

# Fostering economic participation and forest conservation through beekeeping in Indonesian oil palm households



implemented by:



In cooperation with:



MINISTRY OF AGRICULTURE  
REPUBLIC OF INDONESIA



GEORG-AUGUST-UNIVERSITÄT  
GÖTTINGEN  
IN PUBLICA COMMODA  
SINCE 1737



## About the Implementing Agencies

The Chair of Farm Management is within the Department of Agricultural Economies and Rural Development at the University of Göttingen. The overall research objective of the working group is to obtain new and high-quality knowledge that is relevant for agriculture and the bio-economy as well as for society as a whole. Focal objectives of investigation are climate change and risk management, economics of compliance and management of behavioural risks, structural change in agriculture, analysis of entrepreneurial decision-making behaviour as well as female empowerment using experimental economics.

The GRASS (Greening Agricultural Smallholder Supply Chains) project is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and is implemented by GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) together with the Directorate General of Estate Crops of the Indonesian Ministry of Agriculture from 2023 to 2025 (3 years). The project objective is to improve the economic and environmental resilience of smallholder farmers at the base of global supply chains in selected regions of Indonesia.

The Chair of Farm Management and the GRASS project cooperate to jointly implement this project.



## Project Target Area and Group

The project will be implemented in two sub-districts in Kapuas Hulu district, West Kalimantan province, where the GRASS project supports sustainable oil palm cultivation. Kapuas Hulu is considered as a sustainable landscape, and in 2018 was designated as a UNESCO Man and the Biosphere Reserve. The aim is to promote and implement beekeeping activities with 150 women.



## Root Problem and Mitigation

Kapuas Hulu (West Kalimantan) is home to large rainforests with high biodiversity. These ecological resources are increasingly threatened by an oil palm boom, which is mainly driven by large corporations. At the same time also many smallholder households have increasingly started cultivating oil palm and are benefitting from increased incomes. This provides an incentive to further expand cultivation areas, which leads to additional deforestation and biodiversity extinction.

West Kalimantan is also witnessing a large-scale structural change, as previous natural rubber plots are being converted to oil palm. This is adversely changing gender roles. Because while women were hitherto strongly engaged in natural rubber cultivation, the oil palm sector is much stronger male-dominated, and women tend to have comparably lower agency in this value chain. To achieve a higher degree of sustainability within smallholder-managed oil palm cultivation, fostering women's economic inclusion is paramount. For improved smallholder resilience it is necessary to diversify smallholder farm production to create more stable and robust production systems that are better adapted to the changing climate, that enhance farm biodiversity, that increase the range of products, and that are gender inclusive. Beekeeping is a complementary economic activity that empowers women and at the same time promotes the value of ecosystems without taking important land resources away from the current palm oil cultivation.



## Project Approach

The project endeavors to foster economic inclusion and resilience of women in palm oil-producing villages in Kapuas Hulu district by promoting beekeeping as a means to discourage further land openings, while simultaneously creating complementary income opportunities and facilitating deforestation-free income generation within smallholder managed oil palm plantations. Beekeeping functions complementary to oil palm cultivation and is expected to create positive synergies – socially, economically and environmentally. Providing women with the means for an alternative income opportunity that is complementary to oil palm cultivation and ecologically beneficial, will increase the resilience and agency of women. At the same time, it will incentivize environmentally friendly behavior, because honey production is much more successful with rich biodiversity and intact nature.

### Practical Component

Women often have a wide variety of tasks within the household and are therefore often tied to the house. As women already have many tasks, additional activities with a high workload could overload them. Thus, for a new economic activity to be appropriate for women, it should be possible to undertake it close to the house and should not be too time-consuming. Beekeeping fulfills these requirements. As the project operates with stingless bees, beekeeping near settlements is safe. The beehives do not take up much space and the bees do not require much care (estimated time one to two hours per week). The project will raise awareness of the above-mentioned benefits in the GRASS target villages, in line with FPIC (Free Prior Informed Consent) principles. After identification of participants (and the control group), training in beekeeping and honey production will be carried out for the participating women. Beekeeping starter sets (including training, environmental awareness campaigns, beehives and bees) will be provided to 150 women. The GRASS project will support the women in the production, processing, and marketing of honey.

### Scientific Component

To understand the impact of beekeeping on oil palm households, the provision of the beekeeping starter sets will be accompanied by a rigorous impact evaluation. Through a randomized controlled trial, the gold standard for impact evaluation, the treatment group (i.e. the women receiving the beekeeping starter sets) will be compared with a control group (a randomly drawn sample of 150 women that do not receive starter sets). The impacts of beekeeping on an economic, social, and ecological level will be rigorously tested - initially over one year (baseline and endline surveys). Targeting the household as a whole unit, we furthermore investigate men's attitudes and preferences toward women's economic participation and how these might change throughout the project. Outcome variables are measured through quantitative surveys, economic experiments, ecological data (rapid biodiversity assessment) as well as satellite data. The hypothesis is that women's agency will be increased, and natural capital will be valued higher.



### Parameters of the Projects

- Female agency increases / stays the same
- Deforestation decreases / does not increase; Attitude towards the value of the forest changes
- Biodiversity increases / does not decrease; Attitude towards the value of biodiversity changes
- Welfare of household increases/ female income increases
- Identification of scaling opportunities and replication among other communities



### Contact

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### Overall Project Aim

Establishment of profitable beekeeping activities for 150 women in oil palm cultivating rural households of Kapuas Hulu, West Kalimantan.