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Author(s): Carsten H. Richter, Jianchu Xu, Bruce A. Wilcox Humanity will continue to struggle with solving its existential problems in the future if command-and-control continues as the predominant approach to environmental and natural resources management. Recognizing the ecosystem perspective, complex adaptive systems (CAS) theory and transdisciplinary collaboration as conceptual opportunities to developing innovative and socially robust solutions is an important step in the right direction. However, because ecosystems are constantly evolving, human co-development has to account for inherent ecological uncertainty. Thus, sustainability depends on a continuous reevaluation of objectives, continuous knowledge generation, stakeholder involvement and a deeper understanding of evolving social and ecological dynamics. These requirements of continuity are hardly met by current approaches consisting of consecutive transdisciplinary projects focused on solving the most urgent problems of mismanagement at hand. Therefore, in this paper we argue for an organizational setup when pursuing an ecosystem approach and outline essential characteristics, inherent opportunities and fundamental challenges. Promising benefits of this approach include tested yet proactive interventions, public credibility, resource efficiency, long-term relationship building, community participation and ultimately sustainable development. Thereby, sustainability is aspired to and supported by a shared vision, organizational co-evolution, an organizational culture promoting innovation and an external autonomy to self-organize.

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