

SlovakAid and the global climate crisis: on education, start-ups and chickens

It is a late summer evening in Slovakia, no different from the other sunny days. „I can't believe they still serve plastic straws here. It kills the turtles!“, my shocked friend is outraged, as we sit in a bar. Just few moments later, she calmly enjoys her beverage from a single-use plastic cup. The very next day, as I scroll through the reviews, I see many people already reviewed the bar, often lowering the score because of the plastic straws. One may say it is great that legislative, which is still not in force,¹ but supported by public acknowledgement and actual engagement of individuals is already making a difference, but my otherwise impressively intelligent friend is a sad, but good example of the level of actual realization and understanding of the problem by the society. The plastic straws are wrong, but say, the earphones, that will last you for a month before one stops playing for good, are, well, not much of a deal. Yes, although the upcoming legislative will ban much more than only the straws, people somehow still don't understand the essence and scope of the problem: to imagine, out of the whole climate crisis, the plastics will be responsible for 13% of the total „carbon budget“ by 2050.² But on the other hand, the existence of the guilt caused by air travel due to its environmental impact, aka *flygskam*, can surely be seen as a different story.³

The *war, or crusade*, against climate crisis, is waged on multiple fronts. Somewhere the legislative is trying to be up front, as we may long see in the automotive industry, which is constantly pushing for more ecological cars, or in recent UN Environment's sixth Global Environment Outlook, which calls on decision makers to take immediate action to address pressing environmental issues, or in the Paris Agreement. Elsewhere we see brave activists mobilizing the society to demand more actions (*thank you, Greta*), as well as mobilizing the society to seek for solutions, as at the London Climate Action Week. So, we can talk about great leaps and huge steps forward in this *war* to save our planet, but how far we really are? As a matter of fact, a bit round the globe, the USA decided to withdraw from the Paris agreement, because it „undermines its economy and put them at a permanent disadvantage.“⁴ No matter Mr. Bloomberg wrote a cheque to cover the USA commitment to the agreement in

¹ <https://www.europarl.europa.eu/news/en/press-room/20190321IPR32111/parliament-seals-ban-on-throwaway-plastics-by-2021>

² <https://www.theguardian.com/environment/2019/may/15/single-use-plastics-a-serious-climate-change-hazard-study-warns>

³ <https://medium.com/@tabitha.whiting/flygskam-the-new-swedish-word-to-describe-the-guilt-of-air-travel-252b63398256>

⁴ <https://foreignpolicy.com/2019/11/05/paris-climate-agreement-united-states-withdraw/>

2018,⁵ and no matter more than 60% of US citizens stated the climate change is at least „somewhat important“ to them,⁶ the USA definitely rewrote the future of Earth's climate in a negative way. As well as Poland, which just recently opened a new coal mine,⁷ and has plans to build largest ever coal-fired power plant, which are for now undermined by one of Polish district courts.⁸ The list could go on and on, but this essay is not meant to be pessimistic, but rather to serve as a lighthouse, throwing light on possibilities and positive examples.

Some of the *war fronts*, however, are still to be challenged much more, and SlovakAid may prove to be a serious fighter of climate change, by addressing areas where it can do tangible impact.

Countries, where SlovakAid is active, for example Kenya, will be extremely affected by the climate crisis. Kenya's agriculture accounts for third of the national GDP,⁹ and climate crisis might bring even more troubles with droughts, famine and thus cause migration of population, and therefore focus to seek solutions is urgent.

For ideas on saving planet to be effective, every citizen must understand his responsibility and take actions to do his part, and only aware individuals and society may take useful actions and demand necessary legislative changes. By organizing workshops and lectures, either in schools or in public, SlovakAid may play an important role as an educator, spreader of information and know-how, and supporter of solutions, so every citizen understands that to save the planet, we must all change our habits. It is essential to communicate that everyone can make an impact and people must not fall into a trap of feeling powerless in this regard. To fully explain the core of the problem, and to avoid the misunderstanding as described in the beginning with the plastic straw, cup and my friend, people must be aware that it is important to think of the plastics as a group of products, not as just few named ones, and therefore, they must be explained to think about the consequences on environment everytime they are shopping, and always consider alternatives, whether it will be yoghurt in plastic or glass cup, or whether it will be fast or slow fashion. Same principle applies in communication of all other areas that are causing climate crisis – people shall be taught to think of causes and consequences, context, and incorporate

⁵ <https://www.theguardian.com/environment/2018/apr/22/michael-bloomberg-paris-climate-pact>

⁶ Leiserowitz, A., Maibach, E., Roser-Renouf, C., Rosenthal, S., Cutler, M., & Kotcher, J. (2018). Climate change in the American mind: March 2018. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

⁷ <https://www.euronews.com/2019/09/26/polish-government-criticised-for-opening-first-new-coal-mine-in-25-years>

⁸ <https://www.reuters.com/article/us-enea-ostroleka/polish-court-ruling-undermines-polands-last-coal-power-plant-plan-idUSKCN1UR4AP>

⁹ <https://www.usaid.gov/kenya/agriculture-and-food-security>

caring about environment into their everyday decision making, for example in deciding of the mean of transport used. It is however not only about citizens, but also about political leaders. SlovakAid has the capacities and possibilities to educate politicians in legislative, as shown with Anti-shell companies' law,¹⁰ and can therefore surely educate about environment causes. SlovakAid can play a vital role in learning people to think differently, hence make a big difference in climate crisis in countries that might be affected severely.

Another important way SlovakAid may help to fight climate crisis is by supporting projects, start-ups and entrepreneurs who brings ecological solutions as answer to today's world. Rigu, a former small-scale corn farmer from Kenya, was looking for a solution to yield more crops, and started a company called Safi organics. Because fertilizer is extremely expensive, he had an idea of turning agricultural waste into organic fertilizer, with which the local farmers had increased yield by up to 30% and their income by up to 50%.^{11,12} Supporting similar activities and start-ups¹³ that bring solutions to waste management, renewable energy, sustainable agriculture or which use waste material for crafting, or which organize clothes-swap happenings and similar projects might not only help the environment, but also bring income to those in need, as well as catch the eye of investors from private sector. As an example, a start-up in Kenya is creating banana-stem bags, and a start-up from Burkina Faso creates school benches from plastic waste. They both were awarded a prize and continue in their very useful activities.¹⁴ Great example by SlovakAid itself, which can be an inspiration for similar agencies, is the support of construction of training center for renewable resources in Afghanistan,¹⁵ which provides know-how, as well as supports and promotes the usage of renewable resources. Providing sufficient help to such projects and supporting upbringing of new ideas may bring positive outcome for every involved party in many different aspects, such as finances, prosperity or ecology.

¹⁰ „Slovak Anti-shell companies law“ may be inspiration for other countries. Available in Slovak: <https://www.teraz.sk/slovensko/slovensky-protisrankovy-zakon-ma/426164-clanok.html?fbclid=IwAR211tPkLYbKr80Tpdhra1OxprTgAJV9BNjiWQVQvhcl0RXrmPCwC1CWF4>

¹¹ <https://www.smithsonianmag.com/science-nature/kenya-climate-change-fuels-new-business-180968122/>

¹² Also TFF Challenge Runner-Up Winner. Further reading: <https://thoughtforfood.org/content-hub/whats-next-safi-organics/>

¹³ SlovakAid for example supported Slovakian start-up SCASE, that may help doctors and patients in Third-World countries. Available in Slovak: https://dennikn.sk/1642102/medik-z-lekarov-su-pisari-chceme-aby-mali-na-pacienta-viac-casu-a-liecili/?fbclid=IwAR1czyZHQS061nYajVwUVI1I4LuX_EhRgy6X2hPzrFPpRZSaUzwg_vglpw

¹⁴ <https://europa.eu/capacity4dev/unep/discussions/fifteen-eco-friendly-african-start-ups-receive-prestigious-switch-africa-green-seed>

¹⁵ https://www.forbes.sk/slovaci-postavili-skoliace-stredisko-pre-obnovitelne-zdroje-energie-v-afganistane/?fbclid=IwAR2qX4YRGxwVJPBNWGb1_6ip5gElkFZm9qfh8ZtXvaiCeTuBCWoWOAP3sNc

One of the major causes of climate change is the agriculture, and agencies such as SlovakAid might play a vital role there. Although more people start to believe that eating too much meat is unhealthy, and the recent studies show, that our change in diet is crucial for environment,¹⁶ it is rather unknown that the livestock sector itself is estimated to account for more of the greenhouse gas emissions than the direct emissions from the transport sector.^{17, 18} Bill Gates already launched a campaign by donating tens of thousands of chickens in fight of poverty,¹⁹ but recent studies also showed that while cows have the highest, the chickens, on the other hand, have the smallest negative impact on the environment between animals.²⁰ Out of all habitable land, 50% is used for agriculture, of which 77% is used by livestock.²¹ The problem is, that currently near half of the worlds grain output is fed to livestock,²² and to produce one kilogram of beef, 15.415 litres of water is used, which is almost four times more than to produce kilogram of chicken meat, or roughly ten times more than to produce kilogram of bread.²³ On top of that, research show, that to create kilogram of red meat, 28 times more land is required and 5 times more climate-warming emissions is produced, compared to chicken, and even more compared to some staples such as wheat, rice or potatoes.²⁴ With the estimated Earths population of 9.8 billion in 2050,²⁵ we will need to farm much more land and food and breed more animals and therefore create much more emissions, if done so by current methods, which leads us to rethink our diets and the ways we create food. If we could shift our diets from livestock to pigs or chickens, or ideally to more crops, vegetables and fruits, we would make a very positive impact in regard to climate crisis by saving a lot of water, fertilizer, land and wheat, that is now used to breed animals.

¹⁶ <https://www.wri.org/blog/2018/10/we-cant-limit-global-warming-15c-without-changing-diets>

¹⁷ Bailey, R., Foggatt, A., & Wellesley, L., (2014). Livestock – Climate Change’s Forgotten Sector Global Public Opinion on Meat and Dairy Consumption. Chatham House, Energy, Environment and Resources.

¹⁸ However, in developed countries, the numbers might be different. For example, in the USA, according to United States Environmental Protection Agency, the agriculture is responsible only for 9% and the transport for 29% of the greenhouse gas emmisions. Source: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

¹⁹ <https://www.bbc.com/news/world-africa-36487536>

²⁰ Grossi, G., Goglio, P., Vitali, A., & Williams G. A., (2019). Livestock and climate change: impact of livestock on climate and mitigation strategies, *Animal Frontiers*, Volume 9, Issue 1, January 2019, Pages 69–76, <https://doi.org/10.1093/af/vfy034>

²¹ This includes grazing land for animals and arable land usef for animal feed production. Source: <https://ourworldindata.org/global-land-for-agriculture>

²² <https://www.aier.org/article/the-end-of-agriculture-as-we-know-it/>

²³ <https://www.theguardian.com/news/datablog/2013/jan/10/how-much-water-food-production-waste#data>

²⁴ Eshel, G., Shepon, A., Makov, T., & Milo, R., (2014). Land, irrigation water, greenhouse gas, and reactive nitrogen burdens of meat, eggs, and dairy production in the United States, <https://doi.org/10.1073/pnas.1402183111>

²⁵ <https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html>

This is where agencies such as SlovakAid can make significant difference, in many different aspects, for instance by promoting the breeding of less environmentally-burdensome animals, because for example chickens are in addition to above mentioned, more affordable than other agricultural animals, and therefore very suitable for developing countries, or by promoting farming of crops, vegetables and fruits rather than breeding animals. Giving lectures and providing microgrants in this sector might be vital help for the climate, and addressing this solutions to politicians can also bring positive outcomes. On top of that, well-set program might profound cooperation between public and private sector.

With all stated above, we can conclude, that SlovakAid and similar agencies, although with hands partly tied with budget, can make a significant difference in climate crisis. By spreading knowledge, being a loud microphone for worthy ideas, by supporting relevant projects and changing the way people and politicians think, live, and use their land and energies, such agencies might be worthy warriors in our *war*.

Because it is not only about the plastic straws. Because the world will be different, and agencies, such as SlovakAid, have the power to shape it.

LITERATURE

Leiserowitz, A., Maibach, E., Roser-Renouf, C., Rosenthal, S., Cutler, M., & Kotcher, J. (2018). Climate change in the American mind: March 2018. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.

Bailey, R., Froggatt, A., & Wellesley, L., (2014). Livestock – Climate Change’s Forgotten Sector Global Public Opinion on Meat and Dairy Consumption. Chatham House, Energy, Environment and Resources.

Grossi, G., Goglio, P., Vitali, A., & Williams G. A., (2019). Livestock and climate change: impact of livestock on climate and mitigation strategies, Animal Frontiers, Volume 9, Issue 1, January 2019, Pages 69–76, <https://doi.org/10.1093/af/vfy034>

Eshel, G., Shepon, A., Makov, T., & Milo, R., (2014). Land, irrigation water, greenhouse gas, and reactive nitrogen burdens of meat, eggs, and dairy production in the United States, <https://doi.org/10.1073/pnas.1402183111>

Parliament seals ban on throwaway plastics by 2021

<https://www.europarl.europa.eu/news/en/press-room/20190321IPR32111/parliament-seals-ban-on-throwaway-plastics-by-2021>

Single-use plastics a serious climate change hazard, study warns

<https://www.theguardian.com/environment/2019/may/15/single-use-plastics-a-serious-climate-change-hazard-study-warns>

‘Flygskam’: The New Swedish Word To Describe The Guilt of Air Travel

<https://medium.com/@tabitha.whiting/flygskam-the-new-swedish-word-to-describe-the-guilt-of-air-travel-252b63398256>

Is the United States Really Leaving the Paris Climate Agreement?

<https://foreignpolicy.com/2019/11/05/paris-climate-agreement-united-states-withdraw/>

Michael Bloomberg pledges \$4.5m to cover US Paris climate commitment

<https://www.theguardian.com/environment/2018/apr/22/michael-bloomberg-paris-climate-pact>

Polish government criticised for opening first new coal mine in 25 years

<https://www.euronews.com/2019/09/26/polish-government-criticised-for-opening-first-new-coal-mine-in-25-years>

Polish court ruling undermines Poland's last coal power plant plan

<https://www.reuters.com/article/us-enea-ostroleka/polish-court-ruling-undermines-polands-last-coal-power-plant-plan-idUSKCN1UR4AP>

Agriculture and Food Security in Kenya

<https://www.usaid.gov/kenya/agriculture-and-food-security>

How Climate Change is Fueling Innovation in Kenya

<https://www.smithsonianmag.com/science-nature/kenya-climate-change-fuels-new-business-180968122/>

Whats Next, Safi Organics? In Conversation with 2018 TFF Challenge Runner-Up Winner

<https://thoughtforfood.org/content-hub/whats-next-safi-organics/>

Fifteen eco-friendly African start-ups receive prestigious SWITCH Africa Green-SEED Awards

<https://europa.eu/capacity4dev/unep/discussions/fifteen-eco-friendly-african-start-ups-receive-prestigious-switch-africa-green-seed>

Without Changing Diets, Agriculture Alone Could Produce Enough Emissions to Surpass 1.5°C of Global Warming

<https://www.wri.org/blog/2018/10/we-cant-limit-global-warming-15c-without-changing-diets>

Sources of Greenhouse Gas Emissions

<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

Bill Gates launches chicken plan to help Africa poor

<https://www.bbc.com/news/world-africa-36487536>

Half of the world's habitable land is used for agriculture

<https://ourworldindata.org/global-land-for-agriculture>

The End of Agriculture As We Know It

<https://www.aier.org/article/the-end-of-agriculture-as-we-know-it/>

How much water is needed to produce food and how much do we waste?

<https://www.theguardian.com/news/datablog/2013/jan/10/how-much-water-food-production-waste#data>

World population prospects

<https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html>

SLOVAK LITERATURE:

Slovenský protischránkový zákon má byť inšpiráciou pre ďalšie krajinu

<https://www.teraz.sk/slovensko/slovensky-protischrankovy-zakon-ma/426164-clanok.html?fbclid=IwAR211tPkLYbKr80Tpdhrad1OxprTgAJV9BNjiWQVQvhcl0RXrmPCwC1CWF4>

Medik: Z lekárov sú pisári, chceme, aby mali na pacienta viac času a liečili

https://dennikn.sk/1642102/medik-z-lekarov-su-pisari-chceme-aby-mali-na-pacienta-viac-casu-a-liecili/?fbclid=IwAR1czyZHQS061nYaJVwUVl1I4LuX_EhRgy6X2hPzrFPpRZSaUzwg_vgl_pw

Slováci postavili školiace stredisko pre obnoviteľné zdroje energie. V Afganistane

https://www.forbes.sk/slovaci-postavili-skoliace-stredisko-pre-obnovitelne-zdroje-energie-v-afganistane/?fbclid=IwAR2qX4YRGxwVJPBNWGbl_6ip5gEIkFZm9qfh8ZtXvaiCeTuBCWoWOAP3sNc