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NATURE-BASED ADAPTATION TO CLIMATE CHANGE FOR A LIVEABLE FUTURE ON EARTH

Abstract: Ecosystems in good condition and their biodiversity are the life support system for humans on Earth. Yet, they are threatened by the contemporary global polycrisis that degrades climate, soils, waters and all forms of life, and hence jeopardizes any ambitions to improve human livelihoods, including the Sustainable Development Goals.

While addressing the root causes of this global polycrisis is imperative and urgent, we must also look to how conserving, restoring and sustainably managing nature can support social adaptation to its ongoing impacts. Ecosystems help mitigating natural risks, sustain food production and other ecosystem services in the face of a rapidly changing climate, and create opportunities for novel activities and cultural values. For these to materialise, we must identify, experiment and implement at scale the necessary interventions, value chains, governance and social changes. There are already many examples of such initiatives globally, and learning from them through transdisciplinary research must guide future decisions and policy.

About the speaker: Sandra Lavorel is a functional ecologist whose career has focused on the interlinkages between human-driven changes in land and climate, and ecosystems, considered through their biodiversity, their functioning and their contributions to humans. For 20 years, her research has aimed to embed the understanding of ecological processes into the quantification of ecosystem services, the contributions of nature to human quality of life, and how these can support decision for adapting to a changing world.

She has led interdisciplinary projects and international networks, weaving knowledge and methods from ecology, geography, agronomy, sociology and anthropology among others, to address nature-based processes of transformation. This highly transdisciplinary work has involved long-term place-based knowledge co-production with diverse stakeholders and decision-makers from multiple sectors (agriculture, forestry, nature protection, tourism, land planning...).

She has also had a continuing priority in building from such place-based evidence to generic concepts, data syntheses and scaling for large-scale transformation. In this endeavour, she has had a long-standing commitment to contributing and steering excellent science for environmental policy through participation in strategic and decision processes of regional (e.g. protected areas), national (e.g. science advisory committee to the President of France,

Ministries for Higher Education and Research and for Environment) and international institutions (e.g. IPBES).

With over 400 international publications, Sandra Lavorel is a member of French Academy of Sciences, and a foreign member of the U.S. National Academy of Sciences and the Academy of Sciences of Argentina. She has received multiple prestigious awards including: the CNRS Gold Medal, the Ramon Margalef Prize in ecology, the BBVA Frontiers of Knowledge award in ecology and biodiversity conservation, and the Honorary membership of the British Ecological Society.