

Unpacking The Paris Agreement-

Implications and State of Preparedness – India

An initiative supported by



Understanding the implications of the key elements of the Paris Agreement and the state of India's preparedness and actions

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Introduction

The 21st Conference of Parties of the UNFCCC adopted the Paris Agreement on December 12, 2015. It has been hailed as a “historic” agreement, primarily because all countries, including the USA had agreed to sign it, and at present, 118 parties, including the USA have ratified the agreement. Their combined emissions account for 80.05% of the global emissions, and the agreement has entered into force much before it was anticipated on November 4, 2016. The 22nd Conference of Parties of the UNFCCC held in Marrakech, adopted the Marrakech Action Proclamation, which primarily reiterated the commitment of countries to implement the Paris Agreement and agreed on time lines for the Paris Committee to come up with a “Rule Book for effective implementation of the agreement” to be ready for adoption at the 24th Conference of Parties of the UNFCCC to be held in November-December 2018. Therefore, the many contentious issues that still remain unresolved, will need further work by the parties to the UNFCCC for implementing the Paris Agreement in a manner that would enable the achievement of its overarching goals enunciated in Article 2. India's role in this regard is crucial. This is because despite its gross emissions being among the highest in the world, it is a country with very low per capita emissions as well as high levels of poverty and deprivation. India is striving to overcome its developmental deficits and is now among the fastest growing economies in the world. However, after having signed on to the Paris Agreement, it needs to move along a developmental pathway that would be consistent with its contributions – albeit in the context of fairness as well as equitable burden sharing – towards a global effort to avoid dangerous climate change. It is keeping in mind this background that this paper has been written.

The paper is divided into three sections, followed by a short conclusion. The first section covers all key elements of the agreement and discusses, while focusing on the key elements of the agreement, the various issues that need further negotiation among parties for being able to agree upon the modalities of implementing the agreement. The second section discusses the implications of the key elements of the Paris Agreement and the modalities still to be negotiated in the days, months and years to come, upon India. The third section focuses on the state of India's preparedness and actions that need to be taken to overcome the gaps as well as identify actors that would be responsible for taking these actions.

SECTION I

Key Elements of the Paris Agreement

1.1 Long Term Goal

1.1.1 Clearly Understood Aspects on Long Term Goal

The Paris Agreement aims to keep the increase in global average temperature to well below 2°C above pre-industrial levels (building upon the decision of all governments at the Cancun Conference in 2010), and further limit the increase to 1.5°C, to reduce risks and impacts of climate change (Article 2 of Paris Agreement).

1.1.2 Modalities that need to be decided: the possible options; timelines for decision and process to develop the mandate

To keep warming to below 2°C – carbon dioxide emissions have to drop to net zero between 2060 and 2075, and total Greenhouse Gas (GHG) emissions need to decline to net zero between 2080 and 2090. And to limit warming to below 1.5°C, the corresponding years are 2045-2050 and 2060-2080.

In 2018, the Intergovernmental Panel on Climate Change (IPCC) will provide a special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways.

Parties to the Paris Agreement however have not yet been able to agree to a burden sharing arrangement that would be acceptable to all and whose modalities are yet to be agreed. Further, differentiation in respective emission peaking of developed and developing countries also needs to be clarified and understood by all parties “in the context of sustainable development and efforts to eradicate poverty” (Article 2).

1.2 Mitigation Actions and Nationally Determined Contributions

1.2.1 Clearly Understood Aspects

The agreement includes a long-term emissions goal. It aims to peak global greenhouse gas emission “as soon as possible” and to achieve “balance” between emissions and sinks in the second half of the century, on the basis of equity, where each country pledges to do its fair share of necessary climate/mitigation action in the context of historical emissions and capacity to act (Article 4.1).

It is recognized that peaking would take longer in case of developing country Parties. Every Party shall communicate its nationally determined contribution that is both progressive and reflects its “highest possible ambition” (Article 4.3).

The Agreement urges developed countries to take the lead “by undertaking economy-wide absolute emission reduction targets”. Whereas, developing countries are encouraged to enhance their mitigation efforts and “move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances” (Article 4.4).

A total of 119 Intended Nationally Determined Contributions (INDCs) were submitted to the UN Framework Convention on Climate Change by October 1, 2015, covering 146 countries and up to 86 percent of 2010 global greenhouse gas emissions¹. (This was later revised to 156 INDCs as of December 1, 2015, covering 185 countries and 94 percent of global emissions²). Studies (of the country pledges) by Climate Action Tracker³ suggest that even if all countries meet their INDC commitments, the impact on global temperature would be a 2.7°C rise. This implies that current pledges would be incapable of holding temperatures below 2°C, even less likely 1.5°C. Figure 1 (on the following page) illustrates the strength of the INDCs region-wise, ranging from “inadequate” to “medium”, “sufficient”, and “role model”. “Inadequate” implies that warming would likely exceed 3-4°C. Whereas, “role model”, at the other end of the spectrum, indicates that emissions targets of that area/region are more ambitious than the 2°C.

1- <http://newsroom.unfccc.int/unfccc-newsroom/indc-synthesis-report-press-release/>

2- https://unfccc.int/files/focus/indc_portal/application/pdf/presentation_indc_side_event_1dec2015.pdf

3- Climate Action Tracker, 2015. 2.7°C is not enough – we can get lower. Climate Action Tracker Update.

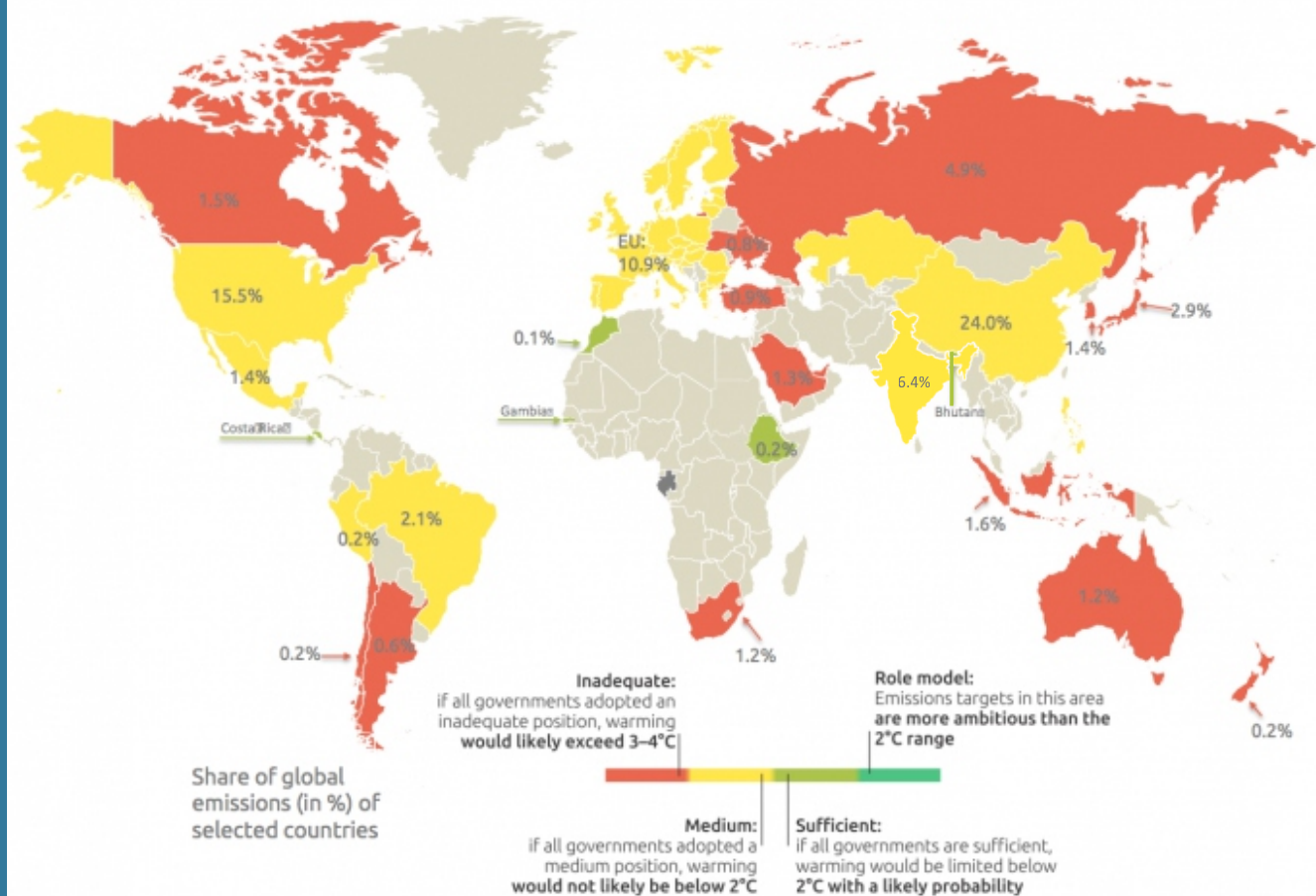


Figure 1: Strength of INDCs across Regions

Source: Climate Analytics (<http://climateanalytics.org/latest/climate-pledges-will-bring-27c-of-warming-potential-for-more-action>)

1.2.2 Modalities to be Decided

A facilitative dialog would be convened among Parties in 2018 to stocktake collective efforts of Parties to review the INDCs (Decision paragraph 20), following which countries would submit new nationally determined contributions in 2020 and 2025, and continue to do so every five years thereafter pursuant to Article 4 of the Agreement. This means countries would have to come back every five years with updated reduction targets for emissions and those would be evaluated.

Once the Paris Agreement enters into force, the first session of the Conference of Parties serving as the meeting of the Parties to the Paris Agreement (CMA1) shall be convened after the date of entry into force (Article 16.6).

At the CMA1, the Ad Hoc Working Group on the Paris Agreement (APA) will decide on and develop – further guidance on features of the Nationally Determined Contributions for consideration and adoption by Conference of Parties serving as the meeting of the Parties to the Paris Agreement at its first session (CMA1), and the information that has to be provided by the Parties to facilitate such consideration and adoption (Decision paragraph 26).

Also at the CMA1, the Subsidiary Body for Implementation (SBI) will develop modalities for the operation and use of the public registry (referred to in Article 4.12), wherein the Nationally Determined Contributions would be recorded and maintained by the Secretariat.

Although there is no specific timeline in the text, the various modalities mentioned above are important in the context of aiming to reach **net-zero emissions** after 2050, perhaps guided by the Intergovernmental Panel on Climate Change (IPCC) which recommended that net zero emissions must happen by 2070 to avoid dangerous climate change.

Adaptation and Loss and Damage

1.3 Adaptation Actions

1.3.1 Clearly Understood Aspects

The Paris Agreement aims to encourage Parties to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change (Article 7.1). There is emphasis on following a “country-driven, gender-responsive, participatory and fully transparent approach”, while keeping in mind “vulnerable groups, communities and ecosystems” and informed by “best available science” (Article 7.5). Further, governments have agreed to strengthen societies' ability to deal with impacts of climate change and provide continued and enhanced international support for adaptation to developing countries (Article 7.6).

Of significance is Article 7.10 that states that Parties should submit and update periodically an adaptation communication – that includes priorities, implementation and support needs, plans and actions. The adaptation communication could be a component or in conjunction with other communications or documents (national action plans, nationally determined contributions, and/or national communication) (Article 7.11). The process is flexible (in form and timing) so it does not create “any additional burden for developing country Parties” (Article 7.10).

1.3.2 Modalities to be Decided

The global stocktake, referred to in Article 14 of the deal, shall review progress towards the global goal on adaptation and recognize adaptation efforts of developing country Parties. Apart from which, the Adaptation Committee (AC), in 2017, will review the work of adaptation-related institutional arrangements under the Convention (Decision paragraph 43a).

At the CMA1, the Adaptation Committee and the Least Developed Countries Expert Group (LEG) will together develop modalities to recognize the adaptation efforts of developing countries and take necessary steps to facilitate support for adaptation efforts in developing countries in the context of limiting global average temperature referred to in Article 2 of the Agreement.

Also, how the Adaptation Fund “may” serve the Agreement is subject to relevant future decisions (Decision paragraph 60).

1.4 Loss and Damage

1.4.1 Clearly Understood Aspects

Loss and damage is a mechanism for addressing the financial losses borne by vulnerable countries due to climate change and its related impacts, such as extreme weather. It has its own article (Article 8) and is now seen on par with adaptation and mitigation. However, liability and compensation are explicitly excluded.

The Agreement recognizes the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change (Article 8.1). This is considered crucial by poor and small-island countries that are most affected by extreme weather events. Article 8.4 acknowledges the need to cooperate and enhance the understanding, action and support in different areas such as early warning systems, emergency preparedness and risk insurance.

The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts has been established as a standing mechanism to collaborate with existing bodies and expert groups under the Agreement, as well as relevant organizations and expert bodies outside the Agreement (Article 8.2 and 8.5).

1.4.2 Modalities to be Decided

The Warsaw International Mechanism's relationships and collaboration with other bodies under the agreement as well as relevant organizations and expert bodies outside the Agreement would perhaps need to be defined and clarified. Further, there are aspects of enhanced understanding, action and support that need to be pursued under the Paris Agreement (Article 8).

1.5 Enhanced Transparency Framework and Capacity Building

1.5.1 Clearly Understood Aspects

The Parties are required to monitor, verify and report their greenhouse gas emissions using a single global accounting system, with “built-in flexibility” that takes into account different national capacities (Article 13.1), thereby reflecting the principle of differentiation in the transparency mechanism of action and support under the UNFCCC.

The information provided by the developed countries in their National Communications (NATCOMMs), Biennial Reports (BR), etc. is subject to international assessment and review (IAR). Whereas, that provided by developing countries in their Biennial Update Reports (BUR) is subject to International Consultation and Analysis (ICA). All Parties agreed in Cancun 2010 to submit NATCOMMs every four years and less comprehensive biennial reports every two years from Annex I countries and biennial update reports from Non-Annex I countries.

Under the Kyoto Protocol, Annex I Parties provide annual GHG inventories following reporting guidelines agreed by the Conference of Parties and methodology developed by the Intergovernmental Panel on Climate Change⁴. The 2006 IPCC Guidelines comprise estimation methods at three levels of detail – from tier 1 (the default method) to tier 3 (the most detailed method)⁵.

The Paris Agreement requires each Party to “regularly” provide information on – national inventory on anthropogenic emissions by sources and removals by sinks of greenhouse gases and “information necessary to track progress made in implementing and achieving its nationally determined contribution” (Article 13.7). For developing countries in need of support, review process would entail assistance (Article 13.11).

The Conference of the Parties (COP) decision says that, with the exception of least developed and small island countries, these reports are to be submitted at least every two years. Additionally, developed countries “shall” report on support provided; developing countries “should” report on support received; and all “should” report on their adaptation efforts (Articles 13.8, 13.9, 13.10).

This information would then undergo “expert technical review”, and each party must participate in “a facilitative, multilateral consideration of progress” (Article 13.11) in implementing and achieving its NDC.

The agreement also sets up a “Capacity-Building Initiative for Transparency” to help developing countries meet a new requirement that they regularly provide a national inventory report of human-caused emissions, by source, and track their progress in meeting their national goals (Decision paragraph 85). Further, the COP decision (in paragraph 90) says they (developing countries) will be given flexibility in the scope, frequency, and detail of their reporting, and in the scope of review.

4- http://unfccc.int/national_reports/reporting_and_review_for_annex_i_parties/items/5689.php

5- IPCC, 2006. IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, IGES, Japan.

Reporting

Verification

Measurement







 <p>Each Party (shall)</p>	Submit a National Inventory Report of anthropogenic emissions of greenhouse gases (Article 13.7 (a))	Provide information necessary to track progress made in implementing and achieving NDC's under Article 4 (Article 13.7 (b))	 <p>Each Party (should)</p>	Provide information related to climate change impacts and adaptation under Article 7 (Article 13.8)
 <p>Developing Countries (shall) and Other Parties (should)</p>	Provide information on financial, technology transfer and capacity building support provided to developing country parties (Article 13.9)	 <p>Developing Countries (should)</p>	Provide information on financial, technology transfer and capacity building support needed and received (Article 13.10)	
 <p>Each Party (shall)</p>	Undergo a technical expert review for information submitted by them, in accordance with decision 1/CP.21 (Article 13.11)	Participate in a multilateral consideration of progress with respect to efforts under Article 9 and for NDC's implementation and achievement (Article 13.11)		
<div>The technical review shall consist of:<ol style="list-style-type: none">1. Consideration of the Party's support provided2. Implementation and achievement of its NDC's (Article 13.12)</div> <div>The technical review shall identify:<p>Areas of Improvement for the Party and include a review of consistency of information with modalities, procedures and guidelines. (Article 13.12)</p></div> <div><p>Technical Review for Developing Countries (shall)</p></div> <div>Pay particular attention to the respective national capabilities and circumstances (Article 13.12)</div>				
<div>APA to develop recommendations for modalities, procedures and guidelines in occurrence with Article 13.13 (Decision Para 92)</div> <div>APA when developing modalities, procedures and guidelines refer to in Para 92, consider the consistency between the methodology communicated in NDCs and the methodology for reporting on progress made towards achieving individual parties respective NDCs (Decision Para 95(b))</div> <div>APA shall build up on and eventually supersede the measurement, reporting and verification system established. This should be done by the final submission of BRs and BURs (Decision Para 99)</div>				

Figure 2: MRV under the Paris Agreement

1.5.2 Modalities to be Decided

Details of the new transparency system are to be negotiated by 2018 and formally adopted once the agreement enters into force. The Ad Hoc Working Group on the Paris Agreement will develop recommendations for modalities, procedures, and guidelines in accordance with Article 13.13 (of the 'action' text), and define the year of the first and subsequent review and update, at regular intervals, for consideration of the COP, at its twenty-fourth session (COP-24, 2018).

A work plan on capacity building for the period 2016-2020 and, the Paris Committee for Capacity Building (PCCB) would be established to address gaps and needs in implementing capacity building in developing country parties and further enhance capacity building efforts (Decision paragraph 72 and 74). However, it has been noted that the COP-21 does not include aspects of Addis Declaration on financing for development⁶.

Further, the COP will review the progress and the need for extension, the effectiveness and enhancement of the Paris Committee for Capacity Building by COP-25 (2019), and make recommendations to the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its first session (CMA1).

1.6 Climate Finance

1.6.1 Clearly Understood Aspects

Developed countries shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligation (Article 9.1), take the lead in mobilizing climate finance (Article 9.3) and (developed countries) shall biennially communicate indicative quantitative and qualitative information (Article 9.5). Article 9.5 also notes that other Parties are encouraged to provide such support only voluntarily and communicate biennially, also on a voluntary basis.

At COP 21, it was also decided that the Green Climate Fund and the Global Environment Facility, the entities entrusted with the operation of the Financial Mechanism of the Convention, shall serve the Agreement. The Global Environment Facility administers both Least Developed Countries Fund and Special Climate Change Fund. Article 9.8 states that the Financial Mechanism (refer Figure 3) under the Convention, with its operating entities, shall serve as the financial mechanism of the Paris Agreement.

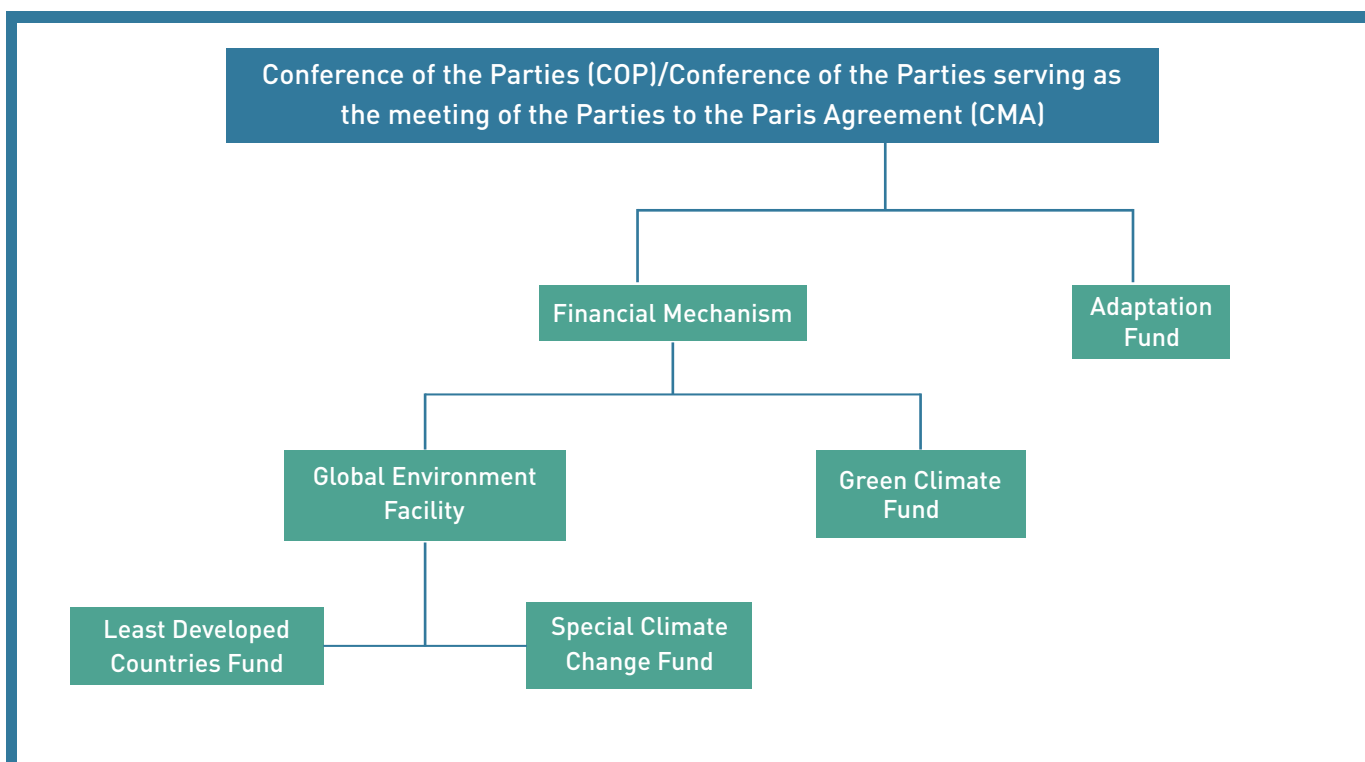


Figure 3: Financial Mechanism of the Convention

6- International Institute for Sustainable Development (IISD) and Organisation internationale de la Francophonie (OIF), 2016. Taking Stock of the Paris Agreement on Climate Change- <http://climate-iiisd.org/policy-updates/taking-stock-of-the-paris-agreement-on-climate-change/>

1.6.2 Modalities to be Decided

The Decision text states that developed countries would continue their existing collective mobilization goal through 2025 – implying the flow of \$100 billion a year, promised in Copenhagen in 2009, will continue beyond 2020. By 2025, the COP will set “a new collective quantified goal from a floor of USD 100 billion per year.” The “action” section of the agreement does not mention a specific number.

Subsidiary Body for Scientific and Technological Advice (SBSTA) would develop modalities for the accounting of financial resources provided and mobilized through public interventions for consideration of the COP at its twenty-fourth session in November 2018 (Decision paragraph 58).

1.7 Voluntary Cooperation such as the use of Market Mechanisms and Non-market Mechanisms

1.7.1 Clearly Understood Aspects

The agreement recognizes that parties may use “internationally transferred mitigation outcomes” to implement their Nationally Determined Contributions, and promote sustainable development (Article 6.2). It requires that parties engage in such transfers to avoid double counting, consistent with accounting for Nationally Determined Contributions to be developed. The agreement also establishes a new mechanism to contribute to mitigation and sustainable development (Article 6.4). This new mitigation crediting system could be seen as a successor to Clean Development Mechanism and Joint Mechanism – the two flexible mechanisms implemented under the Kyoto Protocol which generate tradable emission offsets.

1.7.2 Modalities to be Decided

Rules for the new mechanism are to be adopted at the first meeting of Parties after the agreement takes force (Article 6.7).

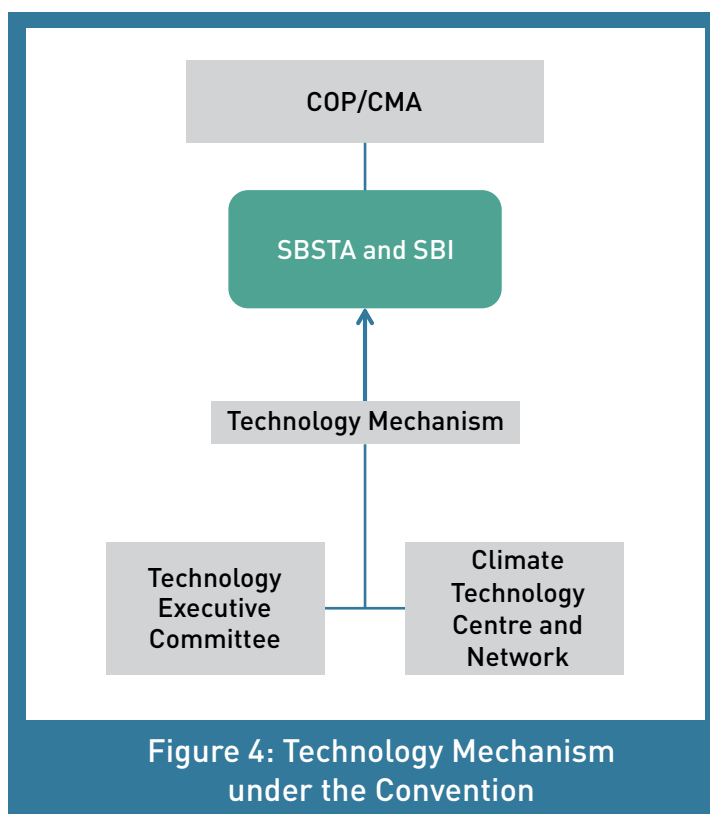
At the first session of the Conference of Parties serving as the meeting of Parties to the Paris Agreement, the SBSTA would develop and recommend the guidance referred to in Article 6.2, including guidance for ensuring that double counting is avoided on the basis of a corresponding adjustment by Parties for both anthropogenic emissions by sources and removals by sinks covered by their NDCs under the agreement (Decision paragraph 36).

1.8 Technology Development and Transfer

1.8.1 Clearly Understood Aspects

Parties realize the importance of technology development and transfer to improve resilience to climate change and have agreed to strengthen cooperative action on the same (Articles 10.1 and 10.2).

The current Technology Mechanism (Figure 3) will stay in place and new technology framework will be established to promote and facilitate enhanced action on technology development and transfer (Articles 10.3, 10.4). Further, support, including financial support, shall be provided to developing country Parties (Article 10.6), thereby linking Technology Mechanism with the Financial Mechanism, to allow for collaborative approaches in Research and Development (R&D), and to facilitate access to technologies.



1.8.2 Modalities to be Decided

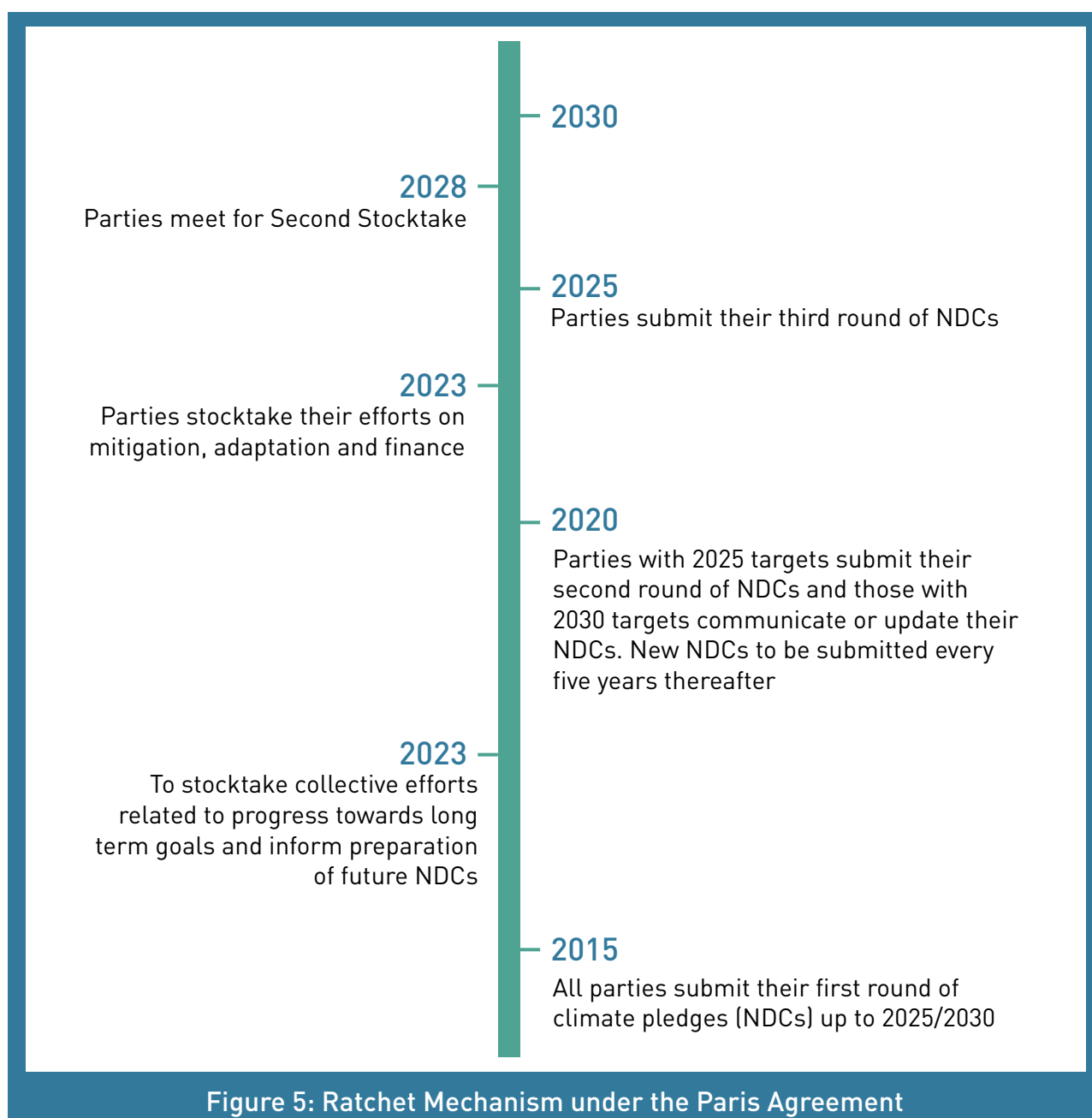
The Subsidiary Body for Scientific and Technological Advice (SBSTA) will start the elaboration of the technology framework in May 2016 and will report to the COP (Decision paragraph 68). The technology framework will provide guidance to the Technology Mechanism (comprising Technology Executive Committee and the Climate Technology Centre and Network).

Other modalities for periodic assessment of the “effectiveness” and “adequacy” of the support provided to the Technology Mechanism will be by the Subsidiary Body for Implementation (SBI) in May 2016, for consideration and adoption by COP 25 (November 2019) (Decision paragraph 70).

1.9 Global Stocktake and Implementation

1.9.1 Clearly Understood Aspects

The agreement calls for global stocktake (Article 14) – to assess how countries are doing in fulfilling their pledges to cut their emissions – on a five-yearly basis. The first stocktake will take place in 2023. This would be followed by submission of new NDCs by parties, “informed by the outcomes of the global stocktake”.



Since this process will begin only when the agreement enters into force, the decision text provides for a “facilitative dialog” in 2018 to take stock of collective progress (Decision paragraph 20). And, by 2020, those countries whose initial NDCs run through 2023 are “urged” to communicate “new” NDCs, and those whose initial NDCs run through 2030 are “requested” to “communicate or update” theirs. The Paris Agreement provides for a “ratchet mechanism” (refer Figure 5 on the previous page), where countries are urged to take on increasingly/progressively ambitious commitments towards meeting long term temperature and emissions goals.

The deal establishes a new mechanism to “facilitate implementation” and “promote compliance” (Article 15.1). The mechanism which is “a committee of experts” is to be “facilitative” in nature and operate in a “non-adversarial and non-punitive” manner (Article 15.2). It will report annually to the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (Article 15.3).

This committee referred to in Article 15.2 shall consist of 12 members, recognized technical-scientific competence, and “equitable geographical representation”. The Ad Hoc Working Group on the Paris Agreement to develop modalities and procedures for effective operation (Decision paragraphs 103 and 104).

The Paris Agreement is a treaty under international law, but only certain provisions are legally binding. In fact, the Agreement is a mixture of binding and non-binding provisions – framework and procedures (global stocktake and submission of increasingly ambitious NDCs) are binding, but no binding emission targets nor any new binding financial commitments.

The principle of differentiation – common but differentiated responsibilities and respective capacities – continues to be pivotal to the climate deal. However, it is a departure from the binary approach of the Kyoto Protocol and realized differently in different provisions – mitigation, adaptation, finance, technology development and transfer, capacity building, and transparency of action and support. “Historic responsibility” is not a part of the Paris Agreement. This implies that, from now on, equity would only mean “respective capabilities and national circumstances”.

While there are references to developed and developing countries, there is a duty on all parties to take climate action, albeit with developed countries taking the lead in certain aspects. But, countries are no longer distinguished into Annex I (developed) and non-Annex I (developing) countries, as contained in the UNFCCC. In terms of key elements, common commitments are established for all parties, but there is some degree of flexibility to accommodate different national capacities and circumstances⁷.

1.9.2 Modalities to be Decided

The Ad Hoc Working Group on the Paris Agreement (APA) will identify sources of input for the global stocktake (as mentioned in Article 14) and report to the COP, which will then make necessary recommendations to the Conference of Parties serving as the meeting of the Parties to the Paris Agreement at its first session (Decision paragraph 99). And, the Subsidiary Body for Scientific and Technological Advice will report to the Ad Hoc Working Group on the Paris Agreement, by November 2016, how the assessments of the Intergovernmental Panel on Climate Change can lead to a more informed global stocktake of the implementation of the Agreement (Decision paragraph 100).

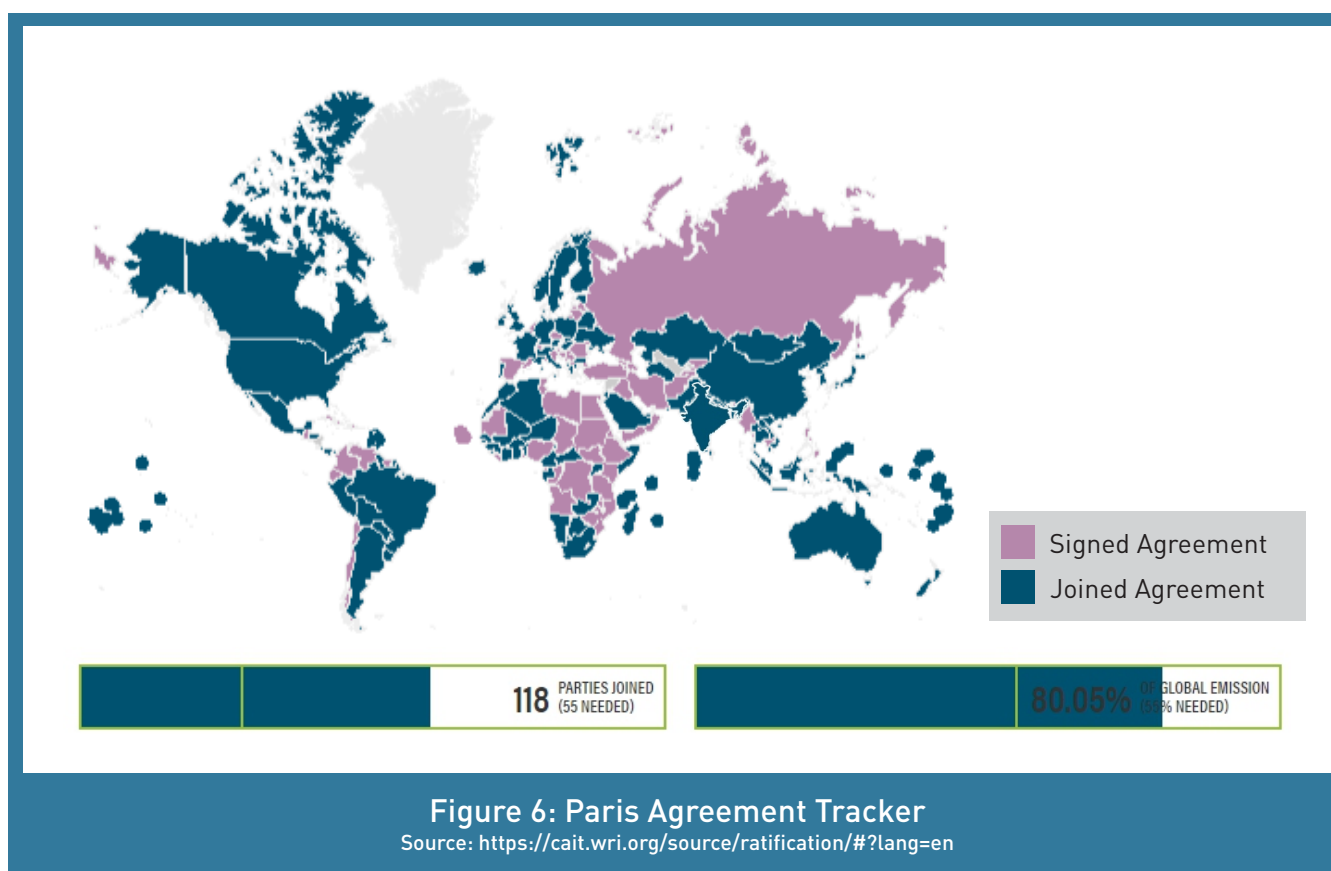
Details regarding the mechanism that will facilitate implementation and promote compliance through a committee of experts are to be decided at the first meeting of parties after the agreement takes force (Article 15.1, 15.2, 15.3).

Additionally, modalities regarding how the implementation arrangements differentiate between developed and developing countries also need to be agreed especially on aspects such as mitigation targets and levels of support.

7- Center for Climate and Energy Solutions, 2015. Outcomes of the UN Climate Change Conference in Paris- <http://www.c2es.org/international/negotiations/cop21-paris/summary>

1.10 Ratification of the Paris Agreement

On April 22, 2016, the Paris Agreement was opened for signature. It entered into force, on November 4, 2016. Presently, 118 parties have ratified the agreement and account for 80.05 percent of the global emissions.



1.11 Role of Non-state Actors

As climate agenda has diversified over the years, the role and inclusion of non-state actors – subnational governments, businesses, international institutions, civil society organizations – within the ambit of the Paris Agreement and its implementation seems necessary. Their contribution would also be valuable in terms of realizing the nationally determined contributions of the country Parties.

For instance, there is a widespread understanding that private participation and small holder engagement would be required for India to meet its ambitious target of generating 175 GW of renewable energy by 2022. This is more pertinent in case of solar power which is set to leapfrog from its present share of 6.9 GW to 100 GW by that year.

1.12 Existing Institutional Architecture under the Convention

The present institutional setup under the Convention includes the subsidiary bodies (Figure 6), thematic bodies (Figure 7), financial mechanism (refer Figure 3), and technology mechanism (Figure 4).

The two subsidiary bodies are – Subsidiary Body for Scientific and Technological Advice (SBSTA), and Subsidiary Body for Implementation (SBI). SBSTA supports the work of the COP through provision of advice on scientific and technological matters as they relate to the Convention, and now, the Paris Agreement. And, the SBI assists the COP through assessment and review of the effective implementation of the Convention and the Paris Agreement.

Conference of the Parties (COP)/Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)

Subsidiary Body for Scientific and Technological Advice (SBSTA)

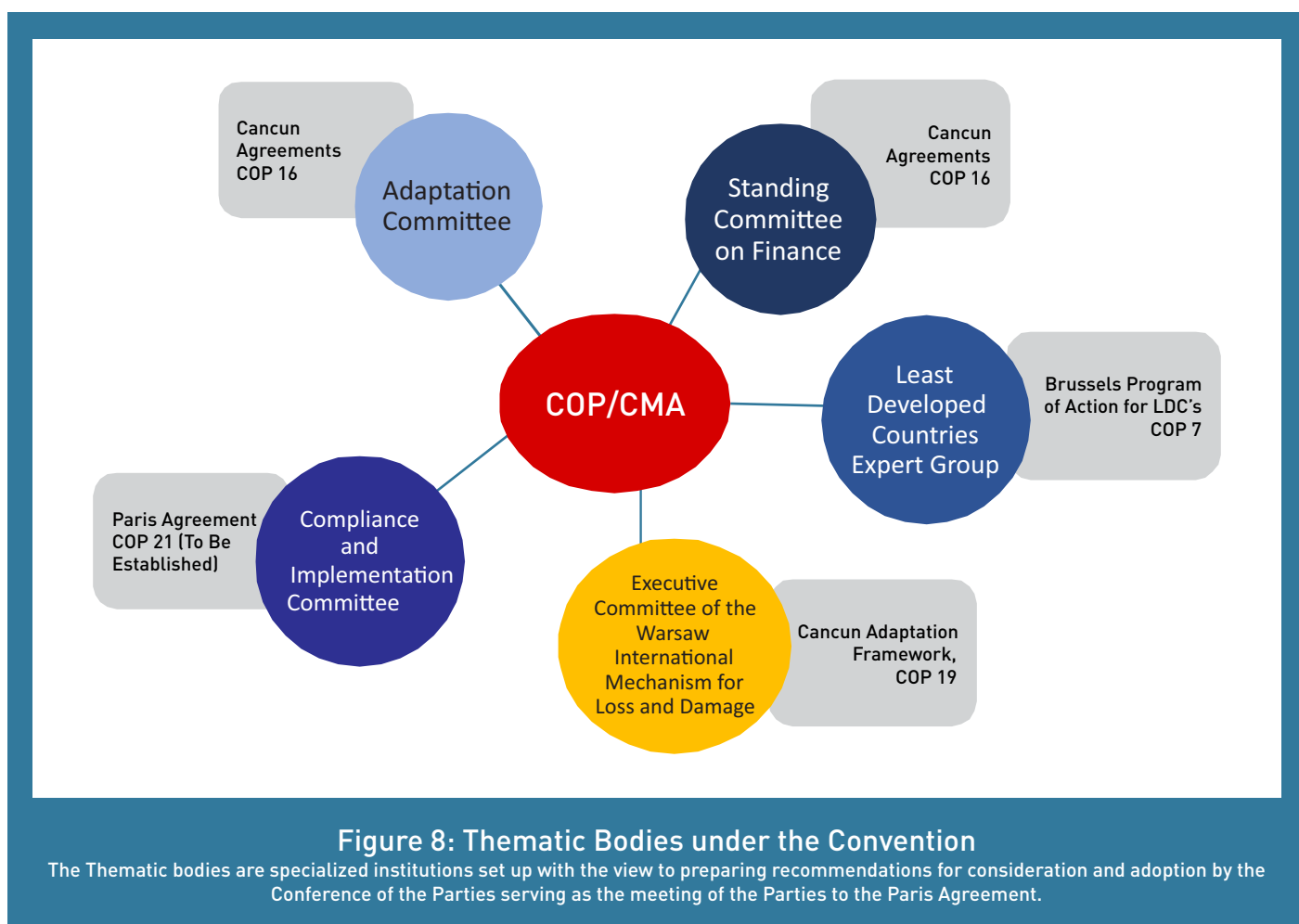
Subsidiary Body for Implementation (SBI)

Figure 7: Subsidiary Bodies under the Convention

The thematic bodies under the Convention are specialized institutions set up with the view to preparing recommendations for consideration and adoption by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement. There are five thematic bodies:

1. Adaptation Committee (AC): Consists of 16 members that are nominated in the following manner
 - a. Two members from each of the five UN regional groups
 - b. One member from a small island developing state
 - c. One member from a least developed country
 - d. Two members from Parties included in the Annex 1 to the Convention
 - e. Two members from Parties not included in the Annex 1 to the Convention
2. Standing Committee on Finance (SCF): The membership is comprised of
 - a. Ten members from Parties included in Annex 1 to the Convention
 - b. Ten members from Parties not included in Annex 1 to the Convention including 2 members each from the African, Asia-Pacific, and the Latin American and Caribbean States, one member from member from a small island developing State and one member from a least developed country Party
3. Least Developed Countries Expert Group (LEG)
4. Executive Committee of the Warsaw International Mechanism for Loss and Damage: The membership is comprised of
 - a. Ten members from Annex 1 Parties
 - b. Ten members from Parties not included in Annex 1 to the Convention including two members each from the African, Asia-Pacific, and the Latin American and Caribbean States, one member from member from a small island developing State and one member from a least developed country Party and two additional members from non-Annex 1 Parties
5. Compliance and Implementation Committee (which would be established under the Paris Agreement) but the modalities of its membership have not yet been agreed.

Figure 7 shows the relationship between these thematic bodies and the Conference of the Parties (COP)/Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). In other words, how the bodies interact with, and are guided by the COP/CMA.



The Paris Agreement has proposed certain new mechanisms/frameworks for compliance, technology development and transfer, capacity building, carbon markets, and transparency of action and support. These have been compared with existing arrangements under the Convention and listed below in Table 1.

Table 1: Comparison of Existing and New Arrangements

Elements of Comparison	Existing System under the Convention	New Systems under the Paris Agreement
Compliance Mechanism	The Kyoto Compliance Committee operates through two branches – Facilitative and Enforcement	Article 15 provides for creating a mechanism to facilitate implementation and promote compliance
	These branches address the issues of implementation and compliance	The mechanism shall consist of a committee of 12 members on the basis of equitable and geographical representation, with two members each from the five regional groups of the United Nations, and one member each from Small Island Developing States (SIDS) and Least Developed Countries (LDCs)
	Both branches are composed of 10 members, including one representative from each of the five UN regions (Asia, Africa, Latin America and the Caribbean, Central and Eastern Europe and Western Europe and Others), one from Small Island Developing States and two each from Annex I and Non-Annex I Parties	Modalities, procedures and guidelines for effective operation of the committee shall be decided by Ad Hoc Working Group on the Paris Agreement (APA)

Carbon Market based Mechanisms	<p>Two Flexible mechanisms under Kyoto Protocol are Clean Development Mechanism and Joint Implementation</p> <p>These mechanisms are applicable only to Annex B Parties (All Parties with binding emission cut targets)</p>	<p>The mechanism will deliver “an overall mitigation in global emissions” (Article 6. 4 (d)), meaning it will differ from the offsetting concept established under Kyoto Protocol</p> <p>All parties – developed and developing countries – can host the crediting mechanism and use credits generated towards their Nationally Determined Contributions (NDCs)</p> <p>Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its first session (CMA1) shall adopt rules, modalities and procedures for the new mechanism</p>
Technology Mechanism	<p>In 2001, at COP 7 as part of the Marrakech Accords, parties to the UNFCCC established the Technology Transfer Framework</p> <p>The Technology Mechanism was established as a part of the 2010 Cancun Agreements</p> <p>The Technology Mechanism includes Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN)</p>	<p>New Technology Framework to be established under the Paris Agreement will provide overarching guidance to the Technology Mechanism for facilitating technology development and transfer (Article 10.4)</p> <p>Subsidiary Body for Scientific and Technological Advice (SBSTA) will elaborate the details of this Framework in time for the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA1)</p>
Capacity Building	<p>The Framework for Capacity Building in Developing Countries was agreed to as part of the Marrakech Accords at COP 7, 2001. The UNFCCC secretariat prepares annual reports which are then reviewed by the Subsidiary Body for Implementation every five years</p> <p>The present architecture for capacity building also includes the Durban Forum on Capacity Building and the Capacity Building Portal. These platforms provide for sharing of experiences and dissemination of information among Parties, civil society, academia and international organizations</p>	<p>In COP 21, Parties agreed to establish Paris Committee on Capacity Building.</p> <p>The Committee will oversee the work plan for 2016-2020 with following activities:</p> <ul style="list-style-type: none"> • Address gaps and needs in implementing capacity building • Promote development and dissemination of tools and methodologies for implementing capacity building • Foster global, regional, national and subnational cooperation • Identify and collect good practices and lessons learned from work on capacity building by bodies established under the Convention • Foster dialogue among relevant processes and initiatives under the Convention
Transparency Framework: Submission of GHG Inventories	<p>Annex I Parties required to report annually and these are subject to in-depth technical review</p> <p>Developing Country Parties report biennially as part of their Biennial Update Reports (BURs)</p> <p>Common set of IPCC guidelines for Annex 1 parties and optional for Non-Annex Parties</p>	<p>All parties, except for least developed countries and small island developing states, to report biennially; LDCs and SIDS to report at their own discretion</p> <p>Inventories to be prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change</p>

Submission of National Communications (NCs)	Annex I Parties to submit their NCs periodically, according to the dates set by the COP (generally every four years) and these are subject to in-depth technical review by an international team of experts Non-Annex I Parties are required to submit their NCs every four years, with due financial and technical assistance Different reporting guidelines for Annex I and Non-Annex I Parties Annex II parties mandatorily required to report on the support provided	No specific provisions mentioned under the Paris Agreement
Submission of Biennial Reports	BRs submitted by Annex I parties are subject to the process of International Assessment and Review (IAR) BURs submitted by Non-Annex I Parties are subject to the process of International Consultation and Analysis (ICA)	All parties, except LDCs and SIDS, to submit information referred to in Article 13, paragraph 7, 8, 9 and 10, no less frequently than biennial basis Flexibility shall be provided to Developing Country Parties that need it in light of their capacities

Finally, Table 2 gives a summary of the key elements of the Paris Agreement.

Table 2: Summary of the Key Elements of the Paris Agreement

S. No.	Key Clauses of the Paris Agreement	Specific sub-clauses	Specific Implications	TimeLine Implications
I	Long Term Goal and Mitigation	<p>a) 1.5°C temperature goal</p> <p>b) Net Zero Emissions by the second half of the century (Translated to a possible zero carbon emissions between the period of 2040 to 2060)</p>	<p>Possible revision of its INDC (2020-2030), which may come up during the facilitated dialogue, starting 2018, to be submitted by 2020</p> <p>Submission of a long mitigation strategy by 2020 (Long term decarbonization plans)</p>	<p>a) 2018 – Start of facilitative dialogue for INDC review</p> <p>b) Submission of a revised / updated INDC by 2020</p> <p>c) Submission of a further revised updated INDC by 2025</p> <p>d) Submission of a long term decarbonization plan by 2020</p>
II	Adaptation and Loss and Damage	Submission of a National Plan for Adaptation by 2020	<p>a) Formulate and implement National Adaptation Plans</p> <p>b) Submit Adaptation communication to be recorded in a public</p>	Adaptation Communication review in 2017

III	Enhanced Transparency Framework (MRV)	<p>a) Enhanced Frequency of Reporting</p> <p>b) Enhancing rigor of reporting</p> <p>c) Tracking progress in implementing and achieving NDCs</p> <p>d) Biennial Updated Report</p>	<p>a) Real time GHG Inventories – possibly every year or definitely once in two years (Depends on agreed modalities)</p> <p>b) Possibility of tier III methodology of IPCC for inventories (Right now India mostly follows Tier I or Tier II, as is the requirement)</p> <p>c) Annual Communication of programmes in implementing NDCs - linked to policies and programmes</p> <p>d) Verification modalities – possible common verification framework for all countries</p>	<p>Modalities to be worked by Paris Committee starting from 2018</p> <p>All Modalities to be worked before the Paris Agreement comes into force</p> <p>Guidelines on Financial assessment by 2018</p>
IV	Climate Finance		<p>Estimation of Additional Financing Required by India to achieve the Agreement Goals</p> <p>Engage with SBSTA to develop modalities for accounting of multi-lateral and bi-lateral climate financial flows by COP 24</p>	<p>Guidelines on Financial assessment by COP 22 (2016)</p> <p>SBSTA meeting in 2018 (COP 22)</p>
V	Market Mechanism and Non-Market Mechanism	Develop cooperative frameworks for climate change mitigation and adaptation under the Convention as well as bi-laterally		Rules for new mechanism to be adopted at CMA1 (first meeting of Parties after Agreement enters into force)
VI	Capacity Building	Capacity building to comply to the new reporting and verification framework		Work plan on capacity building for 2016-2020 and Paris Committee for Capacity Building to be established

VII	Overarching	<p>Equity: Distinction between developed and developing</p> <p>Entry into force</p>	<p>India to contribute in the development of modalities to ensure that proper treatment of developed and developing countries is evolved cutting across all issue and thematic areas</p> <p>The Paris agreement mentions that the agreement will come into force, 30 days post 55 countries amounting to 55% of all countries ratifying the agreement</p>	<p>2018</p> <p>Agreement will be open for signature on April 22, 2016</p>
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Figure 10 (on the following page) indicates the timelines and tasks of the bodies/institutions concerned over the next few years, in the run up to the first session of the CMA, whose date is so far not fixed.

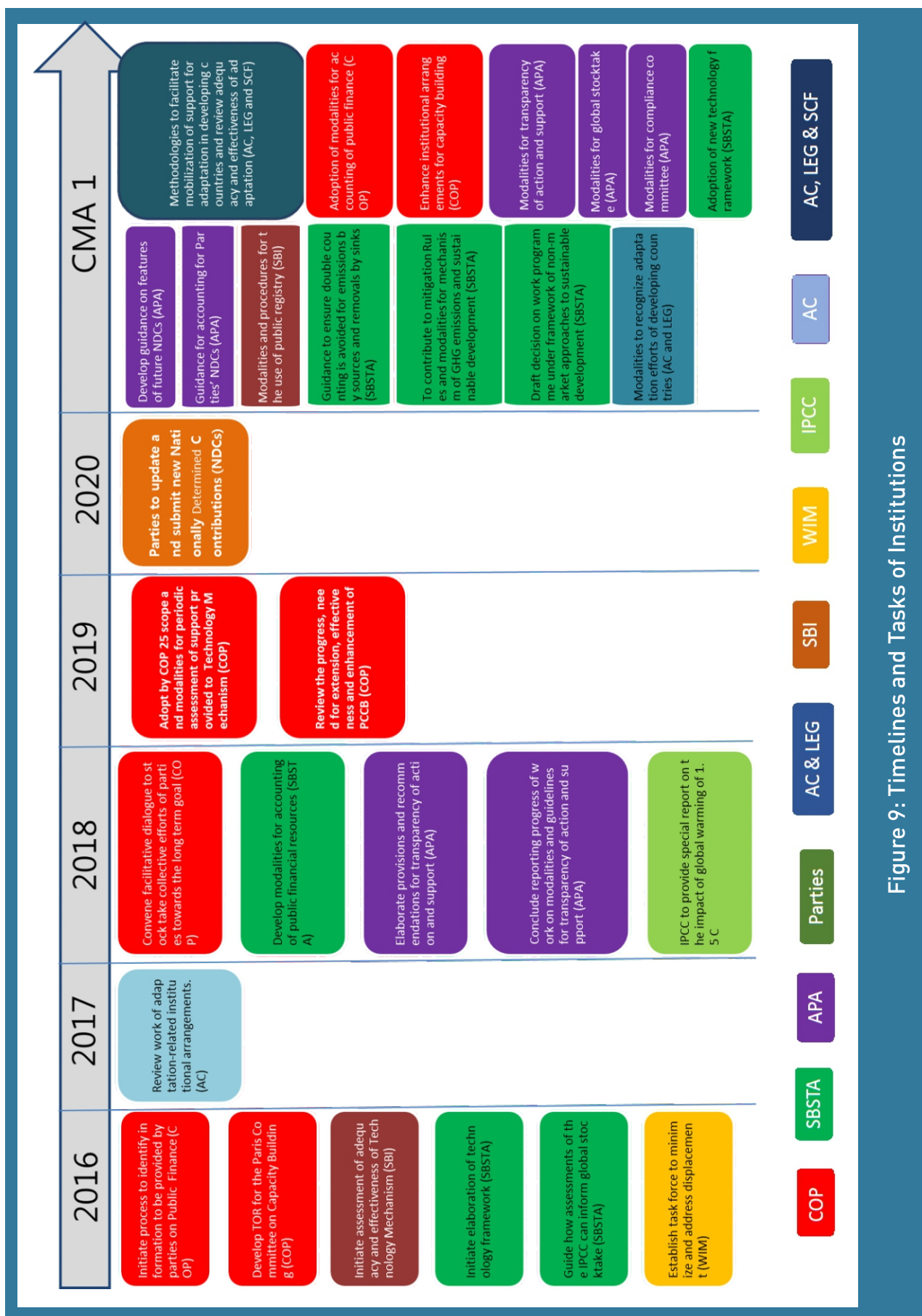


Figure 9: Timelines and Tasks of Institutions

Note: At COP 22, held in Marrakech in November 2016, Parties agreed to develop the “rule book” for the Paris Agreement, which would then be adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) at the COP 24, November-December 2018

SECTION II

Implications of the Key Elements of the Paris Agreement from an Indian Perspective

2.1 Long Term Goal

The Paris Agreement aims to keep the increase in global average temperature to well below 2°C above pre-industrial levels, and further limit the increase to 1.5°C, to reduce risks and impacts of climate change.

India submitted its Intended Nationally Determined Contribution to the UNFCCC on October 1, 2015 in time for the COP-21. The tangible targets that India has put forward are:

1. Reduce emissions intensity of GDP by 33% to 35% by 2030 from 2005 level
2. To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy sources by 2030
3. To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030

Assessments suggest that India's INDC lacks clarity on emissions intensity in the base year (2005) and target year (2030), information necessary to understand India's contribution towards meeting the global temperature goal⁸.

Further, when compared with other INDCs and fairness of its share in the global effort, India's INDC has been rated "medium", indicating that India's climate actions are at the "least ambitious end of what would be a fair contribution." In other words, India's efforts are not fully geared towards limiting warming to below 2°C⁹.

One of the questions that India may increasingly be faced with at the global climate negotiations on this issue is when are its emissions likely to peak. This is a difficult question for India to answer given its developmental deficits. However, India needs to do some scenario analysis of what its emission trajectories look like under business as usual versus low carbon scenarios in order to begin having a discussion about its possible peaking timeframes. These discussions could also include aspects of financial and technological support required. Given the interconnected nature of global economies, international ambitions (especially of developed economies) on mitigation and adaptation, and the strong market forces they would unleash, would also have a strong bearing on India's capacity to accelerate her ambitions on mitigation.

2.2 Mitigation Actions and Future Nationally Determined Contributions from India

A reading of the decision to adopt the Paris Agreement as well as the agreement itself suggests that India may not be under much pressure to revise its nationally determined contribution. However, this may change if the special report that the Parties in Paris have asked the IPCC to prepare in 2018 of the impacts of global warming of 1.5°C comes up with additional evidence of the risks that may arise from not meeting the goals enunciated in Article 2 of the Paris Agreement. Further, this may also change if the next assessment report of the IPCC due in 2021 comes up with additional evidence of climate risks and the associated emissions pathways that are needed to be able to meet with the objectives of the Paris Agreement. It is in this context that India may need to, if pressurized by the international community, amend its contributions. Such amendments may either be clarifications of its existing targets, or actual amendments of the targets that have been put forth to the UNFCCC. In addition, it may in any case be prudent to undertake a review of the Indian mitigation related targets by, say, around 2021 since feasibility of the deployment of renewable technologies may have changed by then, allowing for India to put forth more ambitious mitigation targets, thereby enhancing its contribution to the global effort for dealing with climate change.

Further, depending on clarity on the definition of "Net zero emissions" by the second half of the century, as is contained in the Paris Agreement, there could be potential pressure on India to modify its NDCs to ensure a faster shift away from reliance on fossil fuels. Some interpretation of the Paris agreement indicates that there needs to be a 100 percent shift to renewable energy by 2070 at least for the electricity generation.

8- World Resources Institute, 2015: <http://www.wri.org/blog/2015/12/insider-understanding-paris-agreement%E2%80%99s-long-term-goal-limit-global-warming>

9- Climate Action Tracker, 2015: <http://climateactiontracker.org/news/224/indcs-lower-projected-warming-to-2.7c-significant-progress-but-still-above-2c-.html>

2.3 Adaptation

As a follow up to the National Action Plan on Climate Change that was formulated in 2008, a large number of states have prepared their State Action Plans on Climate Change, predominantly focused on adaptation.

Further, the Indian Network on Climate Change Assessment (INCCA) prepared its last report, 4 x 4 report, in 2012, which contained an assessment of possible adaptation requirements by 2030.

In addition, as per the estimates of India's INDC submitted to the UNFCCC in October 2015, India will need to spend USD 206 billion between 2015 and 2030 on adaptation measures for agriculture, forestry, fisheries infrastructure, water resources and ecosystems.

The Paris Agreement, however, creates certain “soft” obligations i.e. not legally binding but worth pursuing to meet with if India wishes to back up its claim of being a highly vulnerable country to climate change. Article 7.9 of the Paris Agreement states that “Each Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions, which may include:

- a. The implementation of adaptation actions, undertakings and/or efforts;
- b. The process to formulate and implement national adaptation plans;
- c. The assessment of climate change impacts and vulnerability, with a view to formulating nationally determined prioritized actions, taking into account vulnerable people, places and ecosystems;
- d. Monitoring and evaluating and learning from adaptation plans, policies, programmes and actions; and
- e. Building the resilience of socio-economic and ecological systems, including through economic diversification and sustainable management of natural resources.”

In addition, Article 9.10 states that “Each Party should, as appropriate, submit and update periodically an adaptation communication, which may include its priorities, implementation and support needs, plans and actions, without creating any additional burden for developing country Parties”.

In order to be able to fulfill the above-mentioned “soft” obligations, India needs to formulate an adaptation plan with clearly demarcated plans, programmes and financing that can be tracked and thus measured, reported and verified so that India's adaptation efforts can be clearly communicated to the UNFCCC.

2.4 Loss and Damage

In order to be able to cooperate and facilitate enhanced understanding, action and support regarding loss and damage under the Paris Agreement, India would need to plan for and initiate actions on the following aspects of the ongoing global efforts to meaningfully address loss and damage:

- a. Early warning systems
- b. Emergency preparedness
- c. Slow onset events
- d. Events that may involve irreversible and permanent loss and damage
- e. Comprehensive risk assessment and management
- f. Risk insurance facilities, climate risk pooling and other insurance solutions
- g. Non-economic losses
- h. Resilience of communities, livelihoods and ecosystems

These aspects, in addition to adaptation, would need to be integrated into the development planning and implementation process in order to be meaningfully addressed.

2.5 Enhanced Transparency Framework and associated Capacity Building

Article 13.7 of the Paris Agreement states that, “Each Party shall regularly provide the following information:

- a. A national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement;
- b. Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4.”

So far, India's reporting to the UNFCCC has consisted of a mix and match of various levels of rigor, ranging between Tier I and Tier II methodologies, to compile the national communications and biennial update reports that have been submitted to fulfill its reporting obligations. Wherever possible, existing data sources of the government or of various industry bodies have been used as a basis for estimating greenhouse gas emissions. However, since from now, according to the Paris Agreement, the information submitted by each party shall undergo a technical expert review (Article 9.11) without there being any specific or pre-agreed differentiation between the review procedures that developing or developed countries are subjected to, India would need to enhance the data compilation processes for many of the sectors of the economy. Assuming that eventually India would have to apply Tier III methodologies for all sectors and sub-sectors of the economy when reporting emissions to the UNFCCC in order to meet the requirements of the review procedures, there would be a specific need to ensure that the quality and quantity of data compilation meets with international standards. If necessary, India would also have to seek capacity building and other support for meeting with the reporting and review obligations under the Paris Agreement.

Further, currently, India has so far submitted two national communications to the UNFCCC with inventories for the year 1994 and 2000. In addition to this, the country came up with a voluntary inventory for the year 2007 and an inventory as part of its biennial updated report for the year 2010. However, with the increased frequency in reporting, as required in the Paris Agreement, India will have to gear up to come up with national inventory either annually or bi-annually, depending on the modalities to be formulated in the course of the next 2-3 years.

2.6 Climate Finance

India does not agree with the methodologies of counting climate finance that are being used by the developed countries. This was clearly visible when India's Ministry of Finance came up with a rebuttal¹⁰ of the assertion by Organisation for Economic Co-operation and Development (OECD)¹¹ that developed countries had provided climate finance to the tune of USD 62 billion in 2014, and stating that only around USD 2.2 billion had so far been provided by the developed countries. However, so far, India has not formally submitted its rebuttal to either the UNFCCC or stated explicitly that the views expressed in the rebuttal document are “official” views of the government of India.

In addition to the disagreements around how much climate finance is flowing from the developed to developing countries, India also needs to start building credible estimates of the requirement of additional financing for dealing with climate change in order to pursue its sustainable development goals. This is also linked to how India justifies its contribution to meeting the global goal of reaching net zero emissions as enumerated in Article 4 of the Paris Agreement.

10- Dasgupta Dipak, Rajasree Ray, Shweta, and Salam Shyamsunder Singh, “Discussion Paper: Climate Change Finance, Analysis of a Recent OECD Report: Some Credible Facts Needed”, Climate Change Finance Unit, Department of Economic Affairs, Ministry of Finance, Government of India, November 2015

11- OECD (2015), “Climate finance in 2013-14 and the USD 100 billion goal”, a report by the Organisation for Economic Co-operation and Development (OECD) in collaboration with Climate Policy Initiative (CPI).

2.7 Voluntary Cooperation such as the use of Market mechanisms and Non-market Mechanisms

In the past, India has been one of the top two global sellers of carbon credits through its participation in the Kyoto Protocol's Clean Development Mechanism. However, since that mechanism arose in the context of the binary distinction between Annex 1 and Non-annex 1 countries that were parties to the Kyoto Protocol, and since there were no emission reduction obligations that India needed to fulfill as a party to the Kyoto Protocol, participating in the clean development mechanism and undertaking carbon trading with developed countries was relatively straight forward.

Now, however, India probably needs to be both a seller of domestic emissions, both nationally and internationally, and a buyer of emission reductions that may have taken place outside its borders. Here the country should draw upon the rich body of experience gained under the clean development mechanism especially as it relates to MRV and leverage it for domestic mitigation and adaptation actions. The country should, in a transparent manner, develop rigorous measuring, reporting and verifying procedures to ensure clarity in its transparency and reporting obligations under Article 7. Further, India may also wish to pursue non-market based cooperative approaches for emission reductions that contribute towards enhancing global emission reduction ambitions.

2.8 Technology Development and Transfer

India needs to undertake a comprehensive Technology Needs Assessment regarding various sectors of the economy that need access to technologies that are required but not yet available. Further, India also needs to promote and pursue cooperative technology development initiatives in order to be able to have access to cutting edge technologies without Intellectual Property Rights (IPRs) forming a barrier for technology access in future while implementing its obligations under the Paris Agreement.

2.9 Global Stocktake and Implementation

Paragraph 20 of the Adoption of the Paris Agreement document states that COP 21 “Decides to convene a facilitative dialogue among Parties in 2018 to take stock of the collective efforts of Parties in relation to progress towards the long-term goal referred to in Article 4.1 of the Agreement and to inform the preparation of nationally determined contributions pursuant to Article 4.8 of the Agreement”. This will be followed by a global stocktake in 2023 and every five years thereafter in implementing the Paris Agreement as has been agreed by all parties. As has been already mentioned in several sections above, India needs to be prepared for the stocktaking process, beginning in 2018, but continuing every five years thereafter, on several aspects.

First, India would need to justify how and under which assumptions are its share of contributions adequate for meeting the global objectives of the Paris Agreement. Second, if India feels that it could ratchet up its contributions with enhanced financial and technological support, what would be the additional support it would need from the international community to be able to do so. Third, India needs to engage on modalities for agreeing on a common framework for counting of climate finance that would be acceptable to all countries, developed and developing. Fourth, India needs to also engage on developing a framework for measuring how its own and other developing countries' efforts on adaptation are contributing towards meeting the global goal on adaptation enunciated in Article 7 of the Paris Agreement.

SECTION III

India's Level of Preparedness to Meet with its Obligations
under the Paris Agreement and Gaps if any

3.1 State of Play of Climate Policy Making in India

Until the recent past, the overarching Climate Policy Making in India was in the sole domain of the Ministry of Environment, Forests and Climate Change (MoEFCC), with institutions such as the Prime Minister's Office (PMO) and the Prime Minister's Council on Climate Change acting as advisory and guiding bodies.

Presently, however, on various specific or sector aspects, that would fall within the domain of Climate Change such as "Policies in the Clean Energy Space", "Water Management and Conservation", "Urban Development and Planning", various line Ministries are involved.

For instance, the implementation of the National Action Plan on Climate Change with the eight associated missions that cascade out of the plan are currently being implemented by various line ministries and departments.

But having said this, on all matters related to international climate negotiations, including making submissions such as the Intended Nationally Determined Contributions, reporting on emissions trajectories (Biennial Reporting) and other issues, MoEFCC is responsible and convenes and coordinates processes that require participation by departments and ministries other than MoEFCC, as of now.

In order to facilitate this, the MoEFCC does seem to have put in place some sort of a mechanism of consultation with various ministries and departments particularly those dealing with issues which fall under the domain of climate change actions, in order to help it formulate various positions, most of these mechanism seem to be of an informal nature, with very little evidence of any permanent institutional structure which would ensure constant flow of information from either sides in order to help in formulating a holistic plan to address climate change. It is also similar, when it comes to consultation with States. While the MoEFCC has mandated all the states to submit its State Climate Action Plan, there seems to be no formal institutional mechanism to monitor the implementation of the State Action Plan. But having said this, there seems to be some mechanism for soft reporting, but not monitoring implementation per se.

However, interestingly, the Climate Finance Unit is housed in the Ministry of Finance and a representative from the Finance Ministry represents India at the Green Climate Fund Meetings. But, all negotiations stance of India at the Green Climate Fund is generally in line with the stance of negotiators aligned to the MoEFCC. Further, while many of the key negotiators for India either at the UNFCCC or any other fora related to climate change are usually from the Ministry of External Affairs, their positions are usually prepared by the MoEFCC.

The flow chart below (Figure 11, on the following page), provides a broad picture of the Climate Policy Institutional landscape in India.

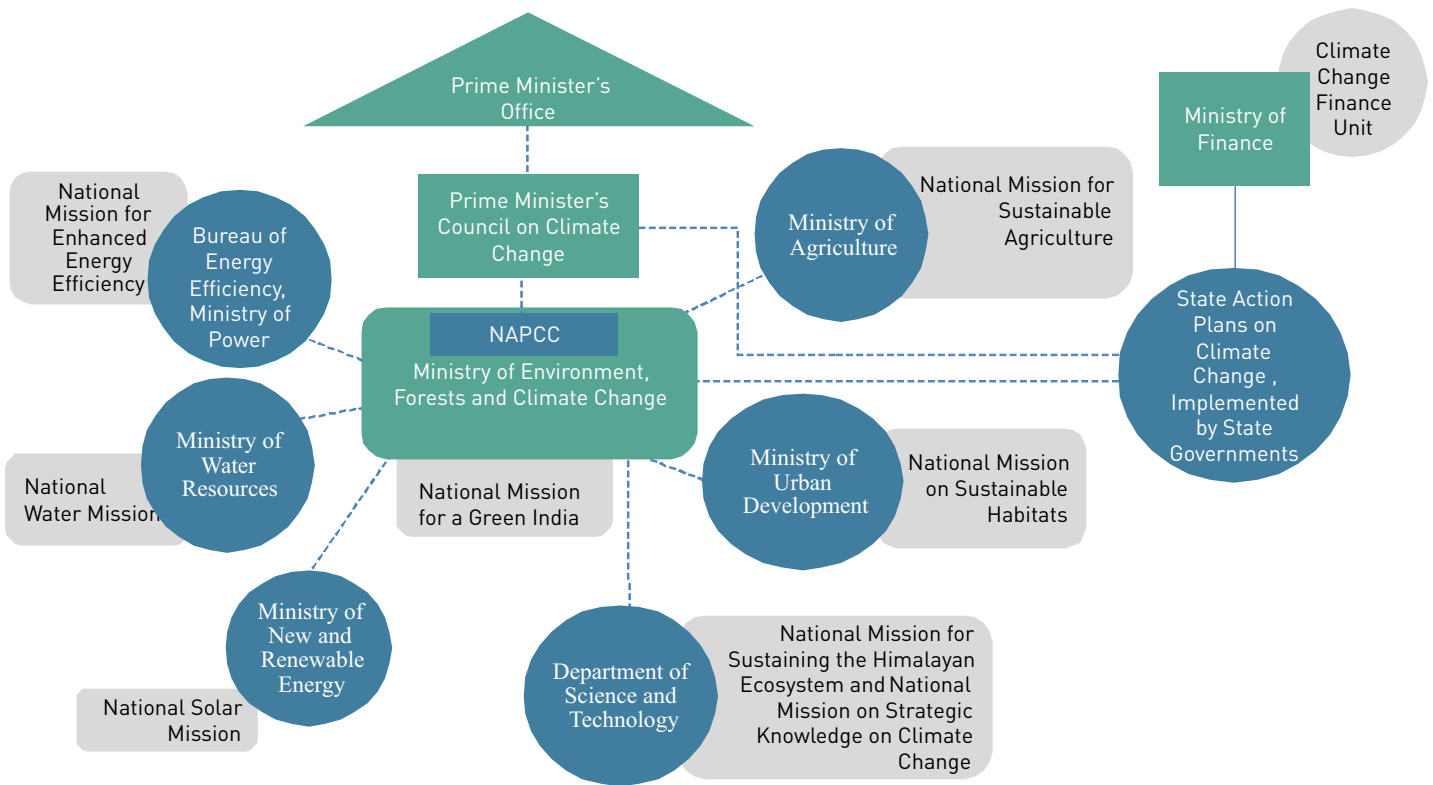


Figure 10: Climate policy institutional landscape in India

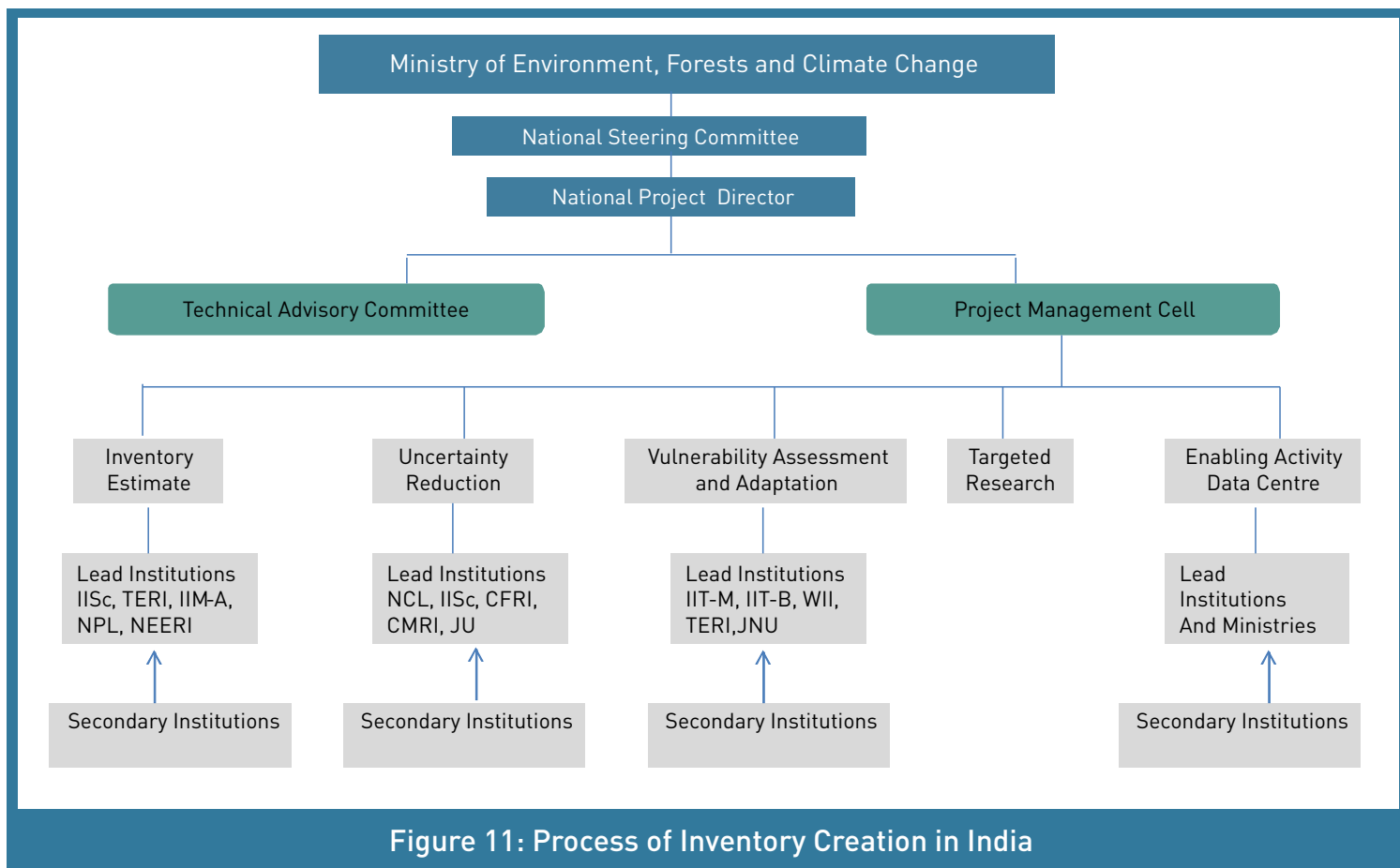
3.2 A Quick Review of India's Existing Arrangements for Meeting International Climate Obligations

Currently, India does not have very demanding international climate obligations as it falls under the category of “Non-Annex I Country” of the Kyoto Protocol and the UN Convention on Climate Change. To explain, unlike the requirements for major developed economies, which have to submit their greenhouse gas inventories every two years and are subject to robust preparation of their inventories (Tier III approach of the IPCC), India till now has no such requirement of either preparing a detailed and comprehensive greenhouse gas inventory nor is it subject to frequent reporting and rigorous review process.

As of now, India has submitted only two reports to the UNFCCC, as part of its national communication to the UNFCCC (NATCOM). The first was submitted in 1994, which also had the inventory of 1994 and the second NATCOM was submitted to the UNFCCC in 2010, which had the greenhouse gas inventory for the year 2000. In addition to these two greenhouse gas inventories, India also had the inventory done for the year 2007 on its own and an inventory for the year 2010 as part of its biennial reporting to the UNFCCC.

In terms of process of preparation of its inventory, the nodal body is the MoEFCC and the National Steering Committee which is formed largely with personnel from the MoEFCC and with a technical advisory committee, which primarily comprises of sector experts from various institutions and a project management cell, which again has people from the MoEFCC or contracted by the MoEFCC and housed in some organization, which may not be part of MoEFCC but reporting to MoEFCC. The actual work of creating the inventories for various sectors/activities is contracted to various research and technical institutions. However, the final compilation and collation of the GHG Inventory is done solely by the MoEFCC's Project Management Cell.

The flow-chart on the following page (Figure 12) depicts the process of inventory creation in India.



The other substantial submissions, which are not of the routine UNFCCC submission in nature, include, India's Cancun Pledges in 2009 and more recent was the submission of its INDC in 2015.

The INDC preparation was again led by the MoEFCCC, which held series of consultation with various stakeholders in addition to commissioning a few trajectory studies by research institutions. However, the final decision on the INDC seemed to come from MoEFCC with the final sign of from the Prime Minister.

In terms of process, while, the MoEFCC held consultations with various stakeholders, there was to our belief no formal institutional structure that was created to ensure flow of information from states, ministries and other departments of either the union government or state governments in order to formally input into the preparation of its INDC.

3.3 Overview of Other Plans and Policies in the Climate Space

Apart from the National Action Plan on Climate Change and the policies created from the various missions of the action plans, and the state climate action plan, India does not have any overarching climate policy or legislation to guide its climate actions. It also currently does not have even a National Adaptation Plan, nor any long term strategy for mitigation action.

Further, there is also no institutional structure in place, that can monitor various actions that are taken, which could have a bearing on addressing climate change, whether it is in the domain of either adaptation or mitigation, except perhaps for some areas such as the electricity and energy sector or to a certain extent the industry sector, but again very specific to energy efficiency.

However, we understand from discussions with officials at the Ministry of Environment, Forests and Climate Change that they are working on a draft plan for enhanced transparency for both inventorying the greenhouse gases, as well as for reporting of emissions trajectories.

Further, in 2015, together with the Indian Ministry of Environment Forest and Climate Change (MoEFCC), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) announced the implementation of a project titled 'Development and Management of Nationally Appropriate Mitigation Actions (NAMA) in India' as part of the Indo-German bilateral cooperation. In order to achieve the overall project objective, that the Government of India starts using NAMAs as one mechanism to mitigate greenhouse gas emissions, MoEFCC has identified the sectors of waste and forest for the development of two NAMA concepts. The project also involves developing a robust MRV standards, including inventorising of the GHG gases.

In a more recent development, we are given to understand that in a congregation of representatives of organisations who have been drafted to develop India's third National Communication to the UNFCCC, along with the Biennial Report II and III to the UNFCCC, representatives from the MoEFCC have also formally invited organizations to participate in developing the "MRV" component of reports of the Ministry, encompassing all economic sectors and associated policies for mitigation.

3.4 A Quick Overview of What India Needs to be Prepared for in the Implementation of the Paris Agreement

In the light of the above, given the salient features of the Paris Agreement, some of the issues that India definitely needs to be prepared, despite the fact that it has already started to initiate a number of processes:

- a. A long term mitigation strategy that can help in keeping global temperature rise to 2°C, striving towards keeping it to 1.5°C.
- b. A National Adaptation Plan
- c. An institutional structure and mechanism that can help in ensuring adequate coordination with various ministries and departments of both the Central Government as well as the State Government to
 - I. Put together a long term strategy to address climate change that has both the adaptation as well as mitigation components
 - II. Plans for medium and short term periods that are in line with the long term mitigation and adaptation strategy
- d. An institutional structure and mechanism that ensure enhance transparency, such as
 - I. Mechanism to track and report various policies and programmes with a robust and credible data bank
 - II. Mechanism to create and generate greenhouse gas inventories on a frequent cycle, perhaps once in two years, which provides information for all sectors, all gases and also has disaggregated data for the states level.
- e. A mechanism to
 - I. Assess the financial requirements to implement programmes and strategies envisaged under such a long term mitigation and adaptation plan that can ensure keeping temperature rise to below 2°C and 1.5°C
 - II. Ensure and put in place plans that could result in the meeting the assessed financial requirements.
 - III. Regularly monitor/ track of the financial flows to various programmes envisaged under its long term mitigation and adaptation strategy in order to ensure timely implementation
 - IV. Ensure reporting of the financial requirements to the UNFCCC
- f. Assessment of capacity building requirements in addition to technology transfer
 - I. Identification of key areas where clean technology diffusion is required
 - II. Assessment of the costs of such technologies
 - III. Identification and assessment of key areas where India's capacities need to be built in order to be prepared to implement the Paris Agreement

3.5 Possible Gaps in the Current Arrangements for Implementing the Paris Agreement

The current institutional framework for climate change currently is very MoEFCC centric and with very little formal involvement of various ministries and departments of both the central government and state governments.

As highlighted in point 3.4, the Paris Agreement clearly requires to have institutional mechanisms that can ensure a wide range of compliance, from mitigation and adaptation actions to monitoring, reporting and verification processes.

While one could argue that a MoEFCC centric approach is not necessarily a hindrance to the implementation of the Paris Agreement, there clearly needs to be a strong coordination system, which currently does not seem to be there.

So, clearly, the current institutional and governance systems and processes definitely need to be re-examined and strengthened for ensuring effective implementation of the Paris Agreement.

3.6 Other Key Questions and Issues

The other key issues and questions that need to be looked into in the immediate period are

- a. Is our current NDC in line with the 2°C requirement and if not, the gaps
- b. In the line of the above, areas or sectors, where further actions could be taken in order to fill the gap in the NDC
- c. Assessment of financial requirements in order to do so
- d. Assessment of whether our current domestic finance could address some of the requirements
- e. Assessment of international climate financial flows required to address gaps in financing, if any
- f. Assessment of how much of these funds can come from public finance and how much of these can be leveraged through private finance and investment flows
- g. Assessment of policies required to leverage private financial flows
- h. Assessment of the current institutional capacities to implement the robust MRV framework that is envisaged in the Paris Agreement, that could potentially include increased frequency in reporting and GHG Inventories (perhaps one in two years), increased robustness of reporting (could perhaps be a Tier III approach of creating inventories), transparent tracking and verification process etc.

Conclusion

To conclude, India's state of preparedness to implement the Paris Agreement clearly needs to be enhanced. This is largely due to several gaps in policies, institutions and governance framework that require integration of climate and environmental concerns in to developmental processes. This is especially so in light of the fact that there are several developmental deficits to be overcome. However, these developmental deficits need to be overcome through a resource efficient pathway, which would also conform to meeting with the objectives of the Paris Agreement.

A separate Strategy Note is being prepared, that would suggest approaches, tactics and activities in addition to Strategies that could help to address the challenges of implementing the Paris Agreement and attaining the aspirational goals of the SDGs.

Annexure

Annexure 1: Schedule for Submissions for the First Intersessional Period in 2017

	Theme & precise scope	Date
Subsidiary Body for Implementation (SBI)	Gender	25-Jan-2017
	Views on matters to be addressed at the in-session workshop to develop possible elements of the gender action plan	
Subsidiary Body for Implementation (SBI)	Action for Climate Empowerment	25-Jan-2017
	Feedback on the organization of the 4th Dialogue on Action for Climate Empowerment and their views on the agenda for the 5th Dialogue	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Adaptation	25-Jan-2017
	Nairobi Work Programme on Impacts, Vulnerability and Adaptation: adaptation planning processes that address ecosystems and interrelated areas such as water resources	
Subsidiary Body for Implementation (SBI)	Technology Mechanism	25-Jan-2017
	Views on scope and modalities for the periodic assessment for the Technology Mechanism	
Ad Hoc Working Group on the Paris Agreement (APA)	Agenda Item 5: Transparency Framework	15-Feb-2017
	See Annexure 2 for detailed guiding questions	
Subsidiary Body for Implementation (SBI)	Loss and Damage	28-Feb-2017
	Views and relevant inputs on possible activities under each strategic workstream as contained in the indicative framework for the five-year rolling workplan of the Executive Committee, with a focus on workstreams (e), (f) and (g)	
Subsidiary Body for Implementation (SBI)	Observers' participation in the Negotiations	28-Feb-2017
	Information related to opportunities to improve the participation of observers to the UNFCCC process	
Subsidiary Body for Implementation (SBI)	Multilateral Assessment	1-Mar-2017
	Views on the revision of the modalities and procedures for international assessment and review on the basis of the experience gained in the first round of international assessment and review	
Subsidiary Body for Implementation (SBI)	Standing Committee on Finance	9-Mar-2017
	Views on the review of the Standing Committee on Finance based on the terms of reference contained in the annex	
Subsidiary Body for Implementation (SBI)	Capacity Building	9-Mar-2017
	Views on potential topics for the 6th meeting of the Durban Forum	
Subsidiary Body for Implementation (SBI)	Capacity Building	9-Mar-2017
	Views on the fourth review of the implementation of the framework for capacity-building in countries with economies in transition	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Non-market approaches	17-Mar-2017
	Views on, inter alia, the elements to be addressed, including their operationalization, in the decision on the work programme on the framework for non-market approaches to sustainable development defined in Article 6, paragraph 9, of the Paris Agreement, ¹ overarching issues, and relationships between Article 6, paragraphs 8 and 9, and other provisions of the Paris Agreement, the Convention and its related legal instruments, as relevant	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Sustainable Development Mechanism	17-Mar-2017
	Views on, inter alia, the elements to be addressed, including their operationalization, in the rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement, overarching issues, and relationships between Article 6, paragraphs 4–6, and other provisions of the Paris Agreement, the Convention and its related legal instruments	

Subsidiary Body for Scientific and Technological Advice (SBSTA)	Cooperative Approaches	17-Mar-2017
	Views on, inter alia, the elements to be addressed, including their operationalization, in the guidance referred to in Article 6, paragraph 2, of the Paris Agreement,1 overarching issues, and relationships between Article 6, paragraph 2, and other provisions of the Paris Agreement, the Convention and its related legal instruments, as relevant	
Ad Hoc Working Group on the Paris Agreement (APA)	Agenda Item 4: Adaptation Communications	30-Mar-2017
	See Annexure 2 for detailed guiding questions	
Ad Hoc Working Group on the Paris Agreement (APA)	Agenda Item 7: Compliance	30-Mar-2017
	See Annexure 2 for detailed guiding questions	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Platform for Indigenous and Traditional Knowledge	31-Mar-2017
	Views on the purpose, content and structure of the platform in order to inform the multi-stakeholder dialogue	
Ad Hoc Working Group on the Paris Agreement (APA)	Adaptation Fund	31-Mar-2017
	Views on the governance and institutional arrangements, safeguards and operating modalities for the Adaptation Fund to serve the Paris Agreement	
Ad Hoc Working Group on the Paris Agreement (APA)	Agenda Item 3: NDCs	1-Apr-2017
	See Annexure 2 for detailed guiding questions	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Research Dialogue	10-Apr-2017
	Possible topics for consideration at the research dialogue to be held at SBSTA 46 and beyond, taking into account the themes and presentations already addressed at previous research dialogue meetings and the themes suggested for future meetings	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Technology Framework	10-Apr-2017
	Views on the principles and structure of the technology framework	
Subsidiary Body for Implementation (SBI)	Adaptation	30-Apr-2017
	Views on the third review of the Adaptation Fund	
Ad Hoc Working Group on the Paris Agreement (APA)	Agenda Item 6: Global Stocktake	30-Apr-2017
	See Annexure 2 for detailed guiding questions	
Ad Hoc Working Group on the Paris Agreement (APA)	APA Process beyond May 2017	30-Apr-2017
Standing Committee on Finance (SCF)	Financial Mechanism	30-Apr-2017
	Views on the sixth review of the Financial Mechanism based on the guidelines contained in Annexure 2	
Ad Hoc Working Group on the Paris Agreement (APA)	Work of the APA	6-May-2017
	Call for observers: views and proposals on any work of the APA before each of its sessions	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Adaptation - Nairobi WP	20-Sep-2017
	Good practices, lessons learned and available tools and methods in the area of human settlements and adaptation, including on assessing sensitivity and vulnerability to climate change, integrating both short- and long-term climate considerations (including both extreme and slow onset events) into planning, the role of national governments in supporting adaptation at the local level and city-to-city partnerships on climate change...	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Adaptation - Nairobi WP	20-Sep-2017
	Adaptation actions and plans that could enhance economic diversification and have mitigation co-benefits	

Subsidiary Body for Scientific and Technological Advice (SBSTA)	Adaptation - Nairobi WP	20-Sep-2017
	Information on indicators of adaptation and resilience at the national and/or local level or for specific sectors	
Conference of the Parties (COP)	Green Climate Fund	ten weeks before COP
	Views and recommendations on the elements to be taken into account in developing guidance to the Green Climate Fund	
Conference of the Parties (COP)	Global Environmental Facility	ten weeks before COP
	Views and recommendations on the elements to be taken into account in developing guidance to the Global Environmental Facility	
Subsidiary Body for Scientific and Technological Advice (SBSTA)	Research and systematic observation	25-Jul-2018
	Views on the organization of subsequent Earth Information Days	
Conference of the Parties (COP)	Adaptation	3months before COP27
	Views on the progress, effectiveness and performance of the Adaptation Committee and on the review process	

Annexure 2: Detailed Guiding Questions for Submissions to Ad Hoc Working Group on the Paris Agreement

Agenda Item 3: NDCs

3(a) - Features of nationally determined contributions, as specified in paragraph 26

- What is the understanding of features of NDCs under this agenda item?
- What should be the purpose of further guidance on features under this agenda item?
- What is the relationship, if any, between further guidance on features of NDCs under this sub- item, and further guidance on sub-items 3(b) and 3(c)?
- How could this work be usefully structured and progressed?

3(b) - Information to facilitate clarity, transparency and understanding of nationally determined contributions, as specified in paragraph 28

- What is the understanding of information to facilitate the clarity transparency and understanding of NDCs under this agenda item?
- What should be the purpose of further guidance on information to facilitate the clarity transparency and understanding of NDCs under this agenda item?
- What is the relationship, if any, between further guidance on information to facilitate the clarity, transparency and understanding of NDCs under this sub-item, and further guidance on sub-items 3(a) and 3(b)?
- How could this work be usefully structured and progressed?
- What issues should be discussed and resolved under this sub-item?

3(c) - Accounting for Parties' nationally determined contributions, as specified in paragraph 31

- What is the understanding of accounting for Parties NDCs under this agenda item?
- What should be the purpose of the guidance on accounting for NDCs under this agenda item?
- What is the relationship, if any, between guidance for accounting for NDCs under this sub- item, and further guidance on sub-items 3(a) and 3(b)?
- How can Parties draw from existing approaches under the Convention and its related legal instruments?
- How could the work under this sub-item be usefully structured and progressed?
- What issues should be discussed and resolved under this sub-item?

Agenda Item 4: Adaptation Communications

views in relation to the adaptation communication, including, inter alia, as a component of nationally determined contributions, referred to in Article 7, paragraphs 10 and 11, of the Paris Agreement, taking into account the discussions on this item at this session as well as the annex of the informal note prepared by the co-facilitators

Agenda Item 5: Transparency Framework

- What should be the specific components of the modalities, procedures, and guidelines (MPGs) for the transparency of action and support under Article 13, paragraphs 7, 8, 9, 10, 11, and 12?
- How should the transparency framework build on and enhance the transparency arrangements under the Convention, recognizing that the transparency arrangements under the Convention shall form part of the experience drawn upon for the development of the MPGs?
- With respect to the MPGs, how should flexibility for those developing countries that need it in the light of their capacities be operationalized?
- What other elements should be considered in the development of the MPGs, including, inter alia, those identified in paragraph 92 of decision 1/CP.21?

Agenda Item 6: Global Stocktake

Linkages and context

(a) How to understand and assess collective progress towards achieving the purpose of the Paris Agreement and its long-term goals? How will this be done in a comprehensive and facilitative manner considering mitigation, adaptation and means of implementation and support, and in the light of equity and the best available science?

(b) How to increase understanding of the linkages between Article 14 and other articles of the Paris Agreement, which are directly or indirectly linked to the global stocktake (GST)?

Sources of input

(c) How to capture information relevant for assessing collective progress towards achieving the purpose of the Paris Agreement and its long-term goals from different sources of input in a comprehensive, manageable, and balanced manner among all elements, including but not limited to, adaptation, mitigation, and means of implementation and support?

Modalities

(d) What modalities will ensure that the GST will be facilitative, open and inclusive but also efficient and effective? How will the information that is reported and communicated be processed?

(e) How will the CMA be assisted in conducting the GST? What bodies and processes are linked to the GST and in what way?

(f) What could be the most appropriate timeline for the GST? What could be its phases and streams, if any?

Outcome/outputs

(g) How to ensure that the outcome of the GST would inform Parties in enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of the Paris Agreement, as well as in enhancing international cooperation for climate action.

(h) What information will support this outcome?

Agenda Item 7: Compliance

In the light of Article 15 of the Paris Agreement and paragraphs 102 and 103 of decision 1/CP.21 Parties are invited to:

(a) Specify the modalities and procedures required for the effective operation of the committee referred to in Article 15, paragraph 2, of the Paris Agreement;

(b) Elaborate elements that could be addressed through such modalities and procedures; and

(c) Share their views on how to take the work further under this agenda item in order to ensure that the APA can fulfil its mandate in accordance with decision 1/CP.21, paragraph 103.

Annexure 3:

Timelines and Submissions Specific to Ad Hoc Working Group on the Paris Agreement

	15-Feb-17	9-Mar-17	30-Mar-17	1-Apr-17	30-Apr-17	6-May-17	8-18 May 2017
							BONN
APA							
APA Item 3: NDCs				Submissions		Roundtable (closed)	
APA Item 4: Adaptation Communications	Secretariat Information		Submissions		Compilation of Submissions	Workshop	
APA Item 5: Transparency Framework	Submissions		Workshop (date tbc)		Report (prior to Bonn)		
APA Item 6: Global Stocktake					Submissions		
APA Item 7: Compliance			Submissions				
APA Item 8: Further Matters							
APA Process beyond May 2017					Submissions		

Submissions are only invited from parties but observers are invited to provide views and proposals on any work of the APA before each of its sessions.

