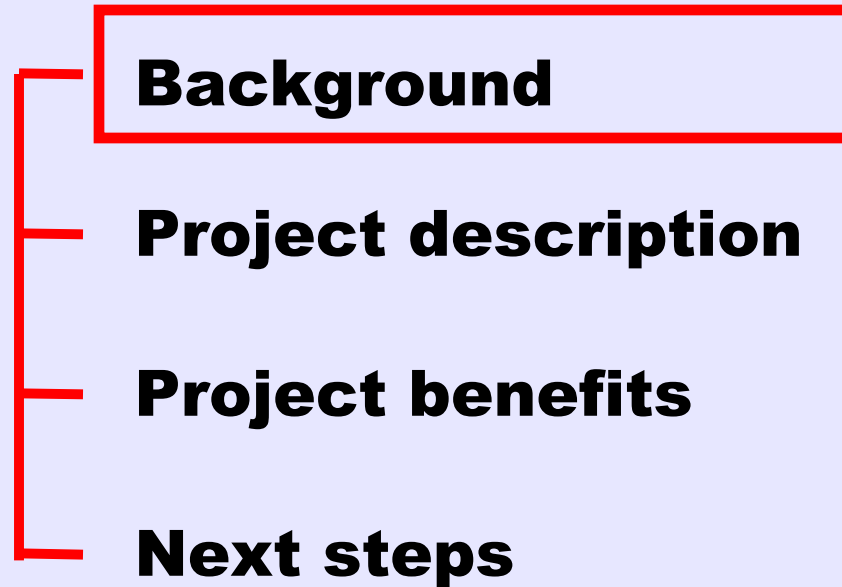


Tanga Cashew Project

**A Sustainable
Development project
for Tanzania**



Tanga Cashew Project



Project Partners

Tanga Cement Company

- **1 cement plant in Tanga region**
- **Production capacity 500,000 tonnes**
- **Workforce of 325**
- **Part of the Holcim Group**

Biomass Energy Tanzania Ltd (BETL)

- **Promoting alternative renewable energy**
e.g. Biomass briquetting, industrial fuels, bio-diesel
- **Integrated waste / energy schemes**
- **Clean Development Mechanism (CDM) projects**

Biomass = fuel source for cement kilns

Tanga Cement seeking Alternative Fuels & Raw materials (AFR)

BETL identified agricultural waste as biomass fuel

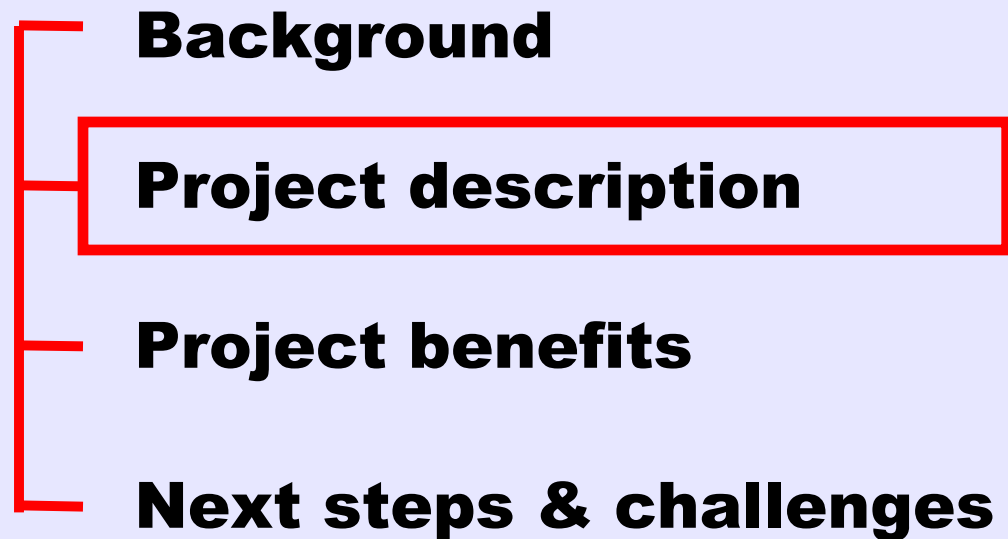
Cashew nut waste an excellent source of biomass

CASHEWS:

- **High proportion of waste product**
- **Suitable crop for Tanga region**
- **Potential premium product for Tanzania**



Tanga Cashew Project



Tanga Cashew Project

Project to set up:

- **Smallholder cashew farm + cashew processing operation in Tanga**
- **Biomass waste management**

Project deliverables:

- **Cashew nuts for sale and export**
- **Biomass waste (AFR) for Tanga Cement**
- **A model of sustainable development in action**

How the project works

- 
- Farm concept**
 - Cashew processing & sale**
 - Waste to energy**

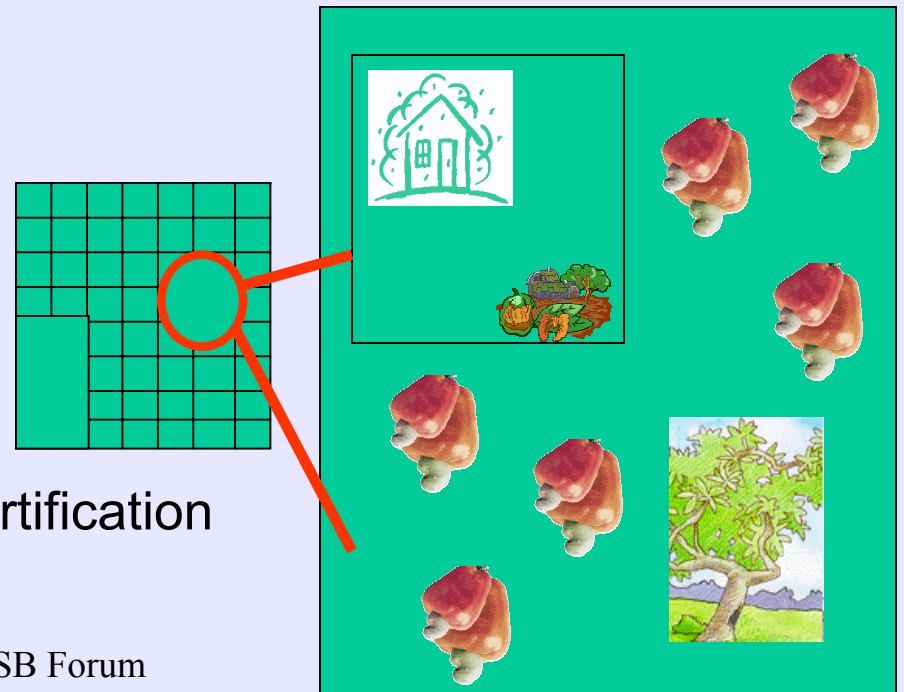
The Farm Concept

Smallholder farming cooperative

‘Project’ will provide farmers with:

- **Share in farm & processing business**
- **5 acre blocks**
- **Agriculture training**
- **Stable pricing**

* Organic farming & fair trade certification possibilities



Cashew Processing & Sale

Cashew processing:

- **Sorting, roasting, packaging, marketing**
- **Local and export sales**

Processing operation will provide:

- **Job creation**
- **Attract increase in related commercial activity**
- **Shift away from low margin exports of unprocessed nuts**
- **Increase foreign exchange income and government income from taxes**



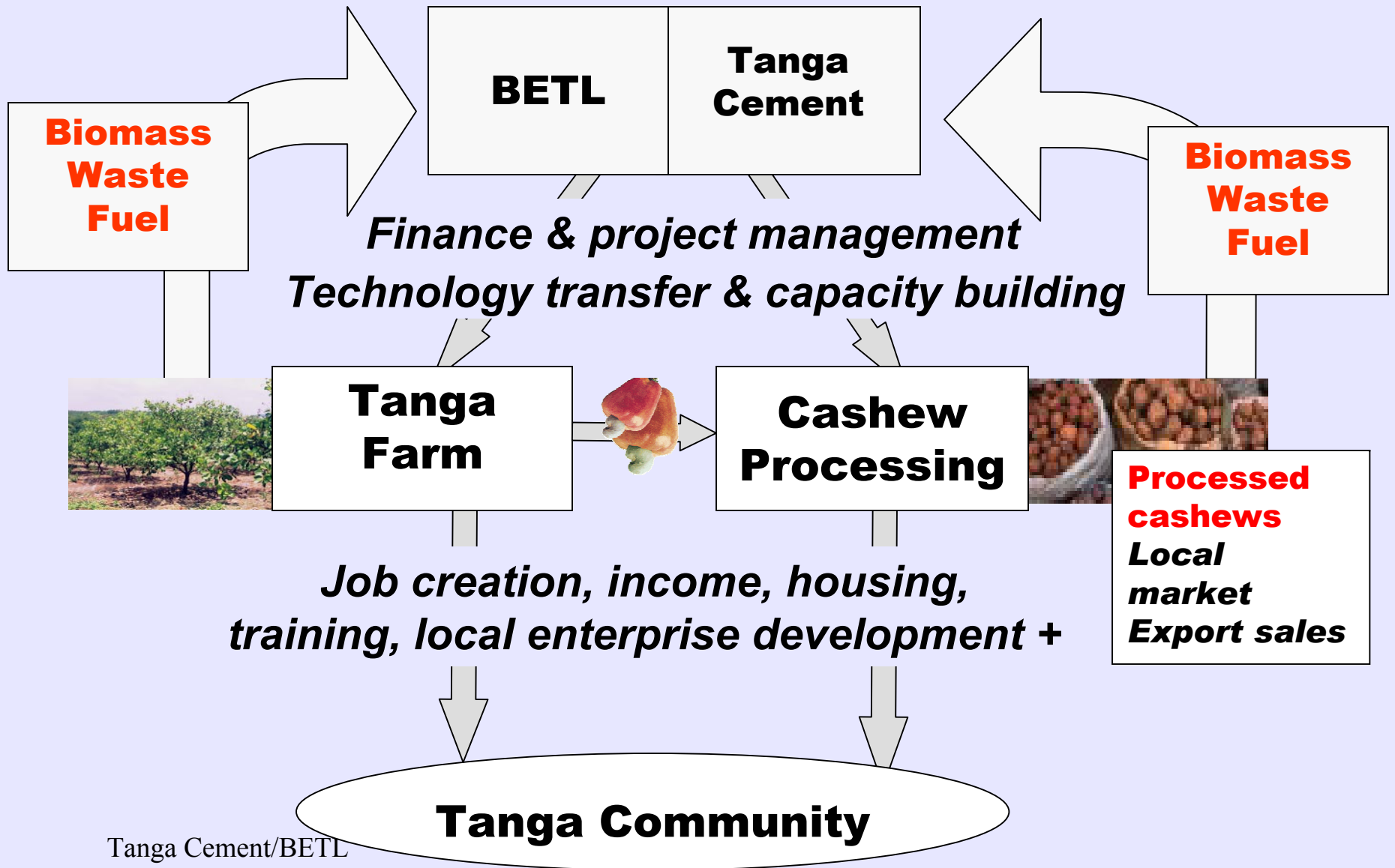
Waste to Energy

Tanga Cement to use biomass in cement kiln

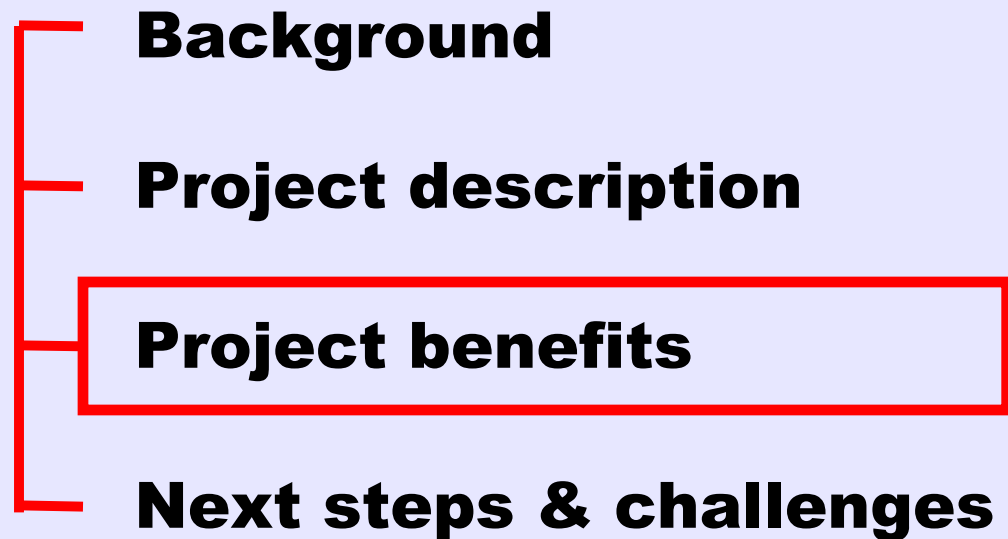
- **Opportunities for biomass waste to also replace charcoal for domestic energy needs**
- **Cashew nut shell liquid has other productive industrial uses**
- **Organic fertilizer**



Tanga Cashew Project



Tanga Cashew Project



Who benefits and how?

Local farmers

- Access to land and credit
- Capacity building
- Price stability

Tanga community

- Employment
- Local commercial activity
- Infrastructure and services

Who benefits and how?

Cashew industry

- **Streamlining supply chain**
- **Contribution to stabilizing market**
- **Shift to local cashew processing**
- **New 'premium' export product**

Tanga Cement Company

- **Removes fuel risk**
- **Reduced fuel costs**
- **Social and environmental contribution**

Additional future benefits ...

Project model for other areas/products

Corporate social responsibility

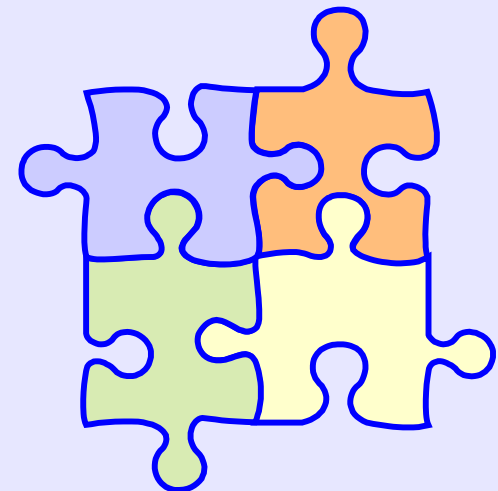
Cement for low cost housing

Extended capacity building efforts

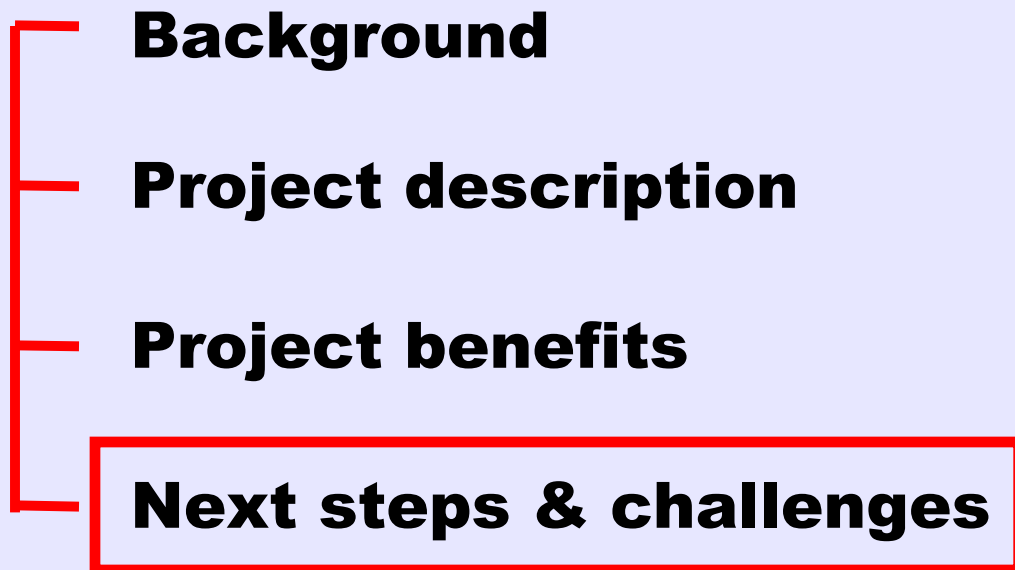
Clean Development Mechanism

Emission Reduction Credits

Other 'industrial ecology' linkages...



Tanga Cashew Project



Next steps

Project Implementation will require:

- **Company formation**
- **Financing**
- **Social & environmental impact assessments**
- **Stakeholder engagement**
- **Land acquisition**
- **Outgrower integration**

Challenges

- **Local government & tax administration**
- **Land acquisition**
- **Value adding to cashews**
- **Clean Development Mechanism**
- **Outgrower integration**



Sustainable development in action

What can the project achieve?

- **Social** – poverty alleviation through job creation, enterprise development, and capacity building.
- **Economic** – economic contribution to region, strengthening cashew industry, energy savings for company.
- **Environmental** – renewable biomass energy source = neutralization of greenhouse gas emissions.