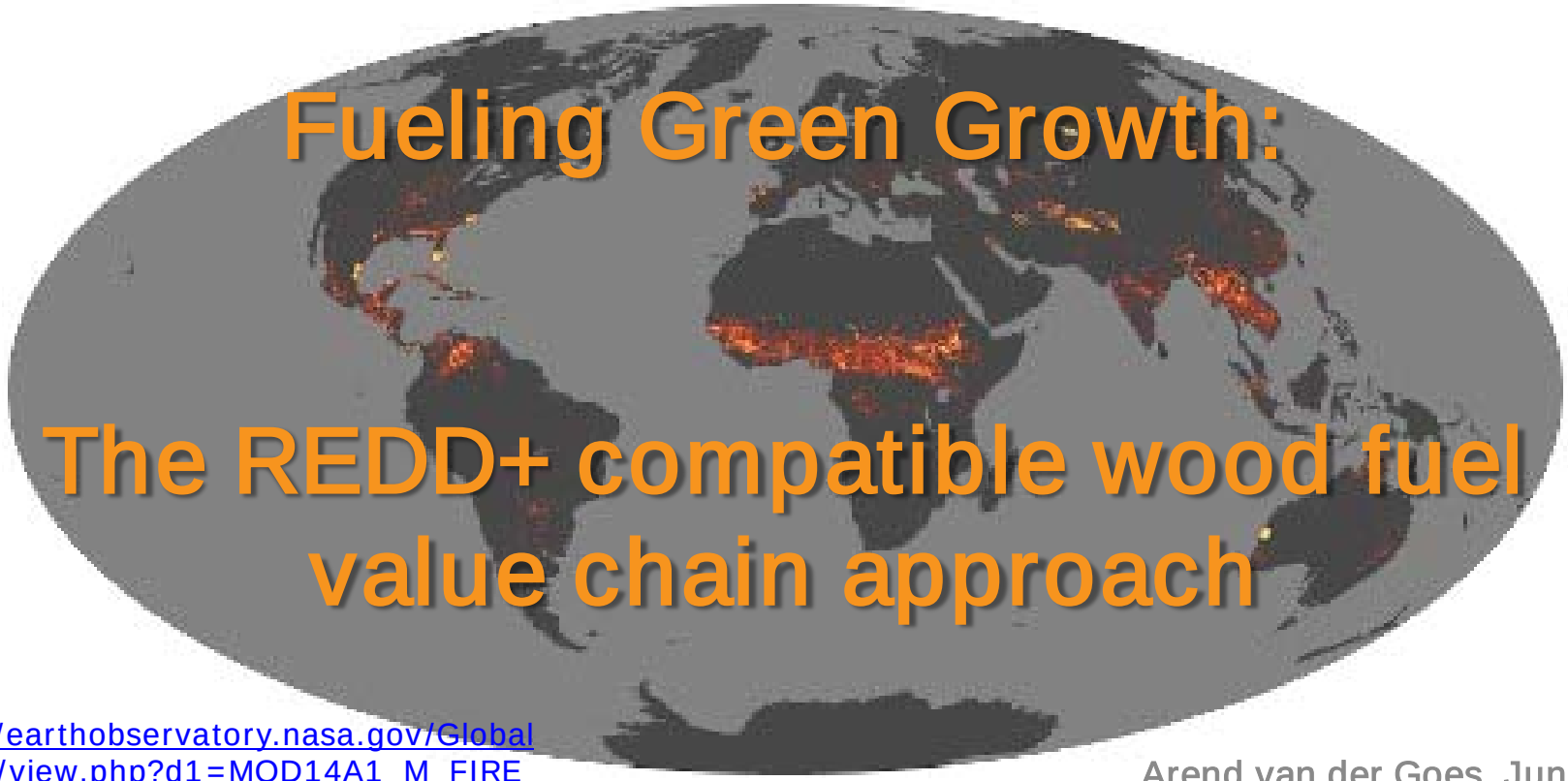
Fueling Green Growth:

The REDD+ compatible wood fuel value chain approach



http://earthobservatory.nasa.gov/GlobalMaps/view.php?d1=MOD14A1_M_FIRE

Arend van der Goes, June 2015

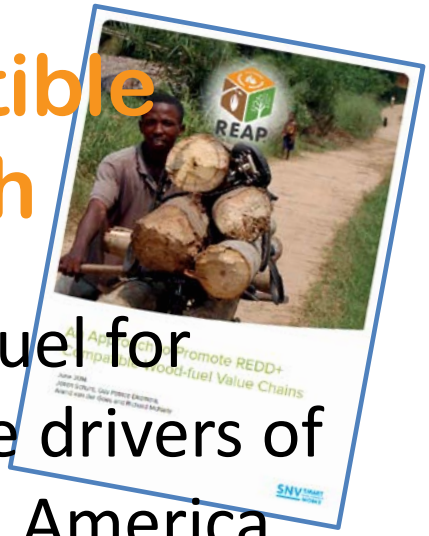



Relation to CBFP Green Economies Session

- Wood-fuel (or biomass) is often an input to business processes.
  - Examples from the Congo forest basin include: oil-palm, tea, coffee, tobacco, fish smoking, restaurants, bakeries, metal smelting, brick making, cement making

- Biomass is often a waste-product of business that can bring added value as additional energy source and reduce greenhouse gas emissions
  - Example: coffee waste can be used as energy source leading to zero emissions in the entire production process (COOPEDOTA, Costa Rica), waste from timber companies, methane from oil-palm waste water, etcetera.

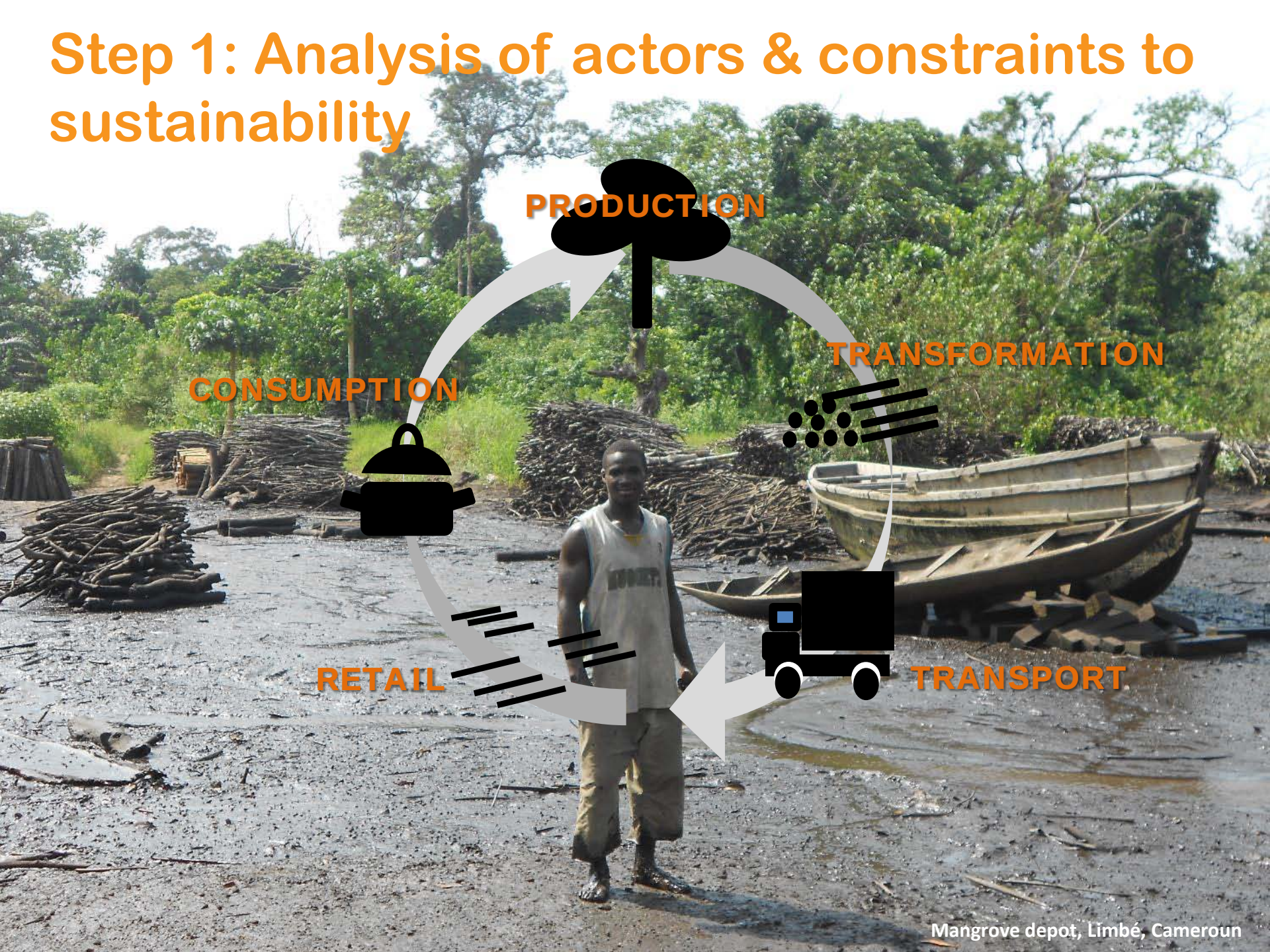
Summary of the REDD+ Compatible Wood-fuel Value-chain Approach



- Wood-fuel, both for domestic use and as fuel for businesses, is counted among the principle drivers of forest degradation in Africa, Asia and Latin America, with over 94% of the population in Africa depending on the sector
- This approach aims to offer an inclusive and analytical approach –in three steps- that can make the wood fuel value chain sustainable & compatible with the dual objectives of REDD+ (reducing emissions + increasing social benefits)


Slash & burn, Mouanko, Cameroun

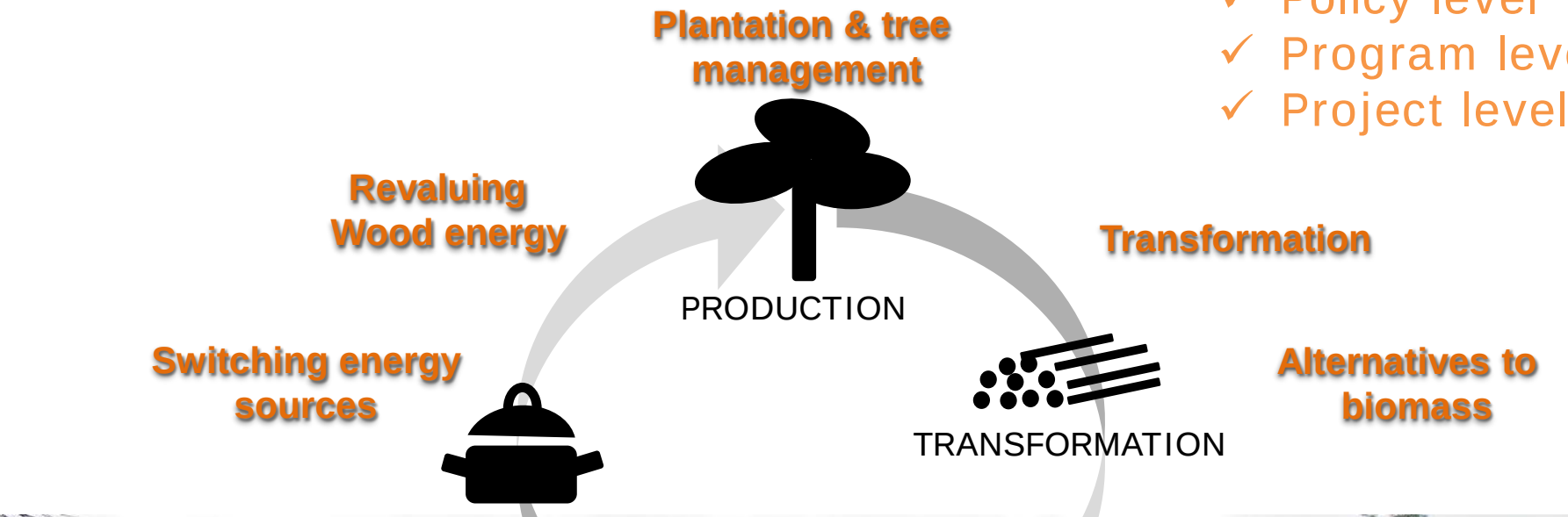
Step 1: Analysis of actors & constraints to sustainability



Mangrove depot, Limbé, Cameroun

Step 2: Intervention options

- ✓ Policy level
- ✓ Program level
- ✓ Project level

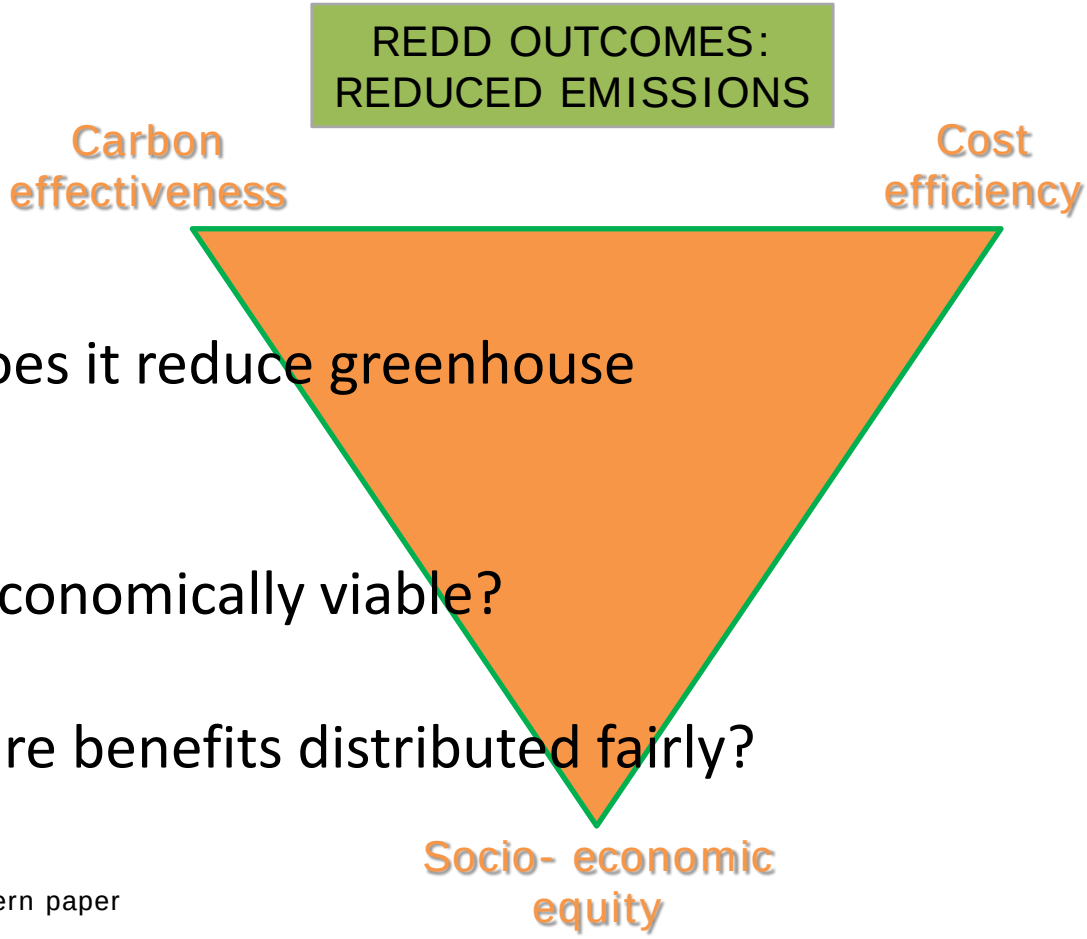


Mangrove wood market, Limbé, Cameroun

Step 3: REDD+ Outcomes: assessing *or* comparing interventions using 3^E

Is the intervention:

- Carbon effective – does it reduce greenhouse gasses?
- Cost efficient – is it economically viable?
- Socially equitable – are benefits distributed fairly?

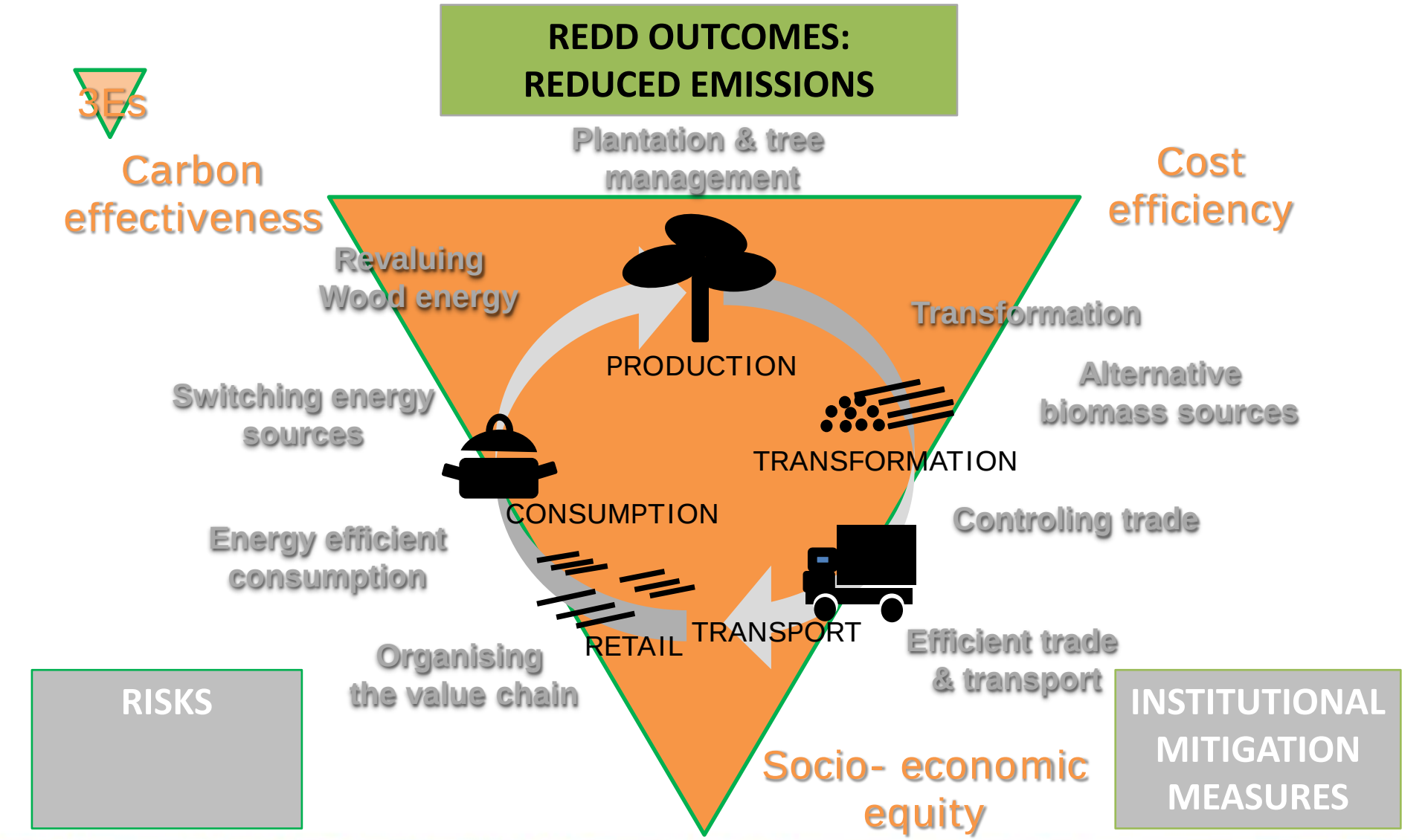


3^E was developed by CIFOR, based on the Stern paper

Risks & Mitigation

Major Risks	*Institutional conditions*
PRODUCTION RISKS -Other drivers of deforestation; wood-fuel is combined with other drivers -Unsecure access and tenure rights -Competition of land use for other sectors -Loss of livelihood activities; reduced participation by poorest	-Baseline and date to monitor changes in forest areas (GHG emissions) & impacts on vulnerable groups -Support for participatory forest management -Providing tenure rights -Appropriate benefit sharing mechanism
TRADE & TRANSPORT RISKS -Regulation can exclude groups and distort market -Conflicts of interest over tax revenues -Difficulty to keep 'free riders' out of the system	-Monitor capacity of local management units and forest services -Associations which effectively represent different actor groups (including the poor) -Framework for dialogue between actor groups
CONSUMPTION RISKS -Higher prices for consumers -Increasing energy needs (urbanisation and population growth) -Emission balance of fuel switching can be negative -Uncertainties of adopting new technologies	-Coherent wood-fuel policy based on supply/demand and sustainability -Monitoring and data on consumption -Effective technology extension agencies

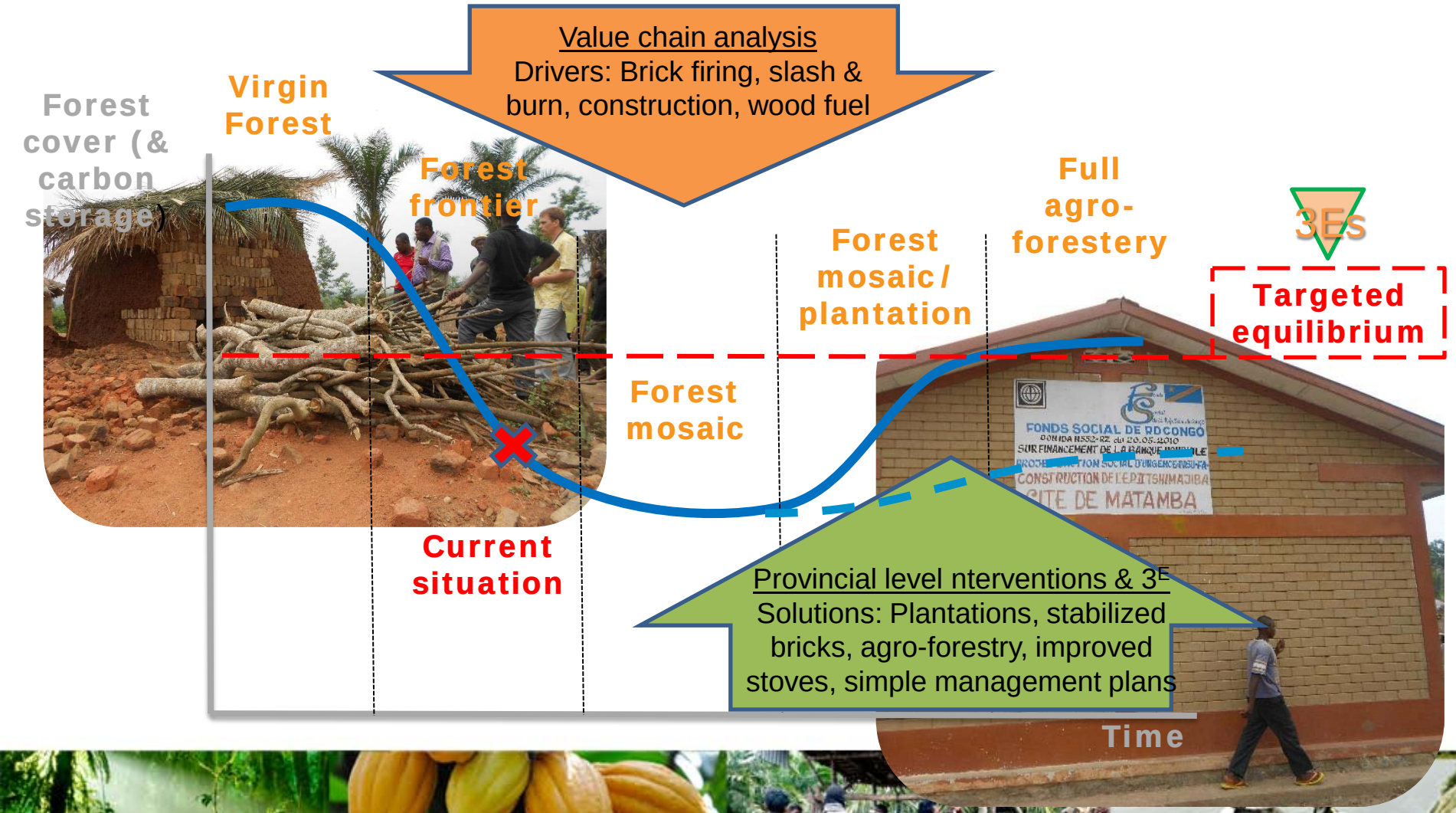
Summary diagram of the SNV approach



Applying the approach

- Burkina Faso Dolo project
  - Plantations, woodmarkets, organising producers, ICS, leveraged for NAMA
- Burkina Faso Biomass Energy NAMA
  - Upscaling to € 13.5m sector-wide national program, financing mechanism, private sector involvement, stimulating alternative energy, potential leverage for AfDB ($6m)
- DRC Forest Investment Program
  - Approach as assessment tool to determine alternative energy strategies + FIP implementation plan (PIREDD, energy component, $9.4m)
- DRC Sustainable Charcoal Project
  - Approach linked to Mampu project: plantations, improved carbonisation, labeling of green carbon, marketing, links to retailers and improved stoves
- Ghana Fish Smoking & Mangrove project
  - Plantation, rehabilitation of mangroves, private sector development, micro credit, energy efficiency, leveraged for USAID fisheries project ($1.9m)

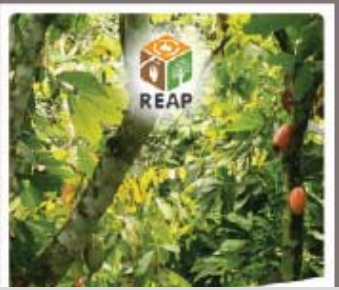
Forest transition & green growth in Kananga, DRC: the construction industry



Thank you for any comments!

Finding the Right Balance: Exploring Forest and Agriculture Landscapes

Agricultural expansion is a major driver of deforestation. Given a growing population and the projected growth in demand for food, fuel and fibre, it will continue to exert the greatest pressure on the remaining forest areas. To tackle deforestation it is critical we clearly understand the relationship between agricultural production systems and their impact on forest landscapes.
There continues to be a knowledge gap in our understanding that can lead to the prescription of seemingly intuitive but likely erroneous or partial solutions.This



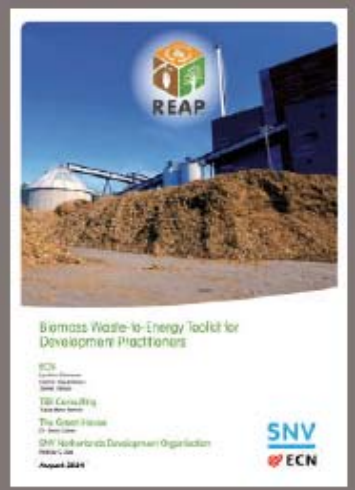
The Role of Voluntary Agricultural Certification Standards in Quantifying and Reducing Greenhouse Gas Emissions: Exploring the Cocoa, Coffee, Palm Oil and Shrimp Aquaculture Sectors

This report investigates the role that voluntary agricultural standards can play in reducing greenhouse gas emissions associated with the production of agricultural commodities. Focusing on cocoa, coffee, palm oil and shrimp aquaculture production, eight voluntary agricultural standards have been selected for analysis. The report identifies and assesses three approaches that the certification schemes

Suggested further reading

WWW.SNVWORLD.ORG/REDD

development of carbon credit generating projects. The report concludes with a set of



Biomass Waste-to-Energy Toolkit for Development Practitioners

The use of renewable energy sources is critical if we are to achieve the changes needed to transition to a more sustainable, low emissions development trajectory. Waste products from agricultural, forestry or industrial processes are often discarded, despite their potential as a low cost sustainable energy resource. Waste to energy projects allow greater value to be gained from these wastes and residues.
SNV has designed this introductory toolkit with the purpose of supporting development practitioners and other interested stakeholders in designing projects for the recovery of energy from biomass waste. It focuses specifically on projects which aim to use agricultural and forestry waste for the generation of electricity, using technologies including combustion, gasification and anaerobic digestion. This toolkit provides relevant information and guidance for assessing the feasibility of the envisaged project and improving its design.