

## Workshop reveals low ambition in emission reduction pledges of developed countries

Bonn, 5 August (Hilary Chiew, Dale Wen and Meena Raman) - A workshop on the scale of emission reductions to be achieved by Annex 1 Parties under the working group of the Kyoto Protocol in Bonn, revealed the low level of ambition in the pledges of developed countries which are compounded even further by 'loopholes' that could potentially lead to an increase in emissions by 2020, based on 1990 levels.

Several presenters showed that the nominal aggregate of the pledges of Annex 1 Parties (including the United States) amount to only a 12-18% reduction in emissions compared to 1990 levels, when developing countries have called for more than 40% reductions by 2020. The loopholes alone could account for around 21% of emissions, thus effectively neutralizing Annex I Parties emission pledges, and potentially allowing emissions to rise above 1990 levels by 2020.

Developing countries and experts from organisations stressed the need for much higher ambition in the emission reduction targets of Annex 1 Parties and the closure of loopholes as indicated by science and equity.

Japan opposed the establishment of an aggregate target for developed countries and Russia wanted more flexibilities. These developed countries also stressed the need for all "major emitters or economies" to undertake ambitious targets in reducing emissions as well.

India stressed the need for equity-based rules in sharing the carbon space.

The workshop held on 2-3 August was chaired by Mr. Leon Charles from Grenada and Mr. Jurgen Lefevere of the European Union, who are co-chairs of the contact group on the scale of emission reductions by Annex 1 Parties. This is one of three contact groups under the Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol (AWG-KP).

Presenters at the workshop included India, the Alliance of Small Island States (AOSIS), Bolivia, Japan, Russia, the EU and Switzerland as well as from organisations and experts from both developed and developing countries. Highlights from the workshop are presented below.

**India's negotiator Dr. Ajay Mathur** made a presentation entitled "*Equity and Global Carbon Budgets – A Framework for Sharing of the Global Carbon Space*".

Mathur said that various academic researchers in India are working on frameworks to operationalize the principle of sharing of carbon space based on science and equity. His presentation outlined the approach and provided some illustrative results and emerging conclusions.

According to Mathur, the goal was to develop a framework for a just, equity-based partitioning of the global carbon space in order to restrict temperature rise to less than 2 degree C. He said that CO2 emissions have a dual character both as a "global warming agent" and a "development necessity", thus there is a trade-off.

"Equal per capita cumulative share is a viable ethical basis for sharing the commons. Nature also imposes a global carbon budget, and all countries should work together to live within this budget," he added.

While there can be discussions about which year should be taking as the starting point for accounting of carbon stock, it is clear that the global carbon space has been over-occupied by the developed nations.

"Annex 1 Parties accounted for 18.7% of global population, but they have occupied 73.8% of the carbon space since 1850," said Mathur. "The consequence of over-occupation means that in terms of entitlements, developed nations have now negative entitlements into the future," he added.

Mathur said that there was need for “equity-based rules for the sharing of carbon space”, adding that. “Rule 1 is that countries cut ‘luxury emissions’ if their current share of emissions is more than their fair share. Countries are allowed ‘development’ emissions if their current share of emissions is less than their fair share of carbon space”.

“There will be reduction in emissions even for developing countries if they can reach fair share at the end of the time period. No country is allowed to cross their fair share of total carbon space (of stock and flow). The objective of this is to minimize the deviation from fair share,” he explained.

“Rule 2 is that total global emissions for 2000-2050 and 2051-2100 is restricted by a global carbon budget and the objective is to minimise the deviation from the global budget,” he said further.

According to Mathur, “rule 3 is that countries with per capita cumulative emissions above a specified threshold have to cut their emissions and the objective is to minimise deviation of per capita cumulative emissions from a specified threshold.”

He said that there were major policy implications of this.

“The allocation or utilisation of carbon space cannot be determined by a single party alone (within a budget if one gains and the other loses). It is necessary to distinguish between allocations or entitlements and physical access to carbon space,” he added.

“A key feature is the over-occupation of global carbon space by developed nations. The consequence of over-occupation is that developed nations now have negative entitlements into the future. The over-occupation has restricted the physical availability of the carbon space to developing nations and the need to observe a global carbon budget restricts developing countries from realising their full entitlements,” said Mathur.

When questioned by some Parties on what is meant by “negative entitlement”, Mathur said that this implies that the fair share of carbon space by the developed country is long gone.

“It could well mean that political agreement has to provide for developed countries to pay for future emissions, and this could be the basis for future agreement. Negative entitlement indicates that future emissions from countries which have emitted more than their fair share can only be allowed if there is a transfer of resources to address the climate crisis,” he explained.

**Mr. Jun Arima, Deputy Director-General for Environmental Affairs from the Ministry of Economy, Trade and Industry of Japan** said that it is inappropriate to emphasise that Annex I Parties must hit a specific range of reductions by 2020 to achieve the 2 degree C target of limiting temperature rise, and that there is more than one pathway to achieve that target.

On the question of how Parties assess the current level of pledges and the scale of emission reduction by Annex I Parties in aggregate, Arima said there could be multiple long-term pathways to the 2 degree C target.

He said further that the 25 to 40% reduction from 1990 levels by 2020 is scientifically arbitrary as it was not an IPCC (Inter-governmental Panel on Climate Change) conclusion or recommendation and its’ political feasibility or economic consequences had not been considered.

“Science can tell us of the cumulative global emissions driving atmospheric concentration levels but not the emission reduction by any one country or group of countries in any given year,” he added.

He said that Japan’s 25% emissions reduction pledge is inscribed under the Copenhagen Accord and not in the context of an amendment to Annex B of the Kyoto Protocol.

Arima added that most of the high end Annex I Parties’ pledges are premised on actions from Annex I Parties that are not in the Protocol (referring to the United States) as well as other major economies. Japan’s emissions target is “premiered on the establishment of a fair and effective international framework with the participation of all major economies and the agreement of ambitious targets,” he said.

“Setting top-down aggregate emission reduction targets which are then allocated among individual Annex I countries is not pragmatic as those targets need to be acceptable by the general public in each country taking into account its achievability,” he said further.

According to Arima, “there will be no consensus on indicators to be used for ‘allocation’ (of targets).” He said further that the pledges by Annex I and non-Annex I Parties that are inscribed under the Copenhagen Accord should be discussed further in the context of establishing a global deal and should be conducted in the Ad-hoc Working Group on Long-term Cooperative Action under the UNFCCC.

**Dr. Sivan Kartha from the Stockholm Environment Institute** spoke in the same session as Japan. He assessed the level and transparency of pledges by Annex 1 Parties.

He said that the nominal aggregate of the pledges amount to a 12-18% reduction compared to 1990 baseline, in comparison with a business-as-usual projection of that which is 1% below 1990 levels by 2020. He acknowledged that this “represents a non-trivial amount of mitigation, but in order to assess the pledge transparently, we need to compare it to the level science demands, as well as to consider how these pledges will be complied (with) and whether it leads to real mitigation.”

“The minus 12-18% pledges fall short of the 25-40% Annex 1 target suggested in the IPCC, which is associated with a somewhat higher than 50% risk of exceeding 2 degree C, and which itself falls short of satisfying the requirement of the approximately 100 Parties who have specified 1.5 C degree limit on global warming,” said Kartha.

Regarding the issue of compliance in meeting with their mitigation targets, Kartha presented data regarding diverse alternatives which are available to Annex 1 Parties in place of real mitigation according to the current rules under the Kyoto Protocol, including the carry-over of surplus AAUs (Assigned Allowable Units), CERs (Certified Emission Reductions), and RMUs (Removal Units), LULUCF (land use, land-use change and forestry) accounting, non-additional CERs and bunker fuels.

Kartha said that “surplus AAUs from the first commitment period amount to 9-13 gigatonne (Gt) CO<sub>2</sub> according to estimates of different research institutes. Surplus Clean Development Mechanism carryover CERs for the first commitment period amounts to 1Gt.

“Surplus first commitment period LULUCF RMUs amounts to 1Gt CO<sub>2</sub>, while LULUCF accounting may weaken the target further by 0.4 Gt CO<sub>2</sub>/year with inflated land-use baselines for Annex 1 countries.

“Bunker (international aviation and marine) fuels, which are not currently covered by Kyoto Protocol, are projected to lead to further emissions of 0.4 Gt CO<sub>2</sub>/year by 2020 based solely on growth in Annex 1 consumption. Non-additional CDM CERs is estimated to be 0.2 Gt/year.”

One thing that Kartha said he did not take into account was the likely generation of surplus AAUs in the second commitment period, which can be created in significant amounts depending on how the current pledges are

translated into QELROs (quantified emission limitation and reduction objective).

His presentation showed these alternatives to mitigation amount to a 21% diminishment of the pledged reductions, based on conservative assumptions. He pointed out that this would allocate much more of the remaining emission space to Annex 1 Parties than is even required by their business-as-usual projection: the lower end of the pledges, of 12% below 1990 levels is weakened to 9% above 1990 levels. Even the higher end of their pledges, weakened to 3% above 1990 levels, and lies above the projected business-as-usual emissions. He pointed out that unless these alternatives to real mitigation are largely eliminated, it would mean that Annex 1 Parties would have easy access to surplus which can be carried over to the third commitment period without real mitigation.

His main conclusions were: (i) Annex 1 targets must be strengthened. The current 12-18% pledges is on a 3.5°C temperature path; and (ii) the Kyoto Protocol provisions and methodologies must be changed to ensure compliance with targets that are achieved through real mitigation during the second commitment period.

**Dr. William Hare from the Potsdam Institute** said that the global limit for a 2 degree C temperature level in 2020 is 44-45 Gt carbon dioxide equivalent per year (GtCO<sub>2</sub>-eq/yr).

“Present estimates of pledges of all, including non-Annex I Parties inscribed under the Accord, add up to 48 to 53 GtCO<sub>2</sub>-eq/yr. This is a gigatonne gap which is being confirmed by other research institutions,” he added.

According to Hare, analyses showed that the ‘raw targets’ of Annex I Parties is between 15.5 to 16.5 GtCO<sub>2</sub>-eq/yr and its “effective target with carryover’ - which means increase in allowed emission in 2020 is about 18.5GtCO<sub>2</sub>-eq/yr.

“According to the IPCC’s 4th Assessment Report, to stay below 2 degree C, the emission level of Annex I should be between 11 and 14 GtCO<sub>2</sub>-eq/yr excluding credits from LULUCF. In percentage terms, Annex I Parties’ effective reduction is between 12 and 18% below 1990 level, which is below the IPCC estimates of the 25 to 40% emission reductions required,” said Hare.

“While many pathways seem to be logical as argued by some Annex I Parties,” Hare said that, “we are dealing with a physical system.” “What is logical may not be physical - one has to look at the physics of the problem as well as economics of the problem,” he added.

**Mr. Rob Dellink, economist and policy analyst from the OECD** made a presentation titled “*Costs and effectiveness of the pledges for emission reduction for Annex 1 Parties*”. He acknowledged that pledges for 2020 are not ambitious enough for the long-term goal of keeping temperature rise below 2 degree C. With the current pledges, emissions may stabilise, but CO2 concentrations will not, implying temperature will not stabilise. It means significantly more action is required after 2020 at higher costs. Thus it is not economically rational to delay reduction efforts until some future date, he said.

The **European Union** also presented scenarios of cumulative emission reductions relative to baseline from 2013 to 2020 for Annex 1 Parties. The data showed that if the surplus AAUs from the first commitment period were fully used, together with the existing LULUCF accounting rules, Annex 1 Parties countries would be allowed higher emission levels compared to 1990 levels.

**Ms. Dinara Gershinkova of Russia** gave a presentation and said that it was looking for a more adequate and equitable accounting rules going into the future. She explained that in the current context of negotiations, it means it is looking for the establishment of reference levels for carbon sinks where the baseline year would be 1990, avoiding additional caps or discount factors for its carbon sinks and possibility to exclude emissions caused by extreme natural events from being accounted.

She said the country’s announced target of 15% to 25% of emission reductions from 1990 level by 2020 is in line with the Copenhagen Accord commitment, adding that the range of emission reductions will depend on the appropriate accounting of the potential of Russian’s forestry as a contribution in meeting the obligations of anthropogenic emission reductions and the assumption that all major emitters will have legally-binding obligations.

Russia, she said, occupied the 5th position in a list of top 25 carbon dioxide emitters in 2009 that included other major economies. She said the emissions of those major economies (like China and India) will grow significantly and the share of developed countries will shrink. “That is why non-Annex I Parties that are major economies are encouraged to participate in a global emission reduction plan,” she added.

Gershinkova said Russia would like to see coherence in negotiations between the AWG-KP and the Ad hoc Working Group on Long-term Cooperative Action (AWG-LCA).

“Russia would like to retain the use of surplus for the next commitment period in accordance with Article 3.13 of the Kyoto Protocol as well as carryover of other credits,” she added.

**Albert Binger of Grenada, representing the Alliance of Small Island States** said in his presentation that the group was really concerned about the prospect of the inclusion of ‘hot air’ that will be carried over from the first commitment period into the second commitment period.

The AOSIS scientific advisor said that the inclusion of the surplus Assigned Amount Units (AAUs) and the adoption of a liberal accounting of emissions from LULUCF would mean that we are basically running on a treadmill (not getting anywhere close to actual reduction or retaining status quo on reduction).

Binger said there was need for at least a 45% reduction from 1990 levels by 2020 to keep temperature rise below 1.5 degree C in order for the island states to survive. He also requested Annex I Parties with surplus of AAUs to let go of the units and not to carry them over to the next emission reduction phase.

Analysing data submissions from Parties on LULUCF, he said removing carryover of surplus AAUs from the first commitment period to the second commitment period would provide a reduction of 1,200 MtCO<sub>2</sub>-eq/yr or effecting a 11 to 15% emission reductions from 1990 levels.

“If Parties agreed to removing LULUCF credits, that would result in 790MtCO<sub>2</sub>-eq/yr or between 16 and 19% of emission reductions in 2020 from 1990 levels,” he added.

Binger said the best way to improve the level of ambition is for Parties to move to the top of their pledges announced so far, adding that even then, “we are still a long way from meeting the AOSIS demand”.

Outlining the possible options to address surplus AAUs, he said they could be divided into the supply and demand side for the credits. On the supply side, he urged Parties not to request for carryover as provided by Article 3.13. But if carryover is permitted, the volume should be capped where any additions to assigned amount shall be limited to a certain percentage of Parties’ assigned amount in the preceding period.

“Parties should also limit the purpose for which carryover may be used, for example, only for domestic use in immediate subsequent commitment period and up to a certain percentage of its commitment. Substantial

levy or discounting should be placed on transfer of such carried-over AAUs.”

On the demand side, Binger said Parties could agree not to purchase carried-over AAUs, implement far stricter Annex I targets, place substantial levy on acquisition and restrict use of acquired AAUs.

**Lim Li Lin of the Third World Network** in her presentation said that “the scale of emission reductions so far pledged by Annex I Parties – i.e. their level of ambition collectively and individually – is to be evaluated against the relevant provisions of the Convention and its Kyoto Protocol to ensure it is consistent with the principles of equity and common but differentiated responsibilities, and contributes adequately to the objective of avoiding dangerous warming. This requires an approach that is principled, fair and science-based.”

“Annex I Parties must also reduce emissions in practice, and not merely on paper. Consequently, a range of loopholes established by the Kyoto Protocol must be closed to ensure that emissions are reduced in fact and not merely in national accounts. And new pitfalls must be avoided. The current pledges, combined with current and potential new loopholes, are well below what is required and lack credibility. A major effort will be required to get the Kyoto negotiations back on track,” she added.

Lim said that, “A large gap exists between the pledges of Annex I Parties, and the scientific and equitable aggregate scale of emission reductions required of Annex I Parties in the 2nd commitment period. Enhancing the scale of emission reductions of Annex I Parties requires a principled, fair and science-based approach. This would involve first determining the aggregate target guided by considerations of science and equity, and subsequently apportioning the task to individual Annex I Parties. A paradigm shift is needed to address the urgency and seriousness of the climate change problem.

“The problem of grossly inadequate emission reductions by Annex I Parties in the 2nd commitment period is compounded by the fact that serious and large ‘loopholes’ exist that erode Annex I Parties’ emission reductions even further, and may actually increase their emissions compared to 1990 levels.

“Loopholes, in this sense, are means by which Annex I Parties’ can comply with their emission reduction commitments without having to reduce their domestic emissions. They involve accounting for some but not all sectors, using inadequate accounting rules, or using other means to increase emissions without counting them or otherwise shifting the burden of mitigation to developing countries.”

Lim said that there are at least four categories of loopholes that involve LULUCF accounting rules; market-based mechanisms; surplus AAUs (“hot air”) and international aviation and shipping (“bunker fuels”).

“All of these loopholes combined could total around 21% by 2020 – thus effectively neutralizing Annex I Parties emission pledges, and potentially allowing emissions to rise above 1990 levels by 2020. The inadequate pledges by Annex I Parties (17-25% from 1990 levels by 2020; and 12 to 18% if the United States is included), combined with the loopholes, give rise to a major gap in terms of mitigation – and credibility,” she further said.

“The scale of Annex I Parties’ pledges must rise, and the loopholes must be closed, in order to ensure the integrity and credibility of Annex I Parties’ aggregate emission reductions. To address this, a systematic study and accounting of each of these loopholes, and their combined effect, must be carried out immediately to determine their implications for the level of actual domestic emission reductions to be achieved by Annex I Parties in aggregate, and the associated impact on burden sharing by non-Annex I Parties. The loopholes must then be closed through appropriate decisions in Cancun. Alternatively, the aggregate emission reduction commitments of Annex I Parties for the 2nd commitment period should be increased by the sum of the loopholes,” she added.