


CDM Programmes of Activity (PoA) in the Biogas Sector Introduction and Project Example

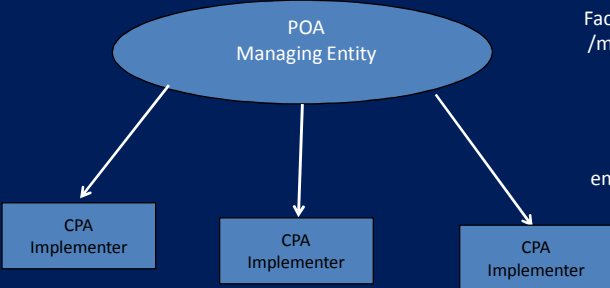
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Programme of activities (PoA) Rules



- PoAs and CPAs at large and small-scale level
- A PoA contains one or many CDM programme activities (CPA), which can be successively added during the lifetime of the PoA



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    POA([POA Managing Entity]) --> CPA1[CPA Implementer]
    POA --> CPA2[CPA Implementer]
    POA --> CPA3[CPA Implementer]

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Facilitates a policy /measure or goal

Achieve the emission reductions

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Programme of activities (PoA) Rules



1. Length of a PoA up to 28 years (CPA 7 years)
2. Approved CDM methodology with PoA endorsement has to be applied
3. PoA determines one baseline!
 - Challenging in heterogeneous baseline situation within the project boundary (e.g. climatic conditions)
4. PoA applies only one methodology
 - Challenging as biogas sector covers at least 2 different components
5. Each CPA shall be uniquely identified, defined and localized, as well as related leakage, additionality, baseline emissions, eligibility
 - Challenging as transaction costs could increase

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Advantage of PoAs



Compared to bundling of small-scale projects into one single CDM project, the PoA has significant benefits:

- The individual project activities need not to be defined in advance
- The exact sites of the project activities (CPAs) need not to be defined in advance
- The individual project activities can be included into the PoA at any time without the need for further registration
- Aggregation of SSC can go beyond SSC limits

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Project Example



Household based biogas plants in Vietnam



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General Description



- The overall goal of the programme is:
 - “to improve the livelihoods and quality of life of rural farmers in Vietnam through exploiting the market and non-market benefits of domestic biogas”.
- The purpose of the programme is:
 - “to develop a commercially viable domestic biogas sector”.

Description:

- Construction of 140,000 biogas installations in households in Vietnam
- production of biogas for the replacement of fossil fuels and non-renewable biomass

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Location of Project Sites



- Project boundary – Vietnam
- Programme will cover 58 out of 64 Vietnam provinces



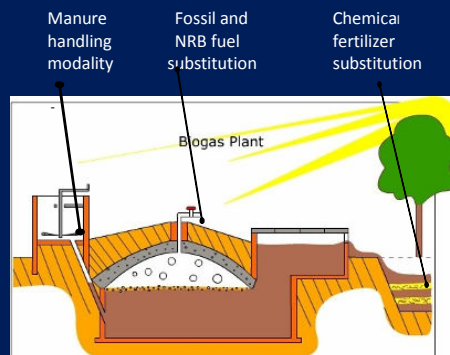
Technology Description



Type of technology:

Domestic biogas installation – „methane capture and energy generation“

Biogas & GHG reduction



Applicable Methodologies



According to the current PoA regulation defined by the EB, only one methodology is applicable under a PoA.

In case of the proposed programme following methodologies could be applicable:

- ✓ AMS I C: Thermal energy for the user with or without electricity (1.5 tCO₂e per household per year)
- ✓ AMS I E: Switch from Non-Renewable Biomass for Thermal Applications by the User (still under analysis)
- ✓ AMS III R: Methane recovery in agricultural activities at household/small farm level (0.5 t CO₂e per household per year)

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Economic Considerations



Estimations:

1) CERs estimation

- depends on the applied methodology and on the possibility to combine more than one methodology
- Preliminary estimation 2 tCO₂e per year per household. In case of 140,000 households 280,000 CERs per year could be generated.

2) Investment costs

Installation costs	35 million €
PoA development costs (transaction costs)	100,000 €
Other costs (coordination on the national, provincial level, technical assistance)	9.8 million €
Total investment costs	44.9 million €

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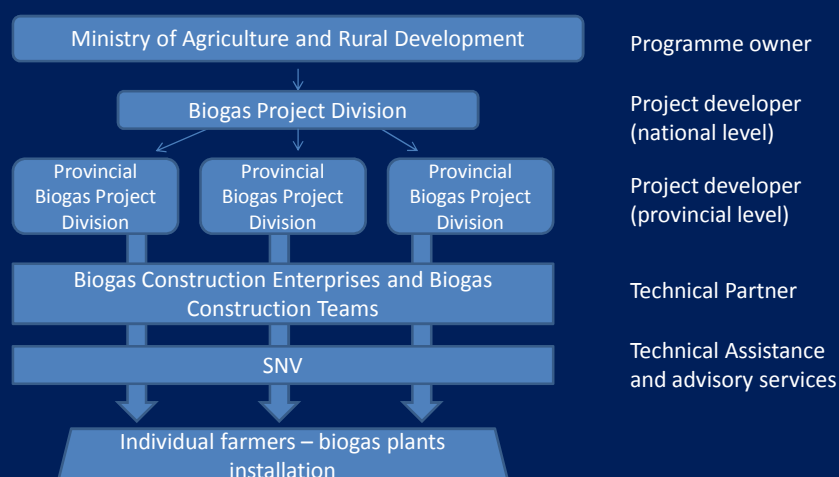
Stakeholders



- Ministry of Agriculture and Rural Development (MARD) – programme owner
- Biogas Project Division (BPD) – project developer (national level)
- Provincial Biogas Project Divisions (PBPD) – project developer (provincial level)
- Biogas Construction Enterprises (BCE) and Biogas Construction teams (BCT) – technical partner (construction and advisory role after construction)
- SNV – The Netherlands' Development Organization – technical assistance and advisory services
- Individual farmers

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Project Setting



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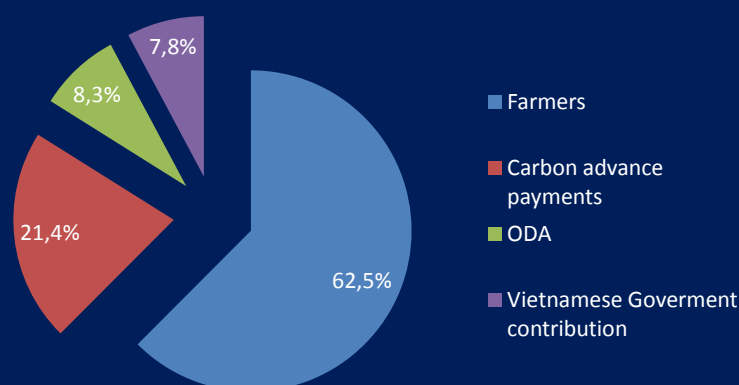
Project Financials



- ✓ 28 million € from the farmers (via micro credits) – 80% of the installation costs
- ✓ 9.6 million € carbon finance advance payment:
 - 7 million € for installation investment subsidies
 - 2.6 million € for provincial support costs
- ✓ 3.5 million € contribution by the Vietnamese government (provincial level)
- ✓ 3.7 million € contribution by ODA :
 - 3.1 million € is provided by DGIS: Asia Biogas Program (national support costs)
 - 600,000 € is provided by SNV for technical assistance

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Overview Financing Sources



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Thank you for your attention!



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