

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:	2025-65
Project title:	Greener Fields, Healthier Lives: Tackling Iron-Deficiency Anaemia with Cowpea-Sorghum Intercropping in Eastern Africa (Green_Iron)
Receiver of grant (name, address):	Petra Bauer; Heinrich Heine University; Institute of Botany, Universitätsstr. 1, 40225 Düsseldorf, Germany
Contact / project manager:	Prof. Dr. Petra Bauer, Dr. Eltayb Abdellatef
Project start (yyyy-mm-dd): *	January 15, 2026
Project end (yyyy-mm-dd): *	December 30, 2027
By Ekhagastiftelsen granted sum:	940 000 SEK

Project description: (200 - 300 words)

The aim of the project is to develop sustainable, nutrition-sensitive intercropping systems using Cowpea (*Vigna unguiculata*) and Sorghum (*Sorghum bicolor*) to enhance food and nutritional security, improve soil health, and increase resilience to climate stress in East Africa, particularly Ethiopia. Building on a newly assembled panel of 200 East African Cowpea landraces, the project will identify cowpea genotypes with high micronutrient content and strong agronomic compatibility with Sorghum. It will test different cowpea sorghum intercropping ratios, monitor pest suppression, assess soil fertility changes, and evaluate nutritional enhancements in both crops. The research will be implemented through field trials, nutritional analysis, and participatory selection involving smallholder farmers. The project addresses critical challenges faced by resource-poor farmers, such as soil degradation, climate variability, and malnutrition. Cowpea's nitrogen-fixing capacity, drought resilience, and iron-rich profile, combined with Sorghum's staple role and micronutrient content, make the intercropping approach a powerful strategy for boosting yields, reducing input costs, and combating hidden hunger. This agroecological method avoids dependency on chemical fertilizers and aligns with sustainable land management goals. This research contributes to transforming traditional monocropping into resilient, diversified systems that benefit smallholder farmers, ecosystems, and community health. This project is expected to identify nutritionally rich cowpea genotype and compatible sorghum-cowpea intercropping ratio.

* 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)