

# Proposal for equitable, climate proof and sustainable development: a national appropriate mitigation activity (NAMA) for the energy sector in Georgia

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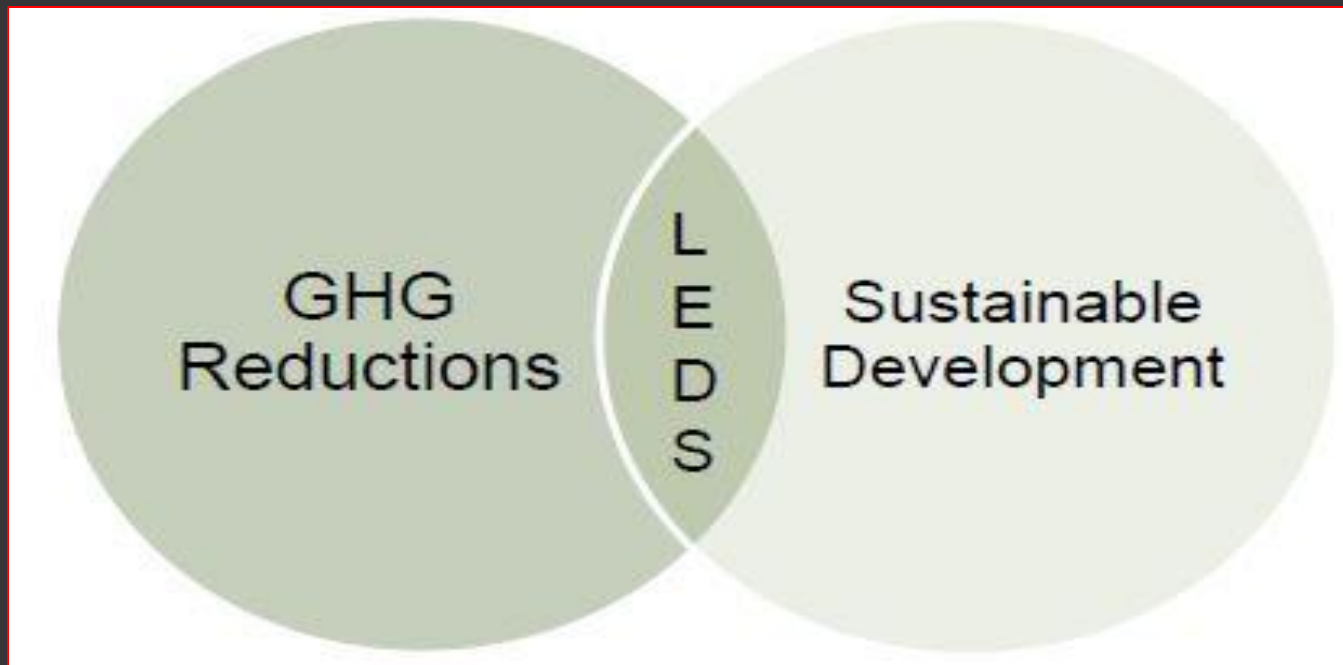
UNFCCC

Bonn, Germany

6 June, 2014

# NAMAs Overall Objective

**FOSTER CLIMATE MITIGATION ACTIVITIES, LOW-CARBON DEVELOPMENT AND POVERTY REDUCTION IN AN INCLUSIVE AND TRANSPARENT WAY ENHANCING INTERACTION BETWEEN DIFFERENT STAKEHOLDERS AND BUILDING CLIMATE-RESILIENT DEVELOPMENT CAPACITIES**



# NAMA - NATIONAL APPROPRIATE MITIGATION ACTIONS GEORGIA



# Proposal for Gender Equitable Sustainable Development NAMA

□ *Planned duration: 22 months*

○ *Funding: to be found*

○ *5 Target Regions:*

- *Imereti*
- *Samegrelo-Zemo Svaneti*
- *Mtskheta -Mtianeti*
- *Kakheti*
- *Samtskhe-Javakheti*

○ *Beneficiaries: (i).direct 20000 (ii) Indirect: 100000; (iii). LAs (250); (iv). Private Businesses (15);*

# NAMAs Justification **Energy Poverty**

| Regions             | Energy expenditures | Regions | Incomes | %  |
|---------------------|---------------------|---------|---------|----|
| Mtskheta - Mtianeti | 1460                |         | 5000    | 29 |
| Shida Kartli        | 1350                |         | 5500    | 24 |
| Imereti             | 1180                |         | 3500    | 33 |
| Samegrelo-Z.Svaneti | 1210                |         | 3800    | 31 |
| Racha-Lechkumi      | 1350                |         | 3600    | 37 |
| Adjara              | 1250                |         | 3800    | 32 |
| Guria               | 1200                |         | 3200    | 37 |
| Kakheti             | 1400                |         | 6500    | 21 |
| Samtskhe-Javakheti  | 1460                |         | 4500    | 32 |
| Kvemo Kartli        | 1400                |         | 5000    | 28 |

# Factors and Impacts of Energy Poverty

## *Factors*

- Variable weather conditions
- Use of wood for cooking and heating
- Increasing unpredictability of the climate
- Climate Change

## *Impacts*

- Deforestation
- Cutting of windbreaks
- Land slides
- Floods
- **Soil erosion**
- Soil degradation
- **Decrease of Agricultural production**
- Emissions of CO<sub>2</sub> and other green house gases

# Effects of Deforestation

- Erosion of Soil
- Disruption of the Water Cycle
- Loss of Biodiversity
- Flooding and Drought
- Climate Change



# CC Impacts

- Global Circulation Model (GCM) results predict (Georgia will face) an average temperature increase in Georgia due to climate change of 1.0°C by 2030 and 1.4°C by 2050.
- GCCA assumptions - economic activities, especially agriculture and food production, will be aggravated.
- The future impacts of climate change in Georgia in relation to sustainable development - especially poverty and the Sustainable Development Goals (SDGs), biodiversity, energy production, and political security is evident

## Extreme weather events during the last ten years

- flooding
- landslides
- forest fires
- coastal erosion
- Current trends are continuing with large-scale changes of ecosystems in both lowlands and mountains.



# NAMAs Stakeholders

- Local communities
- Local, Regional, National Authorities
- Ministry of Environment
- Ministry of Energy
- Ministry of Infrastructure and Economic Development
- Greens Movement of Georgia
- WECF- Women in Europe for a Common Future
- NGO RCDA - Rural Communities Development Agency
- NGO - CSDA – Social Development Center Akhaltsikhe
- Solar Partner Sud, Germany
- SEMA - Association of Ecological Farmers

## Specific gender related objectives

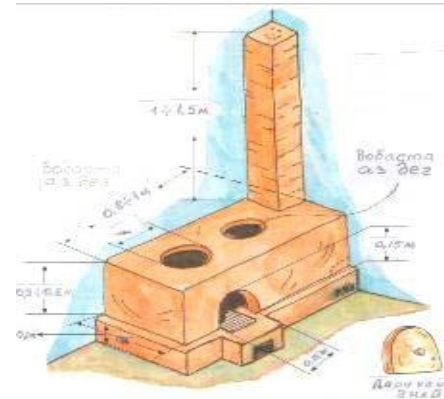
- Decreasing Green House Gas emissions through focus on construction and installation of 10 000 fuel efficient stoves and 10 000 solar hot water collectors with an abatement potential of 48,000 tons of CO2 per year
- Capacity Building and Engagement of local authorities in the transformation process to a low carbon economy
- Enhancement peer learning and strengthening tools on evaluating and communicating development impacts and benefits of LEDS
- Increasing broad-based economic development by promoting female education, employment and economic and political empowerment as strategy for climate change adaptation, **with women as key agents**
- Facilitate **Women's** access to cleaner, more efficient energy sources and technologies for household use and productive activities
- Support **women business activities**—including designing, producing, marketing and managing new energy products and services

# NAMAS ACTIVITIES

- Promotion of the supply of energy efficient technologies market access (*women & men*)
- Setting up 5 Technology Cooperation Advisory Facilities and 5 Regional Technology Centers (*women & men trainers*)
- Improving governmental business regulations and service providers
- Input supply
- Support establishment of new businesses in energy efficient technologies (*women & men*)
- Introduction alternative financing mechanisms (= a priority for women in particular)

# NAMAs Activities

- Introduction of designs of improved efficient 10 000 wood stoves



- Construction of 10 000 Solar Water Heaters/Collectors



## Co-benefits

- Improved **access of 100.000 women & men** in rural areas to affordable renewable energy and low-energy systems
- Reduction of 48,000 tons of CO<sub>2</sub>: 0.6-1 tones CO<sub>2</sub> per year per collector
  - on average of 0.8 t CO<sub>2</sub>, **8,000** tones CO<sub>2</sub> per year will be reached **solar collectors**
  - and 3-5 tones CO<sub>2</sub> will be saved per **stove** per year and in total save on average **40,000** tones CO<sub>2</sub> per year
- Positive effects on employment, by creating new business opportunities – **over 1000 new jobs (women & men)**
- Decrease in **women's** work burden

## Co-benefits (cont)

- Increase in incomes of 20 000 rural people by a factor of 25-30% : poverty reduction (women & men)
- Decreasing firewood consumption by 245000m<sup>3</sup> per year – that results in saving over 1000 ha of forest p/year
- Decreased risks of natural disasters – floods, droughts, landslides, avalanches
- Decreased soil erosion ---- land degradation -----  
increased yields of agricultural crops
- Increased resilience of rural communities to Climate Change impacts

Thank you!