Formulation of Pricing Strategy
Adopting an opportunity cost-based pricing approach to mitigate overselling risks

François Sammut, Carbon Limits
Kigali, Rwanda
March 2023
Getting to grips with Article 6 – key pricing-related issues for host country governments

1. What are overselling risks
2. How to assess overselling risks
3. Options for mitigating overselling risks, including pricing
Understanding overselling risks

Different kinds of risks

1. Selling low-cost mitigation outcomes (MOs) that are necessary for meeting the NDC goal ("low hanging fruit")

2. Selling MOs that do not represent real reductions ("non-existent fruit")

3. Selling MOs for which the reduction in emissions will not be captured by the host country’s GHG inventory ("uncounted fruit")

4. Selling MOs generated outside the scope of the Nationally Determined Contribution (NDC)

Prioritizing mitigation actions to achieve NDC goals

What is the “NDC package”

Example of Marginal Abatement Cost Curve

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Abatement cost ($/tCO₂)</th>
<th>Abatement potential (mtCO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>-20</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>-10</td>
<td>10</td>
</tr>
<tr>
<td>C</td>
<td>-5</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>G</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>H</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>J</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Total for NDC</td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

Interventions not included in NDC plan for other reasons (e.g., policy alignment, co-benefits, barriers)

Source: Carbon Limits
Why could “low hanging fruit” be problem?  
A6 activities in the “NDC package”

MACC for “NDC Package”

• What are the implications of using “F” for A6 cooperation?
• Must replace with “J” to still reach NDC goal
• Payment received for “F” must be sufficient to realize “J”
Assessing overselling risk of a proposed A6 activity

Potential conflict with measures to meet unconditional NDC

**NDC type/activity type**

For NDCs that lists specific conditional and unconditional actions:

- Activity is mentioned only as an unconditional action
  - High

- Activity is mentioned, but whether unconditional or conditional is not clear
  - Medium

- Activity is mentioned as both unconditional and conditional action (i.e., different degrees of implementation)
  - Medium

- Activity is mentioned in unconditional plan with limited degree of implementation (e.g. MW of power or ha of land)
  - Medium

- Activity is not mentioned or is mentioned as a conditional action
  - Low
Options for mitigating overselling risk

- **Sharing MOs**: To authorize only a portion of the potential emission reductions as mitigation outcomes to be transferred.

- **Negative list of interventions set aside for NDC**: To exclude from Article 6 the set of mitigation interventions that have been chosen to meet the NDC.

- **Limited crediting periods**: To shorten crediting periods to reduce the total ITMOs transferred for a program, leaving more mitigation outcomes in the host country.

- **Cap on transfers**: To limit the total volume of transfers within a given period, or periodically adjust the cap to reflect progress toward NDC goals.

- **Baselines derived from NDC goals**: To limit transfers by using the NDC goals as the baseline for credited activities.

- **Charging a levy to support mitigation in the country**: To set aside a portion of the revenue generated from ITMO transfers to support additional mitigation activities in the country.

**Source**: Carbon Limits

**NDC**: Nationally Determined Contributions

**ITMO**: Internationally Transferred Mitigation Outcomes
Impact of overselling risk on ITMO pricing and payments

- **HIGH RISK**: Compensation to HP as the marginal cost of meeting the NDC less the abatement cost of the proposed activity.
  - Share mitigation outcomes between HP and AC
  - No additional compensation needed

- **MEDIUM RISK**: What other strategies HP uses to reduce overselling risks?
  - Incorporate NDC actions into the baseline for the activity
  - Shorter crediting period
  - No additional compensation needed

- **LOW RISK**: No additional compensation is needed
  - No other strategy applied to reduce risk
  - Fee required: could be less than the fee required for high-risk activities

Source: Carbon Limits
ITMO pricing and NDC opportunity costs

An overselling risk doesn’t mean don’t sell, but price correctly

NB – this is only relevant if the country is NOT using other strategies to reduce overselling risk

Source: Carbon Limits
Key messages

Risk assessment is essential

Ensure the risks of selling ITMOs are effectively assessed. Approaches for risk assessment are available.

Please sell…but at the right price

Important to make to fully leverage opportunities provided by Article 6.

No “one size fits all” solution

Different options available for mitigation risks – most appropriate option to be determined on country of activity basis.
Back-up
Assessing overselling risk of a proposed A6 activity

Lack of visibility in GHG inventory

**Activity type**

- Activity reduces emissions from deforestation and degradation (e.g. avoided non-renewable biomass from cookstoves, biogas)
  - **Overselling Risk**: Medium-
    - High?

- Activity reduces emissions from sources that are not included in the GHG inventory
  - **Overselling Risk**: High

- Activity reduces emissions from a sector or sub-sector that has a Tier 1 or highly aggregated GHG inventory, so that the emission reductions may not be reflected
  - **Overselling Risk**: High

- Activity reduces emissions that are relatively easy to measure the change will be clearly reflected in the country’s GHG inventory (e.g., the inventory is disaggregated enough to reflect the project impact)
  - **See previous screening questions**
Qualitative restrictions to manage risk

- Negative list to screen out activities in the NDC package
  - Country identifies the interventions (e.g., project types or specific investments) necessary to reach (unconditional) NDC goal
  - Article 6 cooperation would be allowed for all activities not included in the list
  - Focus on mitigation activities that the country could not or would not (i.e., due to high costs) implement itself
  - Level of detail of this list would depend on the level of detail in the original NDC analysis (e.g., project types, sub-types/technologies, investments)

- Crediting baselines derived from NDC targets
  - Incorporate NDC targets into baseline
  - Ensure that only the mitigation activities that go further than the NDC goal (but still in an NDC-covered sector) would be eligible
  - For example, renewable energy development beyond a pledge made in the unconditional NDC

Source: Carbon Limits
Quantitative approaches to managing risk

• Simple division of mitigation outcomes from cooperative activities
  • Authorize only a portion of the potential emission reductions as mitigation outcomes to be transferred
  • Remainder of the emission reductions are used by the host country to achieve its NDC or to enhance the ambition of its NDC

• Limit crediting periods
  • Limit the number of years during which a host country would transfer mitigation outcomes from a given cooperative activity
  • Continued mitigation action after crediting period would help host country meet NDC goals
  • Would not interfere with setting more ambitious goals in future NDC cycles

• Overall cap or conditionality on Article 6 transfers
  • Restrict total volume of ITMOs that could be authorized in a given time period, and adjust as necessary based on NDC progress

Source: Carbon Limits
Pricing approaches to managing risk

- Pricing for ITMOs to reflect opportunity cost of meeting NDC
  - Set an ITMO price high enough to replace any A6 activity with another alternative outside of the “NDC package” of measures
  - Would not need to restrict project types or volumes of Article 6 cooperative activities to manage overselling risks
  - Part of payment goes to mitigation activity owner, to cover abatement cost, while the rest goes to government to invest in replacement mitigation actions
  - Assumes, host country can identify the marginal cost of the NDC, can collect the extra revenue, and can channel that revenue into additional higher cost mitigation activities in the country

- Charging a levy to fund additional mitigation investments or future ITMO purchases
  - Similar to above, but levy not directly linked to estimated marginal cost of NDC nor to a specific project type
  - Funding is set aside in the event that the country risks missing NDC goal
  - Choice between funding additional domestic mitigation or buying ITMOs in the future to cover unexpected shortfall in NDC goal

Source: Carbon Limits
Avoiding double counting

• Only one country can use the mitigation outcomes, so any Article 6 transfers cannot help the host country meet their NDC pledges
  • Double counting is avoided by implementing “corresponding adjustments” (CAs)
  • Does not change the inventory, but changes what emissions are reported, and compared, to the NDC pledge
• Emission reductions from the activity show up in the GHG inventory but are essentially cancelled out by CAs in the NDC reporting
• One risk of trading is that emission reductions might not actually show in in GHG inventory, because of how highly aggregated many of the GHG inventory parameters are
• Host country has mitigation goal in NDC and Article 6 cooperation may affect the achievement of that goal
• Corresponding adjustments (CAs) mean that ITMO transfers are “added back” to host country metrics (e.g. GHG emissions inventory) with accounting towards its NDC goal
• Example of a host country with an economy-wide NDC in tCO₂e (other metrics are possible)
Understanding corresponding adjustments

- In this case, CA is added to the measured emissions in the country when reporting its “adjusted emissions balance”, which is then compared to the NDC goal.
- A6 activity should reduce host’s measured emissions by the same amount as the ITMO transfer, so that net result does not affect progress toward NDC.

Source: Carbon Limits
Assessing overselling risk of a proposed A6 activity
Potential conflict with measures to meet unconditional NDC

**NDC type/activity type**

For NDCs that lists specific conditional and unconditional actions:

- Activity is mentioned only as an unconditional action **High**
- Activity is mentioned, but whether unconditional or conditional is not clear **Medium**
- Activity is mentioned as both unconditional and conditional action (i.e., different degrees of implementation) **Medium**
- Activity is mentioned in unconditional plan with limited degree of implementation (e.g. MW of power or ha of land) **Medium**
- Activity is not mentioned or is mentioned as a conditional action **Low**
Choose strategy to reduce overselling risk

Addressing **high risk** activities

**Options for high-risk activities**

- Reject request for authorization of mitigation outcomes
- Approve project but without an authorization for transfer (i.e. activity becomes *results-based climate finance* with no ITMO transfers)
- Authorize the mitigation outcomes and charge a levy (i.e., on top of price paid to project owner) sufficient for the government to replace the mitigation outcomes transferred (i.e., the next highest cost/available option beyond the current NDC plan)

**What strategies not to use**

- Partial authorization/sharing mitigation outcomes – because all the mitigation outcomes from the activity could potentially compromise NDC achievement
- Shorter crediting period – for the same reason
- Incorporating the NDC into the baseline – this would result in zero mitigation outcomes in any case, if the activity is likely to be implement as part of the NDC
Choose strategy to reduce overselling risk

Addressing **medium and med-high risk** activities

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Med-High</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclude activity from ITMO transfers (i.e., negative list)*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Charge levy to fund additional (replacement) mitigation**</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Share MOs (at least 50% retained)</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Absolute cap on transfers from activity</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Incorporate unconditional NDC into activity baseline</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Maximum crediting period of 5 years</td>
<td>+++</td>
<td>++</td>
</tr>
</tbody>
</table>

*Activity could still be permitted as results-based climate finance (RBCF)

**Where the host country government is the project proponent, this could instead be setting a higher ITMO price to cover the cost of replacement mitigation
Managing risk by incorporating unconditional NDC into the “baseline”

Land area for unconditional NDC, A6 transfer and conditional NDC

Area under sustainable practices (000 ha)

- **uncond NDC**
- **A6 transfer**
- **additional for HC**
Managing risk by incorporating unconditional NDC into the “baseline”

Illustrative values only

Emission reductions for A6 transfer, unconditional and conditional NDC

Legend:
- Uncond NDC
- Potential A6 transfer
- Additional support to Vietnam

Illustrative values only

 CARBON LIMITS

- Potential A6 transfer
- Additional support to Vietnam