

DESTRUCTIVE EFFECTS ON THE CLIMATE — OF THE 2013 UN FRAMEWORK CONVENTION ON CLIMATE CHANGE

The United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP19) was held on 11–23 November 2013. Poland's capital, Warsaw hosted the COP19 event that eventually lasted 13 days, instead of the originally envisioned 12 days. The main venue of the COP19 Warsaw Conference was the Warsaw National Stadium (the Stadium is more than 7,000m² and was turned into a temporary Conference Centre). The main aims of the COP19 were well-publicized: to reduce by a specific, measurable extent national Climate Policy conflicts of interest — between developing and developed countries — and to prepare a new global Climate Agreement; envisaged for 2015. Unfortunately, contrary to worldwide expectations, COP19 did not attain substantial results in combating the global Climate Crisis.

Although there was some progress made in the area of better defining the Framework for the Climate Change Agreement (CCA) — certain countries viz., China, India, and the United States were still not willing to reduce their CO₂ emissions. Furthermore, Japan announced that the country's CO₂ emissions would increase due to the 2011 Nuclear Disaster at the Fukushima complex. Disagreement emerged between developed countries and developing countries on the scheduling of Climate Aid Payments (CAP; USD \$100bn) to be granted to developing countries. At the conclusion of the COP19; no agreement was reached on the subject of CAP scheduling.

Another circumstance that showed COP19 in a bad light was the fact that the Polish capital co-hosted an event — for the largest coal-mining firms at the World Coal Association Conference — alongside the UNFCCC COP19 Conference.

Successes and failures could be discussed at length since the nearly two-week long Conference raised a number of new issues to be addressed and tasks to be tackled, until the subsequent COP20. One of the most important and vital tasks, for example, is to find ways to convince extensively growing economies (Mongolia, Brazil, China) to try and reduce national greenhouse gas emissions (GGE) while developing national economies (this in operational terms means keeping new expanding, developing country economies' GGE levels; below the levels developed countries have historically produced during industrial development). For example, Mongolia has (by certain measures) been regarded as the world's fastest-growing economy since 2012, but this growth has been made in the main by the sale of natural resources to China. Mongolia's economic growth has resulted in pollution, economic inequalities, and an urban poverty problem — as communities once happily nomadic for centuries have now been unhappily compressed into the new booming cities.

The COP19 has been evaluated from many different aspects; with both negative and positive criticism on the progress achieved. What has not been reported in the media, however, is the amount of GGE, or indeed the carbon footprint of the COP19 event itself! A Conference intended to halt Climate Change, or at the very least to produce effective solutions to slow Climate Change down.

We were able to estimate the carbon footprint of the UN Framework Convention on Climate Change Conference (COP19) by using the existing statistical data. The authenticity of our calculations is independently guaranteed by the fact that we used the Carbon Footprint Calculator developed by Carbon Solutions Global Ltd.

THE CALCULATION PROCESS

For a global Climate Conference such as COP19, inputs, i.e., the required input data from which to calculate GGE, can not be precisely determined. Therefore, in most cases the results are based on assumptions and approximate estimates.

COP19 — THE TRAVEL CARBON FOOTPRINT

One can assess the carbon footprint of travel by identifying the means of transport used. Therefore, initially one needs to access the list of all COP19 delegates — available through the official website of the United Nations Framework Convention on Climate Change. Accurate data is provided for a total of 4,022 delegates from 187 countries; analyzed on a national basis. As for the remaining 4,353 delegates, there is only limited information available (this establishes only the ascertainable fact of their actual attendance at COP19 — delegated by an international organisation, non-governmental organisations (NGOs) (e.g., the World Wildlife Fund (WWF)), or a media agency).

In our calculations, based on distance and travel connection options, we considered delegates were likely to use one of two main modes of transport: airplanes in the case of remote countries, and trains in the case of neighbouring European countries, and countries such as Russia. When calculating the carbon footprint of air travel, in all cases our main input data were length of total round trips based on distance. The calculation starting point was always the capital of the delegating country where available. Thus, the per-capita average calculated was 1.55tCO₂e. In those cases where the delegating country was unknown (unfortunately, this was true for more than half of the participants!) we could estimate figures by scaling the carbon emission value already calculated using a predetermined factor. In total, delegates could reach the Polish capital only from two capitals without connection flights: Minsk (Belarus) and Berlin (Germany). Taking this statistical input data into account, the Warsaw COP19 Travel Carbon Footprint is as follows:

MEANS OF TRANSPORT	NUMBER OF PASSENGERS	TRAVEL CARBON FOOTPRINT
Airplane	4022 4353	6250 tCO ₂ e 6750 tCO ₂ e
Train	97	6,93 tCO ₂ e
Total	8472	13006,93 tCO ₂ e

Fig. 1 – COP19 (2013) Travel Carbon Footprint — per transport mode

ACCOMMODATION AND COP19 EVENT-RELATED CARBON EMISSIONS

Carbon Solutions Global's Carbon Footprint Calculator uses carbon emissions mean values apropos the use of European hotels. In order to obtain relevant carbon emissions values, one must specify three key measurement parameters: number of persons; number of days; and hotel room size. For the latter, the benchmark was the minimum room size of five-star hotels (18m²)¹ (which is the European standard) presuming that all COP19 participants stayed in a single room. In determining the number of days, the calculation took into account that not everyone took part in the Conference from beginning to end; so the average number of nights (6 nights) was the considered starting point.

In addition to accommodation-related carbon emissions, the COP19 event itself had a substantial level of greenhouse gas (GHG) emissions. In addition to the total area of the Conference event; there are the parameters of the number of COP19 daily guests; the number of days (nb., locally-used modes of transportation, as well as distance travelled locally, was also determined; in order to ensure the most accurate results attainable. During the Conference hotels in the vicinity of the National Stadium were full of participants, and round-trip CO19 travel distance attendance was determined to be up to 10km. Taking all data into account, the GHG emissions of accommodation and the event per se are as follows:

DISTRIBUTION OF GHG EMISSION DURING COP19

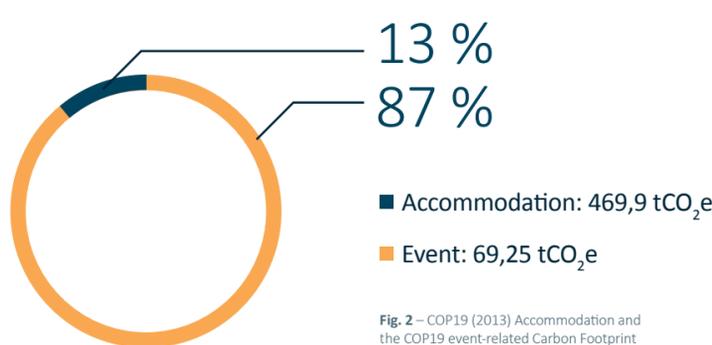


Fig. 2 – COP19 (2013) Accommodation and the COP19 event-related Carbon Footprint

Accommodation-related carbon emissions were equivalent to the annual GHG emissions of 23 US domestic households , and COP19 event-related GHG emissions were also similar in level to those of three annual US domestic households.

After calculating carbon emission values, one can conclude that the total emissions of the COP19 (2013) Conference of the UN Framework Convention on Climate Change (including travel) were **13,546.08** tCO₂e (metric tons of carbon dioxide) in total. Analysed per capita, this is 1.59tCO₂e, which is nearly one-third of the average annual emissions per capita in Hungary (6.74tCO₂e). Figure 3 below illustrates the distribution of carbon emission values.

THE CARBON FOOTPRINT OF COP19 CONFERENCE

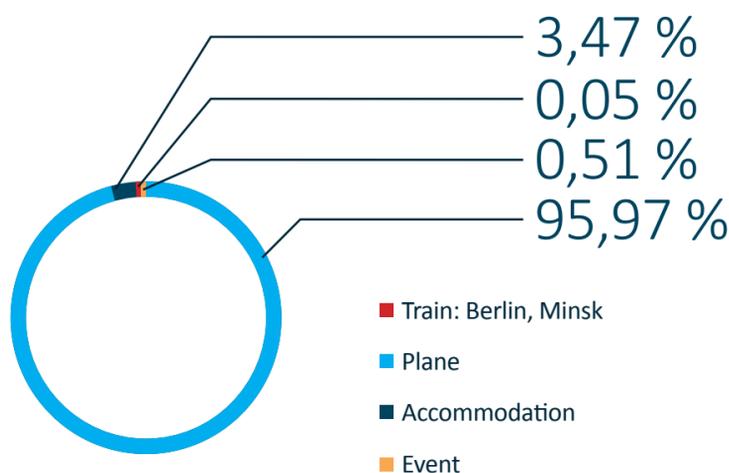


Fig. 3 – Percentage distribution of the Carbon Footprint of the 2013 UN Framework Convention on Climate Change Conference

Calculations appertaining to the carbon footprint of the COP19 event draw attention to the considerable Environmental load that staging an International event, similar to COP19 actually involves. It certainly makes you wonder: how genuinely viable and sustainable such a Conference is — if an Earth Climate Protection Conference event per se — organised to curb global carbon emissions produces — such a huge amount of carbon emissions!

Of course, we do not suggest that from this day no International Conferences should be held, but we do suggest possible limits on the number of delegates, and that low-carbon concepts should be the quintessential guiding principles in all cases. In addition, a minimum requirement could be that the participating countries jointly take responsibility for the negative Environmental effects of a large international Conference. One solution to this might be to offset their share of the carbon emissions within the framework of a carbon emissions reduction project (e.g., a renewable energy project); since this would create incentives, and foster, and encourage the use of renewable energy sources.

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¹ Source: 45/1998. (VI. 24.) IKIM Regulation (1988) on Rating of Commercial and Private Hotels, and the Classification of Rural Accommodation.
² Source: United States Environmental Protection Agency (EPA): <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>