



India's INDCs and Challenges in implementing Paris Agreement

What is INDC and NDC?

Countries across the globe adopted an historic international climate agreement at the U.N. Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP21) in Paris in December 2015. In anticipation of this moment, countries publicly outlined what post-2020 climate actions they intended to take under the new international agreement, known as their Intended Nationally Determined Contributions (INDCs). The INDCs will largely determine whether the world achieves an ambitious 2015 agreement and is put on a path toward a low-carbon, climate-resilient future.

The word “intended” was used because countries were communicating proposed climate actions ahead of the Paris Agreement being finalized. However, as countries formally join the Paris Agreement and look forward to implementation of these climate actions – the “intended” is dropped and an INDC is converted into a Nationally Determined Contribution (NDC). This conversion happens when a country submits its respective instrument of ratification, accession, or approval to join the Paris Agreement.

Why does it important for India?

INDCs contribute to the global efforts of formulating Post-2015 Development Agenda and the Sustainable Development Goals (SDGs) for the next 10–15 years. As such, INDCs will have implications for framing country's development strategy and therefore, India can contribute towards Sustainable Development Goals (SDGs) 1 (to end poverty), 7, to “Ensure access to affordable, reliable, sustainable, and modern energy for all”, SDG 9 to “build resilient infrastructure, promote inclusive and sustainable energy and foster innovation”, SDG 6, to “Ensure availability and sustainable management of water and sanitation for all, Increasing water productivity and adopting sustainable production and consumption patterns to meet the world's projected future demands” and SDG 12 to “Ensure sustainable consumption and production patterns”.

At the level of country strategy; (I)NDCs are instrumental for identifying long-term and immediate development priorities of countries. (I)NDCs implementation needs to be tailored to each country's circumstances, building on existing strategies, plans and capacities, and clearly setting out how action on the ground will be delivered and turned into achievements. India can use this scope to develop frameworks for NDC implementation, setting out the coordinated action required across five distinct

(but intrinsically linked) pillars: governance, mitigation, adaptation, finance and measurement, reporting and verification (MRV).

There is increasing interest of donors to fund (I)NDCs activities, which could entice India to engage in these initiatives.

Overview of (I)NDCs:

162 INDCs have been submitted to the UNFCCC as of July 29, 2016 by 190 countries (EU has submitted a regional INDC), accounting for over 90 percent of global emissions¹.

Most of the INDCs are national in scope; they address all major national GHG emissions or at least the most significant sources such as Co2, and CH4. The GHG reduction ambition of INDCs are different in scale (ranging from 1.5 to 89.0 per cent in comparison to BAU). Approximately, 80 INDCs include relative targets for reducing emissions below the 'business as usual' (BAU) level, either for the whole economy or for specific sectors.

129 Parties included in their INDCs sectoral or sub-sectoral quantified targets. These Parties included targets for the energy and land use, land-use change and forestry (LULUCF) sectors together with their economy-wide targets.

78 Parties identified targets for renewable energy as part of the information to facilitate the clarity, transparency and understanding of their INDCs. Renewable energy targets were expressed using different indicators, such as share in the energy matrix, installed capacity, generation and penetration, and ranged between 3.5 and 100.0 per cent for these indicators.

Renewable energy was highlighted in many INDCs. Related actions aim at increasing the share of and improving access to clean energy, such as feed-in tariffs, investment programmes for renewable energy generation, and improvement of the grid infrastructure. A few Parties communicated quantified renewable energy targets, with some aiming at achieving 100 per cent renewable energy supply for the electricity sector.

Actions on energy efficiency, also highlighted in many INDCs, include the modernization of energy generation and transmission infrastructure, the promotion of smart grids, efficiency improvements in industrial processes, and energy conservation standards. Sustainable transport is highlighted in several INDCs through measures such as improving public transport, limiting the import of inefficient vehicles and using fuel efficiency standards. A few Parties also communicated quantitative energy efficiency targets.

In several INDCs Parties provided information on plans to implement policies and measures to reduce CH4 and other non-CO gases by improving crop and livestock production, promoting low-carbon agriculture and establishing waste management and recycling programmes as well as waste-to-energy facilities. Furthermore, several INDCs highlight measures to promote the conservation and sustainable management of forests. Some Parties particularly highlighted the importance of REDD-plus activities in this context. A few Parties communicated targets for increasing forest cover.

¹ <http://www.c2es.org/international/2015-agreement/indcs>

156 Parties included emissions and removals from LULUCF. A few Parties indicated that a common framework for LULUCF accounting may be desirable, which could be based on existing guidance and experience under the Convention and its Kyoto Protocol. However, many of the INDCs do not provide comprehensive information on the assumptions and methods applied in relation to LULUCF, which presents a major challenge for the quantitative evaluation of the aggregate effect of the INDCs.

82 Parties, most in sub-Saharan Africa, included sectoral mitigation targets for the agriculture sector, or quantified the potential reductions from their mitigation actions. These contributions ranged from 5 GgCO₂e /year (Côte d'Ivoire) to 90 000 GgCO₂e/year (Ethiopia), or 6.8% to nearly 50% of emissions, generally calculated against business-as-usual emissions in 2030.

As the reference point, some Parties chose 1990, a few chose 2005 and others referred in their contributions to 2000, 2010, 2013, 2014 or 2015. Some Parties specified their level of emissions for a base year or provided information on BAU reference scenarios for the mitigation objectives expressed relative to BAU. Most Parties indicated either a 5- or 10-year implementation period for their INDCs. Many of the INDCs refer to an implementation timeline up to 2030, while a few refer to an implementation timeline up to 2025. A few of the INDCs communicated targets for both 2025 and 2030, one of which is indicative or interim. A few Parties indicated a timeline of up to 2035, 2040 or 2050, mostly in conjunction with another target year. Furthermore, a few Parties communicated an implementation period starting before 2020.

134 Parties provided information relating to planning processes, including specific aspects such as: the national process of the development and approval of the INDC; institutional arrangements; stakeholder engagement; policy and legislative issues; and priority areas for implementation. These Parties have already taken a number of steps to develop a strong domestic basis for planning and implementing their INDCs and expect to build on those efforts in the future. Many INDCs are directly backed by already existing national legislation or policies. And several INDCs provide information on processes towards new legislation and policies, triggered by the preparation of the INDCs. While the level of ambition and the degree of advancement in national climate policies vary, all Parties mentioned that their INDCs are based on, among others, existing policies or ongoing national processes, as well as on experiences with implementing the Convention and its Kyoto Protocol.

A few Parties referred to the need to respect human rights and gender equality. The consideration of gender issues is seen by 87 Parties as imperative in establishing an enabling environment for adaptation. For example, one Party (Ghana) has established a climate change gender action plan. Other Parties mentioned the need to address human rights.

Many Parties provided information emphasizing that their INDCs have undergone national stakeholder consultation processes with a view to raising awareness and securing buy-in with respect to their INDCs and related long-term development plans. **Parties highlighted that support from actors such as the private sector, academia and civil society, as well as from relevant sectoral ministries and regional and local governments, is critical for the identification of realistic targets.** Examples of processes to engage stakeholders included the establishment of expert task forces and working groups, parliamentary hearings, large-scale public consultations, including workshops, targeted meetings and an invitation for written submissions, as well as awareness-raising campaigns. A few Parties noted that they still plan to hold consultations on the overall national climate policy underlying their INDCs.

Over half of the communicated INDCs indicate that **Parties plan to use or are considering the use of market-based instruments** from international, regional or domestic schemes, including the clean development mechanism (CDM). Most of those Parties indicated that they would use market instruments to meet only part of their targets. Several Parties stressed that the use of market-based mechanisms is important for the cost efficiency of the mitigation effort and for enhancing the level of ambition. The assessment of the aggregate effect of the INDCs presented in this report assumes that no double counting of outcomes from actions to reduce emissions will occur.

Support needs for the implementation of INDCs were highlighted by several Parties. Those Parties identified in their INDCs needs for targeted investment and finance, capacity-building and technology, with some providing quantitative estimates of the support required for the implementation of their INDCs and for achieving the upper level of their mitigation contributions. Some Parties identified domestic measures to support the implementation of their INDCs, including the use of market-based mechanisms, increased budgetary support, public–private partnerships, green procurement programmes, reforms of pricing and taxation regimes, the improvement of green credit mechanisms and the establishment of specialized national funds. A few Parties noted the importance of engaging the private sector in this context.

158 Parties noted the importance of enhanced international support in the context of the new global agreement, including its scaling-up, and the strengthening of the role of and linkages between the existing operating entities of the Financial Mechanism, including the Green Climate Fund (GCF) and the Global Environment Facility (GEF), and the Technology Mechanism under the Convention.

Information contained in the INDCs shows a clear and increasing trend towards introducing national policies and related instruments for low-emission and climate-resilient development. Many INDCs are already backed by existing national legislation or policies and several have triggered national processes to establish relevant policy frameworks. Furthermore, many INDCs involved public consultation and the engagement of a wide range of stakeholders to demonstrate the developmental benefits of action to combat climate change and to secure the buy-in of such action.

Information provided by Parties highlights the trend towards an **increasing prominence of climate change on national political agendas,** driven in many cases by inter-ministerial coordination arrangements as well as by an increasing trend towards the mainstreaming of climate change in national and sectoral development priorities. At the same time, many Parties have made efforts to ensure that the private sector, civil society and other nongovernmental actors recognize the importance of, and provide support for, national action to combat climate change.

The INDCs show an increasing interest of Parties in enhanced cooperation to achieve climate change goals collectively through a multilateral response and to raise ambition in the future. In particular, Parties stressed the need for strengthening finance, technology transfer and capacity-building support for climate action in general as a means of creating an enabling environment and scaling up action.

Narratives provided by Parties in their INDCs convey the vision that each country implements its own strategy and reveal the need for a process to reconcile efforts made in the context of different national circumstances with the efforts needed to keep the global temperature rise below 2 °C. This issue should be addressed as Parties consider current and future efforts in relation to any agreed goal under the Convention.

Inclusion of adaptation in INDC: **One hundred Parties included an adaptation component in their INDCs.** The secretariat received adaptation components from 46 African States, 26 Asia-Pacific States, 19 Latin American and Caribbean States, 7 Eastern European States and 2 Western European and other States.

Parties highlighted their **common determination to strengthen national adaptation efforts in the context of the 2015 agreement.** Some stressed that adaptation is their main priority for addressing climate change, in particular as they see it to be strongly linked to national development, sustainability and security.

All adaptation components of INDCs included information on key impacts and vulnerabilities. Parties reported in particular on observed changes or projections of future changes, the most vulnerable sectors or geographical zones, high-risk impacts and incurred costs resulting from the impacts of extreme events. In terms of climate hazards, the main sources of concern identified by most Parties are flooding, sea level rise and drought/desertification.

The information provided clearly demonstrates that **Parties are moving to full-scale planning and implementation of adaptation and strengthening and scaling up existing efforts. Most Parties referred to developing nationwide adaptation plans and strategies;** several Parties indicated that they are conducting the process to formulate and implement national adaptation plans (NAPs) and most of them foresee having developed their NAP by 2020. Such national efforts are often accompanied by specific policies, measures and initiatives in practically all key economic sectors and areas, with water, agriculture, health, ecosystems, forestry and infrastructure being reported as the priority ones. A few Parties intend to undertake actions with regional or global impacts as they will address transboundary issues.

The recognition of the need to **involve relevant stakeholders in the planning and implementation of adaptation,** including vulnerable communities, was high on the agenda of several Parties. In addition, many emphasized the need to consider gender issues when undertaking adaptation.

Loss and damage associated with past and projected impacts of climate variability and change were reported by several Parties, some of which have quantified projected loss and damage, for example in the form of absolute costs, annual loss of GDP, or percentage of land or agricultural production lost by a certain year or a particular threshold, for example a specific rise in sea level. A few Parties provided details on projected costs of climate change impacts and how intended adaptation measures are expected to reduce them while leaving some residual damage, clearly making an economic case for investing in adaptation and disaster risk reduction.

Most Parties provided information on the means of implementation (e.g. finance, technology and capacity-building) needed to support the implementation of their planned adaptation actions, including related to support needs and envisaged domestic and international support. Financial needs for adaptation were quantified by some Parties, with individual needs ranging from USD 100 million to over 200 billion for the whole INDC period to around USD 10 million to 3 billion per year. A few Parties provided projected adaptation costs for different mitigation scenarios, thus clearly indicating that the need for adaptation depends on mitigation ambition.

Regarding the monitoring and evaluation (M&E) of adaptation action, **Parties highlighted that they have established or will establish quantitative and qualitative indicators for adaptation and vulnerability to**

measure progress. In terms of the M&E of domestic and international support provided and received, in particular finance, a few Parties are putting in place climate finance systems for determining, disbursing and monitoring climate expenditure and for enhancing the visibility of adaptation measures within the allocation of national budgets.

159 Parties referred in their INDCs to the importance of extensive national consultation and interdisciplinary coordination to ensure strong alignment with development objectives and buy-in from all relevant stakeholders. Parties specifically highlighted that all levels of government share responsibility for action and the existence of inter-agency coordinating mechanisms on climate change in the countries. A few of the INDCs have been approved at the highest political level, for example by the national Parliament, the Cabinet of Ministers or by the President. Furthermore, the importance of national, subnational and regional cooperative action both by government and non-State actors was noted by several Parties. A few of the INDCs specifically note that initiatives undertaken by cities and subnational governments will be an important driver for their implementation.

India's challenges in (I)NDC implementation:

India being a developing nation and world's fourth largest emitter of carbon has its own set of challenges. Considering India's developing economy, population, geography, and its need to reduce carbon emission and adapting to climate change impacts, the implementation of India's response to COP decisions will be quite challenging. In such a scenario, India faces double jeopardy where it has to emit large volumes of carbon dioxide to achieve growth and at the same time adapt to its destructive consequences linked to climate change like drought, floods etc.

India's idea to tackle climate change is quite ambitious. However the already established laws demand changes due to the change in environment and its related effects in the last 50 years. The Paris agreement being a legally non-binding instrument may not lead to dire consequences if not followed. However considering the commitments proposed, if worked upon, may have positive impacts. We already have a channel in the Indian Constitution like Article 253 that allows us to frame legislations and give effect to international agreements.

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