

## 7th ASEF Rectors' Conference and Students' Forum (ARC7) Students' Forum: 11-14 May 2019 | Rectors' Conference: 12-14 May 2019 Bucharest, Romania





## Opinion | Dāvis Freidenfelds Sustainability—Not a Gut Feeling

\*Authors note - this is an article that sums up how sustainability should be carried out in higher education institutions. It will not go in-depth into certain argumentation about the research provided, but sources will be available so feel free to explore.

There should be no more doubt that climate change is real, and it is happening now. The United Nations Intergovernmental Panel on Climate Change published a report "Global Warming of 1.5 °C" and it has proven once more that we need to act now to safe our planet<sup>1</sup>. The report focuses on the differences between 1.5 °C and 2 °C global warming will have. In short — the difference is quite significant for example, an increase of 1.5 °C would mean that about 14% of world population will be exposed to severe heat waves at least once every five years, compared to 37% if the increase goes to 2 °C. To acquire more information, see the article by B. Plumer and N. Popovich in New York Times<sup>2</sup> as well as Carbon Brief webpage<sup>3</sup>.

We have established that the world is dying in a way. Action is needed. United Nations Sustainable Development Goals is a good guideline to work towards sustainable planet<sup>4</sup>. As this problem sees no borders there should be a global push towards sustainability. But what is sustainability? United Nations Brundtland Commission defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs"5.



Fig. 1. Conceptual understanding of threshold regarding sustainability.

As such, every action you do could be evaluated from the perspective of its impact to the environment. Conceptually, you could arrange different possible activities on a gradient from the least sustainable to the most sustainable (see fig. 1.). It is important to note the fact that there is a threshold between non-sustainable and sustainable processes as well as the fact that both directions are to some extent infinite (e.g., you could always reduce the impact to environment as well as always make it worse).

Most of us have a basic understanding of sustainability and we do our best to battle climate change. New regular habits occur — e.g. zero waste shopping with cotton bags. While this may enable us to feel good, are we sure that these habits are truly sustainable? The issue lies in the fact that there is some doubt in that, because there are a few things to look at:

- » Do you need the item you are buying? E.g. buying shoes that you were a few times most probably is not sustainable.
- What were the ways you got to the shop? E.g. types of transport
- » How many times you will use the cotton bag? New Danish research has indicated that cotton bags should be reused consistently for at least 11.5 years to be more sustainable then plastic bags<sup>6</sup>.

This is just a part of analysis that should be considered when making Life Cycle Assessments (LCA). LCA is a technique used to assess environmental impacts associated with all the stages of a product's life from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling<sup>7</sup>.

As higher education institutions are the ones that create future leaders, it is important that they also follow up this research into sustainability and only then choose how to transform their campuses, infrastructure and overall habits. Otherwise it is greenwashing<sup>1</sup>, something which should not be accepted by any community. It is important to note that there should be a fundamental understanding of the fact that nothing could be fully sustainable and there is always a room for improvement.

Some examples of greenwashing that I've encountered as well as not understanding impact to the environment in total:

- We are a green city as we now use LED lamp posts. This generalisation fails to take into account that being a 'green' city involves looking at other factors as well as understanding how these lamps will be used – if they are in a place where they are not necessary, having LED lamp posts is still not sustainable.;
- People tend to follow the hype train of recycling even though they don't know fully if the item is recyclable. Because of this average contamination rate in the USA has gone up from 12% in 2010 to 25% in 2018<sup>9</sup>;

<sup>(</sup>Greenwashing is conveying a false impression that a company or its products are more environmentally sound that they really are<sup>8</sup>).

You can't say for sure that organic farming is better then conventional farming as there are trade-offs that are hard if not impossible to compare<sup>10</sup>.

I do believe that universities should follow easily understandable processes (PDCA cycle towards more sustainable higher education institutions):

- **Plan.** There should be planning phase on how to implement sustainability in each higher education institution. This is important as each of them has different context that influences what and how could be achieved;
- » Do. After planning higher education institutions should fully implement strategy and policies towards more sustainable campuses etc;
- » Check. Progress should be checked regularly so the rate of implementation is being understood;
- Act. Higher education institutions should act upon gained data and the newest proven ways how to acquire more sustainable lifestyle.

There might be limitations to my knowledge and ability to find higher educational institutions that do use life cycle assessment forms to analyse their ideas for greening campuses. UI Green Metrics is arguably the most popular ranking for having sustainable higher educational institutions11. Top universities in this ranking do have a good sustainability strategy, execute it very well and have different practices to do so, but I'm not able to find that they do really look at every process from cradle to grave (LCA analysis type that looks fully into life cycle). If the analysis of life cycle seems too difficult there is easier principle to approach sustainability. However, do bear in mind that it might not always be the best option. Consisting of the 5 principles of 'Refuse', 'Reduce', 'Reuse', 'Repurpose' and 'Recycle', "5R" will help to reduce environmental impact in everyday situations as well as higher educational institutions.

## Sources:

- 1. Global Warming of 1,5 °C.; 2018. https://www.ipcc.ch/sr15/.
- 2. BRAD P, POPOVICH N. Why Half a Degree of Global Warming Is a Big Deal.https://www.nytimes.com/interactive/2018/10/07/climate/ipcc-report-half- degree.html. Published 2018.
- 3. The impacts of climate change at 1.5C, 2C and beyond. https://interactive.carbonbrief.org/impacts-climate-change-one-point-five-degrees-two-degrees/.
- 4. **United Nations** Sustainable Development Goals. https://www.un.org/sustainabledevelopment/sustainable-development-goals/.
- 5. United Nations Brundtland Commission. Report of the World Commission on Environment and Development: Our Common Future.; 1987. http://www.un-documents.net/our-commonfuture.pdf.
- 6. Bisinella V, Albizzati PF, Astrup TF, Damgaard A. Life Cycle Assessment of grocery carrier bags. Environ Proj no 1985. 2018;(1985):1-144. doi:10.1002/yd.282.
- 7. About Life Cycle Assessment. http://www.gdrc.org/uem/lca/lca-define.html.
- 8. About greenwashing. https://www.investopedia.com/terms/g/greenwashing.asp.
- 9. About recycling habits. https://www.youtube.com/watch?v=R7N5a476DKQ&t=13s.
- Ritchie H. Is organic really better for the environment than conventional agriculture? https://ourworldindata.org/is-organic-agriculture-better-for-the-environment. Published 2017.
- 11. About Green Metric. http://greenmetric.ui.ac.id/.
- About 5R principle. http://thegreeningofwestford.com/2014/04/5-rs-refuse-reduce-reuse-12. repurpose-recycle.html.