

Reducing the carbon footprint of SPARC/WCRP

During the recent DynVar & SNAP workshop held in Madrid a group of participants met informally to talk about the challenge of organising environmentally sustainable conferences. The discussion was very productive and inspiring, with a wide support for taking practical action on the matter. Both senior scientists and Early Career Researchers expressed a strong wish to actively reduce work-related footprints, mostly generated via the air miles required for travel to conferences. Conferences are important professional occasions and we really value the great support that SPARC in particular provides to the community to help organise them. Yet at the present moment individual scientists are often left alone with a major dilemma around attending meetings because of their awareness of the climate consequences of doing so.

We note that other communities are taking radical steps to reduce the carbon footprint of conferences (e.g. [1], [2]) and that there is growing academic interest in how reductions in flying might be achieved [3]. It feels, therefore, somewhat strange that the WCRP community has not taken a lead in this area.

As individuals, the actions we can take are important but limited. It is therefore at the community level that we need to act. We would like to strongly encourage WCRP projects to think about ways to radically mitigate the environmental impact of their academic collaboration. Here we list our main suggestions for the SPARC community to consider when organising workshops and conferences. New guidelines shaped around the following points should help to lower the footprint of these meetings and, importantly, would align WCRP with the trajectory of its constituent countries to meet the net-zero targets in the Paris Agreement.

Virtual participation: Challenging questions we should ask ourselves are ‘can our conference or workshop happen virtually?’ and ‘do we need to meet in person?’. To move beyond the present high carbon practice, all workshops should be built around the corner stone of virtual participation. Although there are some encouraging changes at the moment virtual participation is considered secondary. To make this a viable and enjoyable option, inclusion of remote participants in the informal, discursive part of the conference needs to be considered.

Alternative formats: In the spirit of rethinking and improving our approach, redesigning how conferences are organized could play an important role. One idea, already trialed in the anthropology community is a ‘multi-center’ approach to global meetings, whereby one center in each continent is set as local hub and streamed or delayed talks are used to allow engagement with the other hubs. A mix of local face-to-face interaction and remote virtual participation would be an interesting option for SPARC to trial. There are many possible positive side-benefits to conferences held in this way including the strengthening of local collaborations, reduce travel time and time away from family and a reduction in costs that promotes inclusion.

Low carbon travel: Travelling by train or buses could be encouraged with a waiver on the conference or workshop fee. Alternatively, arrangements for ticket discounts with train companies are possible. Even coach-pooling has been considered as a cost-effective and low carbon option! This incentive is important as a means of mitigating the currently higher fares for lower carbon alternatives and the, perhaps unrealistically, low cost of flying.

Vegetarian and local food: A simple way to reduce the embedded impact of conferences is to

provide a vegetarian menu or a menu that avoids beef and lamb, with seasonally and locally sourced food suppliers. Many universities have begun to take this step for their own internal catering [4] with significant impacts on their carbon budget.

Waste: Waste and the use of single use items can easily be reduced to zero at conferences and workshops, as was very effectively demonstrated in Madrid. The highest level of recycling standard available in the host country should always be met. Moreover, we suggest avoiding any handing out of conference branded material (e.g. pens or tote bags), as they are unrelated to the success of the meeting and often quickly become waste.

Carbon budget: Accounting for the progress of all our institutions and projects in reducing their emissions is a key step in driving behaviour change. We suggest the establishment of a carbon budget for each WCRP project to be included in the annual report and expressed in terms of absolute and per capita carbon emission, complementing the usual financial budget. Since calculating a total carbon budget is probably unfeasible at the moment, we suggest focusing on the travel carbon budget, which can be easily quantified through well-established carbon calculators (e.g. [5]). Each meeting organising committee should compute and report the amount of equivalent CO₂ emitted by travel of participants to the pertaining WCRP project which will be able to compute the yearly total utilized budget. During 2020 the aim should be to collect information in order to establish a carbon baseline and from 2021 on, an updated budget and ambition should be set. Positive competition and sharing of best practices among meetings should help boosting overall progress.

The reduction of the environmental footprint of conferences will require considerable effort and strong leadership from WCRP. However, such an endeavor will not be in isolation. A group of academics has recently formulated an open letter addressing the AGU and EGU General Assemblies calling for a reduction of the carbon footprint associated with their annual meetings [5]. These efforts are extremely encouraging but we recognize that smaller conferences are numerous and a crucial part of the progress of science. They need to be addressed too.

We welcome any comments and the inclusion of other people and perspectives in the discussion. We particularly welcome collaboration with other institutions working towards the same goal, such as the collective Labos1point5 in France and note the action already taken by many Universities around the world.

By implementing some of the above ideas as new policies for future workshops, SPARC could help climate scientists maintain their credibility with policy makers and the general public [6]. A change in our behavior as international scientific community would send a strong message to the rest of the society and promote true climate action.

Bibliography

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- [3] [Online]. Available: <https://www.sheffield.ac.uk/reducing-academic-flying-symposium>.
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CHECK LIST TO BE PUT AS INFOGRAPHIC

A check-list for conference and workshop organisers. Please answer the questions during the planning stage of your meeting and ask for help from the SPARC office and others in the community if you are unsure about how to reduce the carbon footprint of your meeting.

Have you considered how...?

1. if your meeting could be built around virtual participation
2. your meeting could be run in another format that reduces travel
3. low-carbon travel is promoted
4. vegetarian and local food could be served
5. you have minimized waste and maximized recycling
6. you can calculate and report the travel emission your conference has generated