

International Climate Change Policy after Paris

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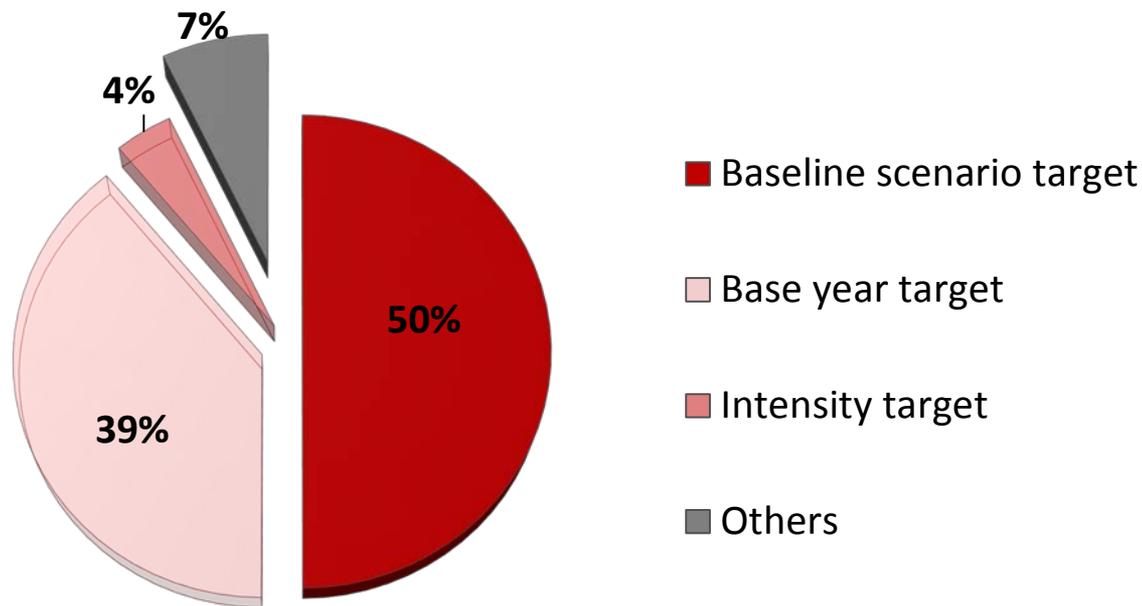
Transparency and *Contributions' Metrics*

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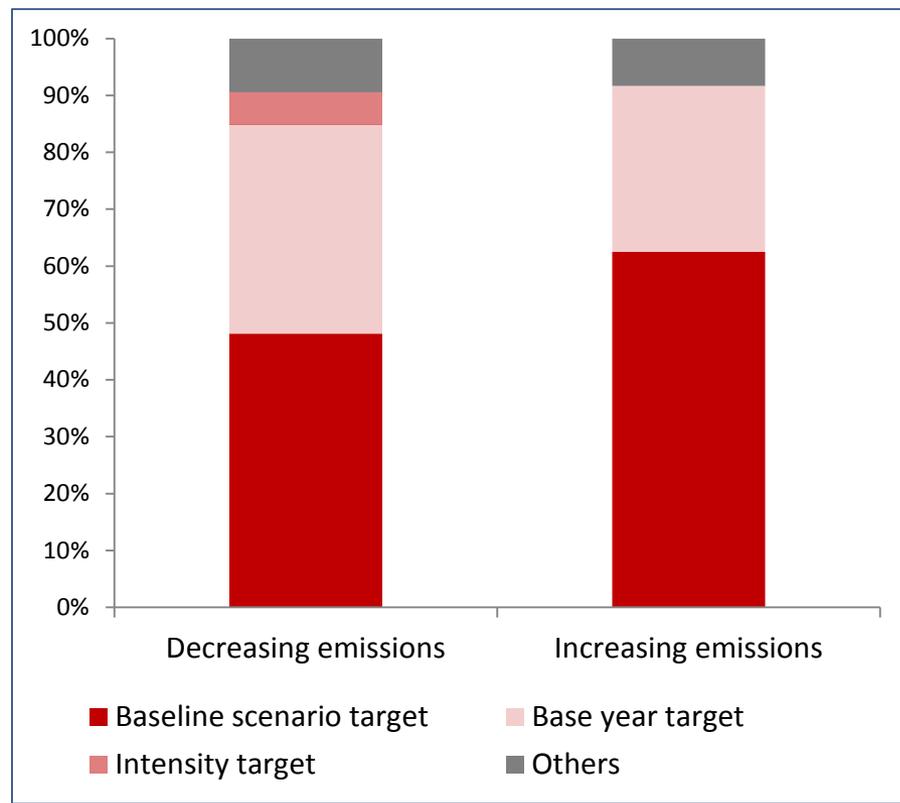
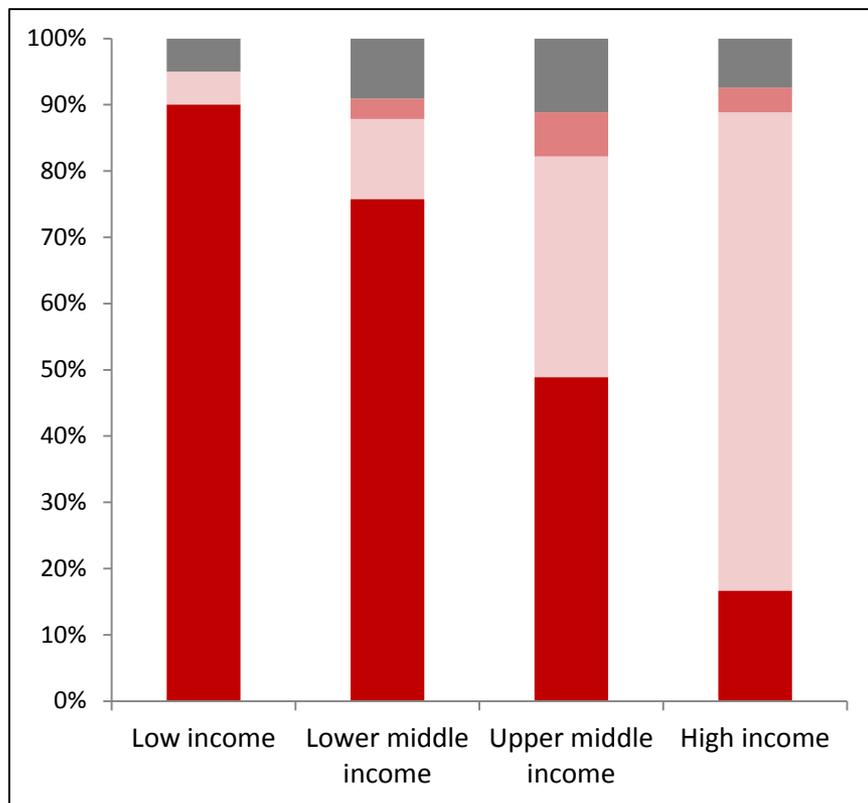
1. Are there considerations to make regarding transparency under different INDC's metrics? First, look at the facts



Source: Own calculations based on countries GHG targets (n= 154: 162 submissions, 189 with EU “open”, 35 “non applicable”) as classified in WRI INDC’s compilation (<http://cait.wri.org/indc/>).

Countries with lower income levels choose more baseline scenario targets.

Countries with increasing emissions choose more baseline scenario targets.



Source: Own calculations based on GHG targets as classified in WRI INDC's compilation combined with data from the World Bank Development Indicators Database.

Note: n= 130. Six countries do not have GDP estimation for 2012 (constant \$US 2005), and that information is absent for emissions of seven nations (kCO₂e). Others not in list BW. Cumulative annual growth rate 2000-2012.

2. In theory, the different forms of NDCs could be made equivalent if all information was provided and known (Damassa et al 2015 p. 6, citing Levin et al 2015)

Type of GHG target	Formula for expected emissions at the target final year
Base Year emissions target	$E_T^{BY} = (1 - \lambda^{BY}) \cdot \overline{E}_B$
Base year Emissions Intensity target	$E_T^{EI} = (1 - \lambda^{EI}) \cdot \overline{I}_B \cdot GDP_T$
Baseline Scenario target	$E_T^{BS} = (1 - \lambda^{BS}) \cdot E_T^{BAU}$

3. However, there is a “Transparency ranking”

	Narrow definition	Broad definition
Type of GHG target	Information <u>provided</u>	Possible manipulation due to asymmetric information (<u>known</u>)
Base year emissions target	Emissions in base year <u>Inventory calculations</u>	Choose base year before when some climate action (<i>Aldy & Pizer, 2015</i>)
Base year Emissions Intensity target	Emissions in base year, GDP in base and target years <u>Define \$ for GDP</u> (<i>Aldy & Pizer, 2015</i>)	Choice base year for intensity, but also can be altered by GDP overestimation (Argentina)
Baseline scenario target	Projected emissions in target year <u>Define model for projection</u>	BAU scenario can be overestimated (also depends on base year)

Hence, at this point:

✓ Contributions can be made transparent in the **narrow sense** by providing transparency guidance on what should be reported. Some of that already exists. Some more is needed.

✓ However, to address transparency in the **broad sense** (avoid manipulation or “hidden agendas”), the transparency framework has to be a screening mechanism (external policy review). If it works:

1. Countries that disclose all true information are distinguished from the others (and can gain from it obtaining more climate funds, reputation, or linking);
2. Non- Base Year targets would have less sense as “a device to hide”.

4. Not the end. Come back to the word “known”: It is important to distinguish transparency from certainty

- ✓ E_{T}^{BAU} and GDP_T can be transparent or not, but they cannot be certain.
- ✓ What makes countries choose uncertain emissions' levels for the future? At least two possible explanations:
 1. The need for flexibility to ensure continuous economic growth (BY: if growth more than expected, allow low emissions);
 2. To be politically correct (countries who choose the less transparent metrics are mostly those that have increased their emissions in the last decade, so a base year target would imply a compromise to an increase in emissions).

5. Conclusions

- ✓ Targets' types, even if theoretically can yield the same level of ambition, are quite different in terms of transparency and certainty.
- ✓ Are there “straightforward” incentives to preclude opaque practices in the choice of NDCs metrics? Yes, making procedures for reporting more strict (narrow). And, establish screening mechanism for true revelation (broad).
- ✓ Are there “straightforward” incentives to preclude types of metrics that are highly uncertain? Not easy. May be with compensations? But how to design them?