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# Introduction to the special issue: Manfred Max-Neef's contributions to theory, methods and practice in sustainable development

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## 1 Introduction

This special issue of the *International Journal of Sustainable Development* constitutes a first step to study the breadth, relevance and timeliness of the multiple contributions made by Manfred Max-Neef to the fields of human development and sustainability, among many others. As tangential as it may seem, we consider this period of post-pandemic challenges and transformations an opportune moment to reflect on the contemporary nature of Max-Neef's contributions, motivated by an urgent need to address the interrelated social, ecological and economic crises. As the articles in this special issue will demonstrate, these crises can be addressed by transdisciplinary and alternative approaches.

In general, the articles in this special issue focus on work that has been inspired by Manfred Max-Neef's theoretical, methodological, and practical ideas and writings. Following a short biography of Manfred Max-Neef, we describe the papers within three broad themes: theoretical reviews, analytical and empirical research using the fundamental human needs (FHNs) theory, and transdisciplinary research and practice.

## 2 About Manfred Max-Neef

Manfred Max-Neef (1934–2019) was a Chilean-German artist, social justice advocate, and ecological economist. As an artist, Max-Neef loved music and all things beautiful, both vast and overwhelming but also simple and spontaneous. He cherished harmony in all aspects of life, especially where human sensitivity and knowledge interact. As a social justice advocate, he despised injustice, alleged supremacies of any kind, infallibility (particularly that claimed by some mainstream economists), and totalitarian attitudes. His early rejection of a managerial career at the Shell Oil Company proved keys to answering the question that troubled his mind as a young economist: *Was machst du mit deinem Leben?* (What are you doing with your life?). That decision, hard and misunderstood at the time, ended up being the most important in his life – it authorised him to criticise a world he knew from the inside and prepared him to understand the world of the marginalised or *invisibles* he defended until his last days.

As an ecological economist, he was a trailblazer for many scholars who later built the field from the margins of conventional economics to its current shape, and particularly for those writing from the Global South. In the words of Joan Martínez Alier, founding member and former president of the International Society of Ecological Economics (ISEE):

“Throughout the 1980s, his ideas were a considerable challenge to mainstream economics, opening a discussion that 40 years later is yet to be settled. Max-Neef was a forerunner before his 50s and before obtaining the Right Livelihood Award in 1983. When the world, and particularly Latin America, were just beginning to talk about ecological economics, Max-Neef was already forging his transformative ideas.”

Martínez Alier’s prologue of the re-edited Spanish version of *From the Outside Looking in: Experiences in Barefoot Economics* (Max-Neef, 2022) (our translation)

## 3 Themes of the special issue

### 3.1 Theoretical reviews

To begin, the special issue presents two articles that explore the reach of Max-Neef’s ideas. The first is a bibliometric analysis of his scholarly work, and the second focuses on the link between the FHN theory and energy services.

In ‘The international impact of Manfred Max-Neef’s scholarship: a bibliometric approach’, María del Valle Barrera, Patricio Belloy, Benoit Mougenot and Jean Pierre Doussoulin summarise Max-Neef’s main scholarly contributions and attempt to measure the impact of his work.

This is the first bibliometric analysis to assess the global impact of Max-Neef’s publications in academic spaces. The study investigates the authors and academic papers citing Max-Neef’s books and papers, acknowledging that a considerable part of his work has been disseminated through non-academic outlets like reports and memos. It also identifies current and emerging disciplinary and interdisciplinary areas where his theories are cited, including transnational collaborations, the evolution of most relevant authors, most cited documents, an analysis of keywords, and co-citation and co-occurrence

networks. In addition, the paper includes what we believe is the first comprehensive list of Max-Neef's publications.

In 'Max-Neef and sustainability: theoretical, methodological and empirical contributions', Lina I. Brand-Correa and Julia K. Steinberger explore how Max-Neef's FHN theory can be used to understand energy services as needs satisfiers. In the first part of the paper, the authors discuss Max-Neef's contributions to the theories of human needs within the broader literature of wellbeing. Then, the paper examines how energy services can be conceptually linked to needs satisfiers using data from Colombia, Zambia and Nepal.

The authors introduce the concept of human scale energy services (HuSES), a methodological development that they put forward as a means to contribute to a better understanding of energy services, by offering participatory platforms for stakeholders to collaborate with communities and co-design energy solutions in a democratic fashion. Finally, they suggest that empirical findings using the HuSES tool can inform energy policy and offer viewpoints that are not always considered by more conventional methods of analysing energy demand and energy services in general.

### *3.2 Analytical and empirical research using the FHN theory*

Max-Neef's FHN theory, originally formulated in 1986 (Max-Neef et al., 1986), is the most cited theory of his academic career (Barrera et al., 2022). The participatory workshop introduced by the theory has been applied in a number of countries across all continents. Of the articles included in this section, Mora Motta et al. ran the FHN workshop to produce empirical results and the other two studies used the framework as an analytical tool to assess data.

In 'Waste management in rural South Africa – perspectives from Manfred Max-Neef's human scale development framework', Rinie Schenck, Derick Blaauw and Charlotte Nell examine the connections and interdependencies between waste management and various forms of poverty, using a rural town in South Africa's Free State Province as a case study. The study used 180 questionnaires to assess perceptions about and behaviours related to household waste, complementing these with georeferenced information. The results show that waste management problems impacted the well-being of the participants by affecting most of their FHNs, creating poverty.

The authors conclude that the introduction of innovative solutions in waste management can be achieved through the study of systemic satisfiers in communities. In their view, improvements in waste management must consider waste as a valuable resource that can be reused by the community through greater participation, which will result in the improvement of multiple FHNs.

In the article 'Fundamental human needs and socio-ecological transformation: a reflection on participatory action research in a context of tree plantations in Chile', Alejandro Mora-Motta, Till Stellmacher and Maria del Valle Barrera connect the FHN PAR approach to the current scenario of socio-ecological transformation. Based on intensive fieldwork conducted in Southern Chile in 2016 and 2017, their work examines the results of a FHN PAR workshop-based method adapted to investigate how expanding tree plantations in Southern Chile affect the well-being of peasants and indigenous people.

The results of the study show the potentialities and limitations of the method to assess and preserve well-being in contexts where the livelihood of indigenous populations coexists with extractive industries.

In the last article of this section, ‘A novel tool for quality-of-life assessment in the household context’, Montagu Murray and Christiaan Pauw propose an original quality of life assessment (Qola) instrument named Nova Qola. The tool aimed at comparing the quality of life of people in households and communities, is based on quality-of-life studies from the field of sociology and Max-Neef’s FHN theory and is framed within the design of a conceptual framework and a database for the analysis of the satisfaction of needs.

The paper presents a detailed assessment of the quality of life of 46 households using the Qola tool, concluding that it is a capable means to assess quality of life using both subjective and objective empirical data. Finally, the authors point out that the instrument is still a work in progress and researchers are currently improving the questions and the understanding of what the results imply.

### 3.3 *Transdisciplinary research and practice*

The growing relevance of transdisciplinarity research within the sciences has been examined in previous special issues, such as ‘Prospects for transdisciplinarity’ in the *Futures* journal (Klein, 2004) and *Ecosystem Service’s* ‘The various faces of transdisciplinarity in research on ecosystem services’ (Stepniewska et al., 2022). Manfred Max-Neef presented his own novel view of transdisciplinarity in a commentary published in the *Journal of Ecological Economics* (Max-Neef, 2005), in which he distinguished between weak and strong forms of transdisciplinarity. This special issue features three articles that explore how transdisciplinary approaches can improve our understanding of the communities we live in and the transformative work we do as scholars.

Inspired by these ideas, Henrietta Palmer, David Simon and Jan Riise authored ‘Urban research for sustainability: developing a comparative transdisciplinary co-production approach to realise just cities’. The authors use Max-Neef’s interpretation of transdisciplinarity as a lens to examine an innovative international research program between eight sustainable and just cities, employing a typology that allows comparison of urgent local priorities.

The typology approach is composed of six categories of comparative transdisciplinary co-production of knowledge, capturing the priorities and rationales produced between scientific and extra-scientific actors. The article concludes that the structured typological approach allows for the establishment of a common and shared scenario for the large number of discrete projects examined, and that understanding a strong transdisciplinarity requires not only contextual knowledge but also mutual learning.

In ‘Self-reflexive practice through the human scale development approach – competencies needed for transformative science research’, Salina Spiering proposes Max-Neef’s theory as a framework for conducting self-reflective practices that can help transformative science (TSc) scholars produce more meaningful and participatory knowledge for sustainability transitions.

The author argues that the lived experience of scholars influences their research in various ways, particularly from an emotional perspective, mediating how they interact with participants and their own research community. The author proposes a more

incremental use of self-reflective practice to identify improvements and problems affecting one's role as a researcher, highlighting that self-reflective practices are a skill that can be learned and a competence that is necessary for transdisciplinary TSc research.

## 4 Conclusions

The special issue features seven articles from scholars based both in the Global North and the Global South, providing not only a space to present their own ideas and research, but also to showcase current usages of Max-Neef's scholarly work. Besides the intrinsic value of each piece, we highlight that they advance Max-Neef's ideas by straying from the usual applications of his work, identifying a new set of disciplines and cross-disciplines where his theories and methods have found fertile ground. In the future, we hope to keep expanding Max-Neef's theories through not only scientific but also practitioner-oriented contributions.

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