2018-IP21: International Conference on Negative CO_2 Emissions

The 1st International Conference on Negative CO_2 Emissions took place from 22-24 May at Chalmers University in Gothenburg, Sweden.

The purpose of the conference was to bring together a wide range of scientists, experts and stakeholders, in order to engage in various aspects of research relating to negative CO_2 emissions. This includes various negative emission technologies (NETs), climate modelling, climate policies and incentives.

250 delegates attended the conference from a variety of disciplines. The technical programme consisted of 146 oral and 30 poster presentations that were organised in 5 streams: Policy, BECCS, Modelling & Incentives, Biospheric Storage, and Other NETs. In addition, there were a whopping 11 keynotes on almost all aspects of NETs and 3 panels on (1) BECCS, (2) Modelling, Policy and Incentives, and (3) Biospheric Capture and Storage of Carbon.

When looking at the technical programme, it soon became clear that the majority of the presentations covered BECCS to a smaller or larger extent. One reason for this is likely the prominence of BECCS as the default NET in most integrated assessment models (IAMs). There was ample discussion and debate after the keynote talks and during the BECCS and modelling panels about the use of BECCS and its potential overreliance in the models. Members of the modelling community defended the selection of BECCS as the seemingly most feasible option at the time of starting the modelling work, especially in terms of potential and permanence of carbon storage. It will be highly likely that in the future a larger variety or portfolio of NETs will appear in the IAMs.

If I would need to choose one slide from all presentations for the “highlight award”, then it would be the following one presented by Sabine Fuss from the Mercator Research Institute:

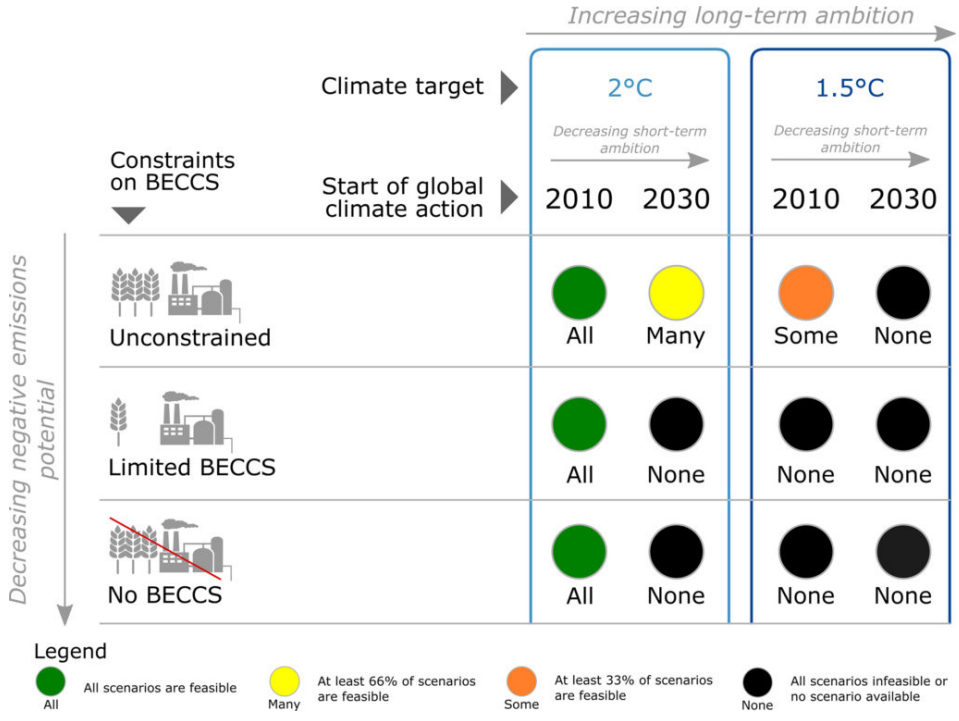

Figure 1 Fuss et al. 2018, http://iopscience.iop.org/article/10.1088/1748-9326/aabf9f

The figure shows how many models, or rather scenarios, can meet the 1.5°C and 2°C target with varying amounts of BECCS and considering either an immediate or delayed start. The conclusion from this analysis is that if we want to meet 2°C, we can start unconstrained BECCS either immediately or in 2030. Using limited or no BECCS, we need to start other mitigation options now (or preferably yesterday), or we cannot reach 2°C. We can only achieve 1.5°C with an immediate and unconstrained deployment of BECCS. This underlines how fast the door for a 1.5°C outcome is closing, our inaction locking us in into a 2°C or higher pathway. Several other keynote speakers and panellists also warned that it is already 5 past 12, rather than 5 to 12.

If you would like to know more, Carbon Brief's extensive coverage of the conference is available here (including video interviews of select experts):
https://www.carbonbrief.org/negative-emissions-scientists-meet-sweden-first-international-conference

Selected keynotes and presentations from the technical sessions are also accessible on Youtube:

https://www.youtube.com/channel/UCirbz-iLdizsK2G7lmOgodw/videos

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