



Submission by Latvia and the European Commission on behalf of the European Union and its 28 Member States

This submission is supported by Bosnia and Herzegovina, Montenegro and Serbia.

Riga, 28 May 2015

Subject: 2013-15 Review of the Long Term Global Goal

Introduction

The European Union and its Member States welcome the opportunity to respond to the conclusions of the SBSTA and the SBI inviting Parties to submit to the secretariat their views on:

- (a) Any other information or gaps in information relevant to the 2013–2015 Review, in accordance with decision 2/CP.17, paragraph 161, decision 1/CP.18, paragraph 84, and paragraph 132 of the conclusions of SBSTA 39;
- (b) Their views on the adequacy of the long-term global goal in the light of the ultimate objective of the Convention and the overall progress made towards achieving the long-term global goal, including a consideration of the implementation of the commitments under the Convention

Taking into account the work of the SED and being mindful of decision 1/CP.18, paragraph 91.

General comments

The EU would like to thank the Co-Facilitators of the Structured Expert Dialogue (SED) and the Secretariat for their excellent work and organisation of the SED process. This process delivered a balanced consideration of the evidence in line with the mandates given by the SBSTA/SBI and the COP. We would also like to express our appreciation for the production of a final factual report, comprising a compilation and a technical summary of the summary reports on the meetings of the SED. We consider that the final factual report, together with a compilation of the Party submissions requested in the SB conclusions to their 41st Session (SBSTA 41 paragraph 54, SBI 41, paragraph 117) fulfils the mandate given in decision 1/CP.18, paragraph 86b to assist the subsidiary bodies with the preparation and consideration of the synthesis reports on the review.



Summary of the key outcomes from the 2013-15 Review

The key messages that the EU has taken from the Structured Expert Dialogue are that:

- I. We are on a collective greenhouse gas emissions pathway to significantly exceed a 2°C global temperature increase.
- II. Keeping the temperature increase below 2°C is challenging but achievable. It requires a large-scale transformation, particularly in energy systems.
- III. Early and ambitious action is essential; delaying action will increase climate risks and costs and may take the below 2°C goal out of reach, and
- IV. If we do not transition to a below 2°C pathway, there is high risk of a collective loss of ability to manage and adapt to the impacts of climate change at a global level.

Keeping the temperature rise as small as possible is the best way to minimise this risk.

The basis for our assessment is the evidence provided by experts to the Structured Expert Dialogue (SED) and summarised in the reports provided by the SED's Co-Facilitators. In line with Decision 1/CP.17, paragraph 6, the EU would like to stress the importance of the Ad Hoc Working Group on the Durban Platform for Enhanced Action being informed by the 2013-2015 review. In this context the EU wishes to highlight the following issues which were considered in the SED.

Globally we are on a pathway to significantly exceed 2°C

The information provided by the IPCC and presented during the SED shows that emissions of greenhouse gases (GHGs), particularly carbon dioxide, accelerated for the period 2000-2010. This increase is mainly due to increases in energy-related carbon dioxide emissions. The drivers of this increase have been outlined by the IPCC, which has highlighted a worrying reversal of the long term decarbonisation trend.

Evidence provided to the SED from the IPCC and other international organisations, including UNEP and IEA, showed clearly that current policies and investment patterns are not consistent with a global pathway to below 2°C. Without additional mitigation, global temperatures could rise to 4°C or more by the end of the century relative to pre-industrial levels.

The IPCC has clearly shown that the level of global warming depends on cumulative CO₂ emissions. If emissions continue at current levels then we will exceed the level of cumulative emissions consistent with a likely chance of limiting warming to below 2°C well before the middle of this century and achieving the long term global goal may become unfeasible. It is essential that we take the opportunity in Paris later this year to collectively move towards a pathway that will limit the global temperature increase to less than 2°C.



Keeping the temperature increase below 2°C is challenging but achievable

Evidence to the SED demonstrated that it is possible to limit warming to below 2°C, however this requires sustained reductions in greenhouse gas emissions through a rapid global transition to a low carbon economy. Such a transition offers an opportunity to build a more prosperous, sustainable future and has considerable social and economic co-benefits. It also poses substantial technological, economic, social and institutional challenges. These challenges are manageable if we start ambitious mitigation actions now but become increasingly difficult if actions are further delayed.

As outlined in the IPCC 5th Assessment Report and considered during the SED, the scientific community has identified a range of emissions pathways that are in-line with achievement of the below 2°C objective. Some pathways are more ambitious in the near term to 2050. Other pathways rely more heavily on mitigation in the second half of this century and may require large scale negative emissions i.e. removal of CO₂ from the atmosphere, during that period. As set out below, there are greater risks associated with pathways that defer significant action to later including increasingly challenging rates of technology scale-up and deployment and higher costs and economic impacts. Delaying mitigation also shifts burdens from current to future generations.

Evidence presented to the SED showed that global pathways consistent with at least a likely chance of limiting the global temperature increase to below 2°C relative to pre-industrial temperatures have a number of key characteristics including 40 to 70% global anthropogenic GHG emissions reductions by 2050 compared to 2010 and emissions levels near zero or below in 2100.

The EU is of the view that the 2015 Agreement should translate the below 2°C objective into a more operational long term goal that, in line with the latest findings of the IPCC, ensures an aggregate emissions pathway with having at least a likely chance of achieving the below 2°C objective. The EU is open to exploring options for how such a collective global ambition could be expressed.

Aiming to minimise the risks referred to above, the EU is of the view that global greenhouse gas emissions should be reduced by at least 50 % by 2050 compared to 1990 level and continue to decline thereafter reaching net zero emissions of CO₂ by the middle of the second half of the century and effectively reducing emissions of other GHGs to near zero by the end of the century.



Taking action is compatible with economic growth

The EU is leading in the transition to a low carbon economy and society. EU emissions have peaked and continue to decline. This has taken place in combination with economic growth. The EU has announced an at least 40% domestic reduction in GHG emission by 2030 relative to its emissions in 1990. This is in line with a global pathway for achievement of the below 2°C objective.

The direct benefits of avoiding the significant global impacts of dangerous climate change are clear and are a strong motivating factor in reducing future global emissions. However, there are also many co-benefits of action including improved air quality, enhanced energy access and security, reduced water demand, sustainable agriculture and forestry, the protection of ecosystems for carbon storage and other ecosystem services. Linking mitigation, adaptation and the pursuit of other societal objectives through integrated responses can enhance these benefits.

Evidence to the SED from the IPCC showed that although estimates of mitigations costs vary widely, they do not significantly affect global GDP growth and that mitigation action would marginally delay but not sacrifice economic growth. This is supported by the key findings in the New Climate Economy report¹ which concluded that countries at all levels of income have the opportunity to build lasting economic growth at the same time as reducing the immense risks of climate change.

Delaying actions increases risks

The evidence presented to the SED is clear: delaying global mitigation action and peaking later has a range of negative consequences including:

- increased impacts including sea level rise and an increased risk of crossing thresholds for tipping points
- substantially higher rates of emissions reductions from 2030 to 2050
- delaying action will increase climate risks and costs;
- a much more rapid scale-up of low-carbon energy over this period
- a larger reliance on negative emissions technologies in the long term which will be required to remove significant amounts of CO₂ from the atmosphere, and
- higher transitional and long-term economic impacts.

¹ <http://newclimateeconomy.report/> this report was not considered by the SED but provided important international analysis of economic development that is compatible with addressing climate change.



The availability and potential to scale up negative emission technologies such as biomass energy coupled to carbon capture and storage (BECCS) are uncertain and, to varying degrees, are associated with challenges and risks. These include competition for land use potentially impacting on food security and prices, risks to biodiversity and reductions in ecosystem services. The scale of negative CO₂ emissions required is determined by the level of any overshoot in CO₂ emissions and the scale of residual emissions of non-CO₂ GHGs. These risks can be reduced through early and ambitious global action.

Progress towards achieving the Long Term Global Goal

Evidence presented during the SED highlighted that climate change is a collective action problem at the global scale: Cooperative responses, including international cooperation, are therefore required to effectively mitigate GHG emissions and address other climate change issues.

We heard in the SED that many of the technologies required to achieve a below 2°C pathway are already available but their deployment is not on track. Tackling this requires more coherent support for the development, diffusion, and transfer of climate-related technologies and climate-relevant capacity building under and outside the Convention. The SED also reported on important progress being made by UNFCCC bodies and progress in implementing the UNFCCC processes necessary to address barriers to the deployment of these technologies. This showed that key enabling bodies have been established and are beginning to scale up mitigation, adaptation, finance, technology and capacity building efforts. For example GCF capitalisation in 2014 reached USD 10.2 billion. However progress has been too slow and increased action both within the UNFCCC institutions and processes and by external bodies and actors.

The EU also welcomes the positive messages brought to the SED by a range of international bodies including the UN bodies working on Biodiversity (UNCBD), Desertification (UNCCD) and Agriculture (FAO). These show the shared concern for the threats posed by climate change and point to joint solutions that need to be turned into effective actions if we are to achieve the objective of the UNFCCC.

The adequacy of the Long Term Global Goal

One of the themes of the 2013-15 Review was to assess the *adequacy* of the Long Term Global Goal in the light of the ultimate objective of the Convention. Evidence to the SED highlighted that making an assessment of what constitutes 'dangerous interference with the climate system' requires both an assessment of the risks from different levels of warming on the climate system and a value judgment on what is dangerous interference at a global scale.



The EU considers that the evidence presented to the SED confirms that keeping the global temperature increase below 2°C relative to pre-industrial temperatures is consistent with the objective of the Convention expressed in its Article 2 and should be retained as the Long Term Global Goal. Critically, it frames the level of global action that is necessary to prevent dangerous anthropogenic interference with the climate system. However, the EU considers that the below 2°C objective needs to be expressed in a more operational manner as has been outlined above.

Evidence shows that the rate of increase in many biophysical impacts, and impacts on human and natural systems increases rapidly above 2°C. Without significant mitigation action, global mean temperature increase by the end of the century could be 4°C or more above preindustrial levels leading to severe and widespread impacts on unique and threatened systems, substantial species extinction, and large risks to global and regional food security. The combination of high temperature and humidity may compromise normal human activities, including growing food or working outdoors in some areas for parts of the year.

Increasing magnitudes of warming increase the likelihood of severe, pervasive, and irreversible impacts and it is therefore important that the level of warming is kept as low as feasible. Limiting the global temperature increase to below 2°C above pre-industrial levels would reduce the risk of a range of large scale impacts on people, the economy and natural systems but, even with adaptation, it will not prevent all impacts or risks. It is recognised that impacts will not be evenly distributed at regional and local levels nor across different sectors, but adaptation measures can contribute to management of these risks and reduction in associated impacts. Keeping the temperature rise as small as possible is the best way to minimise these impacts and risks, and, keeping the temperature increase below 2°C is feasible and limits the risk of dangerous interference with the climate system.

Information gaps

The SED highlighted a clear information gap in up-to-date national-level emissions data submitted to the UNFCCC, with a number of reports not being available at the time. Analysis of global emissions was provided by bodies such as the IPCC and IEA, however the limited availability of information from Parties restricted the assessment the SED was able to make. The EU wishes to highlight that high quality emissions data are essential to informing effective actions to address emissions. This is the case at individual, community, regional, business and national levels. Without such analysis, actions may be less effective and more costly. In this context the EU looks forward to these gaps being reduced in future iterations of the Review of the Long Term Global Goal and the progress towards reaching it.



Conclusions

The SED has allowed for balanced scientific evidence and debate to inform a consideration of the Long Term Global Goal of the UNFCCC and the progress toward reaching it, which is at the heart of the Convention. Having listened carefully to the information presented, the EU has drawn the following conclusions:

- Globally we are not on track to achieve the Long Term Global Goal and limit warming to less than 2°C. Without additional mitigation, global temperatures could rise to 4°C or more by the end of the century relative to pre-industrial levels.
- Remaining below 2°C is achievable but challenging. Urgent global mitigation action is required to bring about a large-scale transformation, particularly in energy systems.
- The direct benefits of avoiding the significant global impacts of dangerous climate change are clear and are a strong motivating factor in reducing future global emissions. Taking action is also compatible with economic growth and associated with many co-benefits
- Early and ambitious action is essential; it reduces costs, makes rates of change more manageable and increases the chances of staying well below 2°C.
- Characteristics of pathways highlighted during the SED that are consistent with the below 2°C objective include peaking of global greenhouse gas emissions in the short term, reducing global anthropogenic GHG emissions levels to at most half of the current level by mid-century and to near zero or below by the end of the century.
- Keeping the temperature rise as small as possible is the best way to minimise risk and capping that rise at less than 2°C is feasible and limits the risk of dangerous interference with the climate system.

The EU is committed to playing its part in achievement of the required transition. The EU has announced an at least 40% domestic reduction in GHG emission by 2030 relative to its emissions in 1990 and welcomes the announcements of other countries in this regard. We also recognise that we need to collectively increase ambition further over time. Collective actions including those arising from working in tandem with other UN, bodies are required. The EU considers that it is essential that we take the opportunity of the Paris Agreement to collectively take a decisive step towards a pathway that will keep the global temperature rise to below 2°C.

The EU looks forward to constructive exchanges with other Parties at the Joint Contact Group at SB42 and finalisation of the 2013-15 Review.