. Now, the Sustainable Waste-based Insect Farming Technologies project has received funding from the Swiss National Science Foundation and the Swiss Agency for Development and Cooperation.

The Solution-oriented Research for Development (SOR4D) programme is a joint initiative of the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC). The objective is to develop new innovative approaches to reduce poverty and implement the 2030 Agenda in developing countries. The transdisciplinary projects selected for funding must contribute towards sustainable development.

The Municipal Solid Waste Group of the department of Sanitation, Water and Solid Waste for Development (Sandec) and its partners in Uganda and Malawi have received close to 1’000’000 CHF of funding over three years to enable and foster adoption of waste-based Black Soldier Fly (BSF) insect farming technologies for smallholder farmers and small and medium enterprises in Uganda and Malawi. Over 50% of the budget will be used in the countries of concern and around 20% will be invested for dissemination, capacity development and outreach activities.

The Sustainable Waste-based Insect Farming Technologies (SWIFT) project responds to three main sustainable development challenges: food security, job and livelihood creation and environmental protection. It puts special emphasis on co-developing (together with small-holder farmers) adapted farming systems as a “circular economy” model for more sustainable animal feed and food production.

Überlandstrasse 133
CH-8600 Dübendorf
T +41 58 765 55 11
F +41 58 765 50 28
info@eawag.ch
www.eawag.ch
eawag aquatic research

The project will improve the management of organic waste, leading to potential reductions in greenhouse gas (GHG) emissions, and women and youth are the targeted farmers and entrepreneurs for the BSF insect farming.

Simplified BSF insect rearing at farm level (Photo: Bart Verstappen)

BSF insect farming

BSF insect farming is based on the natural life cycle of a local prevalent insect, *Hermetia illucens*, the Black Soldier Fly. Farming BSF insects involves adult fly rearing and egg production and as a second step the growing of BSF larvae by feeding them organic waste substrates, such as food scraps and agricultural waste products. Grown larvae are then harvested for use as an alternative source of protein for aquaculture, animal feed or pet food, and substrate residue (called frass) serves as a good fertiliser and soil amendment.

"We are very excited about this opportunity to mainstream BSF-insect farming in these two countries and also beyond, as we are convinced that through this applied research we can better understand which elements of an enabling environment can foster this innovative approach", says Chris Zurbrügg, the principal investigator and main applicant of the project. The project team consists of research partners Dr. Frank Mnthambala at Mzuzu University in Malawi and Dr. Allan John Komakech at Makerere University in Uganda, both alums of Eawag. The development partners are Soil Food and Healthy Communities in Malawi and Bioconvision in Uganda. The project fills research gaps in terms of waste management in both Malawi and Uganda, and will assess simplified BSF farming approaches, larvae growth performance with selected wastes, business market development and legal and economic barriers and opportunities.

Cover picture: Eawag, Christian Zurbrügg

Funding / Cooperations

SOR4D Soil Food and Healthy Communities Bioconvision Mzuzu University Makerere University

Related Links

Black Soldier Fly Biowaste Processing

Contact

Christian Zurbrügg

Tel. +41 58 765 5423

christian.zurbruegg@eawag.ch

Paul Donahue

Tel. +41 58 765 5059

paul.donahue@eawag.ch

https://www.eawag.ch/en/info/portal/news/news-archive/archive-detail/funding-for-the-sustainable-waste-based-insect-farming-technologies-project