



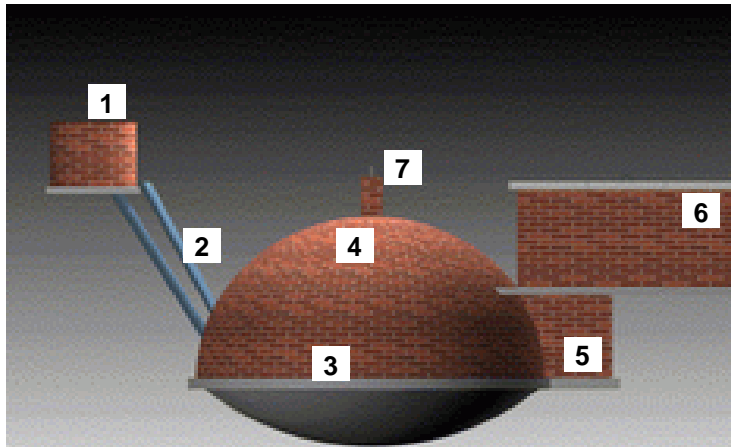
NGO Delivery of Rural Energy Services

27-30 November 2006

**An Introduction to the
National Biogas Programme
of Cambodia**

Fixed dome plants

4, 6, 8, 10 m³ with closed dome and manhole via in the outlet



1. *Mixing Tank*
2. *Inlet Pipe*
3. *Digester*
4. *Gas Holder*
5. *Main Hole*
6. *Outlet Tank*
7. *Main Gas Pipe*

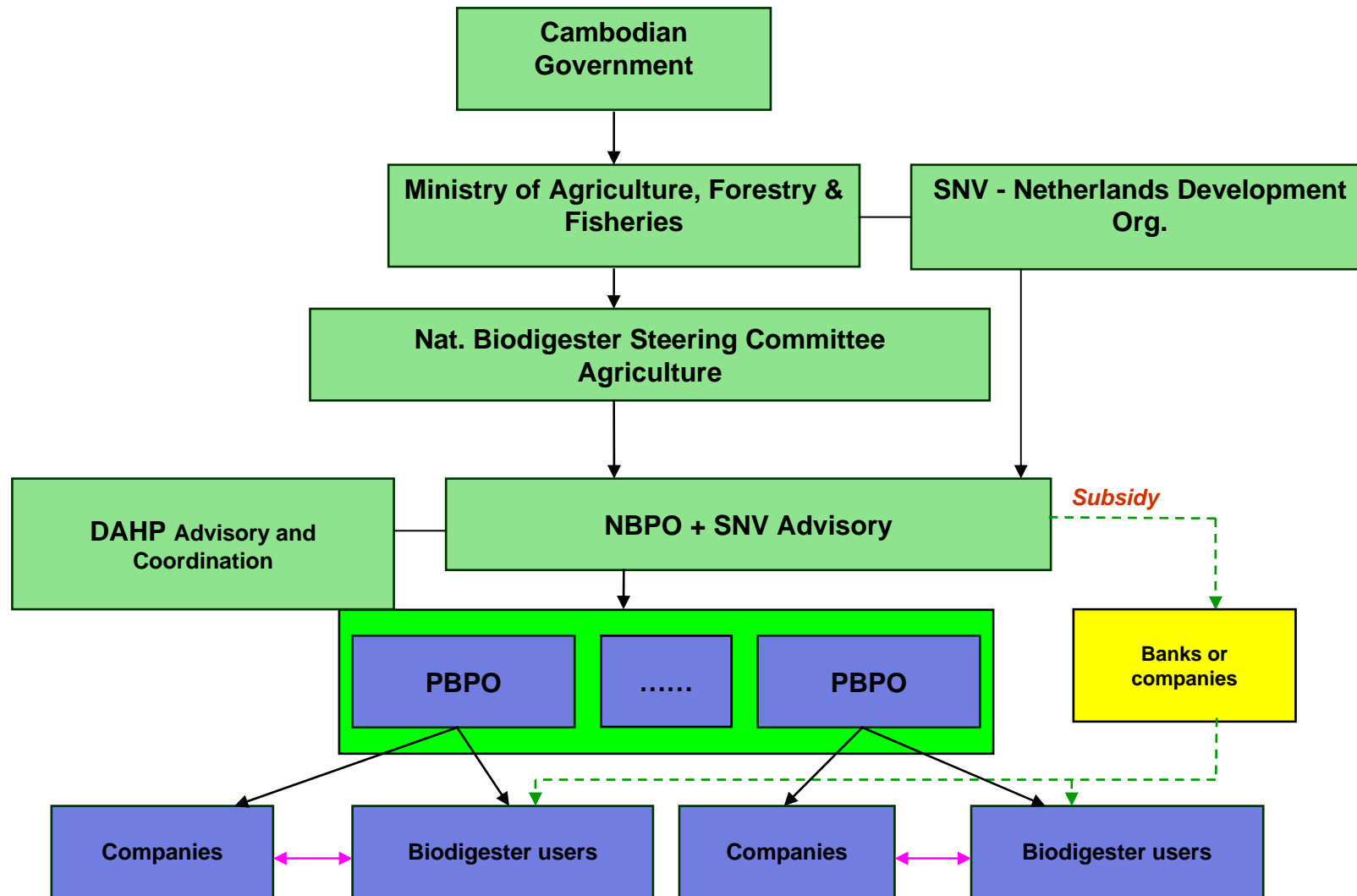


1. Introduction

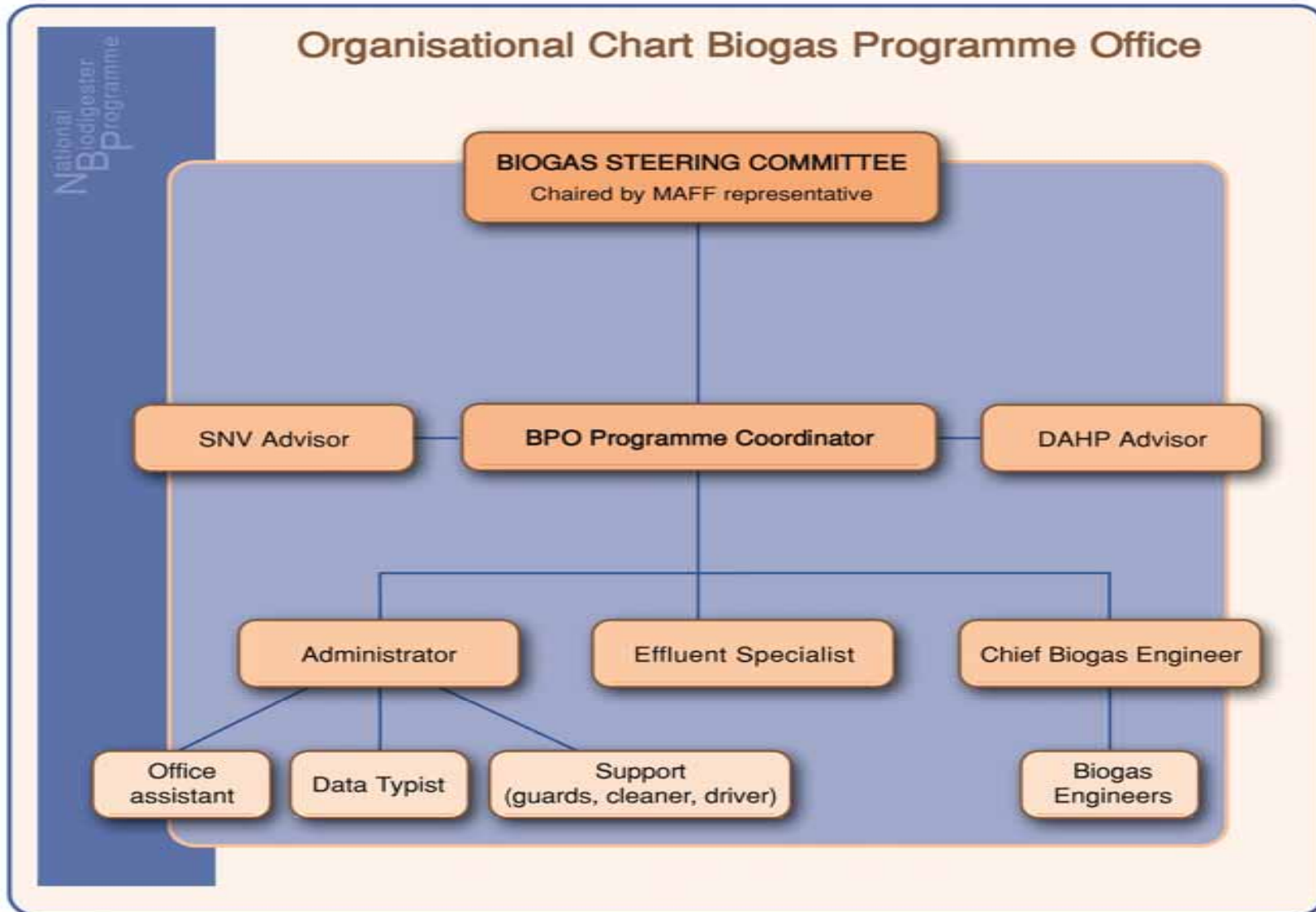
1.1. Background

- **25 May 2005: MAFF and SNV signed MoU on “Technical Assistance for a National Biodigester Programme in Cambodia”.**
- **13 March 2006: MAFF and SNV signed Programme Implementation arrangement for NBP**
- **National Steering Committee**
- **Programme organisation: NBPO and PBPOs**

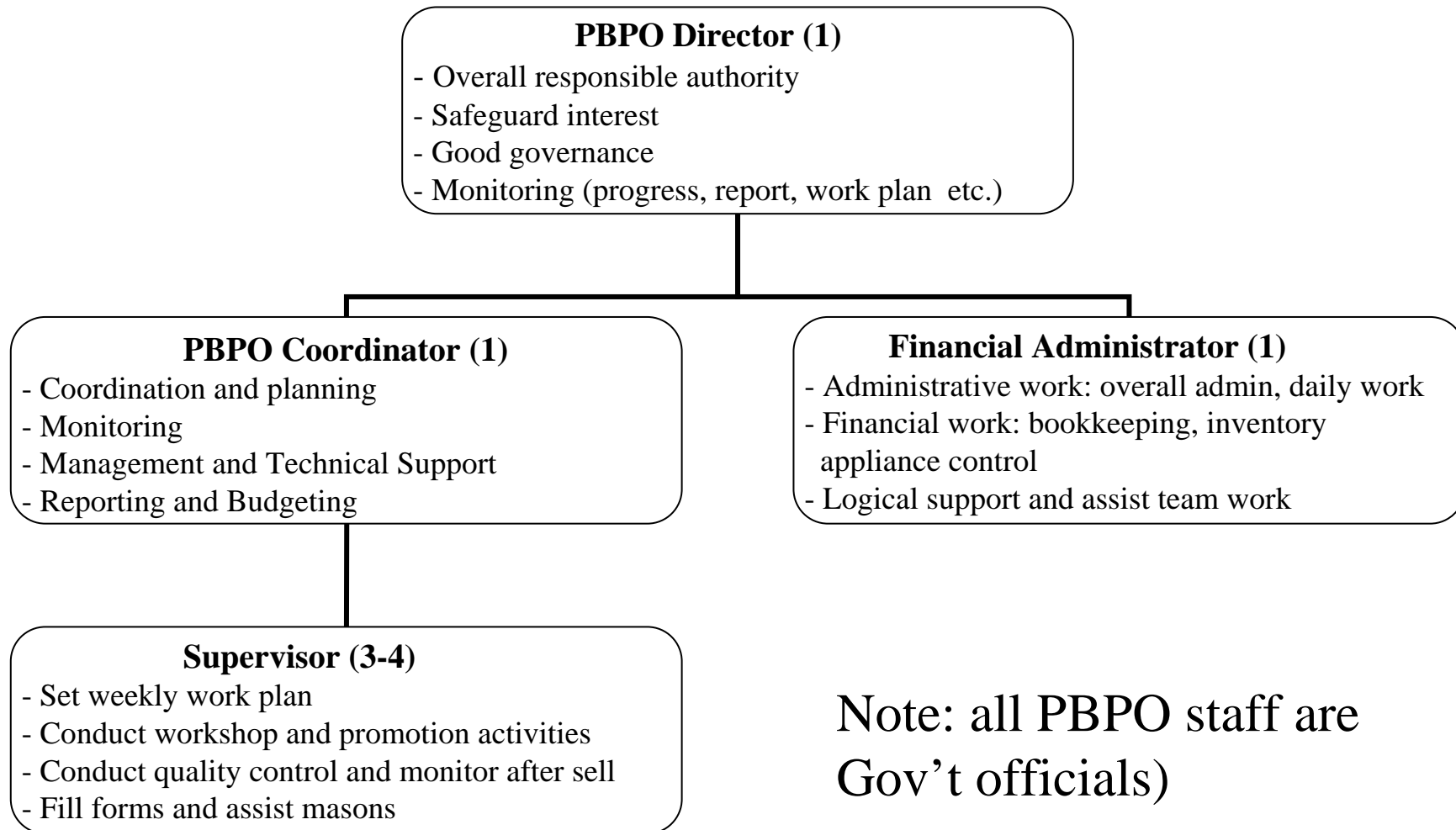
1.2. Biodigester Programme Structure



1.3. NBP Structure



1.4. PBPO Structure



1.5. NBP and PBPO activities

National

- Management
- Monitoring and Evaluation
- Quality management
- Subsidy handling
- Financial support
- Technical Support
- Promotion support
- Training support
- Extension support
- Research & Development

Provincial

- Management (provincial)
- Promotion & marketing
- Recruitment and management of masons
- Quality control
- Training
- Extension

2. Objectives

- **Main Objective:**

Is the dissemination of domestic biodigesters as an indigenous, sustainable energy source through the development of a commercial, market oriented, biodigester sector in selected provinces.

- **Specific Objectives:**

- To increase the number of family sized, quality biogas plants with 17,500 in selected provinces;
- To ensure the continued operation of all biodigesters installed under the biogas programme;
- To maximise the benefits of the operated biodigesters, in particular the optimum use of digester effluent;
- To develop technical and promotional capacity for further wide scale deployment of biodigester technology in Cambodia;
- To strengthen and facilitate establishment of institutions for the continued and sustained development of the biodigester sector.

4. Results so far

- About 650 plants are completed, average size 6m³;
- All plants are in operation
- Main reasons for biodigester construction:
 - reduced firewood consumption
 - Convenience of cooking
- All plants are used for cooking, 92% of hh also has gas lamps installed

Results so far (continuation)

- 95% of surveyed hh has sufficient gas for cooking and lighting
- 70% of households uses the plant effluent as fertiliser
- Other mentioned advantages: time saving and cleaner (cooking) environment
- Average savings per hh/month on firewood, kerosene, battery charging: US\$ 10

5. Challenges

- The understanding of the farmers on biodigester technology is limited
- Lack of credit accessibility
- Planning and Managerial issues within PBPOs
- Promotion and technology extension have not been yet widely promoted.
- Geographical areas and weather conditions.
- Some construction materials are not available in provinces.



Thank you
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