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Editorial: Ecosystem services, policy, and human well-being

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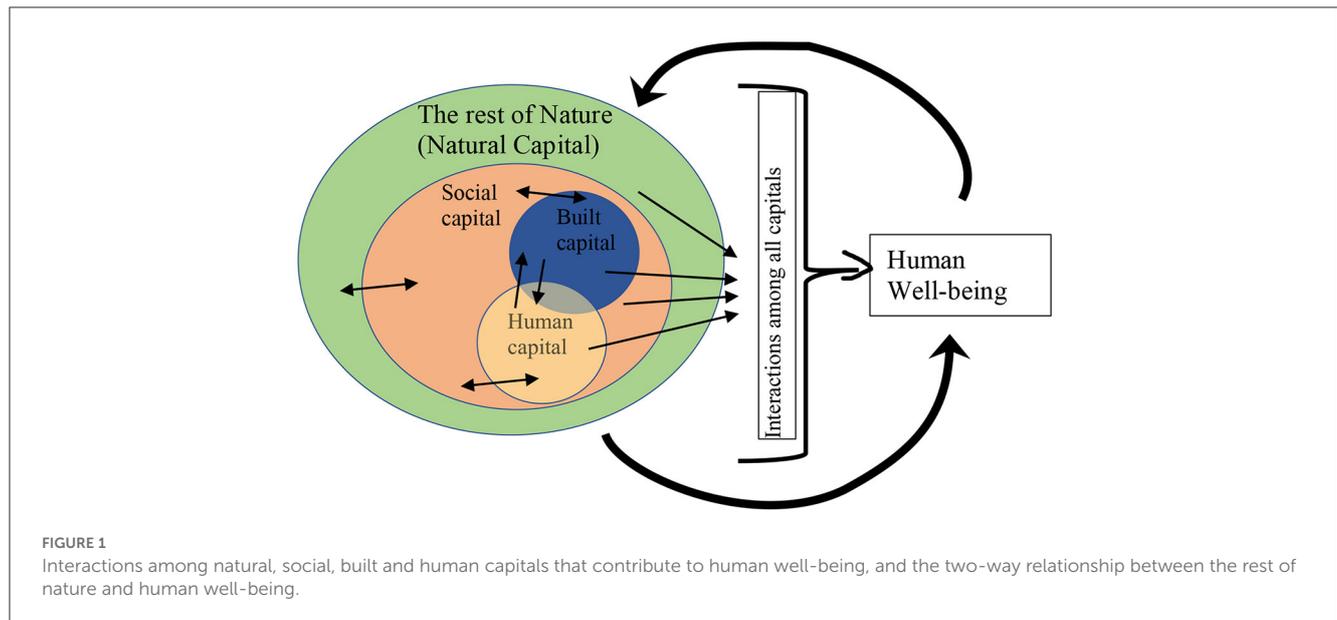
Editorial on the Research Topic

Ecosystem services, policy, and human well-being

Recognition is growing that ecosystems are the foundation for human health, well-being, and livelihoods, including supporting our economies. This is emphasized by the United Nations-led initiatives, initially the [Millennium Ecosystem Assessment \(2005\)](#) and more recently the Intergovernmental Platform for Biodiversity and Ecosystem Services (IPBES; 2012 onwards). This recognition also comes from the impacts that we are experiencing, at the local, national, and regional scales, of our fast declining and degrading natural capital, collapsing biodiversity, and the increasing effects of climate change and natural disasters ([Intergovernmental Platform on Biodiversity and Ecosystem Services, 2019](#)). Despite this, our economies continue to operate in traditional modes, exploiting natural resources to enhance income for a small fraction of humanity, applying old tools (i.e., economic frameworks, measures, policy instruments, and related programs) that fail to consider the underpinning role that natural capital plays in supporting our economies and overall human well-being. The over-emphasis of modern economies on the production and consumption of marketed goods and services results in the overuse and destruction of the essential elements upon which our well-being depends including natural and social capital ([Costanza et al., 2007, 2014; Daly, 2015](#)). Our current measure of economic well-being, Gross Domestic Product (GDP), ignores these broader aspects of human well-being, and “GDP is dangerously inadequate as a measure of ‘quality of life’” ([Costanza et al., 2014](#)). Quality of life (all life) and planetary well-being should be the focus of our modern economies, not GDP growth at all costs.

The transformation of our economies is a critical first step toward sustainably living on planet Earth and while improving human well-being and the well-being of the rest of nature. Hence, this Research Topic focuses on linking natural capital, ecosystem services, and human well-being while recommending transformative approaches to economic frameworks.

The articles published in this Research Topic include: 1. “Ecosystem services and human wellbeing-based approaches can help transform our economies” by [Sangha et al.](#); 2. “A novel approach to identify and prioritize the connections between nature and people’s well-being in New Zealand” by [Ausseil et al.](#); 3. “Coastal ecosystem services modeling in Latin America to guide conservation and restoration strategies: the case of mangroves in Guatemala and El Salvador” by [Hernandez-Blanco et al.](#); 4. “Agents on a landscape: simulating spatial and temporal interactions in economic and ecological systems” by [Johnson and Salemi](#); 5. “Toward SDGs: forest, market and human wellbeing nexus in Indian Western Himalayas” by [Dobriyal et al.](#); 6. “Community champions of ecosystem services: the role of local agency in protecting



Indonesian coral reefs” by [Abdurrahim et al.](#); and 7. “Valuing ecosystem services applying indigenous perspectives from a global biodiversity hotspot, the Western Ghats, India” by [Balasubramanian and Sangha](#).

All of these articles suggest various local, national or regional transformative approaches. For example, [Sangha et al.](#) recommend applying the ES and human well-being-based economic approaches to evaluate and integrate the role of natural ecosystems to redesign economies that are circular, desirable, and sustainable. [Ausseil et al.](#) outline a participative, systematic approach to help practitioners make sound policy decisions by applying impact and substitutability indices to examine links between ES and human well-being. [Hernandez-Blanco et al.](#) propose a combined index of coastal protection and carbon sequestration services to highlight potential priority conservation and restoration regions for mangroves in El Salvador and Guatemala. [Johnson and Salemi](#) develop an agent-based model where inter-agent competition is directly modeled by defining how Non-Timber Forest Products extraction of one agent changes the extraction efficiency of nearby agents. [Dobriyal et al.](#) assess the relationship between forest quality and well-being (applying SDGs indicators) of local communities of Nanda Devi Biosphere Reserve (NDBR) in the Upper Ganga River Basin, Western Himalayas, India. [Abdurrahim et al.](#) describe local individuals’ (community champions) motivation (i.e., personal experiences, religion, vertical and horizontal relationships within a community, and developing alternative sustainable livelihoods), and how they operate to protect local ecosystems such as coral reefs and seagrass meadows. [Balasubramanian and Sangha](#) apply Indigenous (*Adivasi*) perspectives for highlighting the value of ES from the Indian Western Ghats such that policy decision-makers are informed to develop and design appropriate programs that enhance the well-being of *Adivasi* people as well as conserve the forest ecosystems. In conclusion, two key messages flow from this Research Topic:

1. We must transform and redesign our economies embracing the role of nature and its ES, and human well-being.
2. We must appreciate and include the two-way relationships between humans and the rest of nature for informing future policies and development programs.

Re-designing our economies involves understanding and embracing the connections between economies and the rest of nature and their various components, including dynamics and complexities. [Costanza et al. \(2014\)](#) highlight that our economy (comprising built and human capital) is embedded within society (social capital) which is further embedded within the rest of nature (natural capital; [Figure 1](#)). In such a setting, an in-depth understanding of the interactions among natural, social, human, and built capitals becomes integral to developing transformative economies (as highlighted by [Sangha et al.](#); [Ausseil et al.](#)).

Embracing two-way relationships with nature that sustainably lead to obtaining various economic and well-being benefits, involves a significant element of responsibility, ethics, and care, that should be exercised by every human being. Many Indigenous peoples and local communities (IPLCs), around the globe, practice this relationship as they live in close association with nature ([Sangha and Russell-Smith, 2017](#); [Sangha, 2020](#)). For our modern (mainly urban) society, the need is to connect with the rest of nature not just to obtain goods and services, but also to take responsibility for, and implement a greater degree of paying back, for example, developing and supporting local circular economies.

We hope that this Research Topic will inform and inspire academicians, practitioners, policy decision-makers and others to apply innovative perspectives to both understand and embrace human interconnections with the rest of nature, thereby creating a sustainable rewarding future.

Author contributions

All authors reviewed the articles for this Research Topic and have compiled the editorial. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships

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