



Report from the Climate Arena workshop on carbon offsets

May 26th 2020

The Bolin Centre Climate Arena is a meeting place for researchers, companies, the public sector and other organisations which aims to facilitate collaboration and an exchange of knowledge, experience and creative ideas, so that we can together increase our society's resilience to climate change. By gathering organisations with different needs and a wide range of expertise, the arena can lay the foundation for joint efforts and sustainable societal change. The Climate Arena was founded in May 2018 at Stockholm University.

The Bolin Centre for Climate Research is an umbrella organisation with more than 400 people who conduct research in areas related to the Earth's climate. The centre was established by Stockholm University, KTH and SMHI, and is named after Professor Bert Bolin, a pioneer in climate research and founder of the UN's Intergovernmental Panel on Climate Change (IPCC).

The Climate Arena is an initiative for thematic collaboration in arena format. It has been established within the framework of the project Methodology for the Development of Collaboration Arenas (Metodik för Utveckling av Samverkansarenor, MUSA).

For further information:

www.bolin.su.se

www.bolin.su.se/bolin-centre-climate-arena

www.su.se/k3-projekten/musa

On May 26, 2020, the Climate Arena at Stockholm University conducted a digital workshop on carbon offsets. In total, 41 participants from 17 different organisations joined the meeting (see Annex A for an overview of participating organisations).

Five presentations were given during the first part of the workshop:

Alasdair Skelton, Stockholm University – *The scientific basis for carbon offsetting*

Jenny Wickström, Vi-Skogen - *Carbon offset through agroforestry and sustainable agriculture land management*

Céline Olesen, Climeworks - *Direct Air Capture – A Crucial Technology to Alleviate the Climate Crisis*

Mathias Fridahl, Linköping University - *"The road to a climate-positive future"*

Maria Johansson, Stockholm University - *Carbon Offsetting, does it work? - with a focus on Carbon Forestry*

Please see the attached program for an overview. The presentations can be disseminated on request.

This was the fifth workshop organized by the Climate Arena since the initiative was established in March 2019. Previous workshops have considered the transition to a carbon neutral society in a broad perspective, as well as certain specific topics, such as calculations of organisations' carbon footprint. Throughout these workshops, carbon offsets have been a reoccurring topic of discussion. Therefore, the Climate Arena arranged this workshop to focus specifically on this topic and it sought to deepen the understanding of some of the main issues, dimensions and questions about carbon offsets today and in the future.

Following the aforementioned presentations, group discussions were carried out around four main questions:

- What are the main drivers of organisations' interest in pursuing carbon offsets?
- What is important to consider when discussing and evaluating carbon offsets as a measure?
- What role can carbon offsets play in the transition to a carbon neutral society? How does climate compensation relate to other considerations and dimensions of the transition?
- Going forward, what is needed in terms of knowledge, resources and practice, for carbon offsets to play a role in the transition?

Below is a summary of some of the main points that were highlighted during the discussions.

Summary of group discussions

What are the main drivers of organisations' interest in pursuing carbon offsets?

There were two general streams in the discussions on motivation and main drivers. First, it was important to note that several organisations highlighted the fundamental necessity to take responsibility in the transition to a carbon neutral society. Often, organisations have set up sustainability goals and use carbon offsets as a tool to reach these goals. Many organisations placed carbon offsets in the context of a wider mix of actions, such as calculating carbon footprints and efforts to cut emissions in the business operations and value chain. This should be important as several critical perspectives were raised about the risks of treating carbon offsets as a way of compensating for (often just a part of) an organisations' emissions, while not actually taking actions to bring emission levels down. However, many of the organisations present treated carbon offsets as one of several tools, and often not as the primary tool in the organisations' work on sustainability. Carbon offsets were for instance brought up as a measure to deal with emissions that were particularly difficult to reduce.

Second, the need and desire to communicate and display commitment and responsibility was another important topic in the discussions. There is increased pressure on organisations from several directions to display a commitment in the transition to a sustainable society. This pressure comes both from consumers, partners and potential employees. There is also pressure within organisations from existing employees. The need to calculate emissions, develop strategies and implement actions to bring down

emissions and contribute to the transition should also be seen in this perspective, and the ability to display and communicate therefore becomes crucial.

Furthermore, it should be noted that there can also be other motivations for engaging in projects that generate carbon offsets. For instance, projects with the main aim of empowering livelihoods in rural areas in developing countries can have an important effect in terms of better land use and tree-planting which contributes to CO₂-absorption. Therefore, there are examples of carbon offsets where the offsets are a secondary and integrated effect in operations with another primary target.

Finally, regarding risks in the motivations for carbon offsets, several participants voiced concern that carbon offsets can be perceived as a way to buy one's way out of emissions reductions. In that perspective, it would be expected that buyers of carbon offsets would use the offsets as legitimisers for continued emissions. However, among the participants, there was generally an agreement that such a position would be precarious, and the disagreements and uncertainty was more about whether this kind of motivation was common or an accurate description of organisations that are pursuing carbon offsets.

What is important to consider when discussing and evaluating carbon offsets as a measure?

First, there was some discussions about calculations and measurements. In discussing what is needed to evaluate carbon offset projects the discussions often focused on the methods for calculating, the transparency, how the projects are followed up and the need for internationally accepted standards. Regarding the methods, it was stressed that there is a need for a scientific basis for the calculations. It should be noted that this applies to both calculations of the impact from the carbon offset projects and the calculations of the emissions from the organisation that is pursuing carbon offsets as a measure. In order for carbon offsets to be a part of an organisation's roadmap or transition to a more sustainable model, then the fundamental calculations for the organisation need to be of good quality as well. Transparency, as well as follow-up, are then needed in order to ensure the quality of calculations. Transparency is however also important in other aspects as well, in particular to ensure that the projects does not negatively affect other dimensions of social and environmental sustainability.

Second, as a continuation of the previous point, there were several points made regarding the relationship between carbon offsets and other factors. For instance, pricing is not just about determining an efficient price for carbon, but also about ensuring fair compensation to local populations where the carbon offset projects are implemented. Several participants also highlighted potential problems with an overreliance on carbon offsets through for example tree-planting in this context. There are limitations to planting trees at the scale which would be necessary to make these measures as impactful as they are sometimes assumed to be. There are also conflicts with other environmental issues, such as biodiversity. Finally, tree-planting does not address the fundamental issue of time-scales in carbon-cycles and is therefore only a partial and time-limited offset measure. Other participants highlighted that development of novel carbon offset technologies and knowledge could alleviate some concerns regarding upscaling in the future. Still, both the issues of pricing and scaling suggest that it would be good to also pursue carbon offset

initiatives domestically and closer to home. A recent public inquiry which was discussed also emphasised the need for more domestic measures as the global voluntary market for carbon offsets could be restricted in the policy context following the Paris agreement, since it is likely that it will be more difficult for organisations to buy offsets in other countries. As all countries will now measure contributions according to national actions plans, a project cannot be counted as an offset both in the country where it was implemented and where it was bought. Therefore, there are uncertainties to the global voluntary markets which may incentivise domestic voluntary action.

Regarding this last point, there should be a big potential for carbon capture and storage in Sweden. However, there are some barriers today, primarily issues of acceptance, regulations and a lack of technical capacity and knowhow. A key barrier is the misunderstanding that Swedish bedrock is unsuitable for CCS. Sweden lack the sedimentary bedrock that is used for example offshore of Norway for CCS. However, Sweden has an abundance of the (meta)volcanic rocks that are used on Iceland for CCS.

Lastly, as a general guideline, some participants noted that the Swedish phrase “klimatkompensation” (climate compensation) is a misleading label, and carbon offsets should in general be viewed as a climate investment or a similar phrase. This should refocus the idea of offsets from being about compensating for emissions elsewhere towards an investment which complements other efforts to reduce emissions.

What role can carbon offsets play in the transition to a carbon neutral society? How does climate compensation relate to other considerations and dimensions of the transition?

In general, discussions on the first two questions provided some important conditions for carbon offsets to play a role in the transition. In opting for pursuing carbon offsets, this should be done based on an evaluation and analysis of the organisation’s emissions, and an investment complementing emissions reductions and not primarily as a compensation for those emissions. Furthermore, it is important that the carbon offsets are scientifically based, properly priced and consistent with other environmental and social dimensions. Lastly, a bigger focus on carbon offsetting closer to home would be desirable.

There were also some discussions about the feasible scale of carbon offset projects. While there was some agreement that a one-sided focus on tree-planting as the primary measure might be too short-term and in conflict with other social and environmental goals, there was some disagreement about what the implications of this is for the wider role of carbon offsets. Partly, there is uncertainty about what developments in carbon offset technologies that can be expected and therefore how different types of projects can evolve and complement each other. Partly, some participants believed that organisations that are pursuing carbon offsets are more initiated and competent today than some years ago which could more efficiently filter out bad projects and ensure a focus on better projects.

However, several participants agreed that the sometimes binary framing of issues about carbon offsets, such as “carbon offsets *or* not” or “carbon offsets *or* reduced emissions” is flawed. This framing can be present in criticism of carbon offsets which is sometimes too

generalised. But it can also be present among proponents who view offsets as an alternative to concentrating on other emissions reducing measures. The discussion could benefit from differentiating between projects and methods and not positing offsets as an alternative to other efforts. In this context, some participants voiced frustration that carbon offsets are usually treated very critically, while they often form a necessary part of different mitigation pathways.

Going forward, what is needed in terms of knowledge, resources and practice, for carbon offsets to play a role in the transition?

This question will be presented in the form of bullet points about future needs, apart from the ones that have already been mentioned during the discussions on the first three questions:

- Common, international standards to calculate carbon footprints and offsets, based on solid scientific knowledge. One interesting possibility would be a standard that includes the relationship between carbon offsets and other social and environmental considerations.
- Carbon offsets as a measure can be difficult for some organisations to implement because of regulatory barriers or uncertainties, mainly in the public sector, including agencies, regions, municipalities and universities.
- More focus on offsetting measures in Sweden.
- A firmer understanding of different offsetting methods and solutions and how they work.
- More trans-disciplinary and cross-sectoral studies, reviews and work on offsetting.

Annex - Deltagande organisationer

Care All Foundation

Climate Students Sweden

Climeworks

Ericsson

Fridays for future

Linköping University

MAX Burgers

Swedish University of Agricultural Sciences

Stockholm School of Economics

Stockholms stad

Stockholm University

Swedavia

Svenskt Sigill

Stockholm Vatten och Avfall

The Future

Vi-skogen

Zeromission