"Reducing the Carbon Footprint of IUFRO-HQ Operations"

A Policy Guideline for Activities by IUFRO-Staff based at HQ in Vienna, Austria

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Some Facts about Mobility

According to the Paris Agreement signed in 2015 the global community has agreed to keep the increase of global temperatures "to well below 2 °C above preindustrial levels." The goal is to achieve a balance after 2050 between atmospheric inputs of greenhouse gases (GHG) by emission sources such as burning of fossil fuels or deforestation and removal into sinks such as forest growth, reforestation, oceans, and soil. In order to reach global net zero GHG emissions all human activities around the world including travel require decarbonisation.

According to the International Council on Clean Transportation, aviation is responsible for 2.4% of global CO2 emissions from fossil fuel use. According to other sources, this share is even higher. Emissions from aviation have increased by 32% over the past five years. As indicated in the graph below, passenger operations account for a total of 81% of all aviation-related emissions.

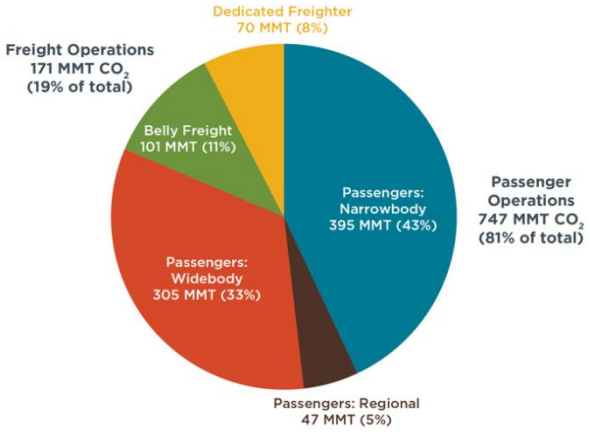

Figure 1. CO_2 emissions in 2018 by operations and aircraft class

International Council on Clean Transportation:
https://theicct.org/publications/co2-emissions-commercial-aviation-2018

In Austria, in 2019 commuting to and from work and work-related trips accounted for 53% of all automobile traffic causing 2.8 million tonnes of CO2 emissions. Therefore, work-related commuting is an important factor that could contribute to improving the overall climate compatibility of transport. In addition, daily active mobility through cycling or walking to work or the nearest railway/bus station is an opportunity to obtain a healthy dose of exercise every day (VCÖ, 2020).

Staff members of IUFRO HQ in Vienna, Austria through their global networking activities extensively travel at domestic, regional and intercontinental levels. In this way, IUFRO significantly contributes to GHG emissions from aviation and ground transportation. Given the urgency of decarbonising human activities within the remaining 30 years until mid of this century (IPCC, 2018), IUFRO as a science-based organisation which for years promoted climate-resilient forest landscapes management requires to pursue a low-carbon policy for its own operations and thus contributing to the zero-net GHG emission target as committed under the Paris Agreement.

Low Carbon Policy Objectives and Priorities

The purpose of this document is to outline ways and means of reducing - whenever possible - the carbon footprint of activities implemented by IUFRO HQ through a self-commitment by all staff members including IUFRO's Special Programmes, Projects and IUFRO-led Initiatives. To this end, two basic options are available which should be applied to the extent feasible and within budget limitations as follows:

- Avoiding or reducing carbon emissions; and/or
- Compensating emissions through payments to carbon offset schemes.

Avoiding emissions should have highest priority in all IUFRO-HQ operations. This can be achieved through daily commuting to work by active mobility and public transport; using trains for domestic duty trips and to some extent international travel, sub-contracting inner-city courier services to companies using (electric) bikes and/or changing from physical meetings to digital ones whenever feasible.

Compared to avoiding emissions, carbon offset projects are the second best option. Such projects aim at compensating for green-house gas emissions through reduction in emissions of carbon dioxide or other greenhouse gases elsewhere. Such projects which are investing into reforestation, energy efficiency or development of renewable forms of energy have been used by the industry including airlines as a convenient way of reaching emission reduction targets. However, carbon offset projects have their merits and demerits depending on the type of project and context in which funds are being invested.

Major merits include:

- Compensation schemes that invest in well-designed reforestation projects can have a positive impact by sequestering a substantial amount of carbon dioxide from the atmosphere, provided sustainable management of the forest and monitoring is in place in the long-term.
- Forest conservation projects that aim at conserving carbon stocks through avoided deforestation are equally important.
- Apart from tree-related projects, there are also compensation schemes that support the change to renewable forms of energy such as solar, wind, biogas or synthetic fuels, and/or increase in energy efficiency.

Demerits include:

- If invested in reforestation projects, the risks that the trees do not accumulate the “sold” amount of carbon are high and nobody today knows whether this will materialise in the long-term. Recent research in Costa Rica shows that secondary forests or forests that have regrown after agriculture use, only last - on average- about 20 years before the area is cleared again and re-cultivated with agriculture crops. This period is too short to absorb and store large amounts of carbon (Reid et al. 2018).
- The option to compensate is not an incentive to reduce flight miles.
- Investing into the development of carbon neutral kerosene and electric powered planes would be more future-oriented than to continue supporting the present fossil fuel-based system.

Overall, careful selection of compensation schemes is essential to make a meaningful contribution to climate change mitigation and adaptation. Preference should be given to projects with acceptable design and longer-term impact. As an example are those of the Livelihoods Funds which are based on principles such as CO2 reduction first, adherence to high standard carbon credit certification, long-term commitments by investors and providing direct benefits to local stakeholders (Livelihoods Funds, 2020). The compensation scheme through reforestation and forest rehabilitation as pursued by the University of Natural Resources and Life Sciences, BOKU, Vienna, Austria in Costa Rica, Ethiopia or Nepal in close cooperation with local institutions would meet the desired high standards.

Policy Measures

Considering the above, IUFRO-HQ staff is committed to implement a policy on reducing emissions from its operations by implementing the following measures:

- Daily commuting to work is accomplished by public transport (e.g. train, tram or bus) and/or active mobility through walking or cycling. Each staff member receives from IUFRO - as in-kind support - an annual ticket for the public transport system valid in and around Vienna based on a commitment to use this instead of fossil-fuel-based motorised private transport.
- For the exchange of physical documents and files with Vienna-based service providers such as accounting and auditing firms, IUFRO-HQ exclusively uses courier services doing their transport by climate-neutral means (bikes, e-bikes, e-mobiles).
- IUFRO HQ staff for its travels applies the “no air travel below 1.300 km rule”; i.e. whenever possible, all destinations below 1.300 km away from Vienna will be covered by train (e.g. Berlin, Bonn, Brussels, Zurich, Rome are within this range).

- Reducing long-distance travel by air by combining various meetings and appointments in the same region.
- Avoiding air travel by replacing face-to-face meetings with virtual meetings using internet-based communication systems.
- Development of online training workshops and operating these through webinars (e.g. SPDC events).
- Unavoidable air travel by IUFRO HQ staff and sponsored participants of IUFRO's Special Programmes, Projects and IUFRO-led Initiatives should be compensated by payments into selected carbon-offset schemes. The selection of appropriate schemes is based on the above-mentioned considerations.
- IUFRO-HQ in all its operations will increase the level of green procurement and resource efficiency such as use of recyclable and local products, reducing waste through use of reusable containers in the daily food procurement and promotion of green events.

References:

IPCC 2018: Summary for Policymakers. In: Global Warming of 1.5°C. https://www.ipcc.ch/sr15/ (accessed on 15 March 2020)
VCÖ, 2020. Arbeitswege auf Klimakurs bringen. VCÖ Schriftenreihe „Mobilität mit Zukunft" 1/2020.
J. Leighton Reid, Matthew E. Fagan, James Lucas, Joshua Slaughter, Rakan A. Zahawi. The ephemerality of secondary forests in southern Costa Rica; Conservation Letters, 2018; e12607 DOI: 10.1111/conl.12607
https://www.sciencedaily.com/releases/2018/10/181002102900.htm (accessed on 18 March 2020)
Livelihoods Funds: Carbon compensation: yes, but what kind of compensation? THE LIVELIHOODS FUNDS POINT OF VIEW, January 30, 2020
http://www.livelihoods.eu/carbon-compensation-livelihoods-point-of-view/?utm_source=Awesome+Database&utm_campaign=19d0986b70-EMAIL_CAMPAIGN_2020_02_27_11_07&utm_medium=email&utm_term=0_bd63cbc68d-19d0986b70-240040601 (accessed on 19 March 2020)

Annex 1: Examples of carbon offset schemes

<table>
<tr><td colspan="2">University of Natural Resources and Life Sciences, BOKU, Vienna, Austria
CO_2 Compensation Scheme:
https://boku.ac.at/wissenschaftliche-initiativen/zentrum-fuer-globalen-wandel-nachhaltigkeit/themen/nachhaltigkeit/boku-co2-kompensationssystem</td></tr>
<tr><td>Description & Process:
• CO_2 Compensation for staff members' air travel – once a year – gross payment
• CO_2 Compensation for SAP and IUFRO meeting delegates per flight ticket</td><td>Supported projects:
BOKU Climate-related projects:
• Reforestation with native species in Ethiopia
• Decentralised compost production Ethiopia
• Rainforest enhancement in Costa Rica
• Reforestation in Nepal
Improved drinking water through solar-powered disinfection of water, Uganda</td></tr>
<tr><td colspan="2">Less (Canada) a bullfrogpower company
https://www.less.ca/en-ca/</td></tr>
<tr><td>Description & Process:
• CO_2 Compensation for individual flights (based on UN's Clean Development Mechanism protocols and CSA Standard recognised for voluntary GHG emission reductions projects).
• Purchase of carbon by tonne as second option.
• Website to enter flight details and for making payments</td><td>Supported projects:
• Waste water biogas treatment plant, Thailand
• Solar cooker project, China
• Essex-Windsor Regional Landfill Gas Capture and Destruction, UK
• Chlorine dispensers in Eastern Uganda
• Fredericton Region Landfill Gas Management System, Canada</td></tr>
<tr><td colspan="2">United Nations Carbon Offset Platform
https://offset.climateneutralnow.org/</td></tr>
<tr><td>Description & Process:
This platform features UNFCCC certified projects that reduce, avoid or remove greenhouse gas emissions from the atmosphere.
The projects are implemented in developing countries and are rewarded with Certified Emission Reductions (CERs), a type of carbon offset measured in tonnes of CO2 equivalent. The CERs are available for everyone to purchase to offset emissions or in support of the projects. The full contributions go directly to the projects.</td><td>Supported projects:
28 projects in Asia, 13 in Latin America, 3 in Africa

Asia: mainly wind and hydropower project; 1 project on planting new forests on small-holder farms in India

Latin America: Hydro and biomass power plants

Africa: 2 cook stove projects; 1 on abatement of N2O emissions from industry</td></tr>
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Climate Austria https://www.climateaustria.at/	
Description & Process General platform where companies and individuals can purchase carbon credits for the tonnes of carbon emitted.	Supported projects: Various projects in Austria and overseas supporting the use of bio-energy, small-scale solar and hydro power for rural communities and forest protection.