

## Popular scientific project description for project funded by Ekhagastiftelsen

Popular scientific project description is to be submitted within 2 months of project grant.

Application number:	2025-48
Project title:	Additional season of data collection for supported project: Sustainable and healthier options for minimizing yield loss from pest birds in rice fields
Receiver of grant (name, address):	Justine Muhoro Nyaga University of Embu School of Pure and Applied Sciences Department of Biological sciences P.O Box 6 - 60100 Embu Kenya
Contact / project manager:	Justine Muhoro Nyaga
Project start (yyyy-mm-dd): *	2026-01-01
Project end (yyyy-mm-dd): *	2027-06-30
By Ekhagastiftelsen granted sum:	100 000 SEK

Project description: (200 - 300 words)

Birds are the most important animal pests in rice production across the African continent. Today chemical sprays, also harmful to humans and the environment, are used to minimize yield losses. The “*Sustainable and healthier options for minimizing yield loss from pest birds in the rice fields*” is an ongoing project funded by Ekhagastiftelsen from 2023-2026. It seeks to propose healthier and sustainable ways of keeping pest birds away from rice fields by placing nets on rice fields and also by using a predator-shaped scaring kite. Twenty fields are selected, and nets measuring approximately 18 m x 5 m placed on parts of the fields. Of the twenty fields, ten are randomly selected for kites and ten for controls. Bird counts and estimation of rice yield are used to compare the effectiveness of treatments (control, kite, nets). If proved effective, the nets and kites could replace use of harmful spraying to minimize yield losses.

The kites are cheaper but are expected to have less effect on bird numbers compared to the nets. Four seasons of data collection were initially planned. However, the first one encountered challenges related to misunderstandings among the farmers on farming practices, which introduced bias in the sample plots. To address these issues and prevent similar biases, we emphasize to farmers that all sample plots must be treated the same in the subsequent seasons. This application seeks to support an additional field season (May - June 2026) to replace the unsuccessful first season, ensuring a complete data set spanning two spring and two autumn seasons, thus providing a more robust and balanced foundation for analysis and conclusions. This extension will increase the project’s lifespan by six months and move the overall project completion from December, 2026 to June, 2027.

\* Dates for project start and end should be the dates for which the grant is received (Not dates for total project if longer than period for which grant is received)