OVERVIEW OF CARBON OFFSET PROGRAMS
SIMILARITIES AND DIFFERENCES

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1. APPROACH

Objectives of Technical Report

- Mapping exercise of set of offset programs (existing and in advanced implementation stage)
- Identification of main elements and design features of offset programs
- Initial examination of main differences and similarities

- Not an evaluation of programs
1. APPROACH

Approach

- Development of study framework
- Desk review of literature and offset program documentation
- Structured interviews and written input from program administrators
- Analysis of similarities and differences
- Feedback from offset programs

- Next step: Feed back and finalization of Technical Report
## Considered Offset Programs

### Kyoto Protocol:
- Clean Development Mechanism (CDM)
- Joint Implementation track 1 (JI-T1)

### Offset Programs from Governments for domestic climate mitigation:
- Chinese Certified Emission Reduction (CCER) - new
- Japanese Joint Crediting Mechanism (JCM) - new
- Québec offset program - new

### Voluntary programs for voluntary markets as well as for compliance in governmental compliance schemes:
- Climate Action Reserve (CAR)

### Voluntary programs for voluntary market (private or governmental):
- Gold Standard (GS)
- Verified Carbon Standard (VCS)
2. Considered Elements of Offset Programs

Characteristics of Offset Programs

Topics considered for each program:
- Overview of standards
- Principles and goals
- Operationalised Principles
- Governance structure
- Project Registration Procedures
- MRV and Credit Issuance Procedures
- Sustainable Development Aspects
3. FINDINGS

Mapping in Annex of Report

DRAFT PMR Technical Note 6 (May 21, 2013)

Annex 1: Overview Tables of Evaluated Offset Programs

Table 2: Overview of Programs (as of February 2013)

<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Type of Program</th>
<th>Regional scope</th>
<th>Start of Program</th>
<th>Projects registered</th>
<th>Tradable Unit Name</th>
<th>Units issued</th>
<th>Primary Users of credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Development Mechanism (CDM)</td>
<td>Offset mechanism under the Kyoto Protocol</td>
<td>International</td>
<td>General rules established in 2001, first offset issued in 2005.</td>
<td>6354</td>
<td>Certified Emission Reductions (CERs)</td>
<td>Above 1.2 billion</td>
<td>✔️ Annex 1 countries that have a reduction commitment under the Kyoto protocol</td>
</tr>
<tr>
<td></td>
<td>(Article 12). Primarily project-based. Also recognizes programme-based mitigation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔️ Private buyers that are covered under an ETS (e.g. EU-ETS)</td>
</tr>
<tr>
<td>Joint Implementation (JI) track 1</td>
<td>Offset mechanism under the Kyoto Protocol</td>
<td>International</td>
<td>General rules established in 2001, national rules established individually in each country, first offset issued in 2008.</td>
<td>532</td>
<td>Emission reduction units (ERUs)</td>
<td>637 million</td>
<td>✔️ Annex 1 countries that have a reduction commitment under the Kyoto protocol</td>
</tr>
<tr>
<td></td>
<td>(Article 6). Primarily project-based. Also recognizes programme-based mitigation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔️ Private buyers that are covered under an ETS (e.g. EU-ETS)</td>
</tr>
<tr>
<td>Chinese CER (CCER)</td>
<td>Project-based offset mechanism</td>
<td>China</td>
<td>Expected start in 2013</td>
<td>0</td>
<td>Chinese Certified Emission Reductions (CCERS)</td>
<td>0</td>
<td>✔️ Voluntary buyers (both Chinese and international)</td>
</tr>
<tr>
<td>Japanese Joint Crediting Mechanism (JCM) or Bilateral Offsets Crediting Mechanism (BOCM)</td>
<td>Bilateral project-based offset mechanism</td>
<td>International</td>
<td>Guidelines to be implemented starting April 2013</td>
<td>0</td>
<td>Units currently not traded (&quot;non-trading-mechanism&quot;) May become trading mechanism at a later date.</td>
<td>0</td>
<td>✔️ Both government and private sector can be financing entities.</td>
</tr>
</tbody>
</table>

15 The Japanese programme has two names: JCM and BOCM, but is the same programme. Please note that all technical details provided for the JCM are subject to further consideration and discussion with host countries.
3. FINDINGS

Size of Programs

Figure Number of registered projects (orange – right axis) and units issued (blue – left axis) as of February 2013. Please note that the CCER, JCM and the Québec program are in their startup phase and have no registered projects yet.
### Scope (Project Types)

(Simplified)

<table>
<thead>
<tr>
<th>Scope</th>
<th>Renewables and energy efficiency</th>
<th>Coal mine methane</th>
<th>Waste management</th>
<th>Agricultural manure</th>
<th>N2O abatement</th>
<th>Other industrial gases</th>
<th>Agricultural practice</th>
<th>ODS destruction</th>
<th>Afforestation and reforestation</th>
<th>Protection of existing forests</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDM</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>JI track 1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>CAR</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>CCER</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</tr>
<tr>
<td>GS</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>JCM/BOCM</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Québec</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
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<tr>
<td>VCS</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>
3. FINDINGS - APPROACHES TO PROGRAM DESIGN

Broad vs. Selective Scope

**Broad scope** of eligibility of project types in offset program

Mitigation sectors:
- Sectors covered by domestic ETS
- Sectors covered by other mitigation policies
- Sectors not covered by policy

**Selective scope** of eligibility of project types in offset program

Mitigation sectors:
- Sectors covered by domestic ETS
- Sectors covered by other mitigation policies
- Sectors not covered by policy

**Figure** Offset programs with a *broad scope* that cover all sectors in a host country versus programs with a *selective scope* that cover only sectors that are not included in a domestic Emission Trading Scheme or by mitigation policies.
3. FINDINGS - APPROACHES TO PROGRAM DESIGN

Bottom-up versus Top-down Approach

- **Bottom-up**: PP proposes methodologies, program body approves (Ex.: CDM, JI, VCS, GS)
- **Top-down**: program body develops methodologies (Ex.: CAR and Québec)

Standardization of Approaches

Standardization by using:
- default parameters instead of monitoring
- sector wide performance standards to assess additionality and baseline setting
- Positive lists/ automatic additionality
- Programmatic approaches

All programs apply some degree of standardization
3. FINDINGS - APPROACHES TO PROGRAM DESIGN

Characteristics of Offset Programs

- Top-down
  - Standardized
  - CDM
  - CAR

- Bottom-up
  - JI track 1
  - CCER
  - VCS
  - JCM
  - Project-by-project
  - GS
  - Québec
3. FINDINGS

Governance Structure

Considered offset programs have similar governance structures with similar entities – some important differences in roles and responsibilities
3. FINDINGS

**Project Cycles**

- **Registration /Listing**
  - Project Design (Project Developer)
  - Stakeholder Consultation (Project Developer)
  - Validation (Third-party Auditor)

- **Compliance**: Completeness / Consistency Check (Program Administrator)
- **Review**: Review (Program Administrator/Executive Body)
- **Final Approval**: Final Approval (Program Administrator/Executive Body)
- **Projects are eligible to generate offsets with the program they were approved under**

**Verification and Issuance**

- **Monitoring**: Monitoring (Project Developer)
- **Verification**: Verification (Third-party Auditor)
- **Review of Verification**: Review of Verification (Program Administrator/Executive Body)
- **Final Approval / Rejection**: Final Approval / Rejection (Program Administrator/Executive Body)
- **Credit Issuance**

**Common Elements**
3. FINDINGS

Sustainable Development Aspects

- A positive contribution to sustainable development is part of most programs’ principles and goals
- Varying importance/recognition offset programs give to sustainable development aspects
- CDM and JI: host country approval may include checking of SD benefits
- Gold Standard: full MRV of SD benefits (higher costs versus SD market premium)
- Emerging voluntary reporting (e.g. CDM SD benefits tool)
- Add-on standards to cover SD aspects (e.g. CCB, Social Carbon)
Draft Conclusions Offset Programs

- Many **common elements** and procedures among standards – differences in steps and roles
- In general two groups in terms of program design:
  - **Broad scope**: Bottom-up, limited standardization (E.g. CDM, JI-Track 1, CCER, JCM, GS, VCS)
  - **Selective scope**: Top-down, increased standardization (E.g. CAR, Québec)
- But programs are evolving over time:
  - Rather than reinvent the wheel, they **learn from each other** (in particular from CDM), adapt tools, methodologies, standardization, streamlining
  - Many **innovations**: methodologies and processes, new project types (sectors, high GWP, AFOLU), standardized, streamlining
Draft Conclusions Offset Programs (cont.)

- Aim to **balance** quality assurance with transaction costs
- No one-size-fits-all design of offset programs: depends on **targeted market**
- Common elements, consistency & comparability may foster **fungibility** and enable potential future linking
Thank you.

For more information & clarifications, please contact the PMR Secretariat (pmrsecretariat@worldbank.org)