WORLD BANK CLIMATE AND CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
2016 ANNUAL MEETING

CPF CARBON FUND PORTFOLIO/PIPELINE
WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
2016 ANNUAL MEETING

BRAZIL CAIXA SOLID WASTE MANAGEMENT PROGRAM
BRAZIL INTEGRATED
SOLID WASTE MANAGEMENT PROGRAM

Contract Volume: 3.0 million tCO₂e

**Implementation Status**

- **First CPA:**
  CTR Santa Rosa (up to 4 MtCO₂e between 2012-2018)

- **Additional CPAs:**
  São Gonçalo (up to 0.94 MtCO₂e between 2016-2018)
  - Sub-ERPA signed with Caixa in December 2011
  - CPA inclusion March 2016
  - LFG system commissioned May 2016

  Ipojuca (about 0.70 MtCO₂e between 2015-2018)
  - Project accepted by CPF for inclusion August 2015
  - Landfill in operation since December 2013
  - Expected validation start by end of 2016

  Additional CPAs currently under evaluation by Caixa

- **Isolated Projects selling post-2012 CERs to Caixa:**
  1. Itaoca (No implementation expected)
  2. Candeias (up to 1.1 MtCO₂e between 2012-2018)

**CDM Status**

- **PoA Registration Status :**
  - Program registered on October 5, 2012.
  - São Gonçalo CPA inclusion March 31, 2016

- **PoA Verification Status :**
  - 3rd verification (2014): ~410,089 tCO₂e, ongoing.

- **Isolated Projects Registration Status:**
  1. Itaoca. Registered on August 11, 2011
  2. Candeias. Registered on September 29, 2011

- **Candeias Verification Status:**
  - 3rd verification (2015): ~148,000 tCO₂e, ongoing

**Next Steps/Timetable**

- First multi-CPA verification second half of 2016
- Negotiation of new ERPAs
- Validation of Ipojuca CPA (to be completed by Caixa and PE)
WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
2016 ANNUAL MEETING

MOROCCO SOLID WASTE MANAGEMENT PROGRAM
### Contract Volume: 2.25 - 4.5 million tCO2e from 2013-2020

<table>
<thead>
<tr>
<th>Implementation Status</th>
<th>CDM Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First CPA</strong>: Greater Rabat (Oum Azza) - Loi signed with FEC. Sub-ERPA signed in October 2014. LFG system commissioned in August 2015. ER Volume: ±0.175-0.3 MtCO2e between 2015-2020 depending on the outcome of the additional investment to increase LGF volume., ER Volume in 2016: 0.0124 MtCO2e in 2015-2016 (based on monitoring reports).</td>
<td><strong>Validation Status:</strong></td>
</tr>
<tr>
<td><strong>Additional CPAs</strong>: Feasibility studies for 3 additional CPAs (Agadir, Moulay Abdelah, Al Hoceima) completed. Negotiation of sub-ERPAs by FEC has started. Sub-ERPAs signature expected by 12/2016 (conditional upon extension of ERPA inclusion period). ER Volume: total amount of 0.33 MtCO2e between 2017-2020 (±0.21 (Agadir); ±0.087 (Mlay Abdelah); ±0.035 (Al Hoceima))</td>
<td></td>
</tr>
</tbody>
</table>

### Next Steps/Timetable

- **ERPA signed** in August 2013.
- **First sub-ERPA (Oum Azza) signed** between FEC, private sector operator and municipality in October 2014.
- **Oum Azza CPA is operational** (commissioned: August 2015).
- **Three additional sub-ERPAs signature** (expected: December 2016).
WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
2016 ANNUAL MEETING

VIETNAM RENEWABLE ENERGY PROGRAM
Vietnam Renewable Energy Development Program (REDP)

Contract Volume: 3.0 million tCO$_2$e from 2013-2020

### Implementation Status

- The first CPA Sung Vui (18 MW) hydropower project was commissioned on March 28, 2013.
- 4 additional CPAs already included to the PoA were commissioned by 2014.
- 4 Additional CPAs included to the PoA were expected to commissioning at the end of 2016.
- Total installed capacity to 160+ MW and potential ERs of 370ktCO$_2$e/year when fully commissioned.
- The contract CERs amount of 9 CPAs will be around 2.0 million CERs.
- The Bank is now considering to provide an additional IDA credit for the REDP to respond to a recent increase of applications from SHP project owners.

### CDM Status

- **Registration Status:**
  - Registered on June 7, 2013.
  - Crediting period from December 19, 2012
  - 4 CPAs included in June and November 2014.
  - 4 Additional CPAs included in July and September 2015.
- **CDM Operations Plan** completed in May 2014
- **1st verification of CPA 1 and 2nd verification of 5 CPAs** are at final step (DOE’s site visit conducted in April 2015): 80,415 CERs in total expected to be issued in 2016.

### Next Steps/Timetable

- **PoA included in the portfolio** on April 28, 2013
- **ERPA signature** on December 20, 2013. Amendment in December 2015.
- **First five Sub-ERPAs** signed in November 2014
- **4 Additional sub-ERPAs** signed in October and November 2015.
- **3rd verification planned May/June 2016.**
WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
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THAILAND ENERGY EFFICIENCY PROGRAM
Thailand - Energy Efficiency (EE) Program

Contract Volume 0.50 million tCO2e from 2013-2020
CME: Provincial Electricity Authority of Thailand (PEA)

<table>
<thead>
<tr>
<th>Implementation Status</th>
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</thead>
<tbody>
<tr>
<td><strong>PEA Governor submitted a letter on October 20, 2015, informing the Trustee that PEA will not be able to sign the ERPA by October 31, 2015 as well as to consider the extension of the SPA’s exclusivity period.</strong></td>
<td><strong>Thailand Energy Efficiency Improvement for Street Lighting Program of Activities (PoA 8055) has been approved by UNFCCC (the effectiveness date of registration November 6, 2012).</strong></td>
</tr>
<tr>
<td><strong>In response to the letter, the Trustee sent the PEA a letter on October 26, 2015, asking the PEA to reimburse the Trustee for all costs incurred in connection with the preparation of the program in the amount of USD 745,178.</strong></td>
<td><strong>5 CPAs from the pilot project (Phase 1.1) were included in 2012 and 2014 (total amount of ERs is 18,405 CERs from 2015 to 2020).</strong></td>
</tr>
<tr>
<td><strong>The PEA is now considering a response to the Trustee’s letter.</strong></td>
<td><strong>CDM Operations completed in July 2014.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next Steps/Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Being dropped.</strong></td>
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</tbody>
</table>
WORLD BANK CARBON FINANCE UNIT
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TANZANIA RENEWABLE ENERGY PROGRAM
## Tanzania Renewable Energy Program

**Contract Volume 0.82 million tCO2e from 2016-2020**  
CME: Rural Energy Agency (REA)

<table>
<thead>
<tr>
<th>Implementation Status</th>
<th>CDM Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA has been working with WB on preparation of Rural Electrification Expansion Program (US$ 200 Mil.).</td>
<td><strong>PoA Registration Status:</strong></td>
</tr>
<tr>
<td>REA staff had additional in-class training on CDM monitoring requirements.</td>
<td></td>
</tr>
<tr>
<td>Representatives of 8 CPAs had in-class and on-site training on CDM monitoring requirements.</td>
<td></td>
</tr>
<tr>
<td>REA is working with WB on hiring local consultant to coordinate CDM monitoring and assist with search of new CPAs.</td>
<td><strong>Inclusion of additional CPAs</strong></td>
</tr>
<tr>
<td>5 CPAs have already been commissioned and 1 more CPA is expected to be commissioned by June 2016.</td>
<td></td>
</tr>
<tr>
<td>7 sub-ERPAs have been signed for 7 CPAs.</td>
<td><strong>CDM Operations Manual finalized in April 2016</strong></td>
</tr>
</tbody>
</table>

### Next Steps/Timetable

- Completion of ongoing validation of the 5 additional CPAs by December 2016, (one of them by June 2016).
- Implementation of the CDM Operations Manual by commissioned CPAs, including additional on-site training by August 2016.
- Hiring of local consultant for project coordination and CDM monitoring by August 2016.
- Start of verification of ERs generated by commissioned CPAs in 2015-2016 years in January 2017.
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EGYPT VEHICLE SCRAPPING AND RECYCLING PROGRAM
**Egypt Vehicle Scrapping and Recycling Program**

### Implementation Status

- Full data to calculate 2015 compliance rate of Traffic Law #121 has been received from Ministry of Interior for all 27 Governorates.
- Second fuel efficiency survey update completed.
- No new CPAs are planned at this time.
- Change in monitored ERs due to revision of compliance rate data. Estimate rate at 2015 CPF Annual Meeting was 22% and 21%, recalculated to 44% and 42% for years 2013 and 2014. Year 2015 compliance rate was 38%.

### CDM Status

- Post Registration Change process completed in February 2016.
- First verification final draft Verification Report undergoing Technical Review at DOE.
- Some over-generation in CPA 2 leading to a cap on ERs and a “loss” of some 9,000 ERs.
- Issuance of 146,005 CERs (net) expected mid-August.
- Second verification site visit planned for May 31-June 1.

### Next Steps/Timetable

- Second verification site visit May 31-June 1, 2016.
- ERPA amendment negotiations regarding extension August 2016.
WORLD BANK CARBON FINANCE UNIT
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PHILIPPINES ANIMAL WASTE METHANE PROGRAM
Philippines Animal Waste Methane Program

- **CME: Land Bank of the Philippines (LBP)**

- **Expected Results:** The PoA has the potential to reduce more than 300,000 tons of GHG emissions annually between 2015 and 2020 from large and medium size commercial pig farms. Farms already included or ready for inclusion process estimated to result in 200,000 tons of emission reductions per year.
PHILIPPINES ANIMAL WASTE METHANE PROGRAM

CPA Development

- There is a significant increase in the potential farms for inclusion to 125 farms which have an estimated CERs of 2 Million tCO₂e up to 2020.

- LBP pursued the inclusion by farm/project instead of by bundles based on project readiness in order to minimize the risk of delays of verification of other farms due to changes of one farm. The 125 farms will be included by three (3) batches in order to minimize inclusion cost and site visits.

<table>
<thead>
<tr>
<th>CPA projects</th>
<th>Estimated Annual CERs (tCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marcela Farm</td>
<td>15,275</td>
</tr>
<tr>
<td>Biotech Farm</td>
<td>37,674</td>
</tr>
<tr>
<td><strong>Additional:</strong></td>
<td></td>
</tr>
<tr>
<td>Batch 1 - January 2016 (26 farms)</td>
<td>122,399</td>
</tr>
<tr>
<td>Batch 2 – Sept. 2016 (51 farms)</td>
<td>99,456</td>
</tr>
<tr>
<td>Batch 3 – March 2017 (48 farms)</td>
<td>151,819</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>427,623</strong></td>
</tr>
</tbody>
</table>
Philippines Animal Waste Methane Program

Expected contract volume: 2 million tCO2e

<table>
<thead>
<tr>
<th>Implementation Status</th>
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</thead>
<tbody>
<tr>
<td>◆ First CPA (Marcela): Included in May 2012.</td>
</tr>
<tr>
<td>◆ Second CPA (Biotech): Included in September 2013</td>
</tr>
<tr>
<td>◆ ERPA signed in May 2015</td>
</tr>
<tr>
<td>◆ First batch of CPA Inclusion on-going for 26 farms.</td>
</tr>
<tr>
<td>◆ Started preparing CPA design documents for the second batch of 51 farms.</td>
</tr>
<tr>
<td>◆ Monitoring plan at the Program and CPA level completed.</td>
</tr>
<tr>
<td>◆ LANDBANK has series of roadshows conducted nationwide to market the PoA.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CDM Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>◆ Registered on 10 May 2012.</td>
</tr>
<tr>
<td>◆ Continuous monitoring of CER generation for the first 2 CPAs.</td>
</tr>
<tr>
<td>◆ UNFCCC completeness check for CER issuance of 27,488 done.</td>
</tr>
</tbody>
</table>

Next Steps/Timetable

<table>
<thead>
<tr>
<th>Next Steps/Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>◆ Sign Sub-project Purchase Agreements for Marcela and Biotech by June 2016</td>
</tr>
<tr>
<td>◆ Sign Sub-project Purchase Agreements for the 26 farms by December 2016.</td>
</tr>
</tbody>
</table>
WORLD BANK CARBON FINANCE UNIT
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PHILIPPINES SOLID WASTE MANAGEMENT PROGRAM
Philippines Solid Waste Management Program

- **CME: Land Bank of the Philippines (LBP)**

- **Expected Results:** The program will encourage Local Government Units (LGUs) and private operators to set up proper sanitary landfills in compliance with RA 9003 and benefit from the revenues that may be generated from a CDM project. The PoA has the potential to reduce more than 1.75 million tons of GHG emissions between 2016 and 2020.

Source: Philippine National Solid Waste Management Commission
Since the signing of the SPA in 2013, marketing has accelerated; program staff increased; and capacity building undertaken to strengthen the portfolio development that had been dormant prior to the SPA.

The Rizal Provincial Sanitary Landfill, the largest in the country, whose landfill gas recovery facility is managed by Montalban Methane Power Corporation (MMPC) signed a Memorandum of Agreement (MOA) with LBP. Currently, MMPC is being validated for inclusion in the PoA, with an estimated annual ERs of 259,634 from 2016 to 2020.
In late 2014, LBP signed a Memorandum of Agreement with Pangea Green Energy Philippines Inc. (PGEP) regarding a set of landfill gas projects that it will operate. A World Bank assessment concluded that an expansion of the Payatas landfill (Payatas II) would have good potential, with a minimum estimated ERs of 250,302 from 2017-2020.

The Puerto Princesa landfill also expressed its intent to join with an estimated ERs of 51,268 from 2017-2020.

The ERPA for the CERs generated by the existing CDM Project 1258 (Payatas 1) is being negotiated.

All projects are expected to be commissioned by 2017, except for the Rizal/Montalban, which is expected to start generating ERs in 2016.
The five sites identified will have CER potential, as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Name</th>
<th>Estimated CERs up to 2020 (tCO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quezon City SLF (Payatas II)</td>
<td>302,121</td>
</tr>
<tr>
<td>3</td>
<td>Palawan SLF</td>
<td>51,268</td>
</tr>
<tr>
<td>4</td>
<td>Montalban / Rizal Provincial SLF</td>
<td>1,298,170</td>
</tr>
<tr>
<td>5</td>
<td>Existing Quezon City LF (Payatas I) (CDM Project 1258)</td>
<td>280,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>1,931,559</td>
</tr>
</tbody>
</table>
## Philippines Solid Waste Management Program

### Expected Contract Volume: 1.75 to 2.25 million tCO2e up to 2020

<table>
<thead>
<tr>
<th>Implementation Status</th>
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</tr>
</thead>
<tbody>
<tr>
<td>✓ ERPA signed in December 2015</td>
<td>✓ Registration Status:</td>
</tr>
<tr>
<td>✓ <strong>Additional CPAs:</strong> On-going validation / inclusion of Montalban Methane Power Corp. (MMPC) with total estimated ERs per year of 228,020.</td>
<td>➢ Registered on 20 July 2012.</td>
</tr>
<tr>
<td>✓ Another 3 projects show good potential and are undergoing further evaluation / documentation processes.</td>
<td></td>
</tr>
<tr>
<td>✓ <strong>CPA inclusions:</strong> MMPC is expected to complete the validation / inclusion by June 2016. Also, PGEP is expected to start the validation by August 2016.</td>
<td></td>
</tr>
<tr>
<td>✓ A standalone CDM project (PGEP-Payatas I) has been submitted for inclusion in the second tranche portfolio of CPF. ERPA is being negotiated.</td>
<td></td>
</tr>
</tbody>
</table>

### Next Steps/Timetable

- Sub-project Purchase Agreements for MMPC/Rizal Provincial SLF and PGEP’s Payatas 2 signed by July 2016 and December 2016, respectively.
- Signing of ERPA for the PGEP’s standalone project (Payatas 1) in June 2016.
- Signing of Sub-project Purchase Agreement for Payatas 1 in June 2016.