



Poisoning “air in the air”.

Short-sighted man poisons the Earth with forced CO₂ emissions on land, water and in the air - it's a truism but you have to repeat it to avoid self-destruction of the homo sapiens species.

We are used to automatically associate harmful CO₂ with smoking from car pipes and chimneys. But in the long run, aviation is probably more dangerous polluter. On one hand, everything happens somewhere far and high, on the other we subconsciously delude ourselves, that poisonous gases "dissolve" somewhere far and no longer affect on what is happening on the Earth. This is a dismissive mistake in the phenomenon of air poisoning. It is officially reported that about 25,000 passengers and cargo aircraft performing about 170,000 flights a day are responsible for about 3-5% of global man-made warming, including the emission of about 800 million tonnes of CO₂ per year (data do not include military aviation) . But this is only part of the truth. Due to high emissions at high altitude, hot nitrogen and sulfur oxides as well as water vapor reveal particularly unfavorable atmosphere-changing properties with a strong heating effect that has not yet been well studied and estimated. Admittedly, there are much more than 1.2 billion cars on the ground, but in the field of motorization, man is already working intensively towards reducing harmful emissions as part of intensified programs of broadly understood ecomobility. On the other hand, progress in aviation in this area is negligible and the number of flights increases by approx. 6% per year, despite the fact that only approx. 3% of the human population uses aviation services! Europe aims to offset CO₂ emissions in 2050, but by then aviation will already be responsible for over 20% of global atmospheric emissions! Among others protective practices in supporting aviation, including the non-taxation of aviation fuel, also have an impact on growing air traffic to the disadvantage of at least railways in particular over short distances.

You should think twice before making a decision about travel or better to extend the journey by up to a few hours but to travel by rail, especially at distances up to 700-800 km. I omit the health aspect associated with the frequent use of planes. The air we breathe in airplanes may contain toxins that cause passengers, pilots and on-board staff to experience neurological problems, chronic fatigue and an increased risk of cancer, according to a recent WHO report.

It's not everything.

Passenger aviation generates over 5.7 million tons of waste annually! These are all plastic packaging, disposable cutlery and cups, cans and bottles as well as newspapers and paper napkins. Added to this are uneaten meals and meals waste. Approximately 180,000 meals a day are prepared only for the Emirates line!!! And the waste from passenger aircraft makes up only about 20% of all waste generated by aviation!

Aviation is effectively and threateningly contributing to global warming, the effects of which are already beginning to be felt by themselves. Airplanes cannot take off especially at full load when the air temperature is above a certain limit (approx. 45^o C) due to the thinning of the air. There are more and more cases of take-off cancellations due to too high temperatures, for which aviation is largely responsible. An increase in flight cancellations for this reason may confirm that dangerous trend.

Everyone probably asks what to do? I omit the military and rescue sector. Air freight and passenger transport must be functioning and characterized by high inertia in the scope of introduced innovations that are necessary. In principle, the harmfulness of aviation can be reduced in two ways - by reducing fossil fuel combustion and by reducing the number of flights, particularly on short routes, where more fuel is consumed.

I reiterate my call to refrain from using air services wherever it is possible and to use electricity-driven means of transport. Reducing protectionism in air services could contribute to other travel and transport decisions. Attempts are being made to use solar propulsion, the use of biofuels and helium lifted airships, but these are not (at the present state of knowledge) solutions that can improve the situation in a short time.

The Institute of Research, Applied Sciences and New Technologies in Warsaw is working on an innovative technique to increase flight efficiency through the use of new construction and technical solutions.

Under laboratory conditions, the tests confirmed the research assumptions and it has been decided that they would be continued. A 5% reduction in fuel consumption could significantly reduce emissions.

Sources: EEA, Transport & Environment, ICAO, IATA, abc.net.au
<https://www.green-projects.pl>

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