



Women in Europe for a Common Future | WECF

**International Workshop  
Solar Energy for Low-Carbon Sustainable Lifestyles in Solak, Aygavan and  
Malishka Rural Communities of Armenia"**

*Yerevan, Armenia*

*10-11 September 2018*



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# Access to Clean and Affordable Energy in Rural Areas. Experience of Energy Cooperatives in Georgia

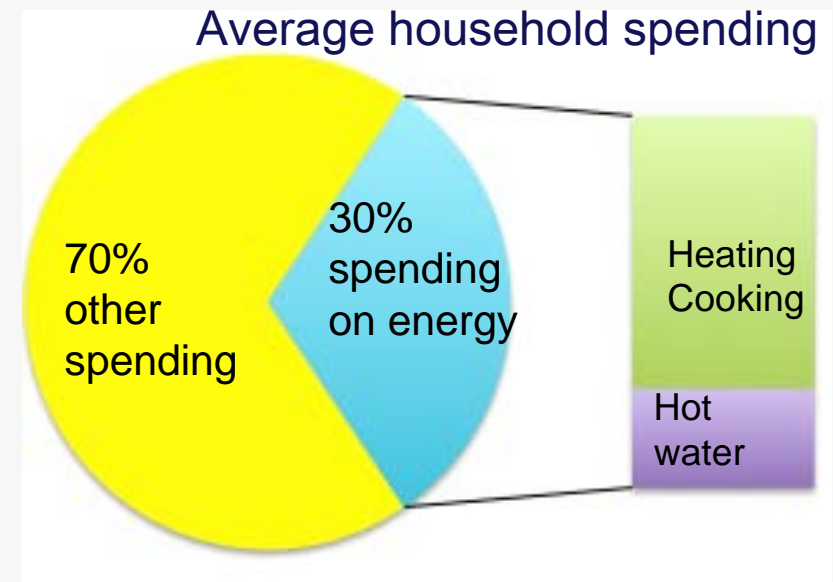
Rostom Gamisonia,

Rural Communités Développement Agency, Georgia



# Situation in rural areas of Georgia

- 400.000 households use 10-12 m<sup>2</sup>/ year of firewood for water heating, heating and cooking
- Wide spread energy poverty – 1 inefficient stove for all the family



## Impact esp. on women

- Labor burden
  - Indoor air pollution
  - Deforestation
- => increasing cost and effort of fuel wood supply and related workload

# Pilot phase 2014

## - 2017:

- 4 energy cooperatives + 1 umbrella cooperative set up
- 850 Solar Water Heaters
- 50 Houses insulated, 50 stoves
- Less air pollution, better health
- 2 times 10.000 signatures of people willing to have stoves and/or SWHs

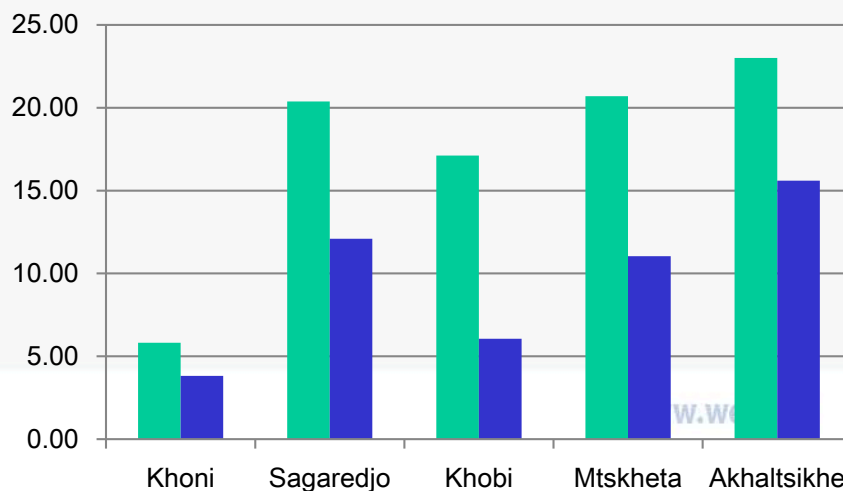


Safe an

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BEFORE AFTER

### Firewood (m3) use per hh/year



w.w

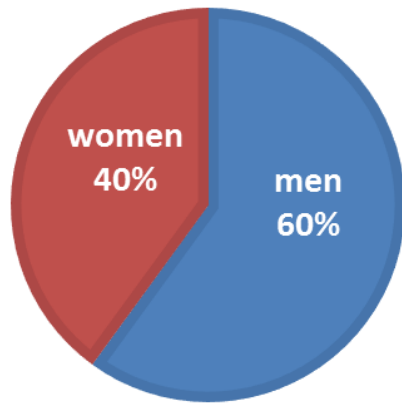
# Enabling conditions: Equal participation

- Community based approach
- Gender labour division in energy programme
- Build specific expertise of women into planning (MRV & awareness raising)

Objective: 50% women trained in maintenance, use, MRV



TRAINING PARTICIPANTS  
PILOT PROGRAMME

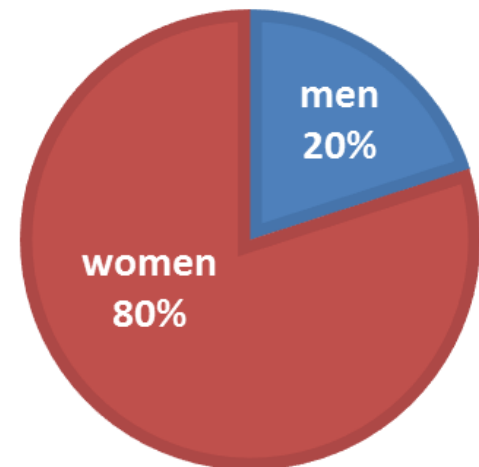


# Benefits for women

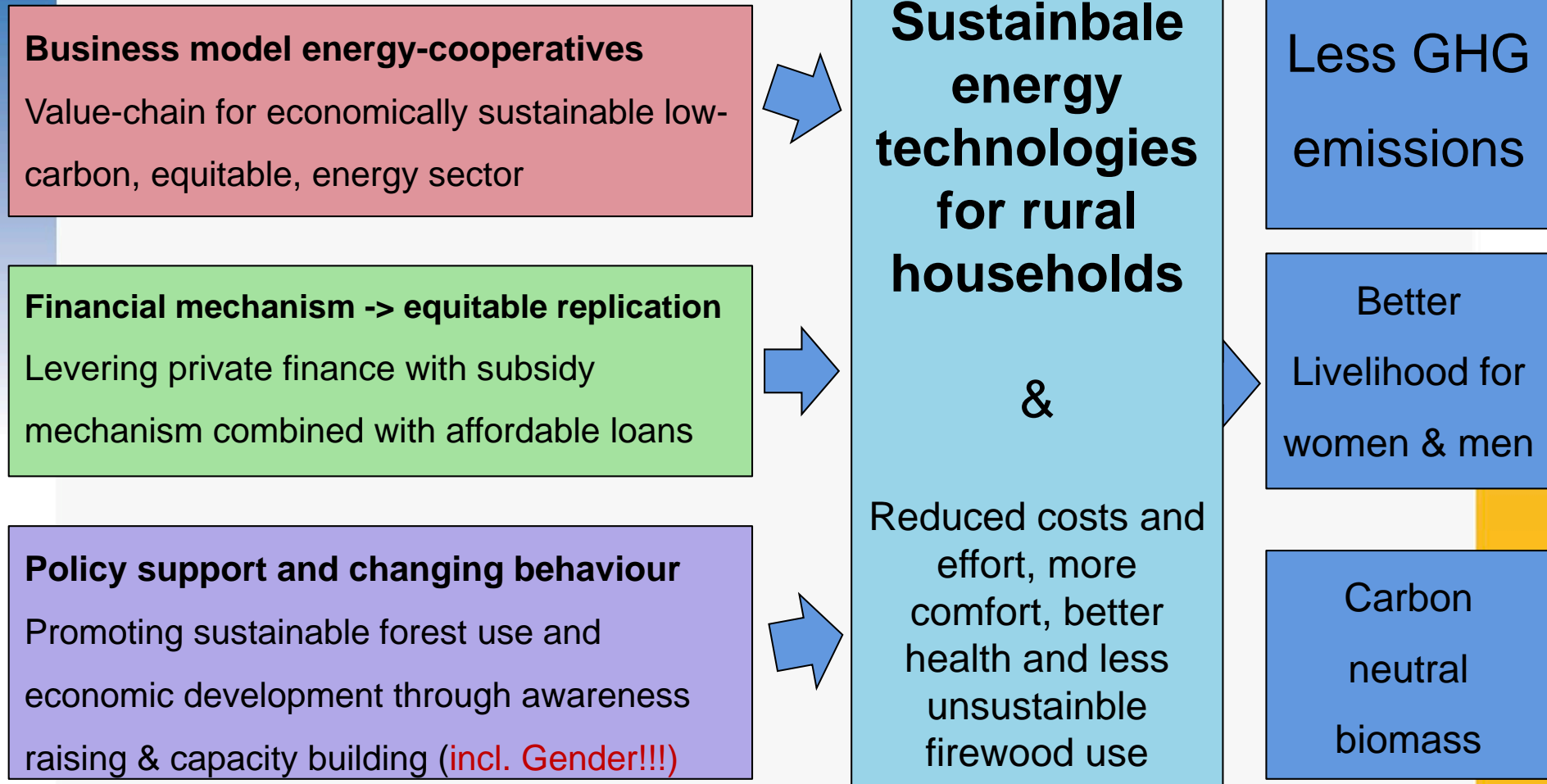
- **Women benefitted most from SWH installed at their home**
- **Women excellent as monitor and maintenance experts**
- **Women community leadership → active in e-cooperatives**
- **Revolving fund contracted 80% women – bring to scale!**
- **Political support → Gender sensitive NAMA**



SWHs obtained through revolving fund by women



# Implementation strategies

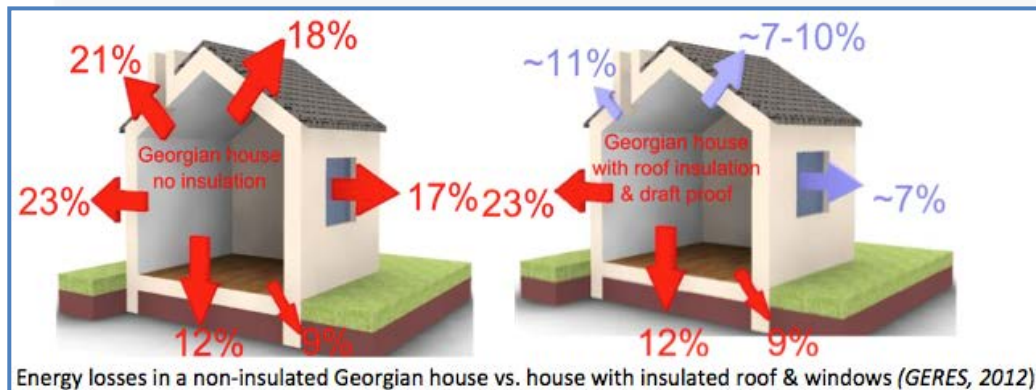


**Aim: all rural households (400.000) have sustainable locally produced energy by 2040**



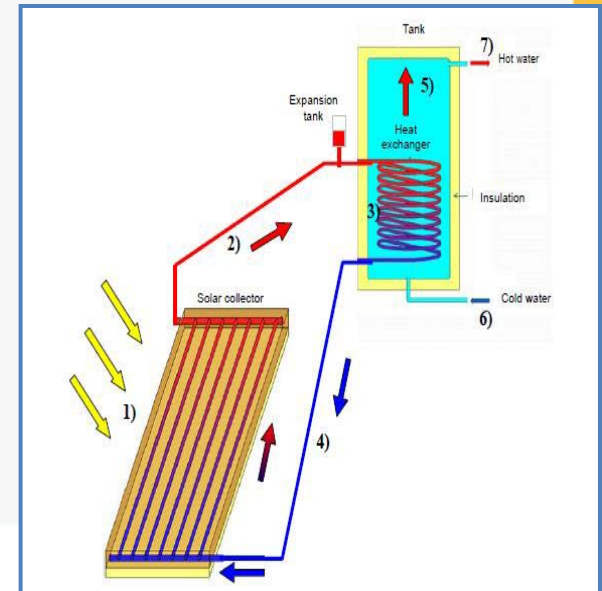
# Policy development

- Technologies identified in TNA
- Inclusion in climate & energy policies
- Cooperation with all stakeholders to implement
- Energy coops as sustainable business model



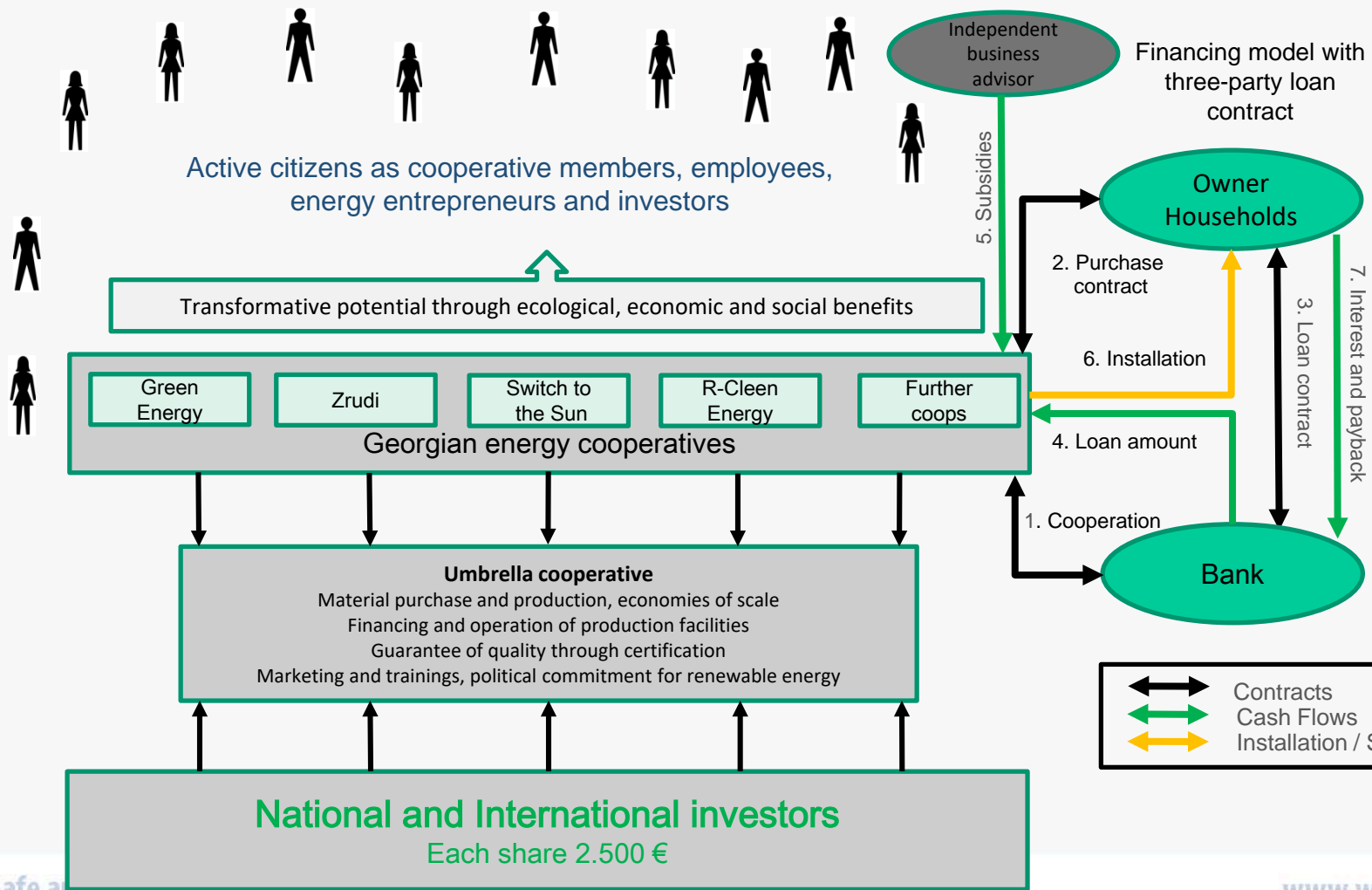
Energy losses in a non-insulated Georgian house vs. house with insulated roof & windows (GERES, 2012)

Safe and Sustainable Energy and Climate Protection for All



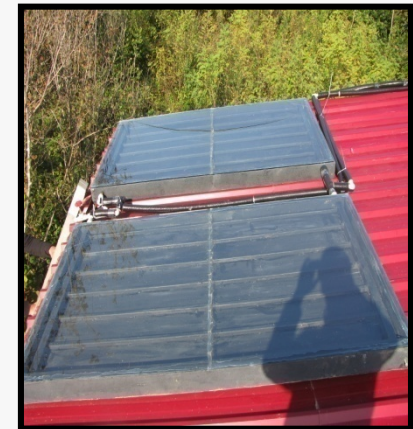


# Georgian energy cooperative



# Services of Energy Cooperatives

Construction and Installation of Solar Water Heaters(SWH) and back up services



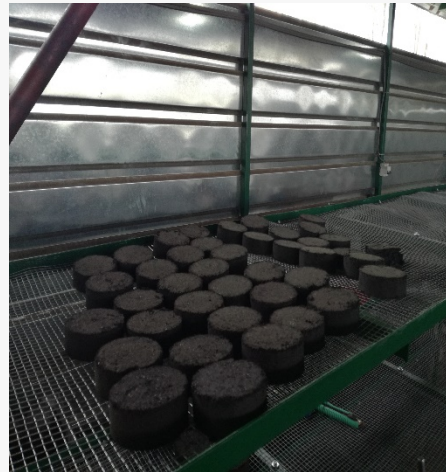
# Production and Installation of Fuel efficient stoves



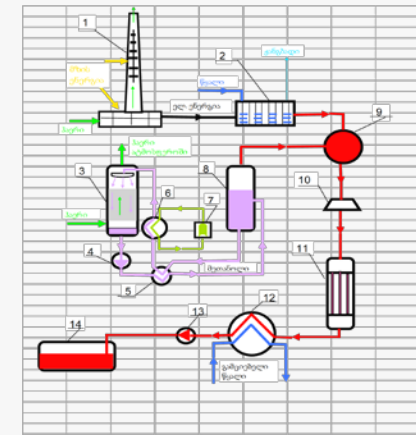
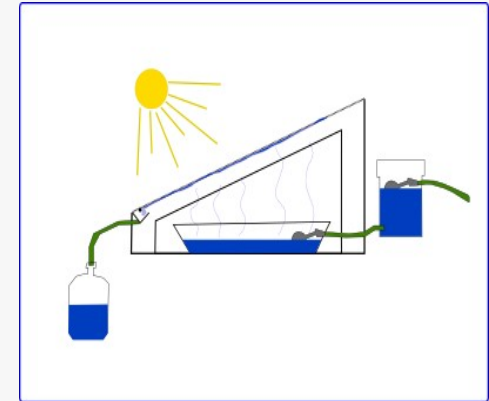
# Solar Dryers for Fruits and Vegetables . Organizing Drying Facilities



# Production of Fuel Briquettes from Agricultural & Forest Residues



# Construction/production of different solar devices



# Insulation of Houses



Thank YOU!