



ENERGY FOR SUSTAINABLE TRANSPORT

Trondheim Seminar Presentation

Netherlands

Development

Organisation

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Norway



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SMART DEVELOPMENT WORKS

Who we are



SNV is an international not-for-profit development organization founded in 1965 with headquarter in the Hague's. SNV is active in **38** of the poorest countries in Asia, Africa and Latin America in **Agriculture, Renewable Energy, and Water, Sanitation & Hygiene. SNV is present in Niger since 1978.**

What we do



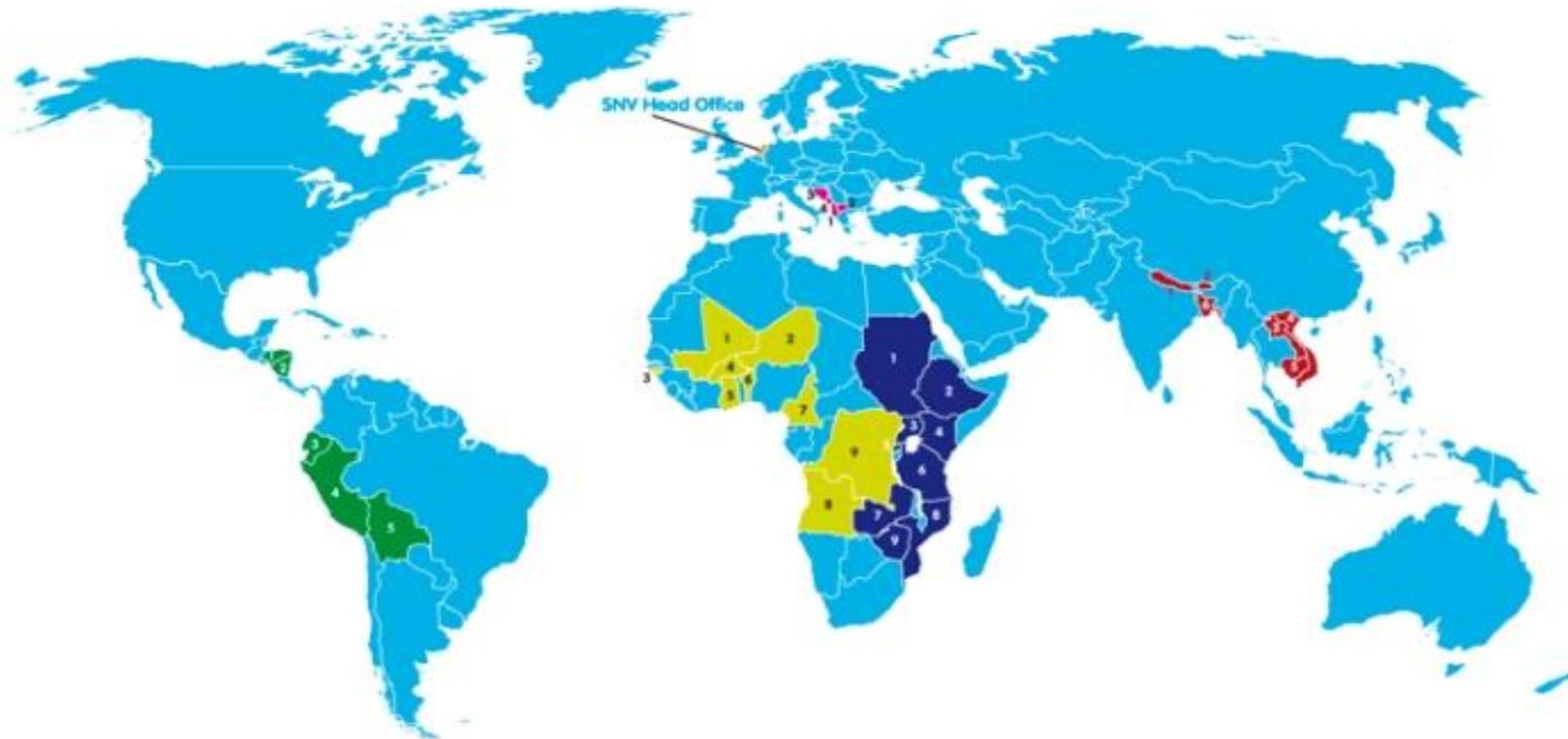
SNV and its local partners work to equip communities, business and organizations with the **tools, knowledge** and **connections** to increase incomes and gain access to basic services in a sustainable way

What we aim for



In 2016, **SNV** improved the lives of over 6.1 million people, and from 2016 to 2018 it will improve the quality of life for over 20 million.

SNV uses its technical knowledge, 50 plus years of experience, passionate staff, extensive local presence and global footprint, to make a lasting difference in people's lives.



Latin America

- 1 Honduras
- 2 Nicaragua
- 3 Ecuador
- 4 Peru
- 5 Bolivia

West and Central Africa

- 1 Mali
- 2 Niger
- 3 Guinea Bissau
- 4 Burkina Faso
- 5 Ghana
- 6 Benin
- 7 Cameroon
- 8 Angola
- 9 DR Congo

East and Southern Africa

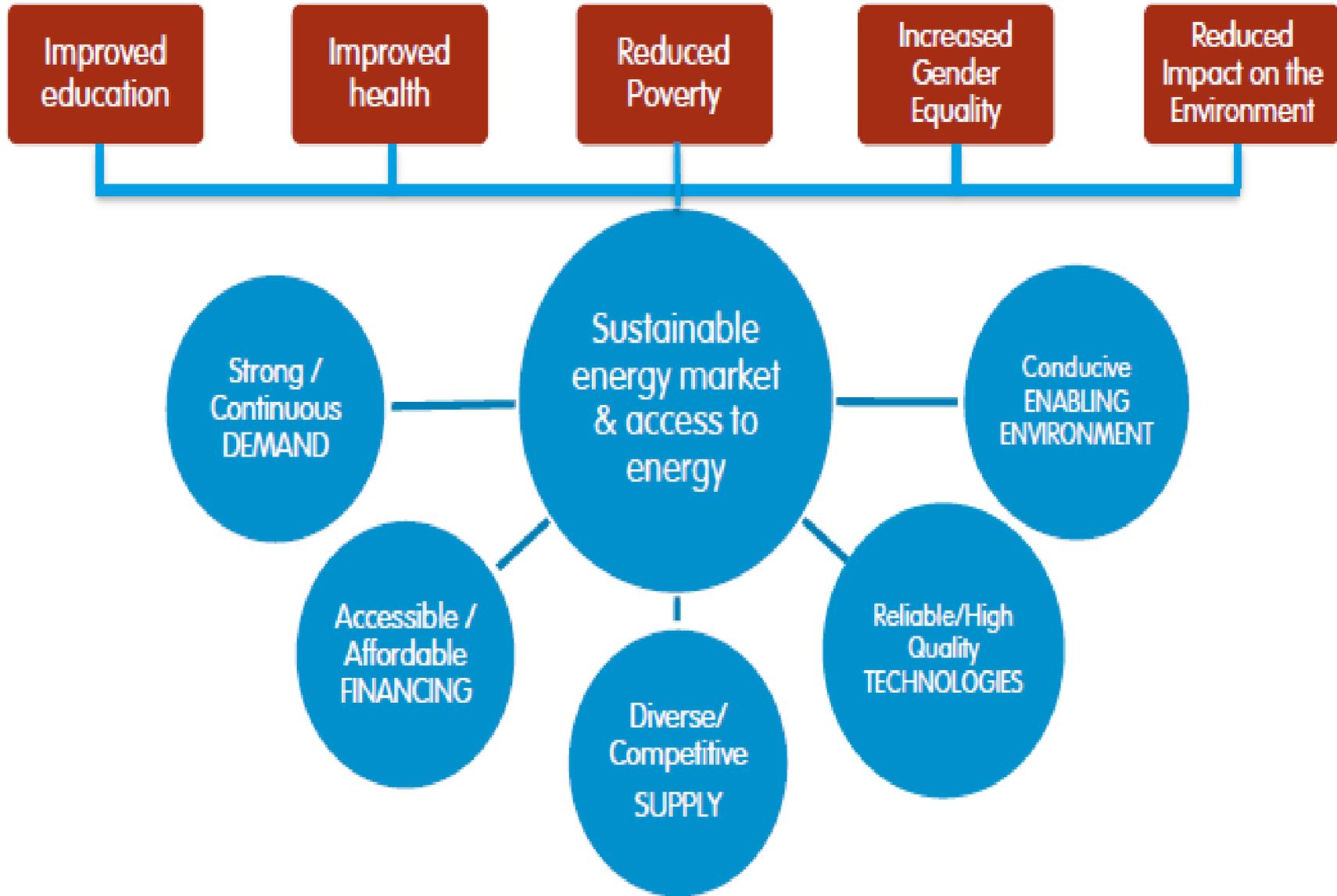
- 1 Sudan
- 2 Ethiopia
- 3 Uganda
- 4 Kenya
- 5 Rwanda
- 6 Tanzania
- 7 Zambia
- 8 Mozambique
- 9 Zimbabwe

Balkans

- 1 Albania
- 2 Macedonia
- 3 Bosnia Herzegovina
- 4 Montenegro

Asia

- 1 Nepal
- 2 Bhutan
- 3 Lao PDR
- 4 Vietnam
- 5 Cambodia
- 6 Bangladesh



Impact highlights:



1.6 million

People with increased income



2.9 million

People with new access
and improved sanitation



620,000

People with increased access to
improved energy technologies



299,000

People with increased resilience
to climate change



1.7 million

People using an improved
drinking water source



266,000

People with improved access
to clean cooking



251,000

People with increased food
and nutrition security



1.5 million

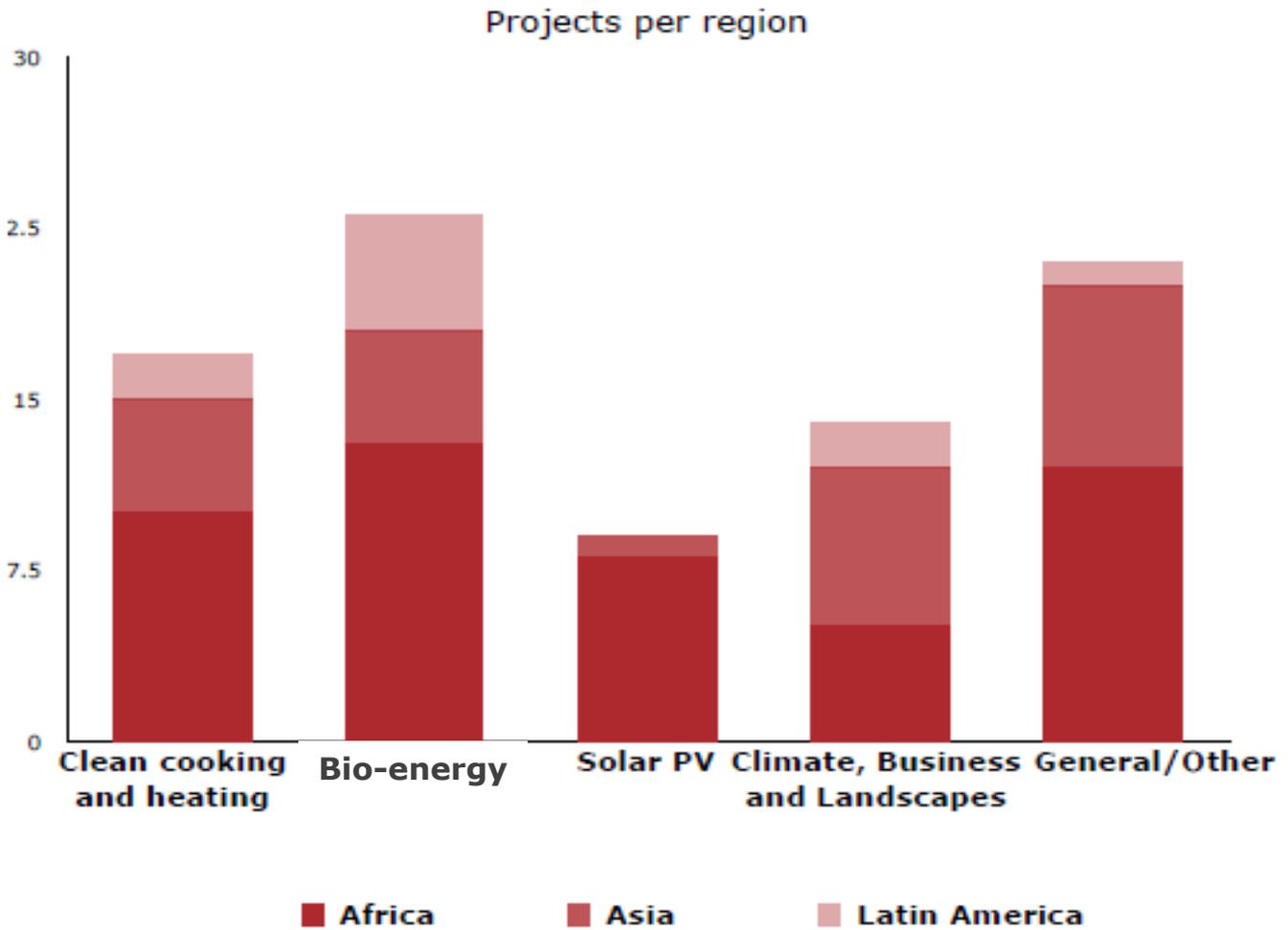
People practicing handwashing
with soap



550,000 tons

Of greenhouse gases reduced

Projects implemented



SNV executed 84 energy projects in 23 countries in Africa, Asia and Latin America with the aim to improve energy access and reduce emissions

Niger Context and Transportation issues



Niger is a poverty-stricken country with a large rural population (85% of total). The Government prioritizes the energy sector for both socio-economic development and climate adaptation and specific targets have been set: by 2020 10% renewable energy (RE) in the energy mix, and 40% access to basic energy by 2018.

Road transport is the major form of travel across the huge distances between Nigerien population centers, though most Nigeriens do not own vehicles. In 2007 the number of cars in Niger were 102 699 with about 10% of annual increase.

In cities, public transport systems are largely absent, so a variety of privately operated services carry many urban dwellers. Vans, cars, motor coaches, trucks, and even converted motorbikes provide paid transport. Intercity coach systems are the standard form of personal transport and private transport companies (about 23 private transportation companies have been recorded in 2016.)

Proposal Approach

Context

- The National GHG inventory report recorded in Niger INDC (2015) for COP21 that the first GHG emission sector is transportation (41% of the total emission in the country).

Implication

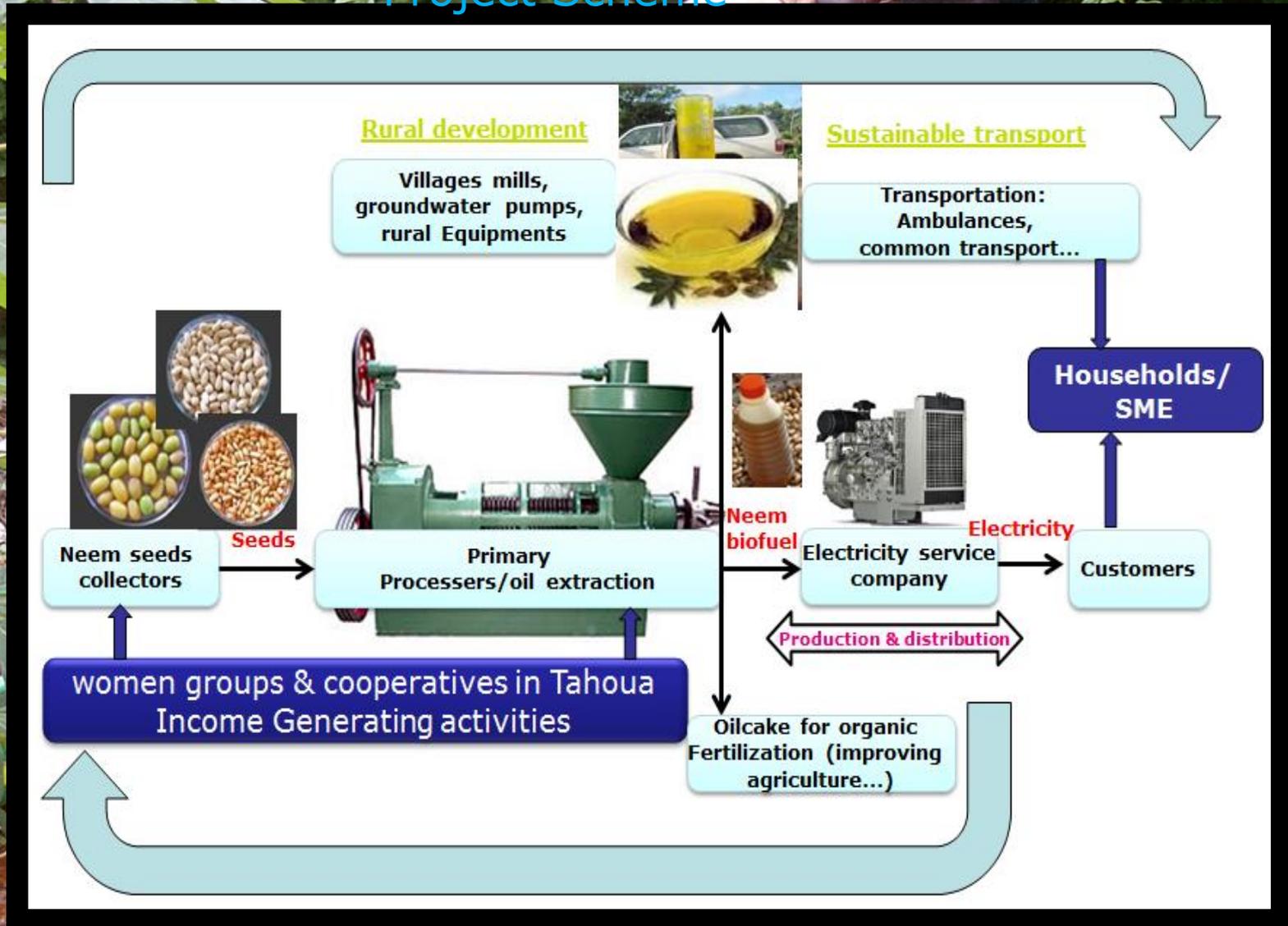
- Migrating transportation from fossil-based energy to other alternatives such as renewable energy is one of the biggest challenges

Action

- Bio4Tdev has been designed by SNV to handle this situation. Produce neem seeds biofuel to promote sustainable transport and rural development



Project Scheme



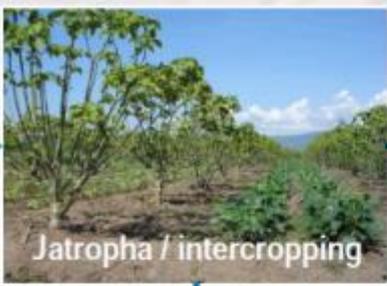
SNV Approach

SNV has been implementing Bioenergy Programs in Latin America, Asia and some African countries seeking sustainable development, economic and social inclusion, focusing on the Public policy development, Inclusive Business promotion and Social empowerment.

Biofuels Domestic biogas



MTB PROBIOSAM



Jatropha / intercropping

Agricultural residues

Jatropha seeds

?

Food crops

Food market / consumption



Oil extraction

Vegetable oil

Seed cake

?

Biodiesel market



Generator

Electricity

Alternative for communities without energy

Sustainable transport



Cattle dung



Biogestor

Biogas

Organic fertilizer

Cooking gas

Fertilizer market



sanmartin

Challenges

Biofuel vs Land us & Food Security

- Recent food security crises have also invigorated the debate of biofuel production potential in developing countries, given the fact that most of them depend on local agriculture for sustenance. Land plays a crucial role in the livelihoods of poor countries; therefore, food security and poverty alleviation



Technical

- At a micro scale, technical challenges are easy to handle because there is no need of very complicate machineries and technology in term of process. Most of the time some of the machines broke down quickly after the project closure because of the lack of proper maintenance and a poor local expertise.



Financial & Institutional

- Conventional forms of financing are typically not available for implementing emerging technology operations, as many institutional lenders are not accustomed to managing the risks associated with unproven or ill-understood technologies used in the manufacture of products for unproven markets
- In most of developing countries, national Biofuel policies are not often very clear. The institutional framework is not very conducive to the promotion of biofuels



Solutions

Biofuel vs Land us & Food Security

- It is pivotal for governments to regulate the distribution of land in order to prevent the exploitation of people, especially impoverished small-scale farmers, by the biofuel markets. The combination of some strategies like (food versus fuel; land use change, etc.) while seeking opportunities for economic development with social inclusion seem relevant

Technical

- R&D is the main key and knowledge development through capacity building of the stakeholders' involved, technical innovation and concrete cases to demonstrate best practices.

Financial & Institutional

- Design adequate business models and the identification of production schemes based on criteria for sustainability and inclusive business that contribute to local economic development.
- As a development organization SNV works with governmental agencies through advocacy and awareness and share with them some best practices and experiences from another countries to have them improve their vision. SNV has promoted public-private partnerships and development of integrated policies needed to facilitate a sustainable and inclusive development for the biofuels sector

Future Plan & need for partnership

1. Seeking support for the implementation of Bio4TDev project and develop new project in an inclusive approach with private Sector to disseminate products and know-how.

2. SNV has started serious discussion with Niger Government for Lobbying and advocacy around the issue of sustainable transport and the need to set a clear regulatory and institutional framework and an enabling environment for the promotion of this sector.

SNV truly believes in collaboration with international organizations, companies, institutes, all the actors involved in the promotion of sustainable transport. In a less advanced country such as Niger, it is important that an exchange network must be set up with major players at international level to share good practices and knowledge. SNV can facilitate linkages with stakeholders (private sector, institutions...) in order to disseminate technologies that fit with Niger local context.



NAGODE!