

Sub-Projects in Progress

- **Radical Environmentalism** studies eco-terrorism, environmental terrorism, ecotage and radical environmentalism, its ethical implications, controversial ethical justifications and potential engagement strategies from normative ethical, corporate governance and public policy perspectives.
- **Digital Sustainability vs Eco-Environmental Sustainability**
Digital Technology engages in Multidimensional Sustainability research in order to derive guidelines for sustainable digital development. In particular the sub-project will elucidate and qualify the relationship between digital and eco-environmental sustainability.
- **Business competition during COVID-19 economic recovery** studies the expected role of sustainability and internationalization as drivers for the business competition in the recovery from COVID19 crisis.

Sub-Projects Completed

- **Forensic DNA profiling in the southern border provinces of Thailand - ethical and regulatory issues**

<https://doi.org/10.1016/j.forsciint.2022.111322>

- This project aims to scrutinize the ethical and regulatory concerns surrounding forensic DNA profiling in Thailand's conflict-affected southern border provinces. Highlighting the critical role of genetic technology in criminal investigations, it underscores the potential risks associated with expanding DNA databases, such as the unauthorized use of private data due to insufficient safeguards. The study emphasizes the necessity for police actions during evidence collection to comply with legal standards and minimize harm to suspects. With reports of forced DNA collection in these regions, the project advocates for establishing a robust legal framework to regulate genetic information collection. This framework is vital for balancing the benefits of national DNA databases in enhancing criminal justice processes against the imperative to protect individual rights and privacy.

● **SDGs and fictional energy utopias: Gauging sustainable energy transitions against Ecotopia and The Ministry for the Future;**

doi.org/10.1177/0958305X2311868

(UN SDG 7, 13, 16)

- Strategic narratives about the transition to sustainable energy systems, including those influenced by the United Nations' sustainable development goals (SDGs), frequently incorporate utopian elements. These ambitious targets encapsulate future-oriented visions and postulate implications of technological advancements; they also often underrepresent or even bypass the multifaceted nature of socioeconomic diversities, planetary constraints, and persistent energy disputes. The genre of utopian science fiction can offer a valuable heuristic to elucidate the heterogeneous and occasionally unsatisfactory projections that emerge from the SDGs. Two seminal novels—Ernest Callenbach's *Ecotopia* (1975) and Kim Stanley Robinson's *The Ministry for the Future* (2020)—which we classify as “fictional energy utopias” (FEUs), present incisive critiques of contemporary energy mechanisms and practices and envisage equitable, resilient, and robust renewable energy systems and socio-technical structures. Through an approach that combines narrative and discourse

analyses, these literary works are juxtaposed with selected indicators of three SDGs. The ensuing study underscores the primacy of the topic of energy in policy and its concomitant narratives in fostering collective endeavors toward sustainable development. It also amplifies the pivotal interconnections between SDG 7 “Affordable and Clean Energy,” SDG 13 “Climate Action,” and SDG 16 “Peace, Justice, and Strong Institutions.” Employing FEUs to evaluate sustainability policies can substantially benefit researchers, policy architects, and public engagement coordinators by highlighting lacunae and limitations within prevailing strategic narratives and proposing potential enhancements to fortify their capacity to motivate collective action.

- **Mitigating Global Challenges: Harnessing Green Synthesized Nanomaterials for Sustainable Crop Production Systems;**

<https://doi.org/10.1002/gch2.202300187>

(focused on UNSDG: 2, 3, 12, 13, 15)

- This project aims to address critical global challenges by exploring the potential of green synthesized nanomaterials to enhance sustainable crop production systems. Focused on aligning with the United Nations Sustainable Development Goals

(UNSDGs) 2 (Zero Hunger), 3 (Good Health and Well-being), 12 (Responsible Consumption and Production), 13 (Climate Action), and 15 (Life on Land), the initiative seeks innovative ways to improve agricultural productivity and sustainability. By leveraging environmentally friendly nanotechnology, the project proposes to develop solutions that not only increase crop yields and improve plant health but also minimize ecological footprints, thus contributing to global efforts against hunger, health issues, unsustainable production practices, climate change, and biodiversity loss.

- **Behavioural intention of consumers to use app-based shopping on green tech products in an emerging economy;**

<http://doi.org/10.1108/IJQRM-05-2023-0164>

(focused on UNSDG: 9, 11, 12, 13, 17)

- This project investigates the behavioral intentions of consumers towards using app-based shopping platforms for green technology products in an emerging economy. Focused on the United Nations Sustainable Development Goals (UNSDGs) 9 (Industry, Innovation, and Infrastructure), 11 (Sustainable Cities and Communities), 12 (Responsible Focusing on Consumption and

Production), 13 (Climate Action), and 17 (Partnerships for the Goals), the study aims to understand the factors that influence consumer decisions to adopt digital solutions for purchasing eco-friendly technologies. By analyzing consumer attitudes, preferences, and concerns regarding app-based shopping for sustainable products, the project seeks to provide insights that can help promote sustainable consumption patterns, advance green technological innovations, and facilitate collaborative efforts to achieve environmental sustainability in emerging economies.

- **Exploring the knowledge and practices on road safety measures among motorbikers in Dhaka, Bangladesh: a cross-sectional study;**

<http://dx.doi.org/10.1136/ip-2023-045071>

(focused on UNSDG: 3)

- Through a cross-sectional study, this project aims to explore the knowledge and practices related to road safety measures among motorbike riders in Dhaka, Bangladesh. With a focus on United Nations Sustainable Development Goal (UNSDG) 3 (Good Health and Well-being), the research intends to assess how well motorbikers in Dhaka understand and implement road safety

protocols. By gathering and analyzing data on the awareness levels, attitudes, and actual safety behaviors of these riders, the study seeks to identify gaps in knowledge and practice that may contribute to road traffic accidents. The ultimate goal is to inform policy-making and educational campaigns aimed at reducing accidents and enhancing the well-being of individuals by promoting safer road usage practices among motorbike users in the urban setting of Dhaka.

- **The contribution of circular economy practices on the resilience of production systems: Eco-innovation and cleaner production's mediation role for sustainable development;**

<https://doi.org/10.1016/j.jclepro.2023.138806>

(focused on UNSDG: 12)

- This project explores the impact of circular economy practices on the resilience of production systems, focusing on the mediating role of eco-innovation and cleaner production in promoting sustainable development. Centered on United Nations Sustainable Development Goal (UNSDG) 12 (Responsible Consumption and Production), the study aims to understand how integrating circular economy principles—such as recycling, reusing, and reducing

waste—into production processes can enhance the sustainability and resilience of these systems against external shocks and stresses. By investigating the pathways through which eco-innovations and cleaner production methods contribute to this resilience, the project seeks to provide empirical evidence and insights that can guide businesses and policymakers in transitioning towards more sustainable, efficient, and adaptable production practices, ultimately fostering a more sustainable economic system.

- **Climate Change and Aging Health in Developing Countries;**

<http://doi.org/10.1002/gch2.202200246>

(focused on UNSDG: 3, 10, 13)

- This project aims to delve into the intersections between climate change and the health of aging populations in developing countries, focusing on United Nations Sustainable Development Goals (UNSDG) 3 (Good Health and Well-being), 10 (Reduced Inequalities), and 13 (Climate Action). It seeks to understand how climate change exacerbates health vulnerabilities among the elderly. This demographic is already at risk, and the disparities in health impacts caused by socio-economic factors are explored. By

examining how climate-related events affect older individuals in these regions, the study intends to highlight the need for targeted health interventions and climate adaptation strategies. The goal is to contribute to developing policies and practices that mitigate the effects of climate change and address health inequities, ensuring that aging populations in developing countries have the resources and support needed to live healthier, more resilient lives in the face of climate challenges.

- **Dynamic Nexus between Macroeconomic Factors and CO2**

Emissions: An Evidence from Oil-producing Countries;

<https://doi.org/10.3389/fenvs.2022.1005814>

(focused on UNSDG: 13)

- This project aims to delve into the intricate relationship between macroeconomic factors and CO2 emissions, specifically within oil-producing countries, aligning with the United Nations Sustainable Development Goal (UNSDG) 13 (Climate Action). The study seeks to uncover how various elements of the macroeconomy, such as GDP growth, energy consumption, industrialization, and trade balances, influence the levels of carbon dioxide emissions, which are a primary driver of climate change. By focusing on oil-

producing nations, where the economy and environmental impact are deeply intertwined with fossil fuel extraction and use, the research intends to provide evidence-based insights that could inform policy decisions aimed at achieving sustainable economic growth while mitigating environmental degradation and promoting a transition towards more sustainable and low-carbon energy sources.