

HARNESSING THE POWER OF SOCIAL SCIENCES AND HUMANITIES TO ADDRESS CLIMATE CHANGE

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THE INITIATIVE

This policy brief is an initiative by the [COST Action SHiFT](#) (Social Sciences and Humanities for Transformation and Climate Resilience). The writing process was led by Elisabeth Worliczek (BOKU – University of Natural Resources and Life Sciences) and Maria Fernanda Rollo (NOVA – University of Lisbon), with the support of a network of experts (see Table 1).

PURPOSE & WRITING OF THE POLICY BRIEF

This policy brief “Harnessing the power of Social Sciences and Humanities to address Climate Change” is focusing on the underlying assumptions preventing true societal transformation to enable a holistic and nuanced view on successful communication practices.

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This document has been prepared in consultation with a group of interdisciplinary experts (see Table 1) in the fields of psychology, philosophy, finance and anthropology (to name a few) with a focus on climate change and sustainable development. These experts gathered within the framework of two workshops and one online webinar (held between June and October 2023, see Table 2).

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1. Contributors

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Table 1: List of contributing experts

2. Introduction

Climate change represents one of the most significant threats to human society and the natural world. The underlying mechanics of anthropogenic climate change have been known for decades. However, society is struggling to create the necessary conditions - namely the creation of a context that enables sustainable coexistence between human beings and nature - to truly address the crises of climate change and biodiversity loss.

Politicians and scientists have made numerous efforts to combat this situation. Together they have contributed to increasing and improving understanding of the phenomena and have drawn attention to the central importance of human activities. However, we are still a long way from reversing, or even preventing catastrophic global warming and biodiversity loss.

3. Scope of the Policy Brief

The aim of this policy brief is to signpost the insights social sciences and humanities can provide in understanding climate change dynamics in order to provide effective policy interventions. For this purpose, we emphasize the nature and relevance of the contribution of the Social Sciences and Humanities (SSH) by presenting some of the most fundamental insights on what is hampering real transformative change. The social sciences and humanities can provide insights on human behavior, social attitudes, cultural norms, economic dynamics, and political processes, which are urgently needed to complement current policies based largely on science and technology alone.

The target groups for this brief are policymakers and research funding agencies. The brief aims to support them to make bold decisions and provide

a fresh perspective to inform their decision making.

This policy brief includes three points:

- An overview of the underlying assumptions of social behavior that inform current approaches to climate change mitigation (Section 4),
- a reference to a set of possible societal pathways (Section 5),
- and a set of domains of action and key recommendations (Section 6).

The policy brief includes a list of references to scientific studies and reports to support its recommendations.

4. The underlying assumptions guiding human-human and human-nature interactions

This topic will tap into the most widespread underlying assumptions affecting climate change actions, addressing:

- The conventional philosophical understanding of the relationship between humans and nature, rooted in the culture of mainly Western civilizations.
- An economic system that does not account for natural values and the overemphasis on the belief that technological solutions, while obviously indispensable and decisive, will play a decisive role on their own.
- Governance structures that function according to market principles, excluding other values that focus on the long-term sustainability of systems and resources, as well as societal wellbeing.



Figure 1: Developments leading to a disconnect between humans and nature

- Power dynamics among groups in society that result in profound societal inequalities.

Over time, Western society has witnessed a growing divide between humanity and nature, perpetuating the narrative of human dominance over the natural world¹.

This disconnection has been amplified by historical, cultural, and technological developments, fostering a sense of entitlement to exploit nature for human gain, with science and technology, unfortunately, playing pivotal roles in this process² (see Figure 1). Human activities, such as climate change and resource extraction, have led to detrimental consequences, including biodiversity loss and the emergence of infectious diseases^{3 4 5}.

A deeper understanding of the intricate relationship between humans and nature urgently requires a broader perspective that encompasses diverse cultures and scientific viewpoints⁶.

In addition, urbanization has escalated markedly in recent decades, with an ever-growing percentage of the global population living in cities⁷. This urban shift exerts pressure on ecosystem resources and contributes to challenges linked to climate change^{8 9 10}. To bridge the divide between natural and human environments, a fundamental reimagining of urban planning and design is crucial.

Furthermore, the existing economic model of free market capitalism tightly intertwines social status with material wealth, fueling competition and

prioritizing short-term perspectives over long-term considerations.

This connection is reinforced by religious interpretations and moral frameworks, and leads to inequalities on multiple levels.

This has led to profound social inequalities, an overemphasis on the belief in technological solutions alone, and an undervaluing of long-term sustainability and societal wellbeing.

5. Possible societal pathways

Research and education emerge as vital tools for reconciling the disconnection between humans and nature, and nurturing a deeper and more meaningful bond. Together they can foster environmental awareness, promote sustainable practices, and reshape our relationship with the natural world¹¹.

Materialistic values have adverse impacts on both individuals and society. New economic models must prioritize equity, human and non-human well-being, and societal welfare¹². To address the unsustainable repercussions of consumerism and materialism, a multifaceted approach is required, involving shifts in societal norms, changes in education, policy adjustments, and individual actions.

To bridge the gap between short-term and long-term views, and to address the growing inequality stemming from this imbalance, it is imperative to promote a more equitable dialogue between various scientific disciplines¹³.

6. Key recommendations

Policy and research programs dealing with climate change should explore, acknowledge and manage the underlying societal assumptions outlined above that are shaping current actions.

This means specifically integrating scientists from social sciences and humanities into existing and upcoming programs right from the conception of a program, in order to address and overcome the underlying assumptions outlined above. Including experts in the humanities and social sciences can help the programs out of their impasse and will induce approaches to:

- Jointly explore and acknowledge the relevant assumptions affecting climate change and action implementation.
- Engage stakeholders to jointly evaluate and learn from these findings.
- Manage the underlying assumptions in a way that they can support development and implementation of successful approaches for climate change.

7. Summary

What can policymakers and research-funding agencies do to move towards transformative governance collaboration?

(Co-)fund longer term transformative collaborations that draw on the skills of social sciences, humanities, art and creative disciplines to shift underlying assumptions and more specific values and attitudes.

Improve results of programs by changing monitoring and evaluation methods for the evaluation of open-ended visionary research; enabling open-ended, experimental, sometimes informal outcomes, focused on longer term transformation; engaging and co-creating with multiple actors from different disciplines.

Policymakers can implement policies and programs that help to integrate comprehensive environmental education, to harness its potential to shape a deeper connection with nature to instill the value of nature as a basis of human activities.

Managers of policy departments should enable staff to operate beyond the boundaries of existing systems when participating in such transformative programs.

8. POLICY BRIEF WORKSHOPS

	Location	Focus	Date	No. of participants
1 st Workshop	Dublin Invite-only side-event at ECCA (European Climate Change Adaptation) Conference	Reframing Societal Transformation by Challenging Underlying Assumptions	20/06/2023	16
2 nd Workshop	Graz Invite-only side-event at SHiFT Conference	Social Sciences and Humanities addressing Climate Change	20/09/2023	14
3 rd Workshop	Virtual ZOOM	Social Sciences and Humanities addressing Climate Change (A deeper dive)	30/10/2023	13

Table 2: Details of Policy Brief



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9. REFERENCES

1. White, L. (1967). The Historical Roots of Our Ecological Crisis. *Science*, 155(3767), 1203-1207.
2. Steffen, W., Crutzen, P. J., & McNeill, J. R. (2007). The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature? *AMBIO: A Journal of the Human Environment*, 36(8), 614-621.
3. Kolbert, E. (2015). *The Sixth Extinction*. Bloomsbury Publishing PLC.
4. Woolhouse, M., Scott, F., Hudson, Z., Howey, R., & Chase-Topping, M. (2012). Human Viruses: Discovery and Emergence. *Philosophical Transactions: Biological Sciences*, 367(1604), 2864–2871.
5. World Health Organization (2015). *Connecting Global Priorities: Biodiversity and Human Health*. [Online] Available at: <https://www.who.int/publications/i/item/connecting-global-priorities-biodiversity-and-human-health>
6. Descola, P., & Pálsson, G. (1996). *Nature and Society: Anthropological Perspectives*. Routledge.
7. UN (2018). United Nations. *World Urbanization Prospects*. [Online] Available at: <https://population.un.org/wup/publications/Files/WUP2018-Report.pdf> and UN (2022). United Nations Human Settlements Programme (UN-Habitat). *World Cities Report 2022: Envisaging the Future of Cities*. [Online] Available at: https://unhabitat.org/sites/default/files/2022/06/wcr_2022.pdf
8. Grimm, N. B., Faeth, S. H., Golubiewski, N. E., Redman, C. L., Wu, J., Bai, X., & Briggs, J. M. (2008). Global Change and the Ecology of Cities. *Science*, 319(5864), 756-760.
9. Howard-Grenville, J., S. J. Buckle, et al. (2014). *Climate Change and Management*. Academy of Management Journal, 57(3), 615-623.
10. Watts, N., Adger, W. N., Agnolucci, P., Blackstock, J., Byass, P., Cai, W., ... & Maslin, M. (2015). Health and Climate Change: Policy Responses to Protect Public Health. *The Lancet*, 386(10006), 1861-1914.
11. Descola, P. (2013). *Beyond Nature and Culture*. University of Chicago Press.
12. Kasser, T. (2002). *The High Price of Materialism*.
13. Edelman, H., & Haugerud, A. (Eds.). (2005). *The Anthropology of Development and Globalization*. Blackwell.

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