POST COP21 – FROM INDCS TO DEEP DECARBONIZATION

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After COP21 from INDCs to Deep Decarbonization

• INDCs are imply a consolidation and acceleration of climate action at global level and in major economies

• Implementing them will require strong and comprehensive new policies (more about this later)

• It is clear that INDCs are not consistent with 2C

• It is crucial to understand the structure of transformation:
  • ‘transformation gap’ not ‘emissions gap’
After COP21 from INDCs to Deep Decarbonization

- Ensuring implementation of ambitious announced energy efficiency policies
- Retrofit of existing stock
- “Right development choices” for developing countries

- Increasing the competitiveness, availability and deployment of green tech (ex. CCS??)

- Strategies to avoid lock in

- Early preparation of post-2030 scale up
- Innovation and infrastructure
After COP21 from INDCs to Deep Decarbonization

- Policy needs to take into account the **structure** and **timing** of the required transformation.

- A long-term perspective provides short term and long term benchmarks for policy:
  - Long-term (2050-2100): very deep decarbonization for all countries
  - Short-term (2020-30): intertemporal constraints of long-term transformation, required structure and depth of transition, and interrelationships between choices.

- Implementing INDCs as a stepping stone to deep decarbonization:
  - Where and how can we strategically overachieve INDCs?
  - How to address the **structural inadequacies** of INDCs through reinforced cooperation and the revision mechanism of the PA?
After COP21 from INDCs to Deep Decarbonization

Table 4. Sector Dashboard Template (Building Sector Example)

<table>
<thead>
<tr>
<th>Residential Sector Inputs</th>
<th>Building &amp; Transport Sector Inputs and Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor area, residential units</td>
<td>MsqM</td>
</tr>
<tr>
<td>Residential FEC</td>
<td>2,019 2,236 2,416 2,565 2,696</td>
</tr>
<tr>
<td>Residential non-electricity FEC</td>
<td>1,54 1,45 1,43 1,38 0,79</td>
</tr>
<tr>
<td>Residential district heating</td>
<td>0,00 0,03 0,05 0,15 0,25</td>
</tr>
<tr>
<td>Residential solar thermal</td>
<td>0,00 0,00 0,00 0,00 0,00</td>
</tr>
<tr>
<td>Residential pipeline gas</td>
<td>1,34 1,36 1,33 1,22 0,54</td>
</tr>
<tr>
<td>Residential liquid fossil fuels</td>
<td>0,14 0,05 0,03 0,00 0,00</td>
</tr>
<tr>
<td>Residential coal and coal gas</td>
<td>0,02 0,01 0,00 0,00 0,00</td>
</tr>
<tr>
<td>Residential solid biomass</td>
<td>0,02 0,00 0,03 0,01 0,00</td>
</tr>
<tr>
<td>Residential final electricity</td>
<td>TWh</td>
</tr>
<tr>
<td>Residential non-electricity CO₂ emissions</td>
<td>MtCO₂ 83 77 73 67 30</td>
</tr>
<tr>
<td>Residential total CO₂ emissions</td>
<td>MtCO₂ 139 112 77 65 21</td>
</tr>
<tr>
<td>Residential Sector Indicators</td>
<td></td>
</tr>
<tr>
<td>Per capita residential floor area</td>
<td>sqm/cap 32 33 34 35 35</td>
</tr>
<tr>
<td>Residential energy intensity</td>
<td>kWh/sqm 269 227 208 201 159</td>
</tr>
<tr>
<td>CO₂ intensity of residential FEC</td>
<td>tCO₂/TJ 71,11 61,46 42,69 34,71 13,78</td>
</tr>
<tr>
<td>Non-electricity CO₂ emission factor</td>
<td>tCO₂/TJ 53,74 52,94 51,05 48,23 37,49</td>
</tr>
<tr>
<td>Share of final electricity in residential FEC</td>
<td>% 23% 22% 23% 34% 67%</td>
</tr>
</tbody>
</table>

Source: IDDRI
The Importance of the Post-COP21 Implementation Agenda

• The Paris agreement marks the shift from ‘closed’ to ‘open architecture’:
  • There are no ‘perfect’ solutions to climate change
  • Regime must be based on learning, innovation and dynamism
  • QELROS -> INDCs
  • Discrete commitment periods -> continuous forward looking cycles

• The legitimacy of the regime rests on its capacity to ensure rapid implementation, learning and strengthening

• Reaching (and strengthening) 2030 INDCs requires immediate implementation
The Importance of the Post-COP21 Implementation Agenda

• The Paris Agreement sets the date of 2018 for the first stocktaking dialogue

• This sets an important deadline for international and national policy development, to lay the foundation for the next steps in 2020

• At national level: identification and adoption of key legislation/regulation to implement INDCs.

• In some places, important pieces should be put in place in 2016/17 (13th FYP, ETS reform etc.).

• International dialogue is crucial
A Conducive International Framework for INDC Implementation

• Several challenges for international climate cooperation beyond the ‘basic collective action challenge’ addressed in the Paris Agreement
  • Trade and competitiveness
  • Innovation
  • Deployment and availability of clean technologies
  • Financial incentives, support and financial system restructuring

• We need to ‘flesh out the’ policies and transformations implied by INDCs, in order to better understand international spillovers and opportunities for cooperation:
  • How much, of which technologies, with what impacts on costs and innovations?
  • Which policies will be implemented with what impact on trade and competitiveness?
  • Which financial policies will be implemented nationally and internationally, with what implications for financial system perceptions, incentives and structure?
A Conducive International Framework for INDC Implementation

• INDCs based on i) national development strategy and interests; ii) collective action framework and objectives (2C).
  ≠ Pricing as optimal abatement allocation internationally and nationally, with harmonized rules etc.
✓ What contribution of carbon pricing to national development objectives?
   • e.g. what role of carbon pricing in transition to Chinese new normal, and vice versa?

• Pricing mechanisms, driven by development visions and domestic circumstances, will be quite heterogeneous:
  • Need to ensure dialogue and understanding, avoid competitiveness concerns
  • Need to strengthen work and understanding of link between development objectives and c. pricing (opportunity to link with others, IMF etc)
Conclusions

• INDCs represent a great step forward that must now be implemented and strengthened overall and in the right places:
  • What are their structural strengths and weaknesses, in aggregate and against transformation needed for national deep decarbonization?

• There is an immediate implementation agenda
  • We need to create dynamism and confidence in domestic implementation through action, dialogue and transparency

• The Paris Agreement leaves us with a big collective action agenda:
  • Ex. Carbon pricing linked to national development agenda
  • ensuring transparency and dialogue to overcome competitiveness concerns from heterogeneous approaches
  • Making analytical and political links between development and carbon pricing
IDDRI resources

http://deepdecarbonization.org/

http://www.iddri.org/Publications/Beyond-the-numbers-Understanding-the-transformation-induced-by-INDCs

http://www.blog-iddri.org/2015/12/14/the-paris-agreement-historic-but-whats-next/