

The European and Indian INDCs

Hints on equity expectations for Paris?

In the run to the Climate Summit in Paris in December 2015, countries are preparing their *intended nationally determined contributions* (INDCs). The aggregate global effort to be agreed in Paris should keep the 2°C limit at least in reach and even allow for a 1,5°C pathway, which according to IPCC's 5th Assessment Report equals deep carbon emission reductions by 2050. The required reductions would not only imply deep emission cuts in rich and capable countries but also the early peaking or plateau of emissions in developing countries. Given the development needs of countries with lesser capabilities, significant technology and finance support is required to achieve limited or no further emission growth without affecting sustainable development. Economic growth and environmental degradation must eventually be decoupled.

The “Lima Call for Action” provides the context for countries to prepare their INDCs. Mitigation contributions shall go beyond countries' current undertakings and may include quantifiable information as well as they should explain how they are fair and ambitious. Adaptation components may be considered, too. First submissions of INDCs to UNFCCC show that developing countries tend to split their INDCs in unconditional and conditional pledges and thereby implicitly tackle means of implementation.

The EU's INDC

After Switzerland, the European Union came second in March 2015 with submitting its INDC to the UNFCCC, outlining its mitigation contribution of at least 40% emission reduction through domestic efforts by 2030 below its 1990 levels. This target goes beyond the current undertaking (-20% by 2020) and according to the EU is in line with its further target to reduce emissions by 80–95% by 2050 compared to 1990. It is estimated that currently existing policies to achieve the 20% emission reduction targets for 2020 might imply a reduction of 23 to 35% by 2030¹. Accordingly, critics argue that the addition in emission reduction by 2030 could include further enhanced efforts and result in higher, still feasible targets. A study by Ecofys has indicated that the EU could reduce domestic emissions by 49% through no-regrets measures for energy security².

The current terminology of “at least 40%” leaves room for potential upscaling of the EU's INDC even before Paris. The nature of this upscaling either in terms of the actual domestic reduction target or an addition of international support like climate finance or technology transfer to match the announced needs in developing countries is yet to be understood. Moreover, the EU internal distribution of the efforts is yet to be decided.

¹ Climate Action Tracker, 2015: <http://climateactiontracker.org/countries/developed/eu.html>

² Ecofys, 2014: Increasing EU's Energy independence, <http://www.ecofys.com/files/files/ecofys-ocn-2014-increasing-the-eu-s-energy-independence.pdf>

It is evident that the renewable energies and energy efficiency plans of the EU build the substantial part of the roadmap towards implementing the emission reductions. The renewable target of at least 27% by 2030 and an energy efficiency improvement target of at least 27% are essential in the EU's INDC. These rather conservative targets do not seem to account for falling renewable energy prices, under which consideration the EU target of renewable energy becomes less ambitious. International finance support is fully missing in the EU's INDC so far.

India's INDC

India had until early September 2015 not submitted its INDC. The Minister of Environment, Forest and Climate Change, Shri Prakash Javadekar, in various forums has announced that India's INDC would highlight the subcontinent's sustainable development effort in context of its given low per-capita and historic emissions versus India's huge development need and will cover all key pillars of climate negotiations: Mitigation, Adaptation, Technology Transfer, Climate Finance and Capacity Building. The Indian government indicates since early 2015 that the INDCs under preparation to be:

- **ambitious**, measured against India's previous targets and its capacities. All indications point towards India's mitigation contribution being expressed in terms of renewable energy and energy efficiency efforts as sectoral targets. This would build upon the recently increased domestic and internationally funded efforts to increase renewable based electricity generation capacity to 175 Gigawatts by 2022.

India's 2020 target as prepared for the Copenhagen Climate Summit COP15 in 2009 is to reduce its greenhouse gas (GHG) intensity by 20 to 25% below 2005 levels. This target is voluntary and not legally binding as well as in context of the Climate Convention Article 4.7, meaning it is contingent on availability of means of implementation from developed countries. Given the size of India's annual and absolute emissions and their current rising trends versus India's enormous solar and efficiency potential (if sufficiently supported), its total efforts should be at the minimum in line with its equitable share, even though India's per capita emissions remain low and it is still a low middle income developing country. An emissions intensity target of -30–40% against 2005 levels is thinkable. A -47% intensity target would satisfy equity criteria for India³ in medium equity setting. Montek Singh Ahluwalia, the former Deputy Chairman of the Planning Commission, suggests 50% reduction below 2005 until 2030. He also suggests 2040 as peak year for Indian emissions that may or may not be part of the Indian INDC⁴.

- **comprehensive**, in terms of including a mitigation and an adaptation component as well as the expression of needs for means of implementation. The Minister has states that India's mitigation contribution will have two aspects: a) a target for national sustainable development efforts using own resources with greenhouse gas emission reduction co-benefits; and b) a second target for additional mitigation actions enabled through international support. India has also indicated it will include an adaptation component, providing information on an adaptation target and needs.
- **transparent**, indicating a process of stakeholder consultations before finalizing the INDC. The last one of a row of stakeholder hearings and conferences was held on 4 August 2015 in Delhi.

³ CANSA, 2015: Ensuring sustainable growth for India in a fair global climate agreement

⁴ Business Standard, 26 July 2015: Towards a strategy for climate change talks, <http://www.business-standard.com/search?type=news&q=Montek+Singh+Ahluwalia>

Ambitious and fair?

The Lima call for Action, as mentioned above, also requests countries to explain what makes their mitigation action fall in line with the 2°C limit and how it is equitable. Various approaches to equity assessments exist. According to the core principles of the Climate Convention, scientific adequacy, historic and current responsibility and economic and technological capacities as well as development needs and adaptation needs are the main indicators for this exercise⁵. Table 1 below gives two extreme ranges of ambitious and fair share of EU and India for a weak 2°C pathway. The Climate Equity Reference Project takes into account responsibility, capability, development needs and adaptation needs. The PBL study⁶ is based on the equal cost approach alone.

Table 1: Selected equitable share estimations for EU's and India's INDC according to equity criteria only

Equity Approach	European Union (GHG reduction below 1990 levels)	India (GHG reduction below business-as-usual)
Climate Equity Reference Project (high equity – low equity)	144–124%	6.7–8.2% (unconditional about 3.7%) or 47% emission intensity reduction
PBL Study	47 %	13–17 %

Sources: CERP, 2015: <http://calculator.climateequityreference.org> ; PBL, 2015 (see below)

The EU contribution is well below the required reductions shown in table 1. Climate Action tracker, too, has concluded that the EU's contribution is “not yet sufficient to fall within the range of approaches for fair and equitable emission reductions for the EU28.”⁷. The CERP approach estimates that the EU's equitable share for a weak 2°C pathway, taking into account historic emissions from 1990, is 136 % below 1990, while India's fair share would be a 6.7% reduction from business as usual or a 47% emission intensity target based on 2005. As these drastic reductions suggested for the EU are not technically (not to mention politically) feasible in the given short timeframe, countries with steep reduction requirements could partially reduce emissions domestically and partially through international efforts. Thus, the current EU mitigation contribution could possibly be upscaled even before Paris by raising the domestic mitigation target or by highlighting the EU's mitigation action support in developing countries.

The estimate of the PBL study's of 13–17% reduction below business-as-usual emissions by India implies roughly halving the rate of GHG emissions growth compared to period 2010–2020, which is almost the same rate of reduction as the EU. The Climate Equity Reference Project estimates India's equitable share as 6.7% reduction below business-as-usual by 2030 in a middle equity calculation. Estimates by five Indian studies⁸ project GHG emissions for 2030 in the range of 4–7 GtCO₂e as compared to a 2007. Estimated by Ministry of Environment, Forest and Climate Change India's GHG emissions were 1.73 GtCO₂e in 2007⁹.

⁵ CAN, 2014: CAN Equity Indicators Brief:

http://climatenetwork.org/sites/default/files/can_equity_indicators_brief_-_two_page_summary.pdf

⁶ PBL Netherlands Environmental Assessment Agency, 2015: Greenhouse Gas Emission Reduction Targets,

http://www.pbl.nl/sites/default/files/cms/publicaties/PBL_2012_Greenhouse-gas-emission-reduction-targets-for-2030_500114023.pdf

⁷ Climate Action Tracker, 2014: <http://climateactiontracker.org/countries/eu.html>

⁸ Climate Modelling Forum, 2009: India's GHG Emission Profile: Result of Five Climate Modelling Studies, Supported by Ministry of Environment and Forest, India. <http://www.moef.nic.in/downloads/home/GHG-report.pdf>

⁹ MoEF, 2010: India Greenhouse Gas Emissions, 2007. EDGAR (database created by European Commission and Netherlands Environmental Assessment Agency) estimated CO₂ related emissions of India at 2.07 GtCO₂e in 2013.

To enable a faster peaking and reduction, India should work towards achieving a lower plateau. Thus, India should formulate an INDC based not purely on responsibility and capability but consider also co-benefits and mitigation potential which allow mitigation efforts at no or low costs. India should furthermore submit a *conditional mitigation* target allowing further actions based on international support that would enable further emission reductions. This conditional contribution has dual benefit, as it enables a faster transition to a low-carbon pathway and enables developed countries to meet their equitable share of mitigation effort.

The legal status

One of the unresolved challenges of the Paris Agreement is the legal nature of the INDCs. INDCs might be added to the agreement in an annexed list, which makes their national bindingness essential. The EU's INDC has a legal basis for implementation in the EU inbuilt in the decision of the European Commission and its member states as submitted to UNFCCC on 6 March 2015: The EU and its Member States are committed to a *binding target* of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990.

The Indian INDC should provide clear information on how the planned contributions will be implemented and integrated into a national legal framework. The national bindingness of the targets is an important element for creating trust among the global community as well as providing a strong framework to ensure implementation and international support.

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