

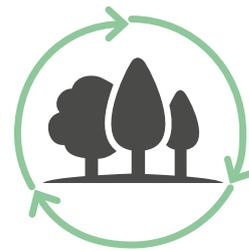


## Climate Smart Agriculture Solution: Deforestation Free Supply Chains

The need for land for agricultural production has resulted in agriculture being the most significant driver of deforestation worldwide.

With the demand for agricultural products expected to double in the coming decades, the pressure on forests is likely to increase further. It is therefore imperative that ways are found to increase agricultural production, particularly for poor households, without causing further deforestation and associated green-house gas emissions. A growing number of companies and governments are making public commitments to purchase products which are deforestation-free. However, effectively translating such commitments into impact at the production level has proven to be a challenge.

In response, SNV has developed an approach to achieving **deforestation-free supply chains**. Central to this is an analysis of land use dynamics across a target landscape. Once it is clear where forests are at risk of deforestation, measures can be developed to monitor and protect forests and guide *sustainable agricultural expansion*. In those areas where agricultural development is promoted, we pay particular attention to supporting smallholders by facilitating their *incorporation into company supply chains*, and by providing assistance in increasing their yields and meeting *certification* standards. To demonstrate that a supply chain is deforestation-free we implement *traceability* tools to trace production back to the farm level. The three elements should be applied as a package in order to have a lasting impact on reducing deforestation.



### Deforestation-Free Supply Chain



Sustainable  
expansion



Inclusive  
business



Certification  
& Traceability



## Sustainable Expansion

A key challenge in developing deforestation-free commodity supply chains is ensuring that efforts in one location do not result in a shift of deforestation to other areas, but have a positive impact across the landscape. To mitigate the risks for such 'leakage', interventions need to take into account the impacts at a larger scale, beyond plantation boundaries. In order to provide insights into the relationship between the

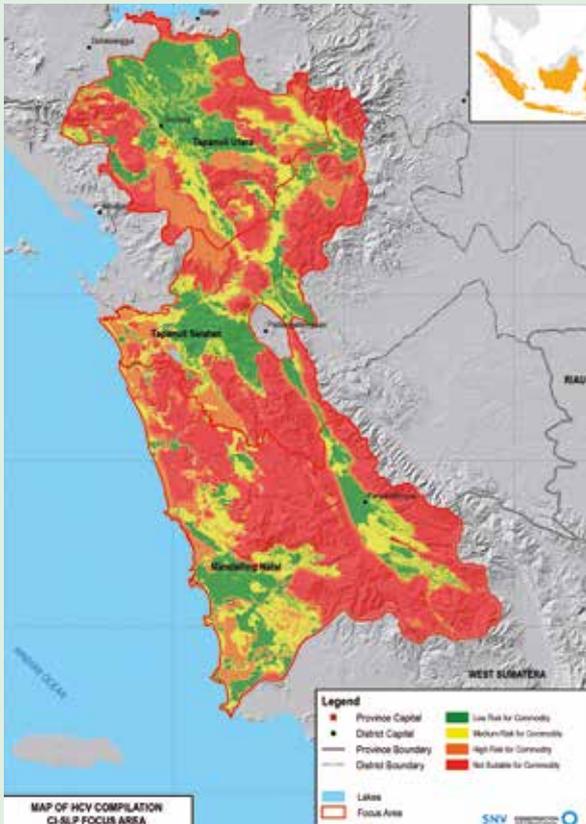
forest and agriculture sector and help decision makers identify and introduce appropriate interventions, SNV produced the report *Finding the right balance: exploring forest and agriculture landscapes*. The study reveals that stronger regulation and planning at a landscape level are some of the key factors which need to be in place in order to balance agricultural intensification with forest protection



To better understand the landscape and provide appropriate solutions, we work through public-private partnerships and employ a variety of tools, such as the SNV Siting Tool which is described below. This helps us to determine where forests are at risk of conversion in order to design strategies for sustainable agricultural expansion across forest landscapes. We align our interventions with government policies and subnational climate change adaptation and mitigation plans whenever possible (read info-sheet on **Climate Smart Landscapes**).

## Inclusive Business

SNV has developed an Inclusive Business approach which seeks to involve low-income groups in company value chains as producers, distributors or consumers. The approach generates improved wellbeing for smallholders, supports the introduction of environmentally sustainable production methods, and creates core business benefits for the participating companies. SNV has developed more than 200 Inclusive Business projects across Latin America, Asia and Africa. We offer a number of services to assist companies in implementing inclusive business models, including opportunity identification, inclusive business plan design, relationship brokering, capacity development, programme implementation and monitoring and evaluation.



## The Siting Tool

The SNV Siting Tool enables the zoning of a landscape for the suitability of a particular target crop, based on criteria related to biophysical suitability, conservation values and human wellbeing and rights, taking into account the impacts of climate change over time.

Criteria and associated indicators are prioritized based on the outcome of discussions with relevant stakeholders. The tool allows for the output of a Risk Indicator Map, highlighting which areas are suitable for sustainable agricultural expansion (low risk areas, in green) and where forests should be conserved (high risk areas, in red), as well as a suite of options in-between. Recommendations on the types of interventions that are needed in each suitability zone are given. This provides strategic information for investors, companies and governments on meeting targets for economic development while mitigating the impact on forests.

SNV currently implements the tool in Indonesia (Palm Oil, Rubber, Coffee, Cocoa), in Vietnam (Coffee, Acacia), Democratic Republic of Congo (Palm Oil, Cocoa) and Cameroon (Cocoa).

As part of our inclusive business offering we also provide support to companies to ensure that their supply chains are deforestation-free. To this end we have developed various tools to support companies to detect and reduce deforestation in their supply chains; in particular a traceability tool and a forest monitoring system. In Indonesia, SNV currently implements the inclusive business approach as a means to reduce deforestation from oil palm production. We work with the companies REA Kaltim, Wilmar and Prosympac to strengthen their relations with their supply base and secure a reliable stream of high quality fruits while reducing the environmental impact.

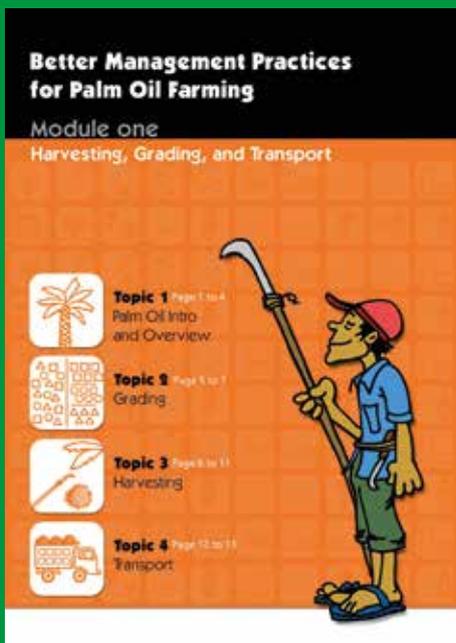
### Certification and Traceability

To have a significant impact on reducing deforestation and enhancing the broader social and environmental sustainability of supply chains, providing support and incentives for smallholders is crucial. Smallholders produce a major share of the commodities linked to deforestation, yet these groups are often the least able to make the required changes in their practices due to a lack of knowledge and capital. In the absence of adequate mechanisms to support smallholders in meeting environmental standards, companies committed to deforestation-free sourcing may effectively be forced to exclude smallholders from their supply chain. SNV implements training programmes to strengthen smallholder production systems. An example is provided below.

In some cases, farmer trainings serve to work towards meeting certification standards. Agricultural certification



enables producers to receive a higher price for their produce, while annual third party audits ensure that environmental and social standards are being met. However, although many certification schemes include criteria which prohibit forest clearance, not all have effective mechanisms in place to demonstrate that a supply chain is deforestation-free, notably for commodities with complex supply chains, like palm oil.



### Better Management Practices training programme

SNV, in partnership with Wageningen University, developed a Better Management Practices training programme for the palm oil sector. The programme focuses on strengthening smallholder knowledge and capacities to increase yields and incomes while minimizing deforestation and other negative environmental impacts. Participants receive training on agronomy, institutional development, environmental management and using palm oil waste for energy production. We work through cooperatives or farmer groups in order to maximize impacts, create economies of scale and facilitate collaboration between smallholders and companies further downstream. The training programme is being implemented in Sumatra and Kalimantan, Indonesia, and aims to reach over 15.000 farmers.



### Enhancing traceability in palm oil supply chains

SNV developed a geo-traceability tool to trace production back to the farm level. The system consists of three components:

- A user-friendly **smart phone application** that enables local staff to conduct surveys directly on their phones.
- An internet-based **dashboard** for designing surveys, managing their distribution and performing data analyses.
- **Interactive maps** for visualising and sharing results.

Combined with a forest monitoring system, SNV's traceability system provides a low-cost option for detecting and monitoring deforestation in supply chains.



To be able to provide the information of where production is sourced from, low cost methods are required, in particular in the context of smallholders. They must, however, also be sufficiently robust to meet the aim of identifying whether deforestation is taking place and ensure that the production coming from those areas will not join the supply chain. SNV, in partnership with Akvo, has developed such a low cost traceability system, which is described in the box above. This system can be used as an add-on to existing certification schemes or in a stand-alone manner.

### Projects

- **Balancing palm oil production and forest conservation in Indonesia**
- **Agroforestry in cocoa landscapes in Ghana**
- **Mangroves and Markets project in Vietnam**
- **Coffee and cocoa programme in Nicaragua**



#### For further information

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