

Life cycle assessment of RSPO certified palm oil

– What are the benefits?

Certified palm oil matters – but how much?

17% of global palm oil is RSPO certified. This significantly contributes to more sustainable palm oil – but how much?

- How much GHG emissions are saved?
- How much more nature is conserved – and what is the biodiversity benefit?
- What are the savings for other impacts? E.g. particulates, eutrophication etc.?

New crowd-fund project – gives the answers!

Scope of the project

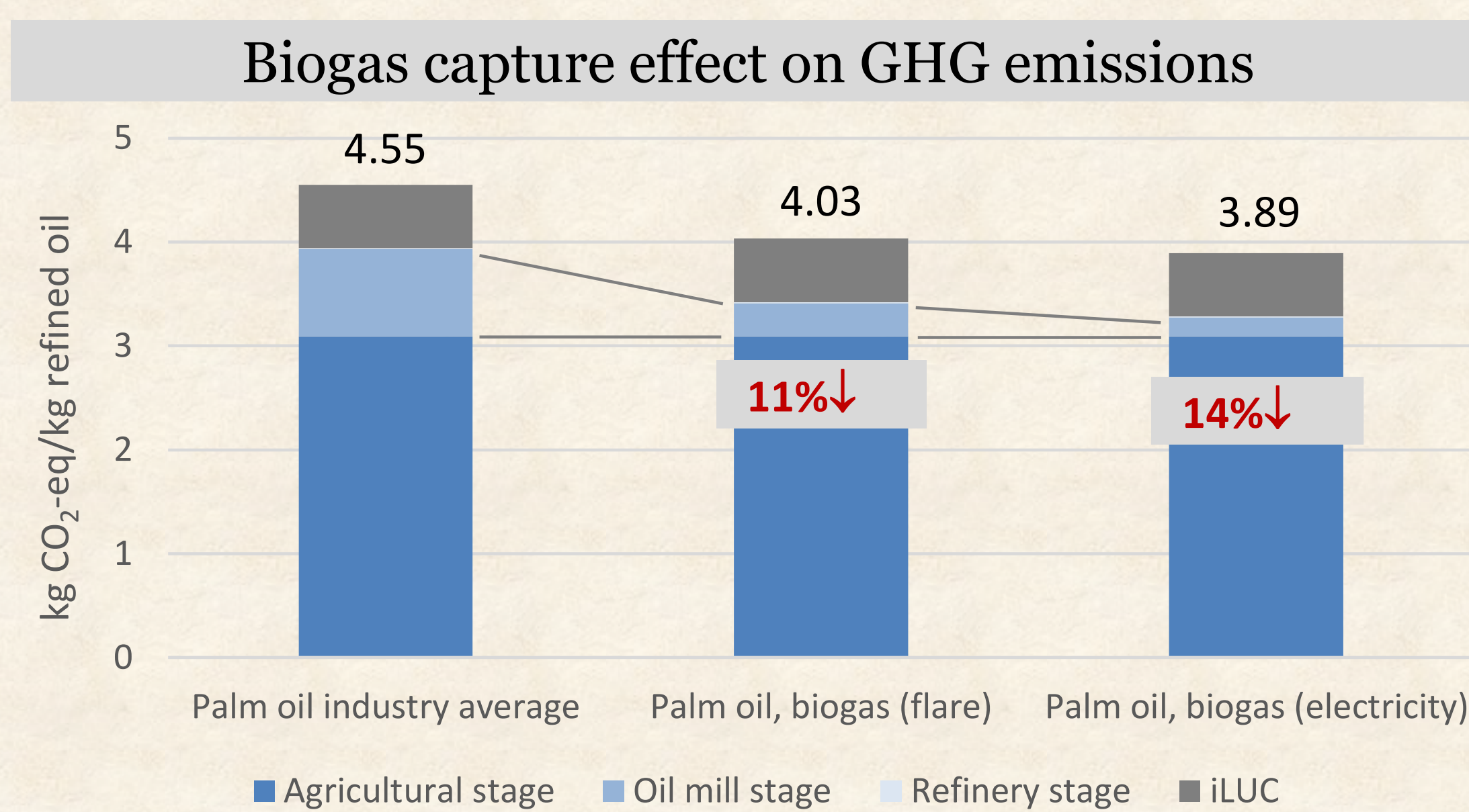
The study will use data reported by certified producers, statistical data and detailed consulting with palm oil producers. Key issues such as methane from POME treatment, CO₂ from peat drainage, N₂O from fertiliser application and biodiversity benefits from nature conservation are addressed - as well as how the certification criteria reduce the impacts.

- A complete cradle-to-gate LCA study, including oil palm cultivation, palm oil mill and refinery as well as other relevant upstream processes.
- Complying with ISO 14040/44 standards on LCA, and subject to critical review.
- Covering a wide set of environmental impact categories, including GHG emissions and biodiversity impacts and offsetting hereof from nature conservation.
- Using both consequential and attributional life cycle inventory (LCI) modelling.
- Addressing both direct and indirect land use changes.

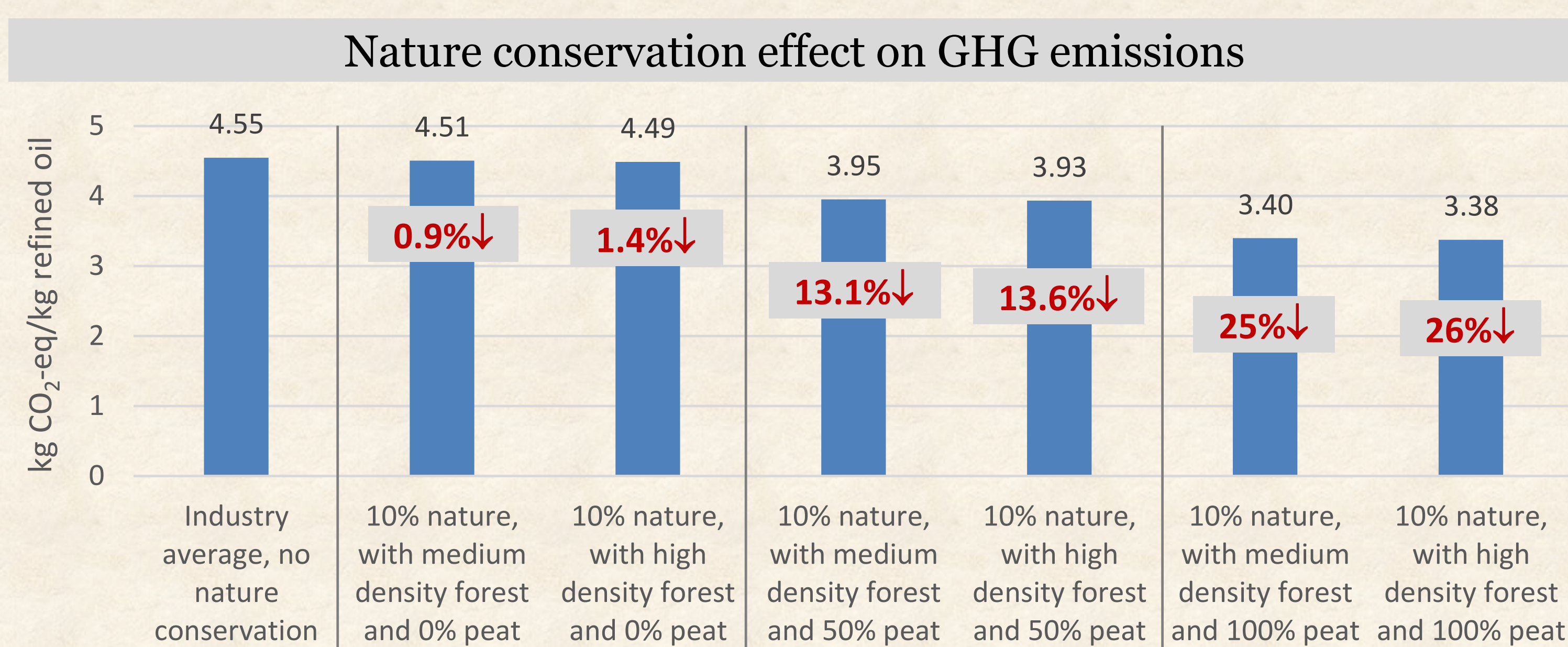
Methods

The backbone of the LCA is based on our work with the palm oil industry, academia and RSPO during the last 12 years. The detailed life cycle inventory in Schmidt (2015) is the starting point for describing the industry average for non-certified palm oil.

The LCA will focus on the impact of RSPO criteria and practices of certified producers – compared to non-certified producers. As examples, the effects on GHG emissions from biogas and nature conservation are illustrated below.



(Schmidt 2016)



(Schmidt 2016)

To join

Become a partner of this crowd-funded project. Anyone can subscribe. The price of subscription is a onetime amount at 3,000 EUR. The minimum budget for conducting the project is 30,000 EUR. Budget from subscriptions that exceed the minimum budget will be used for expanding the scope of the project.

Contact

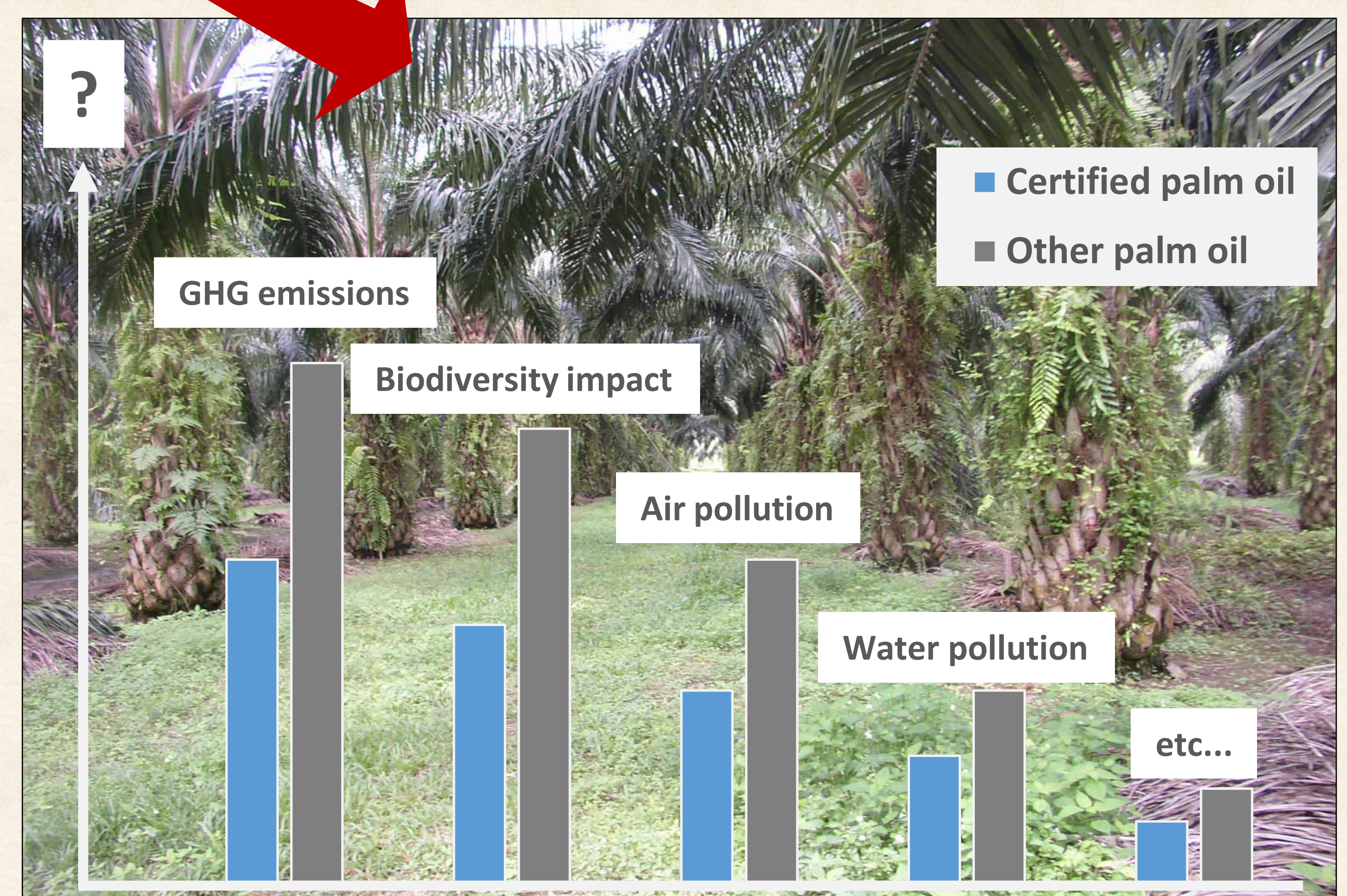
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Target group

- **Certified producers:** show, with a quantitative approach, the sustainability advantage of certified over non-certified palm oil.
- **Consumer goods companies:** be able to claim environmental impact reductions derived from their sustainable procurement policies.
- **For environmental footprinting** of products containing certified palm oil.

Deliverables and timeline

- A study report.
- An article submitted to a scientific journal.
- Life cycle inventory data of RSPO certified palm oil and non-certified in a format for import into LCA software.
- The expected duration of the project is one year- starting at beginning of 2017.

References

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- Schmidt J (2015c). Life cycle assessment of palm oil at United Plantations Berhad 2014. Results for 2004-2013 summary report. United Plantations Berhad, Teluk Intan, Malaysia. <http://lca-net.com/p/1953>
- Schmidt J, Weidema B P, Brandão M (2015). A framework for modelling indirect land use changes in life cycle assessment. Journal of Cleaner Production 99:230-238.
- Schmidt J (2016). Life cycle assessment of palm oil – investigating nature conservation and other GHG mitigation options. Paper presented at the International Conference on Oil Palm and the Environment, 16-18 March 2016, Bali.