

76

 **ORF**  
**OCCASIONAL  
PAPER**

NOVEMBER 2015

FROM RESPONSE TO RESILIENCE:  
**Adaptation in a Global  
Climate Agreement**

VIKROM MATHUR  
ANIRUDDH MOHAN

FROM RESPONSE TO RESILIENCE:

# **Adaptation in a Global Climate Agreement**

VIKROM MATHUR  
ANIRUDDH MOHAN

## ABOUT THE AUTHORS

**Dr. Vikrom Mathur** has 15 years of professional experience, straddling research and policy advice, at the interface of social and environmental change. His research interests include: political, cultural and social influences on the production and use of scientific knowledge about nature and environment; dynamics between science and public policy (for example, in the context of climate change); social and cultural determinants of technological change; governance of emerging technologies; governance of trans-boundary natural resources; and Cultural Theory. He obtained his PhD from Oxford University's Institute for Science, Society and Innovation, and currently leads ORF's Climate and Growth Initiative.

**Aniruddh Mohan** is a Junior Fellow at the Observer Research Foundation. His research interests include climate change, sustainable development, and the politics of nuclear power. He has previously worked for the Institute for Defense Studies and Analyses (IDSA) and Aon Hewitt. Aniruddh holds an undergraduate degree in Nuclear Engineering from the University of Manchester and an MPhil in Nuclear Energy from the University of Cambridge.

FROM RESPONSE TO RESILIENCE:

# Adaptation in a Global Climate Agreement

## ABSTRACT

Current global climate policy has focused on building consensus around a differentiated roadmap for reducing greenhouse gas emissions. Equally important yet receiving less attention is the need to support adaptation of the most vulnerable communities to the increasingly severe impacts of climatic changes. At the upcoming climate summit in Paris this December, the aim is to stitch-up national contributions on adaptation and mitigation into a global agreement. This paper reviews the adaptation components of the Intended Nationally Determined Contributions (INDCs) submitted by developed, emerging, and least developed nations, and suggests how such measures should be aggregated into a global agreement. This paper warns against the folly of relegating global response to action by individual nations—partly and loosely supported by global financial and technological flows. For the Paris outcome to be legitimate, it must focus equally on adaptation and mitigation.

## I INTRODUCTION

At the landmark 21st Conference of Parties (COP 21) set in Paris this December, parties to the United Nations Framework Convention on Climate Change (UNFCCC) will attempt to craft an agreement that will replace the Kyoto Protocol, whose commitment period ends in 2020. The post-2020 climate agreement is being envisioned as a 'bottom-up' agreement: Countries will attempt to build a global consensus by stitching up national contributions from 193 countries. The evolving climate regime—one that combines bottom-up national pledges for climate action with top-down rules for review, transparency and collective consideration of overall adequacy—represents a

paradigm shift from earlier attempts to craft a global deal on climate change. Intended Nationally Determined Contributions (INDCs) covering mitigation and adaptation actions have been submitted by member states, though it remains unclear how these will be anchored in a new global agreement.

The concept of 'adaptation' refers to adjustments in ecological, social and economic systems to moderate the damaging impacts of climate change.<sup>1</sup> 'Mitigation', meanwhile, has to do with human interventions to reduce the emissions of Green House Gases (GHG).<sup>2</sup> Both adaptation and mitigation are central to climate policy. Historically, adaptation policy has gotten short shrift in comparison to mitigation. While adaptation is very much a part of the UNFCCC<sup>3</sup>—it is built into the Objectives of Convention, after all—the Kyoto Protocol is directed only at abating GHG emissions.<sup>4</sup> The overwhelming focus of the climate regime is on the question of whether all countries can agree on an equitable and differentiated roadmap for reducing GHG emissions to meet the now widely accepted mitigation goal of limiting the average global temperature increase to two degrees centigrade.

“Avoiding dangerous climate change” is accepted to correspond to the goal of limiting global temperature increase to two degrees. Limits of adaptation to the impacts of climate change are implicit in this goal. However, what constitutes as 'dangerous' is highly context-specific and contingent on levels of development and resilience in differentially vulnerable communities across the world. Supporting resilience of communities already living on the edge of poverty therefore urgently needs to be a priority for global climate policy.

Adaptation was excluded from the agenda in the early years of climate policy because it was seen as a defeatist approach that would reduce the incentive for greenhouse gas emissions. The 'adaptation taboo' was akin to the distaste possessed by the religious right for sex education in schools: treated as an ethical compromise that will only encourage undesirable behaviour.<sup>5</sup> Politically, adaptation was an equally tough sell. Adaptation discussions in the UNFCCC are intrinsically linked with discussions on financing, which has always been a contentious issue in climate negotiations.<sup>6</sup> Developed countries, which are responsible for the bulk of the historical emissions of greenhouse gases, have sought to restrict adaptation discussions because it then inevitably leads to the question of historic responsibility and who should pay for adaptation.

However, as the severity of climate impacts increased beginning in the

early 2000s and global understanding grew, that mitigation action will be insufficient to avoid a certain level of climate change consequences in the future, adaptation began to be seen as a key component of the climate agenda. The Stern Review on the Economics of Climate Change and the efforts of the Intergovernmental Panel on Climate Change (IPCC) have highlighted the growing importance of adaptation action.<sup>7</sup>

Adaptation is a complex issue for both science and policy. It is difficult, if at all possible, to isolate 'climate-only' signals from other impacts facing vulnerable communities. Adaptation is deeply entrenched in other issues of development: Adaptation efforts are related to wider, interrelated social forces like poverty, lack of political power, and difficulty establishing credit or developing support networks. A conceptual shift is also taking place, from climate adaptation—which implies a response to a predicted climate impact, to a broader framing of climate resilience—which suggests an ability to cope with a range of possible climate futures and is contingent on a shift in development pathways rather than stand-alone responses to specific events or impacts.

Adaptation is now a central issue for several negotiation coalitions: Least Developing Countries (LDCs), with large populations of poor/vulnerable communities; Small Island Developing States (SIDS) which are particularly vulnerable to sea-level rise and climatic impacts; and the Africa Group where desertification in Sub-Saharan Africa is a major concern. Building adaptive capacities is critical. The current pledges for reducing emissions are not on track to limit average global temperature rise to two degrees. Even with temperature increase successfully being limited to two degrees, however, there will be a need to adapt, and costs for adaptation will be significant. According to the United Nations Environment Programme (UNEP), the cost of adaptation for developing countries by the mid-century is estimated to be two to three times higher than previous estimates of \$70-100 billion per year made by the IPCC fifth assessment report.<sup>8</sup> This highlights the importance of having frameworks for adaptation—including those on financing and technology transfer—anchored centrally in the Paris agreement.

This paper argues that while the benefits of adaptive action are 'localised', a Paris outcome that relegates global response to 'bottom-up' action by individual nations—partly and loosely supported by global financial and technological flows--will only be a failure. The next major climate agreement needs to address both adaptation and mitigation effectively and equally,

combining top-down urgency with bottom-up commitment. The paper reviews the adaptation component of the INDCs submitted by countries within several negotiation blocks to understand how countries are treating adaptation action in their national contributions to global climate action. An analysis is made of the challenges involved in crafting top-down elements for adaptation in the Paris outcome. The paper concludes with proposals for future directions to ensure that adaptation gets the attention it deserves in the evolving climate regime.

## **II. ADAPTATION IN INDCS: WHAT ARE THE BOTTOM-UP CONTRIBUTIONS?**

There are more than 150 INDCs that have so far been submitted to the UNFCCC secretariat ahead of COP 21. A comprehensive examination of all submitted INDCs shows that adaptation figures prominently in country submissions. Adaptation is firmly on the global and national climate agenda. COP 21 will therefore have to synthesise both mitigation and adaptation contributions from member states.

While a general overview of INDCs suggests that adaptation is now central to climate conversations under the UNFCCC process, the INDC submissions approach the question of adaptation differently, taking into account their national capabilities, specific vulnerabilities to climate change, and development goals. For the purposes of this paper, the adaptation component in the INDC of four different blocs of countries was chosen: developed countries; emerging economies; small island states; and least developed countries. Among developed countries, the INDCs of the US, EU and Japan have been analysed. Among emerging economies, the attempts of India, Brazil, Mexico and South Africa to balance adaptation requirements with mitigation commitments in their INDCs have been reviewed. Also reviewed are the INDCs of the most vulnerable countries—the Small Island States for whom adaptation is critical to survival in the face of climatic impacts. A fourth bloc has been included to examine how adaptation has been treated in the INDCs of Least Developed Countries (LDCs) who are especially vulnerable because of their large populations of poor people with limited adaptive capacities.

## **THE US, EU STATES, AND JAPAN**

The United States, EU and Japan's INDCs do not contain any mention of the word 'adaptation'. The INDCs simply state their mitigation commitments. Japan's INDC also includes a list of measures in each sector that will contribute to lowering national GHG emissions.<sup>9</sup> This reflects the long held position among the Umbrella Group<sup>10</sup> of nations that any global climate agreement should be mitigation-centric. Similarly the EU, although not part of the Umbrella Group, is also not keen on discussing adaptation as a central part of the UNFCCC. Adaptation does not figure in the INDCs of the US and EU or Japan because they are less interested in adaptation outcomes in the Paris agreement. Adaptation is seen as a concern of the developing world. Furthermore, the concern of developed countries is that should adaptation figure prominently in a global climate outcome, the next question will be financing of adaptation initiatives, for which industrialised nations will be expected to pay. The question of financing adaptation in developing countries has also been left unanswered: EU, US and Japanese INDCs do not mention their proposed contribution to efforts elsewhere.

## **EMERGING ECONOMIES: BRAZIL, SOUTH AFRICA, INDIA AND MEXICO**

The INDCs of four emerging nations—Brazil, India, South Africa and Mexico—have been analysed here. Each of these countries is vulnerable to climate impacts and adaptation is a priority concern for their national governments. These countries also have significant GHG emissions and must balance the urgency of adaptation action with pressing mitigation imperatives.

Brazil's INDC is split into two components: one on mitigation and the other on adaptation. The INDC stresses that for Brazil, adaptation is a “*fundamental element of the global effort to tackle climate change and its effects.*”<sup>11</sup> Brazil is currently working on the formulation of its National Adaptation Plan (NAP) which is to provide the basis for strengthening the country's capacity to adapt to climate change and manage vulnerabilities at all levels of governance. The NAP is to be a way to integrate climate risk and vulnerabilities into public policies and strategies.<sup>12</sup>



South Africa's INDC comprises three components: A, M and S, or Adaptation, Mitigation and Support. The INDC indicates that South Africa considers its adaptation component “to be an important contribution to the global response to climate change”.<sup>13</sup> The country is currently in the midst of developing its National Climate Change Adaptation Strategy and Plan which will be integrated into all relevant sector plans, and upon which South Africa's National Adaptation Plan (NAP) will be based. The adaptation section of South Africa's INDC is comprehensive, covering six goals ranging from developing the country's National Adaptation Plan (NAP) to developing institutional capacity and frameworks for adaptation action.<sup>14</sup> The section also contains a reference to the principle of equity in the context of adaptation. South Africa considers the burden of adaptation to be a global responsibility and therefore sees its efforts in adaptation as a contribution to global efforts.<sup>15</sup> The INDC observes that the total investment in adaptation has increased from US\$ 1.64 billion in 2010 to US\$ 2.31 billion in 2015.<sup>16</sup>

India's voluminous and at times didactic INDC includes several sections on adaptation efforts in the country. Section 2 of the INDC is dedicated to Adaptation Strategies which lists the range of actions undertaken by India at both state and national level to adapt to climate impacts. The policies are discussed individually by sector in nine different sections, covering agriculture, water health, coastal regions and islands, disaster management, protecting biodiversity, security of rural livelihoods, adaptation actions under State Action Plans on Climate Change (SAPCC), and knowledge and capacity building initiatives.<sup>17</sup> India's INDC declares its intention to “*better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management*”.<sup>18</sup> India's INDC also estimates the cost of adaptation programmes in the country to be just above US\$200 billion between 2015 and 2030.<sup>19</sup>

Mexico was the first country to submit its INDC to the UNFCCC secretariat. The INDC has both mitigation and adaptation components. The adaptation commitments up to 2030 are listed in Annex I of the INDC and priorities actions such as: the protection of communities from adverse impacts of climate change and extreme weather events, and increasing the resilience of strategic infrastructure and of the ecosystems that host national biodiversity.<sup>20</sup> For successfully completing these priority actions, Mexico aims

to “strengthen the adaptive capacity of at least by 50% the number of municipalities in the category of “most vulnerable”, establish early warning systems and risk management at every level of government and reach a rate of 0% deforestation by the year 2030”.<sup>21</sup> The INDC also stresses the linkages between adaptation and mitigation action and that Mexico is determined to establish synergy between the two processes. The adaptation section outlines concrete actions that will be undertaken by Mexico between the years 2020 to 2030 in the following areas: adaptation for the social sector; ecosystem based adaptation; and adaptation of strategic infrastructure and productive systems.<sup>22</sup> The INDC acknowledges that implementation of these projects is contingent on the continuous development of national capacities and international support for the same.<sup>23</sup> Mexico's INDC also lists specific areas where technology transfer could aid the country's adaptation initiatives, such as water saving technologies and transport technologies.<sup>24</sup>

### ***SMALL ISLAND DEVELOPING STATES***

The Small Island Developing States (SIDS) are low lying coastal nations that share similar challenges, including small populations, limited resources and fragile environments. The SIDS were first recognised as a bloc of nations at the United Nations Conference on Environment and Development in June 1992.

Climate change is the most pressing concern for SIDS as they are among the countries most vulnerable to climate change impacts. Many of these islands are threatened by rising sea levels. Extreme weather events also wreak economic havoc which can cripple small economies such as those of the SIDS.<sup>25</sup> The SIDS have been extremely vocal in UNFCCC processes and have called for ambitious action to tackle climate change which will limit temperature rise to 1.5 degrees Celsius. SIDS are least responsible for global warming and yet likely to feel its impacts the hardest. Their small economies mean that mitigation action is not a focus, and mitigation action in these states will only have a minimal contribution to global mitigation action. Rather, adaptation is key for SIDS, to ensuring their survival in the face of worsening climate change.

Three countries from the SIDS bloc were selected for analysing how they have treated adaptation in their INDCs. One country was selected from each

of the three regions represented in the SIDS bloc: Caribbean (Dominica); Pacific (Papua New Guinea); and the Indian Ocean region (Maldives).

Papua New Guinea (PNG) has two sections in its INDC, one each on mitigation and adaptation. The adaptation section notes the significant risks to PNG from hazards such as coastal flooding<sup>26</sup> and sea level rise, food insecurity due to drought and inland flooding and confirms that “*adaptation must be a high priority for PNG*”.<sup>27</sup> Unlike the mitigation section, however, PNG's section on adaptation in the INDC fails to list national priorities for adaptation. The adaptation section is also significantly less comprehensive than PNG's section on mitigation action, even though national imperatives demand significant action on the latter. The adaptation section also fails to outline what type of specific support and assistance PNG will need for its adaptation programmes and instead points to the country's need for “*financial support, capacity building and technical support to face the uncertain future posed by climate change*”.<sup>28</sup>

Dominica's INDC has provided conditional sector-wise mitigation targets but also includes a detailed section on building climate resilience in the country. The INDC refers to three key pieces of legislation in Dominica which guide adaptation policy: Low Carbon Climate Resilient Development Strategy; National Climate Change Adaptation Policy; and the Strategic Programme for Climate Resilience (SPCR). Dominica's SPCR involved several key steps such as a climate risk assessment, review of the country's Adaptation Policy and community surveys undertaken to identify climate vulnerabilities and priority needs based on community vulnerability mapping and adaptive capacity assessments.<sup>29</sup> The climate change risk assessment engaged with national stakeholders to develop a summary of climate change risks in the country, which has been included in Dominica's INDC submission. The INDC also lists priority activities required in the country for building climate resilience such as early warning systems, multi-use disaster shelters, capacity building, food-security initiatives and building institutional ability to access finance under the Green Climate Fund (GCF). Implementation of these initiatives is also described in a separate section. Dominica's INDC therefore covers adaptation thoroughly, from outlining the national projects undertaken in this regard, the risks facing the country, and how international assistance should be directed for building climate resilience.<sup>30</sup>

Maldives, a low lying island nation in the Indian Ocean faces similar challenges to other SIDS including high levels of poverty, extreme levels of vulnerability to climate impacts, particularly the rise of the sea level and limited capacity to cope with such stresses. Maldives' INDC contains two sections, one each on mitigation and adaptation. The INDC acknowledges the importance of adaptation for the country, noting that “*as a minimal contributor to global GHG emissions, Maldives places a significant priority on adapting to the adverse impacts of climate change*”.<sup>31</sup> The INDC lists several sectors in which Maldives will undertake adaptation projects, including enhancing food security; building resilient infrastructure; safeguarding coral reefs and biodiversity; expanding early warning systems; and coastal protection.<sup>32</sup> The Adaptation section also includes a reference to crosscutting issues that remain a challenge to the implementation of adaptation projects. These include finance, technical capacity for climate governance, and availability of technology in the country. The INDC highlights the necessity of international support in finance and technology transfer for addressing the adverse impacts of climate change.<sup>33</sup>

### **LEAST DEVELOPED COUNTRIES**

Two LDCs have been selected for INDC analysis: Afghanistan and Rwanda. Rwanda's INDC contains a detailed section on adaptation which outlines the adaptation contribution of Rwanda. The section notes national vulnerability to climate change given the high dependence on rain fed agriculture both for rural livelihoods and national exports. Rwanda's vision for adaptation is to become a climate-resilient economy.<sup>34</sup> Priority adaptation actions are based on Rwanda's Green Growth and Climate Resilient Strategy (2011) and are targeted for achievement by 2050. The actions focus on synergising adaptation and mitigation benefits and cover sectors such as agriculture, forestry, tourism, water, and land use. The INDC lists the actions in full and also indicates how the country will report on and undertake adaptation projects. The INDC acknowledges that full implementation of both the adaptation and mitigation strategy will depend on sufficient availability of finance, technology, knowledge, institutional capacity and integrated planning processes.<sup>35</sup>

Afghanistan's INDC, meanwhile, contains a section on adaptation action which outlines the vision for addressing the adverse impacts of climate change in the country and how adaptation planning is to be mainstreamed into national development, policies and strategies.<sup>36</sup> To this end, the INDC document indicates the current national policies which have successfully integrated climate change considerations as well as those that have entry points for further mainstreaming of climate change.<sup>37</sup> Current adaptation projects as well as international partners who have provided support are also listed. The adaptation section ends with a short summary on Adaptation Needs and Means of Implementation, where a table is shown listing specific projects Afghanistan intends to undertake as part of its National Adaptation Plan (NAP), as well as the country's capacity building, technology, and finance needs.<sup>38</sup> The total cost of the NAP is estimated at US\$ 10.8 billion over ten years as per the INDC,<sup>39</sup> although no methodology is provided on how such financial projections were arrived at.

## **SUMMARY**

As can be seen from the analysis of the INDCs, developing countries have taken the lead in incorporating adaptation considerations and, therefore, contributions in their INDCs. Developed countries including the EU and Umbrella Group countries such as the US and Japan, on the other hand, appear uninterested in adaptation outcomes in Paris, as reflected in a complete absence of adaptation measures in their INDC submissions.

Many of the developing countries have estimated the financial support they will require to undertake adaptation projects. These countries have also delineated their national policies and outlined detailed adaptation plans across sectors they have identified as particularly vulnerable to climate impacts.

The common theme emerging from the analysis of the INDC's in section 2 is that countries consider adaptive actions as a "contribution" to global climate action. This is interesting because unlike mitigation action which will benefit the earth's carbon budget as a whole, adaptation action could be said to only benefit local and national communities. For example, it is unclear how the construction of a multi-use disaster shelter in a SIDS benefits Switzerland without having to make significant extrapolations. Yet, the action is listed as a contribution to the global fight against climate change.

### III. STITCHING UP ADAPTATION CONTRIBUTIONS: CHALLENGES IN DEVISING TOP-DOWN ELEMENTS

INDC contributions of countries party to the UNFCCC will need to be integrated into a global agreement. While the mitigation contributions have been added up by the UNFCCC secretariat and will be benchmarked against the global need to limit average temperature rise to two degrees centigrade, such a framework of evaluating country contributions is not possible in the case of adaptation because adaptation efforts do not 'add-up' in the same way. This section explores some of the challenges that the Paris agreement will face in designing the top-down elements of adaptation action.

#### *ADDING TO THE GLOBAL GOAL*

The mitigation section of INDCs have been submitted by different countries using three main units: these include reduction in total greenhouse gas emissions with respect to a reference year (e.g. EU and US); reducing in the greenhouse gas intensity of economy-wide GDP (India); and reductions with respect to a 'business as usual' scenario. The global goal on limiting greenhouse gas emissions so as to avoid a two-degrees temperature rise provides a framework for assessing adequacy of efforts to avoid dangerous climate change.

The global goal on limiting GHG emissions should be supplemented by a commitment to urgently support resilience. The global goal on adaptation is to achieve climate resilient sustainable development; how this goal will find framing in a potential agreement in Paris and bring together individual contributions remains open to debate. It appears impossible to successfully define adaptation action in in the same quantitative manner as the two-degrees goal for mitigation. The extent of adaptation required in some sense depends on the mitigation ambition that is agreed upon in Paris and that is enforced over the coming decades. These issues create several challenges with respect to how the top-down element of adaptation action will be defined, particularly as achieving global adaptation action will require significant institutional arrangements and coordination.

## **LEGAL NATURE**

The Lima Call for Climate Action (Decision 1/CP.20) noted that the INDCs are “without prejudice to the legal nature...applicable to all parties”<sup>40</sup> and invited parties to develop and communicate INDCs as their contribution to meeting the objectives of Article 2 of the UNFCCC. The Lima declaration also called for INDCs to be fair and ambitious. However, very little counsel was agreed on what should be included in INDCs, and how adaptation in particular should be presented and how both ambition and fairness will be judged. Elements such as finance, technology, and capacity building were discussed for inclusion in the INDCs but no agreement was reached on how these issues should be addressed. Instead, governments are choosing to highlight their priorities as they deem fit.<sup>41</sup>

Similarly, as a result of lack of guidance on the issue at Lima, countries who have estimated costs for adaptation action and requested international support, have not explained the methodology used to calculate costs or the basis for needing international financing for the same.<sup>42</sup> Countries have ended up calculating costs using different assumptions, and in the process have skewed the overall projections: simply adding up the costs of implementation from the INDCs will result in inaccurate estimates of the total support required.<sup>43</sup>

Lastly, the legal nature of the INDCs and its content remain ambiguous. It is unclear what their relationship will be to either the UNFCCC or the Paris agreement. Will the INDCs be treated as separate from the agreement, or will it form part of the Paris outcome? The Paris agreement's legal structure is also still unknown; it could take the form of a 'Protocol' following the Kyoto precedent, or be conceived through a different legal instrument or an 'agreed outcome with legal force under the Convention'. Resolving such legal ambiguity will have a critical bearing on how the INDCs and, subsequently adaptation contributions, will be treated and implemented.

## **MECHANISMS FOR SUPPORTING ADAPTATION**

The analysis of the INDCs in section 2 indicates that several countries will demand international support in the form of finance and technology in order to make good on their intended adaptation contributions. Collective

commitments, especially from developed countries, to support vulnerable countries such as the SIDS and LDCs will then come under focus. Mechanisms to provide financial support and technology transfer will have to be anchored in the agreement in order to achieve 'buy-in' from countries having significant adaptation imperatives such as those in the global south. At the same time, developed countries will resist attempts for such mechanisms to be legally binding. Given that many of the adaptation contributions are contingent on the receipt of sufficient support, lack of a legally based framework to support adaptation actions will compromise the legitimacy of the Paris agreement as far as adaptation is concerned. For example, would national adaptation commitments which primarily benefit the national populace be legally binding? Would it be logical for the world, for instance, to force Maldives into national adaptation projects especially if there is no legally binding promise for financing the same?

### ***MONITORING, REVIEW AND VERIFICATION (MRV)***

Monitoring, Review and Verification (MRV) is an aspect of the agreement which is relevant for both adaptation and mitigation action. New institutions may be needed for adaptation MRV, both in order to ascertain flow of finance from developed countries to countries highly vulnerable to climate impacts as well as monitoring the implementation of adaptation actions in countries upon receipt of funds and support for the same. At the very least, there is a need to "take stock" of actions at agreed intervals. The challenge of measuring what counts as adaptation has a compounding effect that increases the difficulty of monitoring successful adaptation projects. However, just because adaptation is difficult to isolate and measure, and does not inherently lend itself to policy processes, does not reduce its overwhelming importance.

## **IV. THE WAY FORWARD**

A 'climate only' signal cannot be isolated from complex development challenges faced by vulnerable populations in India or elsewhere. Access to credit, health facilities, infrastructure, energy, water, and sanitation all remain issues that bind together economic growth, human development, and climate impacts. These populations' low level of overall development increase



sensitivity and reduce adaptive capacity to cope with disasters in which the climate signal is more evident, including floods, droughts and tropical storms. Marginalised populations lack the resources to recover from these events. A 'predict and provide' analytical framework cannot be the basis for adaptation goals, as prediction is not possible. Development could then act as a surrogate of adaptation: indicators of levels of development are effective 'proxies' for adaptation, in that they indicate both climate and general resilience, or lack thereof.

The global goal on limiting GHG emissions needs to be supplemented by a formal commitment to support adaptation. The global adaptation goal could be linked to the 2015 development agenda: the Sustainable Development Goals (SDGs). INDCs and SDGs should be synergised. Linking the two would strengthen their common objectives and remove overlaps or conflict in their implementation. In addition, global support on finance, technology and capacity might also be better facilitated by such synergy.

There will be climate impacts that will lead to permanent damage – where human systems will not be able to cope or adapt. “Loss and Damage” refers to adverse effects of climate change that cannot be avoided despite global mitigation efforts or local adaptation. The work programme on loss and damage, which began in Cancun in 2010 led to the establishment of the Warsaw mechanism two years later at COP 19. Loss and damage may not be resolved this year in Paris but any future climate regime has to account for climatic impacts that simply cannot be adapted to, and the compensation processes that those may entail. Ignoring loss and damage will fly in the face of global efforts on the sustainable development agenda.


While bottom-up commitments to adaptation action have been indicated by the INDCs, top-down elements will now have to be activated at Paris under the auspices of the UNFCCC. INDCs evolved from the work of the Ad-hoc Working Group of the Durban Platform for Enhanced Action, which was created under the UNFCCC in 2011. If the INDCs are unambiguously under the Convention then it will need to be guided by its principles, including those which highlight the importance of differentiated responsibilities and capabilities.

Adaptation cannot be defined as the costs of failed mitigation.<sup>44</sup> Going forward, developing countries could support claims for financial support by providing more information about the implementation of policies and

proposed changes in domestic fiscal and regulatory systems that will support absorption of international finance.<sup>45</sup> Domestic spending and national budget resource allocation towards adaptation activities needs to be better highlighted. This will signal seriousness to international and domestic actors and support claims for finance from developed countries.

The final round of negotiations prior to COP 21 happened in Bonn in October. The current draft text for the Paris agreement, however, does not treat adaptation at parity with mitigation. Statements on mitigation use the language of implementation while those for adaptation, only on the provision of information. Provisions for mitigation are couched in actionable language while those for adaptation are couched in non-actionable language. Finance/support for adaptation is not strong enough or binding in anyway. Going forward, when review cycles of INDCs are undertaken, adaptation actions and support should be part of the information required to be submitted and reviewed. The global stocktaking which is being done for mitigation action in line with the two-degrees goal, should also be undertaken for adaptation contributions. Top-down elements will only be institutionalised in this way.

For India, raising the issue of adaptation should be for reasons other than to shield itself from mitigation commitments. India has raised the issue of adaptation, halfheartedly, to ward off attempts by developed nations to impose emission restrictions which might be detrimental to the more powerful energy constituencies in India; farmers in Maharashtra who are killing themselves because of failed crops tend to matter less in the global calculus. India needs to stand with G-77, SIDs and Africa Group to push for a strong agreement on adaptation in Paris.

An agreement that does not put equal emphasis on adaptation and mitigation in Paris will not be politically viable. More than that, it will also be a moral failure: a failure to address the needs of the poor and vulnerable everywhere, those with low capacities to cope and no seat at the political high-table in Paris. 

## ENDNOTES:

1. United Nations Framework Convention on Climate Change (UNFCCC), *Adaptation*, Accessed November 10, 2015, <http://unfccc.int/focus/adaptation/items/6999.php>.
2. UNFCCC Fact Sheet, *The need for mitigation*, Accessed November 10, 2015, [https://unfccc.int/files/press/backgrounders/application/pdf/press\\_factsh\\_mitigation.pdf](https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_mitigation.pdf).
3. See for example Article 3 (3), Article 4 (1) b, 4 (1) e and Article 4(4) of the UNFCCC, <https://unfccc.int/resource/docs/convkp/conveng.pdf>.
4. E. Lisa F. Schipper, *Conceptual history of adaptation in the UNFCCC process* in E. Lisa F. Schipper & Ian Burton (Eds.), 'Adaptation to Climate Change', (Earthscan 2009).
5. Thompson, M. & Rayner, S., *Cultural Discourses* in Rayner and Malone (Eds.), 'Human Choice and Climate Change', Vol. 1 (Battelle Press, Columbus, 1998).
6. E. Lisa F. Schipper, *Conceptual history of adaptation in the UNFCCC process*, Op. cit.
7. See Stern Review: The Economics of Climate Change, [http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview\\_report\\_complete.pdf](http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf) and IPCC Assessment Reports, [https://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.shtml](https://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml).
8. United Nations Environment Programme, December 2014, *Even With Emissions Cuts, Climate Change Adaptation Costs Likely to Hit 2-3 Times Current Estimates of \$70-100 Billion per Year*, Accessed November 5, 2015, <http://www.unep.org/newscentre/Default.aspx?DocumentID=2814&ArticleID=11097&l=en>.
9. UNFCCC, 2015, *Submission Of Japan's Intended Nationally Determined Contribution (INDC)*, [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Japan/1/20150717\\_Japan's%20INDC.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Japan/1/20150717_Japan's%20INDC.pdf).
10. UNFCCC, *Party Groupings*, Accessed November 10, 2015 [http://unfccc.int/parties\\_and\\_observers/parties/negotiating\\_groups/items/2714.php](http://unfccc.int/parties_and_observers/parties/negotiating_groups/items/2714.php).
11. UNFCCC, 2015, *Federative Republic of Brazil: Intended Nationally Determined Contribution Towards Achieving The Objective Of The UNFCCC*, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Brazil/1/BRAZIL%20iNDC%20english%20FINAL.pdf>.
12. Ibid.
13. UNFCCC, 2015, *South Africa's Intended Nationally Determined Contribution (INDC)*, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/South%20Africa/1/South%20Africa.pdf>.
14. Ibid.
15. Ibid.
16. Ibid.

17. UNFCCC, 2015, *India's Intended Nationally Determined Contribution: Working towards climate justice*, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf>.
18. Ibid.
19. Ibid.
20. UNFCCC, 2015, *Mexico Intended Nationally Determined Contribution*, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Mexico/1/MEXICO%20INDC%2003.30.2015.pdf>.
21. Ibid.
22. Ibid.
23. Ibid.
24. Ibid.
25. UNFCCC, 2005, *Climate Change Small Island Developing States*, [http://unfccc.int/resource/docs/publications/cc\\_sids.pdf](http://unfccc.int/resource/docs/publications/cc_sids.pdf).
26. UNFCCC, 2015, Papua New Guinea: Intended Nationally Determined Contribution (INDC) Under the UNFCCC, [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Papua%20New%20Guinea/1/PNG\\_INDC%20to%20the%20UNFCCC.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Papua%20New%20Guinea/1/PNG_INDC%20to%20the%20UNFCCC.pdf).
27. Ibid.
28. Ibid.
29. UNFCCC, 2015, *Intended Nationally Determined Contribution of the Commonwealth of Dominica*, [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Dominica/1/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20\(INDC\).pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Dominica/1/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20(INDC).pdf).
30. Ibid.
31. UNFCCC, 2015, *Maldives' Intended Nationally Determined Contribution (INDC)*, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Maldives/1/Maldives%20INDC%20.pdf>.
32. Ibid.
33. Ibid.
34. UNFCCC, 2015, *Intended Nationally Determined Contribution (INDC) for the Republic of Rwanda*, [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Rwanda/1/Rwanda%20INDC\\_%2029Sept2015%20final.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Rwanda/1/Rwanda%20INDC_%2029Sept2015%20final.pdf).
35. Ibid.
36. UNFCCC, 2015, *Islamic Republic of Afghanistan: Intended Nationally Determined Contribution*, [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Afghanistan/1/INDC\\_AFG\\_Paper\\_En\\_20150927\\_.docx%20FINAL.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Afghanistan/1/INDC_AFG_Paper_En_20150927_.docx%20FINAL.pdf).

37. Ibid.
38. Ibid.
39. Ibid.
40. Decision 1/CP.20, Para 8: *Notes that the arrangements specified in this decision in relation to intended nationally determined contributions are without prejudice to the legal nature and content of the intended nationally determined contributions of Parties or to the content of the protocol, another legal instrument or agreed outcome with legal force under the Convention applicable to all Parties.*
41. Merylyn Hedger and Smita Nakhooda, October 2015, *Finance and Intended Nationally Determined Contributions (INDCs): Enabling Implementation*, Overseas Development Institute, Working Paper 425, <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9909.pdf>.
42. Ibid.
43. Ibid.
44. Roger Pielke, Jr, Gwyn Prins, Steve Rayner and Daniel Sarewitz, February 2007, *Lifting the taboo on adaptation*, *Nature*, Volume 445, [http://sciencepolicy.colorado.edu/admin/publication\\_files/resource-2506-2007.11.pdf](http://sciencepolicy.colorado.edu/admin/publication_files/resource-2506-2007.11.pdf).
45. S Whitley, March 2014, *Mapping climate relevant incentives and investment at country level: a diagnostic tool to mobilise private climate finance*, Overseas Development Institute, <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8890.pdf>.

**Observer Research Foundation (ORF)** is a public policy think-tank that aims to influence formulation of policies for building a strong and prosperous India. ORF pursues these goals by providing informed and productive inputs, in-depth research, and stimulating discussions. The Foundation is supported in its mission by a cross-section of India's leading public figures, academics and business leaders.



**Ideas • Forums • Leadership • Impact**

---

ORF, 20, Rouse Avenue Institutional Area, New Delhi - 110 002, INDIA  
Ph. : +91-11-43520020, 30220020. Fax : +91-11-43520003, 23210773

E-mail: [contactus@orfonline.org](mailto:contactus@orfonline.org)

Website: [www.orfonline.org](http://www.orfonline.org)