Carbon Finance Support Facility


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Lending Program Management Group

GLOBAL METHANE FORUM
Georgetown University Hotel & Conference Center
Washington D.C., USA
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OUTLINE

- Country Profile
- LANDBANK Profile
- Livestock Sector in the Philippines
- Carbon Finance Support Facility
- Program of Activity (PoA) for Animal Waste-to-Energy projects
- Barriers Encountered / Actions Taken
- Conclusion
• Republic of the Philippines

Location: Southeast Asia

Capital: Manila

Land Area: 115,830 sq. miles

Population: 102 million
  (As of Dec. 2015)

GDP: US$ 284.8 B
  (As of Dec. 2015)

Photo credits: http://kids.national geographic.com/explore/countries/philippines/
#philippines-island.jpg
### COMPANY PROFILE: LANDBANK

**Ownership**
- 100% National Government
- Principal depository of the Philippine government

**Industry Ranking**
- **4th** largest bank in the Philippines
- Asset Size: US$ 26.63 B

**Reach and Network**
- (As of 29 February 2016)
  - 361 branches/bank units
  - 47 Provincial and Head-office based Lending Units

**International Standard Certifications**
- ISO 140001:2004 Environmental Management System (EMS)

**Awards and Recognitions**
- 2014 Bank of the Year Award
- KARLSRUHE Sustainable Finance Award 2015
PHILIPPINES LIVESTOCK OVERVIEW

Philippine Swine Inventory by Farm Type as of January 2016
(Source: www.bas.gov.ph)

- Backyard, 7.96 Million heads: 64%
- Commercial, 4.52 Million heads: 36%

Pig farms have taken the most cost effective route for the management of swine wastes, by constructing lagoons and settling ponds.
LANDBANK’s Carbon Finance Support Facility

OBJECTIVE
To promote climate change-mitigating activities to clients by providing financing and CDM services

PIG FARM OWNERS - Methane recovery and combustion projects from pig manure management systems (PoA 5979)
UNFCCC-registered in May 2012

LANDFILL/DUMPSITE OPERATORS/LGUs-Landfill gas recovery and combustion projects (PoA 6707)
UNFCCC-registered in July 2012

MINI-HYDRO power plant developers/owners (PoA 8674)
UNFCCC-registered in December 2012
LANDBANK as a Coordinating and Managing Entity (C/ME) for the PoA

- Conduct due diligence activities
- Facilitate DNA endorsement
- Provide assistance in CDM documentation, verification and monitoring

CER as additional source of loan repayment / security
Management fee

- DOE
- DNA

LANDBANK as C/ME

Carbon Buyer

Certified Emission Reduction (CER)
Emission Reduction Purchase Agreement (ERPA)
Technical Assistance
Coordination

MOA and Sub-project Agreement

Component Project Activity (CPA) 1 CPA 2 CPA 3 CPA 4 CPA n

Partners

fppt.com
PoA for Animal Waste-to-Energy Project (UNFCCC Registered POA 5979)

PoA Title:

Registration Date:
10 May 2012

Carbon Buyer:
World Bank (as Trustee of Carbon Partnership Facility)
UNFCCC-REGISTERED CPAs

**MARCELA FARMS, INC.**
Lourdes, Cortes, Bohol
- Registered on May 10, 2012
- 4,100 sow level
- Estimated CERs per year: 23,105
- Investment cost: $337,000
- Engine Capacity: 560 KW

**BIOTECH FARMS, INC.**
Banga, South Cotabato
- Registered on September 8, 2013
- 7,100 sow level
- Estimated CERs per year: 59,388
- Investment cost: $2,000,000
- Engine Capacity: 800 KW
POTENTIAL OF THE PROGRAM

PIPELINE PROJECTS:
95 Piggery farms (124,653 sow level)

POTENTIAL CERs:
278,287 tCO2e/year

Signed Emission Reduction Purchase Agreement with the World Bank
GMI’s assistance to the PoA

- Technical due diligence
- Conduct of specialized lectures/hands-on training
- Provision of equipment like flares and flowmeters
# BARRIERS ENCOUNTERED

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>ACTIONS TAKEN</th>
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<tbody>
<tr>
<td><strong>1. TECHNOLOGICAL BARRIER</strong></td>
<td>Promoted the program thru regional and national forums and linked project proponents with technology providers with successful projects</td>
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<tr>
<td>• No government-accredited</td>
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<tr>
<td>technology provider for</td>
<td></td>
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<tr>
<td>biodigester / animal waste-to-</td>
<td></td>
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<tr>
<td>energy project</td>
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<td><strong>2. ACCESS TO FINANCE</strong></td>
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<td>• Based on ERG study in 2010,</td>
<td>In 2010, LANDBANK paved the way for carbon financing in the country wherein carbon credits were considered as an additional security to the loan.</td>
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<td>Philippine banks would shy</td>
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<tr>
<td>away from financing biodigester</td>
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<tr>
<td>as they were unfamiliar with</td>
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<tr>
<td>the technology investment and</td>
<td></td>
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<tr>
<td>associated risks</td>
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### 3. COMMON PRACTICE

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<tr>
<td>• Local technicians and end-users are unfamiliar with the application and</td>
<td>Raised awareness on the potential of the projects in order to encourage local</td>
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<td>maintenance of the technology</td>
<td>technicians and end-users to participate in the program thru road-shows and</td>
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<td></td>
<td>trainings</td>
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<td>• policy regulation does not require capturing the methane</td>
<td>Collaborated with local/national agencies to demonstrate the co-benefits of</td>
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<td></td>
<td>the biodigester, power generation, carbon credits, and good environmental</td>
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<td></td>
<td>practice in the piggery sector</td>
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<td><strong>4. CDM PROCESS / COST</strong></td>
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<td>• Stringent CDM documentation requirement</td>
<td>• LANDBANK built internal capacity to assist the clients in CDM Design Document preparation</td>
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<td>• Cost implication of CDM transaction and processes in terms of CDM validation, registration, monitoring and verification</td>
<td>• Adopted a programmatic approach to aggregate small-scale projects in the PoA thus reducing CDM costs and other risks</td>
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CONCLUSION

• LANDBANK’s experience in implementing the entire CDM process made the Bank ready and capable to accept more projects in the PoA
• Collaboration with World Bank, GMI, and national/local agencies helped in overcoming barriers and enhanced the implementation of the POAs.
• Combining the incentives of CDM and Renewable Energy Act will help reduce emissions from the agriculture sector as well as municipal waste and energy sectors to support the INDC of the Philippines.
Thank you

www.landbank.com

WE HELP YOU GROW.