2018 CARBON FOOTPRINT CALCULATION

BACKGROUND

This report outlines the ongoing results of monitoring and reporting of the UIAA's carbon footprint, which is in response to our signed commitment in early 2019 and participation under the United Nations Framework Convention on Climate Change (UNFCCC) Sports for Climate Action. As a participant in this initiative, the UIAA is required and expected to adhere to 5 principles (see here), these being:

Principle 1: Undertake systematic efforts to promote greater environmental responsibility;

Principle 2: Reduce overall climate impact;

Principle 3: Educate for climate action;

Principle 4: Promote sustainable and responsible consumption;

Principle 5: Advocate for climate action through communication.

Under Principle 2: Reduce overall climate impact, the UIAA is expected to "measure and understand" its carbon footprint in order to set targets to reduce overall climate impact. Knowing how to define these targets requires first measuring and understanding how our travel and activities contribute to CO_2 emissions, requiring a 'baseline' to compare progress over time. The initial task is to establish and report on an indicative baseline and continue to gather data to monitor how our emissions trend over time. In parallel to this, the UIAA can also use this data to start seeing where and which activities create biggest impact and then suggest practical means to consider reducing this impact.

Many travel policies to reduce CO_2 impact promote the principle of "avoid, reduce, compensate" (in that order). The UIAA, through the support and participation of its Mountain Protection Commission, will seek to draft such as policy as a next step in its fulfilment of the 5 principles set out by the UNFCCC.

SCOPE

This is the first carbon footprint calculation of the UIAA. The infrastructure information was provided

by the Swiss Alpine Club (SAC) with whom offices are shared. Travel information was gathered through attendance sheets of various meetings. The biggest airport in the country of origin was considered as point of departure for all delegates, while the nearest and most relevant airport was considered as point of arrival for all meetings. Direct travel was assumed. Local travel, via car and/or public transportation, was not considered for the 2018 calculation, but will be in the future. All delegates and staff will be asked to submit their travel information during meetings using a survey issued by the UIAA office.

Not included in the 2018 carbon footprint calculation are indirect impacts of UIAA events and meetings, such as the origin and travel of goods and resources; electricity; heating; infrastructure; etc.

LIMITATIONS

The accuracy and completeness of the 2018 carbon calculation is somewhat limited.

First of all, direct travel by plane was assumed for most delegates and staff, unless accurate information was available. No survey collecting clear and accurate information regarding attendance and travel to meetings was distributed and collected up until this point. The reason for this omission is to avoid over flooding delegates with emails, learn from a first calculation and know exactly what to ask for in 2019.

Second of all, no local travel via car and/or public transport was considered for the 2018 calculation. The focus remained on travel by plane, as it is proven to spike CO_2 emissions significantly more than any other transportation type.

Lastly, the 2018 carbon footprint calculation doesn't effectively display the many ways additional CO_2 production was avoided, limited and already minimized by the UIAA, its delegates and staff up until this point. Nonetheless, the 2018 calculation will provide a base for comparing results in the future and allow a more accurate, complete and focused edition in the coming years.

METHODOLOGY

In a first step, attendance sheets of all UIAA meetings and events were gathered.

The largest "home" airport of each delegate, staff member or else was determined, considering their country of origin.

The closest and most relevant airport in regard to the meeting or event locations was determined.

CO_2 emission calculations of all relevant travel were done for both ways, there and back.

https://www.carbonfootprint.com/calculator.aspx was used for all calculations.

Lastly, information regarding the office infrastructure was requested from the Swiss Alpine Club (SAC) and calculations were done via the same calculator as highlighted above.

RESULTS

The sum of UIAA CO_2 emissions created in 2018 is 365.56 tonnes. The two main constituents of this calculation, notably the office infrastructure and airplane travel of UIAA delegates to given events.

In the sections below, all details are shown.

1. Office Infrastructure

Office Infrastructure	**35,7 m2**	**Tonnes of CO2**
Nbr of staff members	6 (working as 4.2 pax incl. 1 pax remote)	0
Electricity	3'023 in kWh at a factor of 0.0140 kgCO2e/kWh	0.04
Natural gas	0 kWh	0
Heating oil	0 Litres	0
Coal	0 Tonnes	0
LPG	0 Litres	0
Propane	0 Litres	0
Wood	0 Tonnes	0
Other heating systems:	141,200 kg or L District Heating (Ground Source Heat Pump)	0
Printing	263 pages b/w – CHF 0.10 pp 8 colour – CHF 0.20 pp	0.01
Cost computers and IT equipment	CHF 4,250.00	2.12
Total Office Infrastructure Footprint		**2.17**

Table 1 – CO_2 Emission caused by UIAA Office Infrastructure

Electricity, printing and IT equipment is causing 2.17 tonnes of CO_2 emissions as Table 1 shows. Heating of the offices and water is generated through district heating, and thus emissions caused are minimal. Airconditioning is not used.

2. Travel by Airplane

Travel by Air Plane	Office staff	EB members	MC members	GA delegates	Honorary Members	Unit Members	UIAA Court	COM full members	COM corresponding member	Officials	Athletes	Goods	TOTAL
to GA	5.34	6.03	14.88	35.35	-	0.87	3.49	7.9	0	0	0	-	73.86
to MC	3.03	6.85	13.1	0	2.08	1.01	0	7.98	0.88	0	0	-	34.93
to EB	0.38	6.96	0	0	0	0	0	0	0	0	0	0	7.34
to COM/WG	1.84	2.11	0	0	0	0	0	36.07	15.42	0	2.55	-	57.99
to Sports Events	2.46	1.3	0	0	0	0	0	-	0	6.39	151.4	9.93	171.48
to Trade Shows	2.35	-	0	0	0	0	0	1.19	0	0	0	-	3.54
to RTM Events	1.43	0	0	0	0	0	0	0	0	0	0	0.18	1.61
to Office	-	-	0	0	0	0	0	0	0	0	0	-	0
to Strategy Meeting	0.24	0.24	3.13	0.32	0	0	0	0	0	0	0	0	3.93
to IUCN Meeting	-	0	0	0	0	0	0	0	0	0	0	0	0
to SSC	0	0	0	0	0	0	0	0.23	0	0	0	0	0.23
to Film Festivals	-	-	0	0	0	0	0	0	0	0	0	-	0
to Sponsorship Meetings	-	-	0	0	0	0	0	0	0	0	0	0	0
to SportAccord	2.52	2.51	0	0	0	0	0	0	0	0	0	0	5.03
to Rock Climbing Festivals	0	0	3	0	0	0	0	0	0	0	0	0	3
to other meetings (e.g EUMA)	-	0.45	0	0	0	0	0	0	0	0	0	0	0.45
TOTAL	19.59	26.45	34.11	35.67	2.08	1.88	3.49	53.37	16.3	6.39	153.95	10.11	363.39

Table 2 – CO_2 Emissions caused through UIAA Stakeholders' Travel by Plane

An individual/groups of people relevant to the organization are highlighted in the first row of Table 2, while the first column lists the potential events/conferences/meetings these individuals/group of people attended. The numbers indicate the CO_2 emissions in tonnes, which the individuals/groups of people caused traveling to the given events/conferences/meetings.

The number "0" indicates that none of the group's members attended a respective event.

The symbol "-" indicates that (a) member(s) of the group attended the respective event, but either did not fly there (thus using a car, bus or rail) or the caused emissions are already accounted for elsewhere. This is the case, for example, if an EB member attends a Sports Event and uses the opportunity and presence to attend a Sponsorship meeting in the same country.

Abbreviations used:
GA: General Assembly

MC: Management Committee
EB: Executive Board
COM/WG: Commission/Working Group
RTM: Respect the Mountains
IUCN: International Union for Conservation of Nature
SSC: Sustainable Summits Conference
EUMA: European Mountaineering Association

The total CO2 emmissions caused through airplane travel are 363.39 tonnes.

In the following section, explanations regarding each group of people and the results are highlighted.

2.1 Office staff travel

In 2018 “Office staff” counts 6 people, working as 4.2 percentage wise, with 1 of them working remotely.

Office staff traveled to nearly all UIAA events, namely GA, MC, EB, COM/WG meetings, Sports Events, Trade Shows, RTM events, to the office, strategy meeting, IUCN conference, film festivals, sponsorship meetings, SportAccord and other meetings. The only two events in 2018 that were not attended in person by Office staff were the SSC and Rock Climbing Festivals.

All in all, the Office staff travel by airplane accounts for 19.59 tonnes of CO_2 emissions.

2.2 EB members’ travel

“EB members” refers to the UIAA Executive Board which in 2018 counts 7 people, 3 of which left the EB after the GA that year.

The EB had 6 meetings in 2018, taking place in the following locations:

- Kathmandu, NEP (attached to MC meeting)
- Lisboa, POR (attached to Safety and Ice Climbing COM meetings)
- Bern, SUI (no travel needed of 1 EB member + Office staff)
- Budapest, HUN (no travel needed of 1 EB member)
- Ulaanbaatar, MON (attached to GA)
- Bern, SUI (no travel needed of 1 EB member + Office staff)

All in all, the EB member travel by airplane accounts for 26.45 tonnes of CO_2 emissions.

2.3 MC members' travel

"MC members" refers to the UIAA Management Committee which in 2018 counts 21 people, 7 of which are simultaneously EB members.

The MC had 2 meetings in 2018, taking place in the following locations:

- Kathmandu, NEP
- Ulaanbaatar, MON (attached to GA)

All in all, the MC member travel by airplane accounts for 34.11 tonnes of CO_2 emissions.

2.4 GA delegates' travel

"GA delegates" refers to all official delegates of the UIAA General Assembly, who aren't simultaneously part of the EB, MC or COM members. In 2018, the GA delegates' list who attended the 2018 GA counts 52 people, in addition to the 7 members of the EB, the 14 members of the MC, the 1 member representing Unit Members and the UIAA court counting 4 members.

The GA delegates mainly attended 1 meeting in 2018, notably the General Assembly in Ulaanbaatar, MON. One representative of GA delegates also attended the Strategy Meeting in London, GBR.

Their travel by airplane accounts for 35.67 tonnes of CO_2 emissions.

2.5 Honorary members' travel

"Honorary members" refers to a reserved group of official UIAA delegates. They are invited to all MC meetings and the General Assembly.

Their travel by airplane in 2018 accounts for 2.08 tonnes of CO_2 emissions.

2.6 Unit members' travel

"Unit members" refers to representatives of the current UIAA Unit Members. In 2018 that accounted for 1 single delegate representing the International Skyrunning Federation.

His travel by airplane accounts for 1.88 tonnes of CO_2 emissions, having attended the MC meeting in Kathmandu, NEP and the GA in Ulaanbaatar, MON.

2.7 UIAA court travel

The "UIAA court" attends the GA and counts 4 people in 2018.

Their travel by airplane in 2018 accounts for 3.49 tonnes of CO_2 emissions.

2.8 COM full members' travel

"COM full members" refers to all full members of UIAA Commissions and Working Groups. The UIAA

counts 8 commissions and 3 working groups in 2018, which are:

- Access Commission (4 full members, 12 corresponding members)
- Expeditions Working Group (4 full members)
- Antidoping Commission (3 full members, 2 corresponding members)
- Ice Climbing Commission (8 full members, 8 corresponding members, 3 athletes)
- Medical Commission (23 full members, 19 corresponding members)
- Mountain Protection Commission (9 full members, 8 corresponding members)
- Mountaineering Commission (24 full members, 7 corresponding members)
- Legal Experts Working Group (7 full members, 6 corresponding members)
- Training Standards Working Group (6 full members)
- Safety Commission (9 full members, 7 corresponding members)
- Youth Commission (18 full members, 5 corresponding members)

Generally, each commission meets once a year in a separate meeting, while commission presidents additionally attend the MC meeting and GA. Working groups do not hold separate meetings. The Mountaineering Commission is the only commission meeting twice a year.

In total the UIAA commissions and working groups count 115 full members.

Their 2018 travel by airplane accounts for 53.37 tonnes of CO_2 emissions.

Table 3 below shows how much CO_2 emissions (in tonnes) were created through travel of full and corresponding members of the respective commissions to their annual meeting(s):

Travel by Airplane	COM full members	COM corresponding members	TOTAL
Access	1.16	4.44	5.6
Expedition	0	0	0
Antidoping	0.15	0	0.15
Ice Climbing	3.84	0.65	4.49
Medical	16.38	9.89	26.27
Mountain Protection	0.96	0	0.96
Mountaineering	10.12	0.44	10.56
Legal Experts	0	0	0
Training Standards	0	0	0
Safety	2.63	0	2.63
Youth	0.83	0	0.83
	36.07	15.42	51.49

Table 3 – CO_2 Emissions by UIAA Commissions

2.9 COM corresponding members' travel

"COM corresponding members" refers to all corresponding members of UIAA Commissions and Working Groups. The UIAA counts 8 commissions and 3 working groups in 2018, which are:

- Access Commission (4 full members, 12 corresponding members)
- Expeditions Working Group (4 full members)

- Antidoping Commission (3 full members, 2 corresponding members)
- Ice Climbing Commission (8 full members, 8 corresponding members, 3 athletes)
- Medical Commission (23 full members, 19 corresponding members)
- Mountain Protection Commission (9 full members, 8 corresponding members)
- Mountaineering Commission (24 full members, 7 corresponding members)
- Legal Experts Working Group (7 full members, 6 corresponding members)
- Training Standards Working Group (6 full members)
- Safety Commission (9 full members, 7 corresponding members)
- Youth Commission (18 full members, 5 corresponding members)

In total the UIAA commissions and working groups count 74 corresponding members in the year of the calculation.

Their 2018 travel by airplane accounts for 16.3 tonnes of CO_2 emissions.

Table 3 shows how much CO_2 emissions (in tonnes) were created through travel of full and corresponding members of the respective commissions to their annual meeting(s).

2.10 Officials' travel

"Officials" of the UIAA refer to stakeholders at the UIAA Sports Events working in an official capacity. These include: international livestream commentator, international results manager, international route setters and international judges. Excluded are: national/local judges and route setters, guests and the livestreaming team.

Among the UIAA Sports Events are: UIAA Ice Climbing World Cups, the UIAA Ice Climbing World Championships, the UIAA Ice Climbing Youth World Championships and the UIAA Ice Climbing Combined World Championships.

In 2018 their travel by airplane accounts for 6.39 tonnes of CO_2 emissions.

2.11 Athletes' travel

"Athletes" of the UIAA are all those competing in UIAA Sports Events, notably the UIAA Ice Climbing World Cups, the UIAA Ice Climbing World Championships, the UIAA Ice Climbing Youth World Championships and the UIAA Ice Climbing Combined World Championships.

In 2018, the season comprised 5 World Cups and 1 Youth World Championships in the following locations:

- Saas Fee, SUI
- Rabenstein, ITA
- Hohhot, CHN
- Cheongsong, KOR
- Kirov, RUS
- Malbun, LIE

The calculation assumed for athletes participating in more than 1 competition of the European leg to travel by car, bus or rail in between. For athletes participating in consecutive legs of the World Tour, continuous travel was assumed, as athletes tend to stay on the continent to train locally before the

next competition.

The total number of athletes participating in at least one of the above events counts 232.

Apart from competing in UIAA sanctioned events, 3 athletes attended the Ice Climbing Commission meeting in Busteni, ROM that year.

The athletes' travel by airplane accounts for 153.95 tonnes of CO_2 emissions.

2.12 Goods travel

A certain amount of "Goods" get transported for and by the UIAA, such as branding material, sponsors' in kind gifts, UIAA trophies, medals, etc.

In most cases and whenever possible these travel with UIAA delegates to the various locations. The times, that these are traveling by airplane themselves though, account for 10.11 tonnes of CO_2 emissions.

DISCUSSION

TBD.