

Co-creation of the sustainable future based on the linkage of the earth-human system

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The Research Goals

We will define the various thresholds and linkages in the earth-human system which have been causing complex problems of global environment. We are aiming to transform the relationship between humanity and nature for the sustainable future by changing our lifestyles, values, and behaviors, as well as creating the multi-scale social design that connects locals, regions and the global.

The Program Mission

The expansion of human activities which have transcended the planetary boundary, caused the tipping cascades and cast the grave danger to global environment. We must delve into how human beings can build a sustainable society based on normative human behaviors. In the Anthropocene, the problems caused by global warming, the loss of biodiversity, depletion of water resources, poverty and inequality, which threaten a sustainable society, have been linked to convoluted problems of global environment. In order to solve such complicated problems, it is necessary to elucidate the changes in the earth-human system, to suggest exemplary way of human life style, and to transform toward sustainable society. In addition, to connect the solution of the regional problems with the global challenges, it is not necessary to confront humans and nature, but rather to establish a perspective of social change and implementation according to different natural and social structures depending on the region with various history of the earth and civilization.

In our program, we regard the linkage among humanity, society, and nature as the earth-human system and perspective of co-creation with stakeholders. We will integrate and diversify global environmental studies to enhance comprehensive global environmental research by focusing on the following three approaches.

Firstly, this program clarifies the physical, environmental, social relationships, and linkages that exist among the various elements of the earth-human system. We will seek the means to reduce conflicts and increase synergy among resources such as water, air, ecosystems, energy, food, land and labor which support human society, as well as among varying processes of social activities, and stakeholders. We will suggest social design for future by co-creation with stakeholders in a multi-scale including metaverse.

The second is the establishment of new thresholds to maximize a benefit while minimizing a harm for humanity, society, and nature, as well as the development of communication methods to share values and promote mutual understanding among self, others, and society. Through this research program, we will try to present transformative pathways to solve global environmental problems by comprehensively connecting people's way of life, values, behaviors and social changes

The third, we focus on the contrast between homogeneity and diversity in resources and environments of the earth-human system, by observing and monitoring of the interaction between the natural system and human activities, modeling, visioning and designing of the future earth-human system. Our goal is transforming the relationship between humanity and nature for sustainable future based on the structure of the histories of the earth, life, human, and civilization.