

ENHANCING PRE 2020 ACTIONS AND AMBITIONS

COP 22 Side Event at India Pavillion on 14th November at 3 pm

Brief for the discussion

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Context and the background

COP 22 at Marrakech begins on 7th November 2016. The Paris Agreement adopted last year comes into force dramatically in less than a year on 4th November. The Marrakech COP has been billed an “Action COP,” and is expected to develop the rulebook for implementation of the Paris Agreement. Various discussions and decisions related to modalities, procedures and guidelines for transparency framework for action and support, information on the NDCs, global stock take, climate finance and pre 2020 actions are expected to take up and decisions arrived at. Pre 2020 actions and climate finance are particularly significant for developing countries.

Pre 2020 actions generally refer to the range of actions under mitigation, adaptation, finance, technology development and transfer and capacity building to be taken before 2020. COP 17 at Durban unfolded a process to make a new and universal climate agreement which will be ready by 2015 and will enter into force in 2020. All countries were expected to contribute when the new agreement was supposed to enter into force. It was expected that the new agreement replacing the Kyoto Protocol will be valid from 2020, and the parties underscored the need for action before 2020. Therefore, Doha COP (2012) adopted an amendment in the Kyoto Protocol, making provision for the second commitment period of the Kyoto protocol valid from 2013 to 2020.

Doha Amendments included new emission reduction targets for A1 countries who agreed to take on commitments for the second commitment period (SCP or CP-2 or KP-2) from 2013 to 2020, and added Nitrogen Tetrafluoride (NF₃) to the list of the GHGs to be reported by the parties. The SCP asks the parties to reduce emission on an average by 18% over 1990. The countries emission reduction range between -0.5% to -24% as compared to their 1990 emissions. The Doha Amendments will enter into force on ninetieth day when 3/4th 1(44) parties of the KP ratify the Amendments. As on 26th October, only 71 countries have ratified Doha Amendments.

As of now, SCP covers less than 15% of the global GHG emissions. Despite requests by the UNSG, countries are slow to ratify Doha Amendments. Many of the countries including G-77 consider enhancing pre 2020 ambition for a successful implementation of the Paris Agreement and have been asking developed countries to declare their enhanced pre 2020 ambition as early as possible. Of the 37 countries having binding commitments in CP1 only 7 have ratified Doha Amendments. USA, Japan, New Zealand and Russia have declared their intention not to accept the Doha Amendments, Canada has withdrawn from the Kyoto Protocol and Australia declared a ridiculously low target (5% below 2000 by 2020).

With the prospects of early entry into force of the Paris Agreement, many countries view Paris Agreement as a separate agreement under the UNFCCC. However, developing countries have argued Paris agreement does not replace the Kyoto Protocol and the UNFCCC and all countries should also ratify Doha Amendment to the Kyoto Protocol and they cannot abandon their commitments under SCP2 even in case of early entry into force of the Paris Agreement.

Developing countries have been demanding a roadmap on pre 2020 actions and road map to achieve USD 100 billion by 2020. Developing countries have been also asking developed and industrialized countries to ratify Doha Amendments.

What science demands

Green house gases emissions reached 52.7 Gigatonnes (billion tonnes) COP22 in 2014. A large contribution to this is the emissions from fossil fuel and industries, which stood at 35.5 gtcO₂ for 2014. Since 2012 the CO₂ emissions have stalled. That is a very good news but International Energy Agency warns that the emissions will increase through 2050. There is a direct relation between carbon (and Green House Gases) emission and rise in temperature. A 2 degrees Celsius rise in temperature (as compared to preindustrial times) is considered manageable. To hold the rise below 2 degrees Celsius, the carbon concentration in the atmosphere has to be limited at 450 ppm (parts per million) and hence reduction in carbon emission is required. However, even a 2 degree rise in can be very harmful for the island states due to resulting sea level rise. It might also translate to more than 2 degrees Celsius for various regions in the world. Rise beyond two degrees Celsius can be catastrophic. 5th Assessment Report of the IPCC estimated that to hold the temperature rise below 2 degrees Celsius we must not put more than 1000 Gigatonnes (billion tones) of carbon dioxide and other gases by 2100. It implies that global carbon emissions have to be reduced to net zero (all global emissions neutralized by forests, land and water, which work as sinks for emissions) between 2060 and 2075 and the emissions will have to reduced to 42 gtcO_{2e} by 2030. To be able to hold temperature rise at 1.5 degrees Celsius net zero emissions will have to be achieved earlier, say by 2050 and emissions will have to be reduced to 39 GtcO_{2e} by 2030. It will obviously require earlier and steep reduction through more stringent actions.

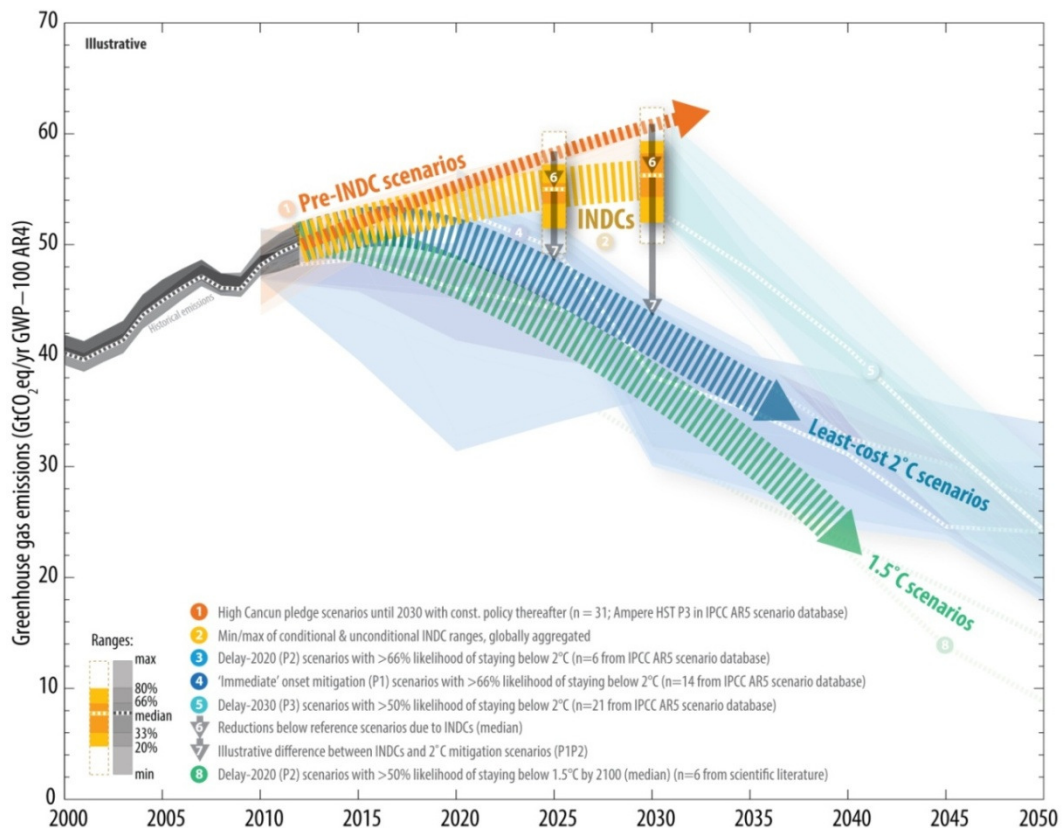
The Paris Agreement and the emission Gap

The Paris Agreement adopted last year and coming into force this year determined to make efforts to hold the rise in temperature well below 2 degrees Celsius and pursue ambitious efforts to hold it at 1.5 degrees Celsius. All the countries have given pledges to reduce their emissions post 2020 known as Nationally Determined Contributions (NDCs) towards this end. These pledges provide both unconditional actions (which the countries will do on their own) and conditional actions, which they will undertake on the condition of finance, technology and capacity building made available by the developed countries. An analysis by UNEP (based on the 119 pledges covering 146 countries and 85-88% of the global GHG emissions in 2012) shows that though NDCs collectively show an increase in ambition level as compared to business as usual; but they are insufficient to hold the rise in temperature below 2 degrees Celsius. The full implementation of the unconditional pledges will take the emissions levels to 56 GtcO_{2e} in 2030, which still leads to a 3.5 degrees rise in temperature by the end of the century. The

emission gap with full implementation of the conditional pledges is 14 Gtco2e in 2030 and 7 gtco2e in 2025. Even after including the implementation of the unconditional pledges, the emission gap in 2030 remains at 12 Gtco2e and 5 Gtco2e in 2025 (UNEP 2015). This clearly calls for more ambitious efforts on the part of all countries led by developed and industrialized countries.

A recent report by the UNFCCC secretariat, says that the emission levels resulting from the aggregate effect of the INDCs are expected to lead in 2030 to an estimated level of 55 GTCO2e in contrast to 42GTCO2, the level consistent with least cost 2 degrees Celsius pathways. (SPM, UNFCCC, Oct 2016). A recent report also suggests a gap of 16.1 Gt in 2025 and 22.6 GT in 2030 (FCCC/CP/2016/2)

Table 1: Aggregate effect of the INDCs



Source: UNFCCC, 2015

What is happening in pre 2020 ambition

The prospect of early entry into force of the Paris Agreement has led countries to believe that ratification of the Doha Amendments and second commitment period has become redundant. Pre 2020 ambitions are increasingly being outsourced to NON-UNFCCC processes. Increasing research and literature are focused on sectors outside the UNFCCC. The prominent among these are Aviation emission (under ICAO), HFCs phase out (under Montreal Protocol), shipping emissions (under IMO), International cooperation Initiatives (ICIs including C40 cities climate

leadership group, the compact of mayors and cement sustainability initiatives) and other non state actors initiatives etc. The outcomes from Kigali Meeting on the Montreal Protocol and Global Market Based Mechanism adopted at the ICAO Convention should provide momentum to Marrakech COP. UNEP estimates that ICI initiatives have a potential to reduce 2.5 to 4 GtCO₂e by 2020. However, there may be overlap between these non state initiatives and the governments pledges (INDCS) between 33 and 70 per cent (UNEP 2015). However, these processes remain important and can work as great enabler in reducing the emission gap. What is missing in the pre 2020 actions till now is action by sovereign states and especially developed and industrialized countries. They remain non committal on declaring and enhancing their pre 2020 mitigation action or pre 2020 finance. UNEP states that “It is still possible to keep the rise in temperature below 2 degrees Celsius even if no actions are taken before 2020, however, in that case, risks, costs and dependence on untested technologies will increase many times.” No action before 2020 will almost make holding the rise in temperature at 1.5 degree Celsius physically and financially impossible. Annex 1 countries must ratify Doha Amendments and take up CP2.

Emission Gap in 2020, what and where is the potential

UNEP emission gap report (2013) finds a gap of 12 GT in 2020 between expected emissions and 2 degree Celsius pathways. There significant information on the emission reduction potential by 2020 provided by IAE, IPCC, TEM, UNFCCC and MDBs. UNEP has been brining emission gap report since 2013 emphasizing high potential areas. World Energy Outlook, Redrawing climate and energy map (IEA, 2013) estimated a total reduction potential of 1500 mtCO₂ in 2020 in industrial motors, appliances and lighting, and heating and cooling (30% in each sector) and road transport (10%), which can be realized with an additional investment of USD 900 billion. UNEP also estimated a reduction potential of 2200 to 3900 mtCO₂e in energy supply sector by 2020, which includes all possible actions (CCs, REN, EE in fossil fuels, fuel switch (coal to gas). The option to limit the construction and use of least efficient coal fired plants alone stand to 640 MtCO₂e, which includes potential in China (30%), US (25%), India (10%) and EU (10%) (UNEP 2013). The IEA also highlighted methane emission from the upstream oil and gas industry. The current global emission from this sector range between 1 to 1.6 GtCO₂e and can double by 2020. 570 MtCO₂e can be reduced by 2020 by decreasing venting and by improving flaring efficiency in oil/gas fields. Large reduction in this sector can be possible in the Russia, Middle East, Africa and the USA on with relatively smaller additional finances up to USD 20 billion. (IEA, 2013).

An assessment of the potential mitigation impact of scaling up proven low carbon solutions done by Ecofys, argued that replicating these low carbon technologies alone could save emission up to the tune of 9-12 GtCO₂e (with an uncertainty of 20%). This alone is equal to 60% of the emission gap to least cost 2 degrees pathways by 2030, with an average abatement cost between USD 8.12 billion in 2025 and USD 38.5 billion in 2030.

IPCC 4th Assessment report identifies huge emission reduction potential up to 23 GtCO₂ by 2030 beyond INDCs in energy efficiency, industries, buildings and transport, and forests, agriculture and waste.

Other parallel efforts also being made to reduce emissions. The International Civil Aviation Organization, a UN agency (based in Montreal, Canada) looking into aviation safety and environmental pollution agreed to take up a programme to reduce aviation emission from 2021 onwards. Initially, countries will join this programme voluntarily in two phases (2021-2023 and 2024-2026); however, beginning 2027 all countries will be on board to reduce their aviation emissions. Aviation emissions are not covered under the Paris Agreement. It contributes less than 3% of total global emissions, however, it's projected to rise sharply in the coming decades as flying becomes more affordable.

It is still possible to achieve 2 degrees target even if no additional efforts are made till 2020, however, in that case, besides reducing emissions, huge forest sinks have to be created. It will also increase significantly the reliance on nuclear energy, carbon capture and storage and bio-energy combined with carbon capture and storage. Large-scale deployment of these technologies is still far from feasible. Expedited and enhanced efforts in ensuring emission reduction before 2020, will increase the possibility of achieving 2 degrees target. No additional efforts till 2020 will make it almost impossible to achieve 1.5 degrees target.

Pre 2020 finance, technology and capacity building

There is also a huge gap in the expectations of the developing countries and delivery of the promised pre 2020 finance and other means of implementation by the developed countries. While the self declaration by the developed countries and the OECD data says that they are mobilizing the promised amount of financial assistance, developing countries contest this and insist that there is very little new and additional finances. They allege that finance figures are plagued by double counting, inclusion of the ODA and humanitarian assistance and demand more transparency and accountability in financial assistance being provided. Biennial Assessment of the overflow of climate finance (UNFCCC, 2016) says that in 2014 the financial mobilization was up to the tune of USD 26.6 billion, of which less than 30% went to adaptation. However, a report brought out by Australia and the UK (based on the OECD/DAC data) claims that it was USD 62 billion.

Conclusion

Lack of action by the developed countries pre 2020 impedes climate action in two ways. One that developed countries themselves are failing to do enough to bridge the emission gap, and secondly, lack of pre 2020 finances also hampers climate action in the developing countries. The costs of mitigation and adaptation will rise manifolds in the high emission scenario post 2020 jeopardizing the successful implementation of the Paris Agreement.

In the light of this huge emission reduction potential, the side event will call the UNFCCC and the developed countries to enhance their ambitions pre 2020, declare a road map with milestones to meaningful pre 2020 action and finances, and establish balance the support provided between mitigation and adaptation.