If it were not for the COVID-19 pandemic, the Second Periodical Review (SPR) would be conducted in 2020 as decided in 5/CP.25 at COP 25. While a physical meeting would have been negotiations and decision drafting, a virtual meeting, such as the UNFCCC Climate Change Dialogues should be used as a meaningful starting point for these discussions. In 5/CP.25 it was decided that there would be three meetings of the structured expert dialogue (SED) at sessions of the subsidiary bodies, starting at their fifty-third sessions (November 2020) and being completed at their fifty-fifth sessions (November 2021).

This means that we need to see progress on SPR (and SED) during the Climate Dialogues to not lose in its entirety more than a third of the time allotted to this process before the mandate runs out. For the first (virtual) meeting of the SED in November/December 2020 – there is enough new scientific intelligence e.g. in the different Special Reports of IPCC recently adopted.

In this briefing, Climate Action Network lays out key considerations for the Virtual Structured Expert Dialogue. Climate Action network highlights the importance of the following matter to be addressed and discussed by the SED:

1. What do Paris Agreement goals really imply for mitigation in ranges of emission reduction for regions and sectors? What can science say on the remaining CO₂-budgets to achieve the Paris goals?

2. What can we learn from science on losses and damage from climate change if global warming is limited to 1.5 degrees compared to well below 2 degrees?

3. What is the latest scientific information on the tipping points of global ecosystems on land and in the oceans?

4. In which economic sectors can we expect slow processes to reduce emissions to zero? How can change of technology and production methods be better promoted and advanced faster in those sectors?

5. What can science say about the amount of negative emissions (per year) needed from land-use methods to achieve the Paris goals?

6. Which of the negative emission land-use methods are most effective, whereby is it possible to quantify the amount of negative emissions they could deliver?
7. How fast can the negative emissions methodologies in the land-use sector be mobilised?

8. The scientific projections of the expected development of global greenhouse gas emissions do not completely exclude that the emissions reductions will not be fast enough to reach the Paris goals which would lead to overshoot. What do we know from science on a tolerable overshoot, e.g. for ecosystems, coastlines, and the melting of ice sheets and sea ice? What does science tell us about tolerable overshoots?

9. What are the risks and uncertainties of climate engineering and solar radiation modification technologies that need to be taken into account before considering it as an options for limiting global warming?

10. How can emissions trajectories be best adapted to the 5-year ambition cycle of the Paris Agreement? For the current round of NDC revisions, there is considerable attention to and awareness of where emissions need to be in 2030 to meet temperature targets. This attention should move ahead in regular 5-year steps, so that in the 2023 Global Stocktake and the next round of NDCs by 2025, the scientific community produces comparable awareness of where emissions need to be in 2035, and so on.

11. How are the temperature goals in the Paris Agreement - well below 2 degrees and 1.5 degrees - defined? Should these thresholds be understood as a single year or a multi-year or multi-decadal average? Will Parties adopt the average over a 30-year period as defined by the IPCC?

CAN is well aware that the outcome of the second periodic review will not result in an alteration or redefinition of the long-term global goal stated in decision 10/CP.21. But this goal is not operationalized yet. Is it more favorable to limit warming to 1.5 degrees instead of “well below 2 degrees” or are there limits of mitigation that prevent us from achieving that? The work of the SPR could contribute to a better understanding of the Paris Agreement’s temperature goal.