

RANKING OF THE SUSTAINABILITY GOALS (SDGs) BASED ON INDIVIDUAL PREFERENCES

ANITA KOLNHOFER-DERECSKEI, GYÖRGY HAUBER

Budapest Business School, Budapest, Hungary
kolnhofderecskei.anita@uni-bge.hu, hauber.gyorgy@uni-bge.hu

Abstract Aligned with the three pillars of the sustainability model (social, economic and environmental aspects), the United Nations has declared 17 Sustainable Development Goals to promote sustainability development steps by all countries. These goals are for everyone; our environment requires active voluntary action from all of us. These sound like extremely important, crucial and urgent world-changing issues that will require cooperation among governments, international organisations and world leaders. It might seem impossible that the average person can make an effort or have any impact, especially in these extraordinary pandemic times. This study aims to discover subjects' opinions and preferences on the SDG. Additionally, time and budget allocations are observed among the goals. The results provide a deeper insight into individual can-do attitudes. While voluntary and environment-friendly measures are also considered as core values. However, the question is whether economics or the environment will be underlined. This paper focuses on individual actions and beliefs. The aim of the research is to discover how and what people are ready to do for a better environment in the post-COVID era. Based on the results, an action plan can be stated that supports the achievement of as many of the SDGs as possible.

Keywords:
sustainability,
sustainable
development goals,
preference order,
time allocation,
money allocation

“Steps were taken in the hope of a better future that does not have a harmful effect on our environment and our economy.”
(Answer No.16.)

1 Introduction

According to Purvis et al., the first prominent appearance of the expression ‘sustainable development’ was published in 1980 in mainstream literature (Purvis et al., 2019). Hence, the history of this issue is widely studied in their paper. This aim of this paper is to investigate the Sustainable Development Goals (SDGs) that were adopted by all the members of the United Nations in 2015 as an essential part and guideline of the 2030 Agenda for Sustainable Development, which set out a 15-year-long plan to achieve the goals. Due to globalisation, these goals not only focus on the perspectives of developing countries but also on developed countries, because environmental considerations have become increasingly prominent everywhere. The 17 SDGs cover 169 sub-targets, to which 231 indicators have been assigned in order to measure how countries and the world are approaching the targets. However, at the global level, the 17 SDGs and 169 targets of the new agenda can be monitored and reviewed through global indicators.

Regardless of the statistically proven and measured indicators, as well as the broadly studied and published reports, the goals are universal and available to all. However, this does not mean that these goals are widely or fully known by everyone. For the purposes of this research, a survey was carried out in which subjects’ rankings and individual allocations of voluntary time and monetary donations for SDGs were investigated.

Each goal calls for action and targets a very important field of sustainability. The SDGs can be listed as follows.

- Goal 1 – End poverty in all its forms everywhere (with a further 7 sub-targets)
- Goal 2 – End hunger, achieve food security and improve nutrition and promote sustainable agriculture (with a further 8 sub-targets)

- Goal 3 – Ensure healthy lives and promote well-being for all at all ages (with a further 13 sub-targets)
- Goal 4 – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (with a further 10 sub-targets)
- Goal 5 – Achieve gender equality and empower all women and girls (with a further 9 sub-targets)
- Goal 6 – Ensure availability and sustainable management of water and sanitation for all (with a further 5 sub-targets)
- Goal 7 – Ensure access to affordable, reliable, sustainable and modern energy for all (with a further 8 sub-targets)
- Goal 8 – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (with a further 12 sub-targets)
- Goal 9 – Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation (with a further 8 sub-targets)
- Goal 10 – Reduce inequality within and among countries (with a further 10 sub-targets)
- Goal 11 – Make cities and human settlements inclusive, safe, resilient and sustainable (with a further 10 sub-targets)
- Goal 12 – Ensure sustainable consumption and production patterns (with a further 11 sub-targets)
- Goal 13 – Take urgent action to combat climate change and its impacts (with a further 5 sub-targets)
- Goal 14 – Conserve and sustainably use the oceans, seas and marine resources for sustainable development (with a further 10 sub-targets)
- Goal 15 – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss (with a further 12 sub-targets)
- Goal 16 – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels (with a further 12 sub-targets)

- Goal 17 – Strengthen the means of implementation and revitalise the global partnership for sustainable development (with a further 19 sub-targets)

The SDGs target local, global and individual people's actions. There are no importance rankings among the goals or targets. However, as the authors of this research discovered, extraordinary political situations (such as the Ukrainian war) or unexpected healthcare issues (caused by pandemics) highlight the importance of various goals.

2 Empirical research

2.1 Research questions and methodology

Broader literature has already covered the importance of SDGs, a lot of which have focused on stakeholders' preferences (see Yamane & Kanoke, 2022). The aim of this research is to discover how ordinary people are considering the SDGs. Indeed, the younger generation (Yamane & Kanoke, 2021) is often described as more socially conscious and promoters of sustainability, however, less evidence of this is provided in scientific literature. The authors also focused on the younger generation, even though the sample spreads between Generation Z and Generation X.

At a corporate level, dealing with SDGs can be handled as a key part of corporate social responsibility (CSR) (Sardana et al. 2020; ElAlfy et al, 2020), while on an individual level, it may be associated with volunteerism (Devereux et al, 2017). Therefore, the authors asked for a definition of sustainable development. Thereafter, preference orders, ranking, time and monetary allocations were investigated. Consequently, an online questionnaire was designed for part-time BSc students at the Budapest Business School studying Research Methodology. The survey was shared among 265 students via the Moodle platform. Out of this number, 160 responses were received and 125 participants gave their permission for their answers to be evaluated. The participants' demography can be characterised by the following: 33% of the respondents were male and 67% female, the average age is 27 (between 21 and 49), and 89% of the respondents have a full-time job.

After brief exploration and analysis of the content, the following interesting facts can be stated:

- Synonyms were frequently used such as increase, evolve or skills. *“What first came to my mind about sustainable development is that the world should evolve to the extent that the environment can evolve.”* (Answer No.71)
- Many sentences were related to the environmental protection, protecting the Earth. *“To prevent further exploitation of the Earth, all we take from it as much as we can give it back.”* (Answer No.7)
- In terms of the timeline, mainly referring to the future was typical, for example, next-generation, timeline, etc. *“A development process that focuses on the future and places great emphasis on it.”* (Answer No.47) or *“I think it’s an advancement in any area of life that needs to, and can, be followed by the next generation.”* (Answer No.73)
- Importance or urgent action was also highlighted. *“This is an endeavour we may have been late with. We should move forward by using objects and tools that are already obsolete, thereby reducing waste and changing people’s attitudes in the long run.”* (Answer No.92)
- Some solutions were also suggested, such as recycling, renewable energy, avoiding plastic waste, electric cars, etc. *“Environmental protection, recycling, replacement of toxic substances with natural ones.”* (Answer No.6.) or *“Paying attention to our environment, for example, using less paper because we don’t grow as many trees or planting as many trees to keep our balance will cut out much more than can be regrown. Or, say, replacing plastic straws and glasses in catering; they are made from recycled, processed products rather than plastic, which never breaks down. According to the current position, I would even list the switch to electric cars here, but... my personal opinion is that this is not a good direction; it will not be sustainable or environmentally friendly in the long run. I live right next to a battery factory like this, with high carbon emissions, polluting the water, making the city uninhabitable and not touching it, but how many batteries will have to be made if everyone switched to electric cars? The battery will have to be replaced, it will not be usable for 20 years, so due to the constant replacement, due to the more production, we will end up in the same place”* (Answer No.52) or *“Renewable energy sources, recycling, environmentally conscious lifestyle, low- or zero-waste lifestyle, green energy, reusable products, etc.”* (Answer No.14)

- Meanwhile, the respondents do not want to shorten their current needs and desires. *“It satisfies the needs of the present and lays the foundation for the future.”* (Answer No.93)
- Some answers were linked to economics and economic issues. *“The principle of sustainable development is that it takes into account the expectations of environmental issues, the needs of society and the needs of economic development in a complex approach.”* (Answer No.57)

Finally, we used an automatic text summarizer which is an online tool that wraps up a text to a specified short length. In our case, the main text was reduced by 98% and the one-sentence long summary of the text sounds as follows: *“For me, sustainable development would mean that any area that serves the interests of the people would only develop and expand in a way that adapts to the environment and nature, and even supports / helps, but in any case protects and sustains it.”*

Secondly, two statements were adapted from the World Value Survey Wave 7, from the chapter on Economic Values (Haerpfer et al. 2022), see Figure 3. The official Hungarian translation from the original survey was used.

Q111. Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view? (Read out and code one answer):

- 1 Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs.
- 2 Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.
- 3 Other answer (code if volunteered only!).

Figure 3: Economic Values

(WVS, 2021)

Obviously, almost 81% of the participants voted for option 1. This distribution might be determined by the topic of this survey.

The questionnaire then moved on to the SDGs. According to the participants, the top five most urgent and vital goals are:

1. Clean Water and Sanitation
2. Good Health and Well-being
3. Zero Hunger
4. Quality Education
5. Responsible Consumption and Production

They thought that the most burning global problem is ‘Peace, Justice and Strong Institutions’. Meanwhile, the most crucial goal in Hungary should be ‘Decent Work and Economic Growth’.

Finally, the authors were interested in how the respondents would volunteer their time and donate money for each goal. The participants were asked to allocate a total of USD 1,000 (per USD 100, a fraction of USD 100 was not allowed) and ten days (per day, sharing one day was not allowed) among the goals. The donations summarised are listed in Table 1.

Table 1: Money and time allocations among the SDGs

SDG 17	The total amount of donations (USD)	The total amount of voluntary days (days)
End poverty in all its forms	11600	112
Zero Hunger	14100	148
Health	13900	126
<i>Education</i>	<i>14700</i>	<i>160</i>
Gender equality and women's empowerment	2400	50
Water and Sanitation	12700	120
Energy	6500	56
Economic Growth	5200	53
Infrastructure, industrialization	5600	34
Inequality	5100	54
Cities	5400	63
Sustainable consumption and production	9200	120
Climate actions	12100	108
Oceans	9100	112
Biodiversity, Forest, Desertification	7800	107
Peace, justice and strong institutions	9300	94
Partnership	3100	51
Total	147800	1568

As the total amounts prove, there are some discrepancies in the table – participants spent more time (1,568 days compared to 1,250 days) and money (USD 147,800 instead of the USD 125,000 allowed) than requested. Surprisingly, the participants said they would be willing to donate and volunteer the most for a better, improved education.

3 Discussion

According to the United Nations Report (2021), COVID-19 rewrote, and had a devastating impact on, the implementation of the SDG last year. It is difficult to obtain a detailed and accurate picture of progress towards the SDGs in real-time. The authors of this study identified several areas that require urgent and coordinated action in relation to the answers obtained in the sample.

However, these areas are also dependent on everyday occurrences and events. People are concerned about various global issues. Based on the preliminary evaluations of this study, the authors have drawn up guidelines for further research, since a greater focus is needed on how everyday events and occurrences influence participants' opinions and the importance of the SDGs in their lives. In addition, more rigorous statistical analysis may result in a deeper insight into players' ways of thinking, habits and motivation. Therefore, in terms of future research, it should be taken into account that the World Value Survey Wave 7 (WVS7) was extended with values that are identical to the SDGs. Evaluating the WVS7 results and comparing them with all the 231 indicators that have been assigned to the 169 targets of the SDG, the authors' forthcoming paper may provide a deeper understanding of the country and cultural preferences in relation to these issues. Carrying out a broad international comparison based on statistical datasets may provide an extended comparison. One limitation of this study may be the misleading translations (the authors used the translation provided by the Hungarian Statistical Office) of each goal. A better, more appropriate 'mirror' translation might be more understandable for everyone. Another problem could be that participants only relied on the leading lines (titles) without having a deeper understanding of each target.

The first data was collected from the middle of February 2022 to the middle of March 2022, and a lot happened during this one month. The results clearly reflected the Hungarian political and social situation. In March, the respondents were more concerned about health issues due to the pandemic, then, as a result of the teachers' strike, education became a hotter topic. As the Ukrainian and Russian conflict has intensified, the survey participants have begun to worry about peaceful and inclusive societies.

It can therefore be said that people do seem to care about sustainability. The authors also asked the respondents to choose goals where they, as ordinary people, can or could take proper action. The findings show that 25% of the respondents support 'Responsible consumption and production', followed by 'Climate action' at 11%. In contrast, the respondents felt no or less control over the goals of 'Poverty' and 'Affordable and Clean Energy'. This may be partly explained by volunteer tourism and preferred destinations in those countries where, aside from poverty and needs, the natural environment would not be accessible to the volunteers (Lockstone-Binney & Ong, 2021).

The SDGs are a crucial, world-changing purpose that requires strong collaboration among governments, international organisations and associations. The question, however, is whether the average person can make an impact. The UN produced a branch of recommendations for citizens called 'The Lazy Persons Guide to Saving the World' (UN Take Actions, 2022).

According to these recommendations, there are four levels with four scenes where people can try to do their best:

- Level 1 is for 'Sofa Superstars' – things people can do from their couch at home. It relates to environmentally friendly thinking, such as saving electricity or taking action against online bullying.
- Level 2 is for 'Household Heroes' – things people can do at home. This covers further clever lifestyle management and diet recommendations in order to have a more conscious home and lifestyle.
- Level 3 is for 'Neighbourhood Nice Guys' – things people can do outside their home. This includes suggestions about how to be concerned about and take care of the local environment and society.
- Level 4 is for 'Exceptional Employees' – things people can do at work. This level is about gender equivalence, volunteering and kindness in the workplace.

The manual seems somewhat fragmented, unstructured and indefinite (for example, goals are not assigned to the advice), perhaps because the authors wanted to cram all the important detail from the 169 targets into 17 goals. The initiative is commendable, however, further elaboration is required.

As Purvis et al. (2019, p.692) underlined, ‘Although the targets and indicators associated with the UN SDGs are encouraging, there is a lack of detail on which to ground the transparent, rigorous and theoretical foundation and the value judgements that have been made along the way.’

4 Conclusion

Education has always been an essential part of the sustainable development agenda, while it is also important that the concept of sustainable development is implemented in education. Prior to the pandemic, the global higher education sector had begun to radically focus its efforts on creating sustainable institutions and aligning with the UN SDGs. Due to the pandemic (Crawford & Cifuentes-Faura, 2022), it slowed down and higher education had to turn its attention to surviving and recovering from the first shocks caused by the restrictions.

This aim of this paper is two-fold. Firstly, it is an attempt to educate future graduates about sustainable practices in order to enable future delivery of sustainability goals in the workplace (Leite, 2021). Secondly, this study provides a better understanding of the preference ranking of SDGs and sheds light on how university students would allocate their budget and time among the goals.

The definition of ‘sustainable development’ given by the respondents reflects the official definition suggested by the UN. In line with the UN’s recommendations, the authors found similarities and identical expressions in the participants’ definitions compared to those of the UN. The latter reads that sustainable development ‘meets the needs of the present without compromising the ability of future generations to meet their own needs.’ (<https://www.un.org/sustainabledevelopment/development-agenda/>). Although the intention and perception of the SDGs have gone through a demanding and continuous transition, they have never lost their main aim and importance (Caballero, 2019).

References

- Caballero, P. (2019), The SDGs: Changing How Development is Understood. *Glob Policy*, 10: 138-140. <https://doi.org/10.1111/1758-5899.12629>
- Crawford, J., & Cifuentes-Faura, J. (2022). Sustainability in Higher Education during the COVID-19 Pandemic: A Systematic Review. *Sustainability*, 14(3), 1879. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su14031879>
- Devereux, P., Paull, M., Hawkes, M., & Georgeou, N. (2017). Volunteering and the UN sustainable development goals: Finding common ground between national and international volunteering agendas? *Third Sector Review*, 23(1), 209–234. <https://search.informit.org/doi/10.3316/INFORMIT.813141309467783>
- ElAlfy, A., Palaschuk, N., El-Bassiouny, D., Wilson, J., & Weber, O. (2020). Scoping the Evolution of Corporate Social Responsibility (CSR) Research in the Sustainable Development Goals (SDGs) Era. *Sustainability*, 12(14), 5544. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su12145544>
- Haerpfner, C., Inglehart, R., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen (eds). (2022). *World Values Survey: Round Seven - Country-Pooled Datafile Version 3.0*. Madrid, Spain & Vienna, Austria: JD Systems Institute & WWSA Secretariat. doi:10.14281/18241.16
- Leite, S. (2021) Using the SDGs for global citizenship education: definitions, challenges, and opportunities, *Globalisation, Societies and Education*, DOI: 10.1080/14767724.2021.1882957
- Lockstone-Binney, L. & Ong, F. (2021) The sustainable development goals: the contribution of tourism volunteering, *Journal of Sustainable Tourism*, DOI: 10.1080/09669582.2021.1919686
- Purvis, B., Mao, Y. & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustain Sci* 14, 681–695 <https://doi.org/10.1007/s11625-018-0627-5>
- Sardana, D., Gupta, N., Kumar, V., Terziowski, M. (2020) CSR ‘sustainability’ practices and firm performance in an emerging economy. *Journal of Cleaner Production*. Vol. 258, <https://doi.org/10.1016/j.jclepro.2020.120766>.
- The United Nations (2022): *The Sustainable Development Goals Report, 2021*. <https://unstats.un.org/sdgs/report/2021/>
- The United Nations, *Take Actions for 2022: The Lazy Person’s Guide to Saving the World*. <https://www.un.org/sustainabledevelopment/takeaction/>
- WVS (2021): 2017 -2021 WORLD VALUES SURVEY WAVE 7 MASTER SURVEY QUESTIONNAIRE. <https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp>
- Yamane, K. & Kaneko, S. (2021) Is the younger generation a driving force toward achieving the sustainable development goals? Survey experiments. *Journal of Cleaner Production*, Vol. 292, <https://doi.org/10.1016/j.jclepro.2021.125932>.
- Yamane, T. & Kaneko, S. (2022) The Sustainable Development Goals as new business norms: A survey experiment on stakeholder preferences. *Ecological Economics*. Vol. 191, <https://doi.org/10.1016/j.ecolecon.2021.107236>.