STATUS AND CHALLENGES WITH MONITORING NATIONAL GHG EMISSIONS IN CHINA

LI PENG

SINO CARBON, LTD

PARTNERSHIP FOR MARKET READINESS

3RD REGIONAL MRV TECHNICAL TRAINING

IZMIR, TURKEY

SEPTEMBER 17 – 19, 2014
<table>
<thead>
<tr>
<th>1</th>
<th>Overview of China’s inventory at the national level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Legal and institutional set up</td>
</tr>
<tr>
<td>3</td>
<td>Focus on Monitoring esp. quantification methodologies</td>
</tr>
</tbody>
</table>
International obligation:

- Article 4.1 and 12.5 of UNFCCC on submission of national communication: Annex I VS Non-Annex I parties;
- Decision 1/CP16: developing parties… should submit biennial update report (BUR) containing updates of NI
- Decision 17/CP.8: Guidelines for the preparation of national communications from Annex-I parties;
- Decision 2/CP.17: UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention
- MRV regulations based on CBDR.
## 1: Progress of China’s Inventory

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<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td>Energy, industrial process, Agriculture, Forestry and other land use, waste</td>
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</tr>
<tr>
<td><strong>GHGs</strong></td>
<td>CO₂, CH₄, N₂O</td>
<td>CO₂, CH₄, N₂O, HFCs, PFC, SF₆</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>1996 IPCC + 2000GPG</td>
<td>1996 IPCC + 2000GPG 2006 IPCC as reference</td>
</tr>
</tbody>
</table>
1: Forward plans

- Ready to prepare the NI of 2010
  - The bidding information has been published and the government is “out-source” the work of preparing the inventory

- The scope of GHGs
  - At least CO$_2$, CH$_4$, N$_2$O, HFCs, PFCs, SF$_6$

- Link to reporting of facility level
  - In the future, this might be an option
1. Overview of China’s inventory (1)
2: Policy and law

  - Main instructive policy on climate change

- Management on the Statistics of Climate Change (发改气候[2013]937号)
  - Joint document released by NDRC and NSB to improve statistic system in favor of GHG accounting at the end of 2013

- Climate Change Act is under discussion
  - No dedicated laws and regulations to manage NI
2. Institutional arrangements (1)

- **Centralized Approach:**
  - a single national entity with overall responsibility for the national inventory: NI planning, preparation and management;

- **Out-sourced:**
  - the government “out-source” the work of preparing the inventory to research institutions, academic institutions and universities.

- **Separated:**
  - China prepares its greenhouse gas inventory completely independent from other inventory and reporting efforts.
2. Institutional arrangements (2)

- **National entity:**
  - Department of Climate Change (DCC), National Development and Reform Commission (NDRC)

- **Out-sourced institutions and universities:**
  - Energy Research Institute — Energy Activities
  - Tsinghua University — Industrial process
  - CAAS + IAP of CAS — Agriculture
  - CAF — LULUCF and forestry
  - CAES — Waste management

- **Supporting ministries and agencies**
  - NSB, MOA, NFB, CNPC, SINOPEC, SACMS, industrial associations…

- **More programs has been initiated to improve the NI related statistics**
2: NI development process (Current)

**Preparation**
- Funding Application to UNDP/GEF
- Summit Climate Communication Outline

**Bidding**
- Tender on the 6 parts of the NI
- Bidding and determination of the working process

**Establishment**
- Data collection, investigation, workshop and quality control of the work
- Establishment of the NI
- Submit to the UNFCCC
2: Inventory management - archive

- Archive inventory information for each year: all disaggregated emission factors, activity data, and documentation about how these factors and data have been generated and aggregated for the preparation of the inventory
- Make the archived information accessible by collecting and gathering it at a single location;
- Respond to requests for clarifying inventory information resulting from the different stages of the review process
3. Major challenges on existing statistic system

◆ Existing statistic system can't meet the requirement of inventory development, for examples:
  ▪ Coal classification:

<table>
<thead>
<tr>
<th></th>
<th>China energy statistic system</th>
<th>IPCC categories</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Raw coal</td>
<td>anthracite</td>
</tr>
<tr>
<td>NCV(MJ/kg)</td>
<td>20.93</td>
<td>26.70</td>
</tr>
<tr>
<td></td>
<td>Washing coal</td>
<td>bituminous coal</td>
</tr>
<tr>
<td></td>
<td>26.38</td>
<td>18.90</td>
</tr>
<tr>
<td></td>
<td>Other washing coal</td>
<td>coking coal</td>
</tr>
<tr>
<td></td>
<td>8.37</td>
<td>28.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lignite</td>
</tr>
<tr>
<td>EFs(t-C/TJ)</td>
<td>NA</td>
<td>26.8</td>
</tr>
<tr>
<td></td>
<td>NA</td>
<td>25.80</td>
</tr>
<tr>
<td></td>
<td>NA</td>
<td>25.80</td>
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<tr>
<td></td>
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<td>27.60</td>
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</table>
3. Major steps to overcome statistical deficiency

◆ “Opinion” released jointly by NDRC and NSB to improve statistic system in favor of GHG accounting at the end of 2013
  ▪ Update Energy Balance Table, by
    - Disaggregating fuels; adding new fuels;
    - Re-allocating transport energy;

◆ Climate-related Statistic Leading Group was established in Feb., 2014, composing by 21 ministries, departments and associations.

◆ Initiatives in provincial level started consequently
Thank You

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