SDGs in the Covid 19 Storm (Example on Climate Pact Ambassadors Role)

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Abstract

The Climate Pact was launched in December 2020, with hope that the upcoming vaccine would help us overcome the COVID-19 pandemic "storm". Even though humans are in the canter of the Covid pandemic storm, it is still important not to forget the climate change challenge, as it is a highly active "factory". Unfortunately, there is no vaccine for the climate change process and biodiversity crises. The Climate Pact is an opportunity to create a European-wide movement that supports, encourages and acknowledges individual climate achievements. According to SDG 13 (climate action), Climate Pact encourages actions such as: green areas, green transport, green buildings and green skills. Also, it is important to expand sustainable consumption and production, the quality of soil, healthy food and sustainable diets, oceans, and rural and coastal areas. Therefore, Climate Pact is a driver for Sustainable Development Goals, and it is based on the ideas and contributions of all interested individuals and various organisations. Climate Pact Ambassadors are representatives of civil society and citizens with the strength for action (despite the Covid 19 pandemic "storm") and collaboration among themselves as well as with researchers, academic citizens and policy makers to beat climate change and give contribution to SDG 13.

Keywords: Sustainable Development Goals, Covid 19, Climate change

1. Introduction

The Sustainable Development Goals (SDGs) were adopted in 2015, as an ambitious desire and goal of the United Nations, as well as a strong message about the necessity for synchronized transformation in various areas and sectoral policies. Only 6 years after their adoption (UN HABITAT, 2016), the SDGs agenda included a set of 17 targets (SDGs) to end poverty, combat inequality and injustice, and highlighted the importance of combating climate change by 2030.

SDGs are also closely related to the global concept of health, the focus of which is on the health of the population in a global context, then the field of research and practices the priority of which is to improve health and reach equality for all people around the globe (WHO 2015). One of the SDGs is especially dedicated to health and well-being (SDG 3); however, it is necessary to point out that it cannot be achieved without actions and activities that are part of other goals of sustainable development, which are in accordance with the principle of health in all policies (Ruhil R, 2015).

There are health related and environmental related SDGs, namely the goals that are, by their importance, grouped around the goals related to health and the environment (Aftab W et al, 2020). It is essential to consider health specifically in the context of climate change,

and its direct and indirect impacts on health (World Health Organization, 2013).

The "climate change factory" in its full capacity produces direct and indirect "by products" of climate change. Furthermore, there is a wide scientific agreement that the global climate is changing, and the energy issues are especially important for the population (McMichael AJ, Lindgren E. 2011). Actual data based on evidence warns about existing and upcoming impacts on human health. The impact of climate change on health is complex, multi-layered, evident, but also chronic in nature. (Ruhil R 2015, Hassan M. Heshmati 2020).

2. Aim

The aim of this paper is to discuss and present possible successful prescription which includes common activities and strategies that provide, support and connect urgent action to combat climate change and its impact on health.

3. Methodology

This is a review paper with research design presented through a review of activities and possibilities and a preview of some published papers that mention SDGs, Covid 19 and climate change activities.

The paper does not aim at producing all the evidence from published articles. It rather indicates a great interest in the topic, focusing on some lessons learned that could be of relevance and providing added value to already existing individual papers.

4. Sustainable Development Goals in the Covid 19 Storm

Public health challenges such as global poverty and water and food shortages are essentially related to climate change mitigation. The Sustainable Development Goals Report, however, points out that the world is not in accordance with the goals related to the environment and sustainability, which is included in the Sustainable Development Goals 7-9 (affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure) and 11–15 (Sustainable Cities and Communities, Climate Action, Life Below Water, Life on Land). There is a warning fact that most countries do not meet the accepted obligations to limit greenhouse gas emissions.

Like a storm, the pandemic crisis has created a great disturbance in the existing approach, plans and actions regarding SDGs. The goals of improving the urban environment by reducing urban poverty, increasing access to public transportation, and reducing air pollution are questionable. The goals of sustainable and inclusive economic growth, sustainable energy and infrastructure development in the COVID-19 pandemic crisis are facing significant setbacks and are overshadowed by economic recessions.

To achieve a transformative vision of the 2030 sustainable development goals requires a major change in most countries, a rethinking of national priorities in respect of long-term, cooperative and more effective actions. UN Secretary-General António Guterres points out that "everything we do during and after this pandemic crisis must be with a strong focus on the development of equality, an inclusive and sustainable economy and societies that are more resilient to pandemics, climate change and many other global challenges that

we are facing with. The link between health and sustainability challenges may never have been clearer: and this is an opportunity not to be missed, so this COVID "storm" should be seen as an opportunity and an argument for transformation (The Lancet Public Health 2020).

There are lots of studies indicating the importance of the impact of the pandemic crisis on the implementation of SDGs. Aysan et al explore the extent to which hardly reached development successes in recent years could be reversed due to the COVID-19 global pandemic, how the global response can be relaunched, and how sustainable development could be accelerated in times of uncertainty, and, most importantly, how to turn the recovery from the Covid 19 pandemic into an opportunity to build better and more resilient economies. They also point to the significant potential of blockchain technology in managing the most urgent issues that impede global recovery after Covid-19 in the transition towards greener and more inclusive economies (Aysan AF et al 2021).

Most important, within the contexts of the world as we understand it and the greatly varied conditions of countries, the *SDG Push* scenario helps us think seriously about what is possible. And to recognize and manifest the great potential that we possess to accelerate progress toward the Sustainable Development Goals and all that they represent for the future of humanity.

It is possible to overcome the COVID-19 pandemic only through cooperation and communication among scientists, experts, innovators, policy creators and decision makers. Sharing experiences and insights is crucial to strengthen the link between science, policy, and society and contributes towards solutions for achieving all SDGs, reviewing priorities at the local, national and global levels, and better preparedness for possible new challenges in the future.

When it comes to research design, it shows that about 10 % of published papers mention SDGs and Covid 19 (97 results in the PuBMed database) while the majority of 90% mention climate change activities (9410 results in the PuBMed database). It means that the climate change issue, as one of the most significant SDGs, is more represented in the research than a comprehensive approach to all SDGs.

The research paper by Abidoye et al explores the analysis of COVID-19's impact on extreme poverty, extending it to other SDGs in the People' and Prosperity' pillars of the 2030 Agenda: nutrition, health, education, and water and sanitation. Their research also initially explored the issues regarding the Planet' and Peace' pillars, including climate change and the risk of fragility due to different types of internal conflict. They underline the importance of further explorations and reports in the 'COVID-19 Impact on SDGs' series will more deeply examine the impact of the 'SDG Push' scenario on some important SDG pillars (Abidoye, B et al).

A comprehensive publication about pursuing the Sustainable Development Goals in a World Reshaped by COVID-19, reported by authors Hughes et al, provides a comprehensive approach of possible long term influence of COVID on SDGs (Hughes, B.B. et al).

Hughes, B.B et al in their research give assessments regarding water access and sanitation access as an important part of SDG targets:

☐ of Percent of population in non-OECD countries with improved water access: No COVID, COVID, High Damage, according to the SDG Push scenarios and also

☐ of Percent of population in non-OECD countries with improved sanitation access: No COVID, COVID, High Damage, according to the SDG Push scenarios

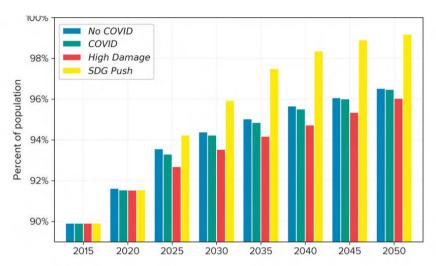


Figure 1: Percent of population in non-OECD countries with improved water access: No COVID, COVID, High Damage, and SDG Push scenarios

Source: Hughes, B.B., Hanna, T., McNeil, K., Bohl, D.K., & Moyer, J.D. (2021). Pursuing the Sustainable Development Goals in a World Reshaped by COVID-19. Denver, CO and New York, NY: Frederick S. Pardee Center for International Futures and United Nations Development Programme. IFs Version 7.61.

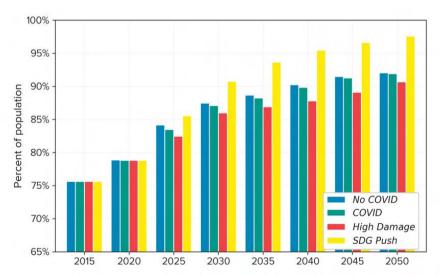


Figure 2: Percent of population in non-OECD countries with improved sanitation access: No COVID, COVID, High Damage, and SDG Push scenarios

Source: Hughes, B.B., Hanna, T., McNeil, K., Bohl, D.K., & Moyer, J.D. (2021). Pursuing the Sustainable Development Goals in a World Reshaped by COVID-19. Denver, CO and New York, NY: Frederick S. Pardee Center for International Futures and United Nations Development Programme. IFs Version 7.61.

This scenario, compared to the No COVID, COVID, and High Damage scenarios, helps us understand the future that we could face. The authors underlined the importance of the value-added through individual interventions and clusters in future projects, tailored to specific countries, for further enhancing global efforts to move the world toward the frontiers of the possible (Hughes, B.B. et al).

The research emphasized that the SDG Push scenario contains an extensive range of interventions reflecting the UNDP's proposed initiatives: to advance governance, e.g., by creating a new social agreement, improve social protection, e.g., by eliminating inequalities, move to a green economy by rebalancing nature, climate, the economy, and benefit from the development of digital disruption and innovation. It is, however, quite difficult to simultaneously undertake all the essential efforts at the individual country level. Intervention should be ambitious yet achievable for countries pushing toward the SDG targets. It is almost impossible in present circumstances to see a world in which all countries act so (Hughes, B.B. et al).

5. Climate Change and Covid 19 Storm

Climate change threatens health globally, everywhere and everyone's, of all groups of the population, especially children, the elderly and other vulnerable groups. Besides heat waves, floods, droughts, stormy winds and other reactions of the planet to climate change, and consequently the problems in food, water and energy supply, there are also migrations evident as well as numerous other impacts on health and other systems.

The Paris Agreement, adopted in 2015, aims to strengthen the global response to the strong threat of climate change by keeping the global temperature rise in this century well below 2 degrees Celsius above the pre-industrial level. The agreement also aims to strengthen countries' capacity to cope with the effects of climate change, through appropriate financial flows, a new technological framework, and an improved capacity-building framework.

Climate change affects all people, the environment, and all processes, the economy, the industry, health systems. There is a record that the year of 2019 was the second warmest year and the end of the warmest decade (2010-2019) since the beginning of the measurement. The level of carbon dioxide (CO2) and other greenhouse gases in the atmosphere reached new record highs in 2019. The travel ban and economic slowdown resulting from the COVID-19 pandemic have only led to temporary improvements in greenhouse gas emissions. However, climate change has not stopped. Emissions are expected to return to higher levels once the global economy begins to recover from the pandemic. To save lives and means of subsistence requires urgent action to resolve pandemic and climate change issues.

The Climate Pact was launched in December 2020 with hope that the upcoming vaccine would help us overcome the COVID-19 pandemic "storm". Even though the humans are at the center of the COVID pandemic storm, it is still important not to forget the climate change challenge, as a highly active "factory".

The eminent Lancet warns that climate change has been pushed off the top of the global agenda due to the need for decision-makers to tackle the immediate challenges caused by the COVID-19 pandemic. Five years after the Paris Agreement, there is another

opportunity for interests to focus on the sustainability and shared benefits of protecting public health, the environment, biodiversity and planetary (global) health (McBride B, Hawkes S, Buse K 2019). As governments start their plans for economic recovery following the COVID-19 pandemic, there is an ongoing concern due to climate change and growing inequalities that are focused on green recovery (Watts N, Amann M, Arnell N, et al 2021).

A rapid global transition to clean energy sources is necessary, as it would put an end to the negative effects of fossil fuels. The decisions now being made must provide an answer to resolve both crises together in order to ensure the most efficient response to both pandemic and climate change (Watts N, Amann M, Arnell N, et al. 2021).

The potential of the sustainable energy nexus - linking energy to water, food, and health - should be considered as a global driver for strengthening public health, in supported development and adaptation and the mitigation of climate change (Jevtic M and Bouland C, 2018).

It can be said that the challenge of climate change was further intensified by the Covid 19 storm that affected the entire planet. This pandemic has caused numerous transformations in the daily activities of the population, opportunities for movement, and has also affected numerous and significant changes in various sectors, with special emphasis on changes caused by pressures on health systems.

Even before the Covid 19 pandemic, there was a highlighted fact that the health sector participates in about 5% of the total greenhouse gas emissions and that it is important to initiate activities that will contribute to the reduction of emissions within the health sector. The current pandemic crisis should be used as an additional argument to act in this direction (Jevtic M, Bouland C. 2016, HCWH 2019).

Despite the immediate reversal of some sustainability trends, the pandemic has actually opened doors for better, stronger corporate environmental and social sustainability, which is important for cities - urban settings, and especially in combating climate change.

"Take urgent action to combat climate change and its impacts" is the aim of SDG 13. The COVID and SDG Push scenarios have serious implications for reaching that goal. Reduced economic activity regarding the pandemic crisis can reduce carbon emissions related to the No COVID scenario.

The research by Hughes et al confirms a significant pandemic-period reduction in carbon emissions as a result of decreased economic activity. However, the long-term effects on the greenhouse effect issue are probably "insignificant" in respect of limiting global warming to well below 2°C. The SDG Push scenario includes interventions that could have quite positive effects on annual carbon emissions and accordingly on atmospheric concentrations of carbon dioxide. These include both greater efficiency in the use of energy as a result of accelerated technological advances and a carbon tax and enhanced development of renewable supplies.

Figure 3 extends attention to 2100, well beyond the SDG horizon. The COVID scenarios have limited implications for atmospheric concentrations across that horizon. Analyses in the climate-change oriented Integrated Assessment Modeling (IAM) community can put the scenario results in the context. That community developed a set of scenarios called Representative Concentration Pathways (RCPs) to serve the Intergovernmental Panel on Climate Change's Fifth Assessment Report. The benefits of SDG Push for limiting climate

change are very significant (Hughes, B.B. et al).

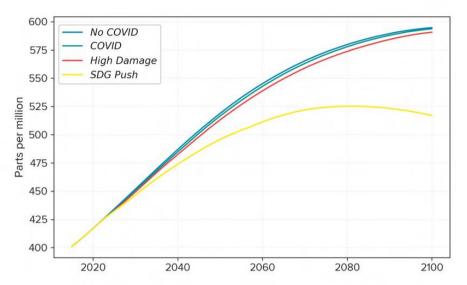


Figure 3: Atmospheric carbon dioxide concentration: No COVID, COVID, High Damage and SDG Push scenarios

Source: Hughes, B.B., Hanna, T., McNeil, K., Bohl, D.K., & Moyer, J.D. (2021). Pursuing the Sustainable Development Goals in a World Reshaped by COVID-19. Denver, CO and New York, NY: Frederick S. Pardee Center for International Futures and United Nations Development Programme. IFs Version 7.61.

According to Urquiza et al, the concept of resilience is multi-faceted. In response to their research, there are several distinctions between resilience and other systems concepts. These include distinctions between resilience, risk, and vulnerability, the tradeoff between resilience and efficiency, resilience contrasted with robustness, the relationship between resilience and sustainability, and finally methods for building resilience-by-design or resilience-by-intervention. Improving understanding of these concepts could enable planners to select resilience strategies that best support their system goals. It uses examples from the 2020-2021 coronavirus pandemic to illustrate the concepts of resilience which are important for sustainability. (Galaitsi S et al)

Cities are increasingly acknowledged as crucial when facing climate change—and the environmental crisis more in general— offering challenges and opportunities in terms of both mitigation and adaptation. Climate change-sensitive urban governance requires proactive, integrated, and contextualized approaches, making room for the complex, multilayered, multiscalar, and dynamic processes constituting a city. The framework is specially defined to link up with the definition of climate risk provided by the Intergovernmental Panel on Climate Change (IPCC) latest Assessment Reports and is illustrated through examples derived from the recent experience of the Chilean Climate Risk Atlas (Urquiza et al. 2021).

The world is currently shadowed by the pandemic of COVID-19. In the unsettling pandemic of COVID-19, the whole Earth has an unprecedented lockdown. Physical

distancing among people, interrupted international and domestic air traffic and suspended industrial productions and economic activities have various far-reaching and undetermined implications on air quality and the climate system. Improvement in air quality has been reported in many cities during lockdown, while the death rate of COVID-19 has been found to be higher in more polluted cities. The relationship between the spread of the SARS-CoV-2 virus and air quality is under investigation. The fight against COVID-19 could bring short-lived and long-lasting and positive and negative impacts to the warming climate. The impacts on the climate system and the role of the climate in modulating the COVID-19 pandemic are the emphases of scientific inquiry. The intertwined relationship among environment, climate change and public health is exemplified in the pandemic of COVID-19. Further investigation of the relationship is imperative in the Anthropocene, in particular, in enhancing disaster preparedness. Ching and authors invite discussion about pandemic influence on air quality and climate perspectives (Ching J et al 2020). Developing countries are highly vulnerable to the COVID-19 pandemic, in part due to the lack of international support for ensuring progress towards the 17 Sustainable

Developing countries are highly vulnerable to the COVID-19 pandemic, in part due to the lack of international support for ensuring progress towards the 17 Sustainable Development Goals (SDGs). An increasing financial burden faced by all countries means that additional support is unlikely to be forthcoming in the near future. It is important that developing countries find innovative policy mechanisms to achieve sustainability and development aims in a cost-effective manner. This requires identifying affordable resources and policies that can result in immediate progress towards several SDGs together and aligns economic incentives for longer term sustainable development. Three policies have been identified to meet these criteria: a fossil fuel subsidy swap to fund clean energy investments and dissemination of renewable energy in rural areas; reallocating irrigation subsidies to improve water supply, sanitation and wastewater infrastructure; and a tropical carbon tax, which is a levy on fossil fuels that funds natural climate solutions. These innovative and cost-effective policy mechanisms do not require substantial external support, and they foster greater progress towards achieving the SDGs in poorer economies. Through such interventions, developing countries can foster greater progress towards achieving the SDGs through cost-effective and innovative policy mechanisms that do not rely on external funding to implement (Barbier EB, Burgess JC. 2020).

It is important to point out COP 26 in Glasgow and some facts from this important global event and influence of COP 26 on further Climate pact Ambassadors activities. The leaders of almost 200 countries have reached a consensus. It is a breakthrough, although an imperfect one. The agreement is for some part of participants woefully inadequate. Keywords to look out for include "accelerating efforts towards the phase-down of unabated coal power and inefficient fossil fuel subsidies". These are the first explicit mentions of coal and fossil fuels in a UN climate agreement. Using the words 'unabated' and 'inefficient' is a controversial step to those countries whose economies currently rely on those resources or who feel they are essential to move their people out of poverty. Several countries spoke out against the last-second change, led by India, to change the phrase "phase-out" to "phase-down". It is important what Frans Timmermans, vice president of the European Commission, said: "We all know that European wealth was built on coal. And if we don't get rid of coal, European death will also be built on coal". This confirms that the decision from COP 26 is a historic decision. (Graham F, 2021).

6. Climate Change and Climate Pact Ambassador Role

Unfortunately, there is no vaccine for the climate change process and biodiversity crises. The Climate Pact is an opportunity to create a European-wide movement that supports, encourages and acknowledges individual climate achievements.

The EU Green Deal is a roadmap for a sustainable recovery, and for policy, advocacy, actions, research, and practice exchange towards a healthier future. Furthermore, The European Climate Pact aims to engage citizens and communities in action for our climate and environment. The European Climate Pact is an EU-wide initiative inviting people, communities and organisations to participate in climate action and create a greener Europe.

As it is well known, according to the EU Green Deal, 2030 Climate Target Plan is to cut greenhouse gas emissions by at least 55% by 2030 and set Europe on a responsible path to become climate neutral by 2050.

As part of the European Green Deal, the EU Commission has launched a European Climate Pact to give everyone a voice and space to design new climate actions, share information, launch grassroots activities and showcase solutions that others can follow. The activities of the EU Climate Pact were organized as a follow up to the open public consultation, with more than 3500 contributions. Alongside government policies and regulation, citizens, communities and organizations in all sectors of our society and economy have their part to play.

As an EU Climate Pact Ambassador, in the previous period, one of the authors had an opportunity to organize and participate in several trainings, actions and to raise awareness of individual responsibility for adaptation and mitigation of climate change through activities in the local and academic community.

Dissemination of information and exchange of experiences and knowledge about the importance of action in the fight against climate change was realized in different ways: by publishing papers, active participation in the European Conference on Public Health, ICSD Conference, working with undergraduate students, motivating young researchers completing doctoral studies to pay attention to climate change mitigation and climate change adaptation, and explore climate change and health.

The experience gained confirms that the role of a Climate Pact Ambassador can have a great contribution in the local community, in work with students, university students as well as with neighbors and citizens in general (https://europa.eu/climate-pact/ambassadors/meet-our-ambassadors/marija-jevtic_en).

The impact of the COVID-19 crisis on the CO2 emission target of the EU by 2030 has been studied by Meles et al., considering a number of economic growth scenarios. With lower economic activity as the consequence of the crisis caused by the COVID-19 pandemic, existing climate policy measures could perhaps exceed the EU's current 2030 target. However, if decision makers mitigate climate policy measures, an opportunity to comply with long-term targets for emission reduction under the Paris Agreement will be missed. According to the authors, although current climate policy measures are likely to reduce emissions by more than 40% by 2030 after the pandemic, it will not be enough to meet the Paris Agreement. Stricter measures, such as those proposed under the EU Green Deal, will still be needed and they could be cheaper than previously estimated (Meles TH,

Ryan L, Wheatley J 2020).

Air quality policy measures should be ambitious and go forward despite the pandemic crisis, insisting on becoming one of the post-covid crisis priorities for public health recovery, using the Green Deal and Climate Pact as roadmaps. The zero-pollution ambition for Europe was announced in the European Green Deal as part of the European Commission's strategy to implement the United Nations Sustainable Development Goals agenda. The EEA will be a key partner in these activities, using health policies strategies and adding the public health community as a partner in actions (Jevtic at al 2021).

Green Deal is a great argument to achieve goals at local levels, insist on an education process for children, young people, students and lifelong learning which should cover challenges of climate change, energy and air pollution in an appropriate way, as well as other environmental and health issues.

According to SDG 13 (climate action), Climate Pact encourages actions such as: green areas, green transport, green buildings and green skills. Also, it is important to expand sustainable consumption and production, the quality of soil, healthy food and sustainable diets, oceans, and rural and coastal areas.

Furthermore, the Climate Pact is a driver for Sustainable Development Goals, and it is based on the ideas and contributions of all interested individuals and various organisations. The role of Climate Pact Ambassadors is seen as extremely useful, and EU Climate Pact Ambassadors are representatives of civil society and citizens with the strength for action (despite the Covid 19 pandemic "storm") and collaboration among themselves as well as with researchers, academic institutions and policy makers to overcome climate change and give contribution to SDG 13.

7. Conclusions

The Climate Pact is an important driver for the Sustainable Development Goals, and it is based on the ideas and contributions of all interested individuals and various organisations.

Climate Pact Ambassadors, as representatives of civil society and citizens, are a great strength in action (despite the Covid 19 pandemic "storm") and collaboration among themselves as well as with researchers, academic institutions and policy makers to overcome climate change and give contribution to SDG 13.

Climate Pact Ambassadors, through their activities in local communities, in various sectors of industry, the economy, health and education, are an innovative way and strength of civic initiative in resolving the challenges of climate change as an important goal of sustainable development, and they also contribute to the achievement of all other Sustainable Development Goals.

After COP26 in Glasgow, the importance of the Climate Pact Ambassador has increased in local communities and in various sectors, emphasizing the need to cooperate with young people and strengthen their readiness for future activities in achieving all Sustainable Development Goals, especially in the combat against climate change.

With more than 500 active EU Climate Pact Ambassadors (at this moment) qualitative progress can be expected in raising awareness, actions, research and policies that contribute to the Sustainable Development Goals.

References

- Abidoye, B., Felix, J., Kapto, S. & Patterson, L. (2021). Leaving No One Behind: Impact of COVID-19 on the Sustainable Development Goals (SDGs). New York, NY and Denver CO: United Nations Development Programme and Frederick S. Pardee Center for International Futures.
- Aftab W, Siddiqui FJ, Tasic H, et al (2020), Implementation of health and health-related sustainable development goals: progress, challenges and opportunities a systematic literature review BMJ Global Health 2020; 5:e002273.
- Aysan AF, Bergigui F, Disli M. Blockchain-Based Solutions in Achieving SDGs after COVID-19. Journal of Open Innovation: Technology, Market, and Complexity. 2021; 7(2):151. https://doi.org/10.3390/joitmc7020151
- Barbier EB, Burgess JC. Sustainability and development after COVID-19. World Dev. 2020 Nov;135:105082. doi: 10.1016/j.worlddev.2020.105082. Epub 2020 Jul 10. PMID: 32834381; PMCID: PMC7351394.
- Ching J, Kajino M. Rethinking Air Quality and Climate Change after COVID-19. Int J Environ Res Public Health. 2020 Jul 17;17(14):5167. doi: 10.3390/ijerph17145167. PMID: 32708953; PMCID: PMC7400058.
- European Commission, Secretariat-General (2019) Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions The European Green Deal Com/2019/640 Final
- Galaitsi S, Kurth M, Linkov I. Resilience: Directions for an Uncertain Future Following the COVID-19 Pandemic. Geohealth. 2021 Nov 1;5(11):e2021GH000447. doi: 10.1029/2021GH000447. PMID: 34825121; PMCID: PMC8602081.
- Graham F. COP26: Glasgow Climate Pact signed into history. Nature. 2021 Nov 13. doi: 10.1038/d41586-021-03464-9. Epub ahead of print. PMID: 34785808.
- Hassan M. Heshmati (2020). Impact of Climate Change on Life, Environmental Issues and Sustainable Development, Suriyanarayanan Sarvajayakesavalu and Pisit Charoensudjai, IntechOpen, DOI: 10.5772/intechopen.94538. Available from: https://www.intechopen.com/chapters/74077
- Health Care's Climate Footprint. (2019)How The Health Sector Contributes To The Global Climate Crisis
 And Opportunities For Action Health Care Without Harm Climate-Smart Health Care Series.
 Green Paper Number One. Produced In Collaboration With Arup. September 2019.
 https://noharm.org/
- Hughes, B.B., Hanna, T., McNeil, K., Bohl, D.K., & Moyer, J.D. (2021). Pursuing the Sustainable Development Goals in a World Reshaped by COVID-19. Denver, CO and New York, NY: Frederick S. Pardee Center for International Futures and United Nations Development Programme.
- IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.
- Jevtic M, Bouland C. Climate change malady as an inspiration for healthcare sector "reinventing" healthy energy choices. EHMA Annual Conference 206, Reinventing Heathcare: Why, What, How, Abstract Book, Porto, Portugal. June 2016. Pp. 14-16
- Jevtic M, Bouland C. Planet on the diet Climate and Energy prescription for better environment and sustainability. 11th European Public Health Conference Winds of change: towards new ways of improving public health in Europe. European Journal of Public Health, Vol. 28, Supplement 4, 2018. P. 141-142
- Marija Jevtic, Vlatka Matkovic, Peter van den Hazel, Catherine Bouland, Environment -lockdown, air pollution and related diseases: could we learn something and make it last?, *European Journal of Public Health*, Volume 31, Issue Supplement_4, November 2021, Pages iv36–iv39, https://doi.org/10.1093/eurpub/ckab157
- McBride B, Hawkes S, Buse K. Soft power and global health: the sustainable development goals (SDGs) era health agendas of the G7, G20 and BRICS. BMC Public Health. 2019;19(1):815. Published 2019 Jun 24. doi:10.1186/s12889-019-7114-5
- McMichael AJ, Lindgren E. (2011) Climate change Present and future risks to health, and necessary responses. Journal of Internal Medicine. 2011;270:401-413. DOI: 10.1111/j.1365-2796.2011.02415.

- Meles TH, Ryan L, Wheatley J. COVID-19 and EU Climate Targets: Can We Now Go Further? Environ Resour Econ (Dordr). 2020 Aug 4:1-9. doi: 10.1007/s10640-020-00476-3. Epub ahead of print. PMID: 32836851; PMCID: PMC7399599.
- Ruhil R. (2015). Millennium Development Goals to Sustainable Development Goals: Challenges in the Health Sector. International Studies, 52(1–4), 118–135.
- Ruhil R. (2015). Millennium Development Goals to Sustainable Development Goals: Challenges in the Health Sector. International Studies, 52(1–4), 118–135.
- The Lancet Public Health (2020). Will the COVID-19 pandemic threaten the SDGs?. The Lancet. Public health, 5(9), e460. https://doi.org/10.1016/S2468-2667(20)30189-4
- UN HABITAT (2016). Roadmap for localizing the SDGs: Implementation and Monitoring at subnational level. Global Taskforce of Local and Regional Governments. UN 2016
- Urquiza, A., Amigo, C., Billi, M., Calvo, R., Gollardo, L., Neira, C. I., & Rojas, M. (2021). An integrated framework to streamline resilience in the context of urban climate risk assessment. Earth's Future, 9, e2020EF001508. 10.1029/2020ef001508 DOI
- Watts N, Amann M, Arnell N, et al. The 2020 report of The Lancet Countdown on health and climate change: responding to converging crises. Lancet. 2021 Jan 9;397(10269):129-170. doi: 10.1016/S0140-6736(20)32290-X. Epub 2020 Dec 2. Erratum in: Lancet. 2020 Dec 14;: PMID: 33278353.
- WHO (2015). Health in 2015: from MDGs, Millennium Development Goals to SDGs, Sustainable Development Goals. ISBN 978-92-4-156511-0.2015
- World Health Organization. (2013). Protecting health from climate change: vulnerability and adaptation assessment. World Health Organization. https://apps.who.int/iris/handle/10665/104200