



**Financing biodigesters  
as climate relevant  
technology in emerging  
countries**

World Biogas Summit 2022

June 16, 2022



# We make a lasting difference for millions of people living in poverty

We were founded in

1965

We work in more than

24 countries

across three continents

We focus on

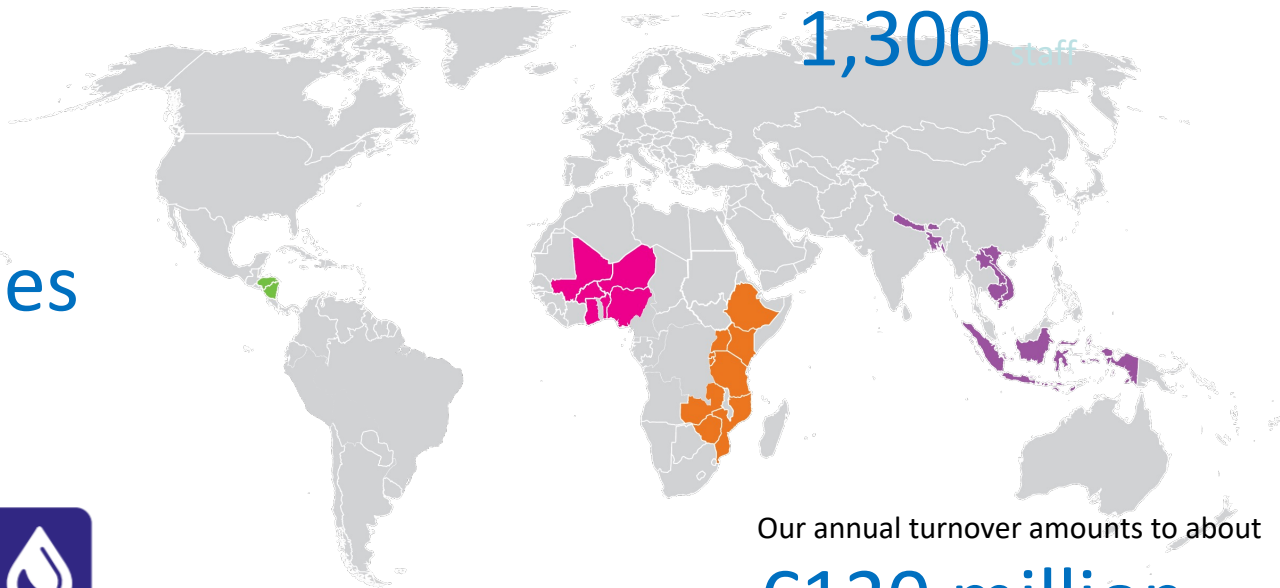


With a global team of

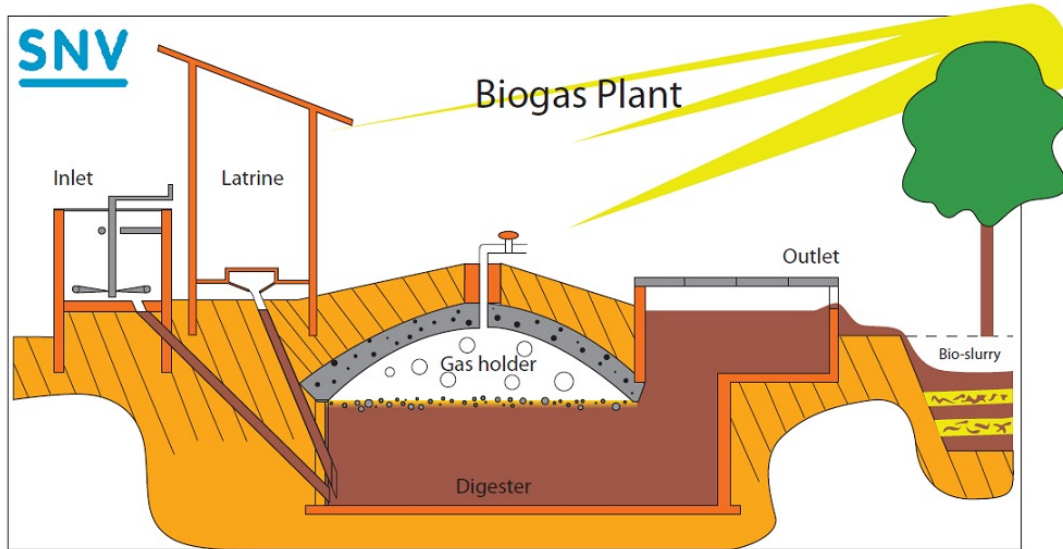
1,300 staff

Our annual turnover amounts to about

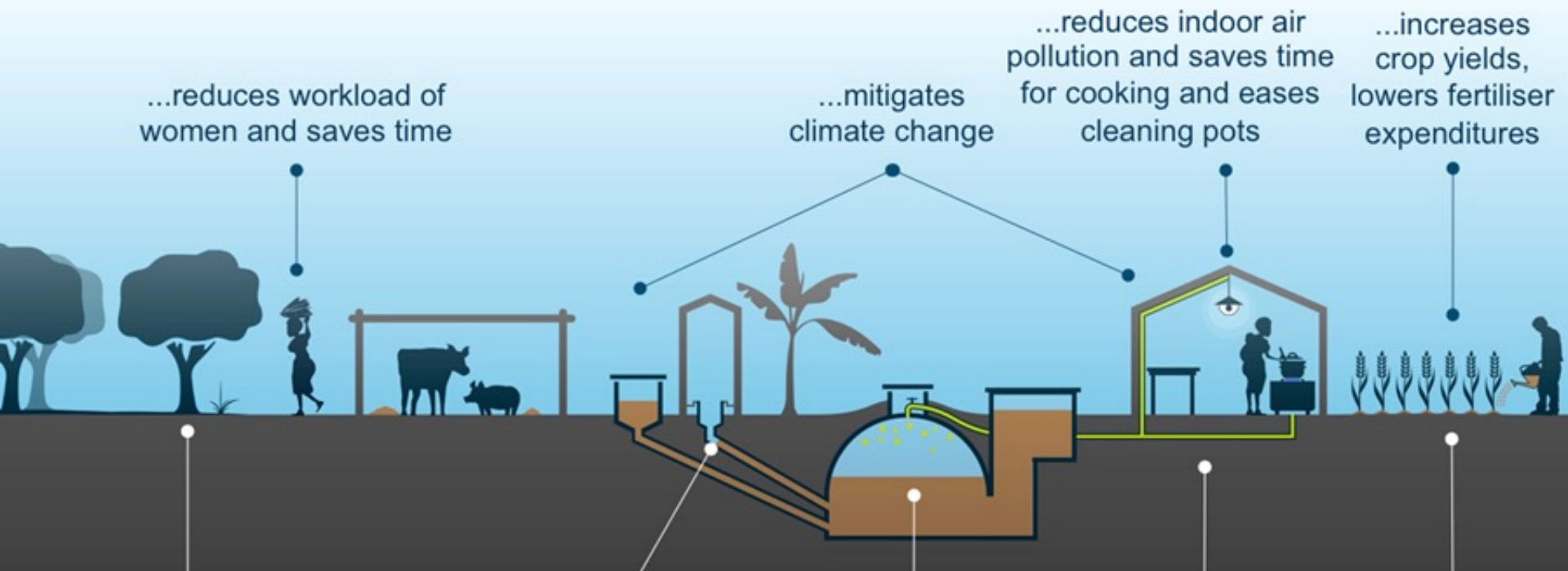
€120 million



# Household biodigester technology



- Design: fixed dome (2-20m<sup>3</sup>), with ample modifications
- In-situ & prefabricated
- Feeding: animal manure & human excreta (> 20 kg daily)
- USD 300-1,500
- Technical life: 5-20 years
- Gas use: mainly cooking
- Bio-slurry: organic fertiliser



## Multiple benefits of household biodigesters

**SNV has supported the installation of 940,000 units in 24 countries** (by the end of 2021)



# Technical potential of household biodigesters

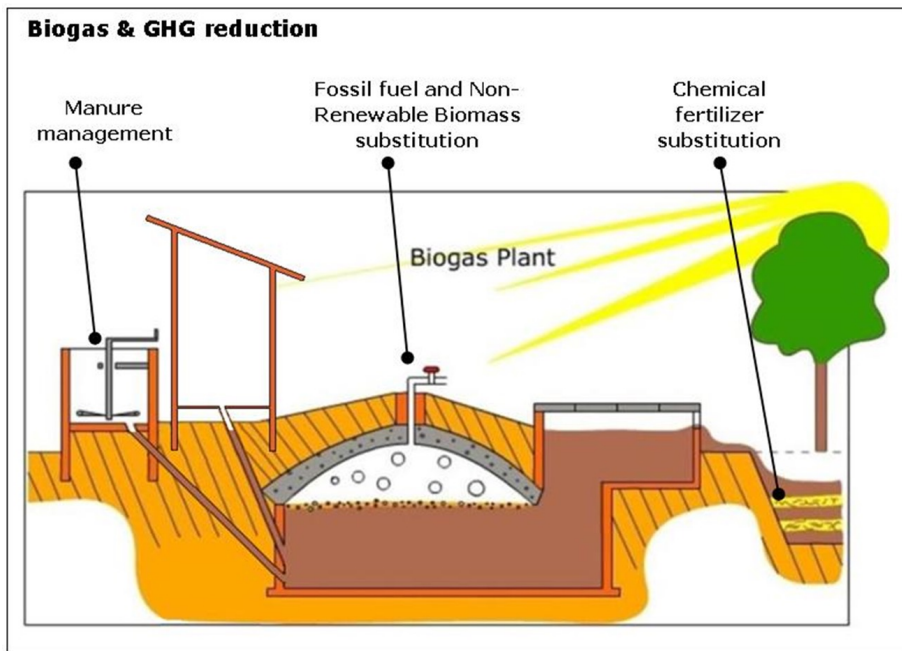


Roughly estimated to be over  
**150 million** units on animal  
manure only, out of which:

- Asia: **100 million**
- Africa: **30 million**
- Central & Latin America: **20 million**

Niche markets for medium-scale  
digesters emerging in all countries

# GHG saving potential of household biodigesters



- Based on average-sized unit of 6m<sup>3</sup> with an investment cost of €650
  - Annual GHG saving: 3-6 tonnes of CO<sub>2</sub>-eq
  - Current price: €2-10/tonne of CO<sub>2</sub>-eq
  - Annual revenues: €6-60/year
  - Lifetime 10-15 year
- Carbon finance is a relevant source of finance, in addition to investments by customers and (government/donor) subsidies

# Biodigesters and Nationally Determined Contributions



Several NDCs and energy compacts have included quantitative targets on small-scale (household) and medium-scale biodigesters.

Examples are:

- Bangladesh: 164,000 units
- Burkina Faso: 75,000 units
- Ethiopia: 98,000 units
- Nepal: 130,000 units

# Market needs and opportunities

- **Impact investors for both international and local companies**
- **Technology providers (pre-fabricated digesters, appliances), also for medium-scale digesters**
- **Providers of financial solutions for customers**
- **Traders of bio-slurry/organic fertiliser**
- **Carbon project developers, brokers and off-takers**



# Recommendations

- In general: As bio-slurry/digestate equally contributes to the business case for customers, do not only focus on biogas
- To the World Biogas Association: Engage sector players from the Global South (on a concessional basis) to make the Association truly a global organisation



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