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## The Multiple Resilience Dividends Framework: Rethinking Adaptation Decision-Making as a Transformative Approach for Sustainable Development

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Climate Change Adaptation (CCA) is crucial for the sustainable development of communities, sectors, and regions as the risks and impacts of climate-related disasters continue to increase. Informed decision-making is essential for effective CCA, but building its business case is challenging, especially when decision-makers have to deal with competing priorities on limited budgets. Accordingly, decision-makers seek innovative ways to assess and prioritize adaptation options to make CCA more appealing as an investment.

The "resilience dividend" is a key concept in the literature, referring to the net benefits of investing in resilience, even in the absence of a climate-related disaster. It evaluates the differential impact of CCA measures, considering benefits, co-benefits, costs, and co-harms. Aligned with this concept, the Multiple Resilience Dividend (MRD) approach interprets resilience as the system's capacity to achieve development goals while managing climate risks proactively. It departs from the conventional "bouncing back" understanding and adopts a "bouncing forward" perspective, offering a holistic view of CCA benefits beyond disaster risk management.

In this session, we present a framework incorporating the MRD approach into the decision-making, aiming to enhance the impact of adaptation decisions and support the case for resilience investment. Developed in three stages, the framework is built upon (i) findings from the literature related to resilience dividends, co-benefits assessment, and adaptation decision-making, (ii) Systems Thinking, and (iii) multi-disciplinary expert feedback.

The MRD framework is adaptable to varying degrees of local capabilities and context-specificities, enabling a systematic and flexible approach to analyzing the wide impact of adaptation measures, including benefits, synergies, adverse effects, and trade-offs. By doing that, it offers decision-makers a nuanced understanding of the effectiveness and performance of adaptation measures in line with local conditions and priorities.

Under the MRD framework, adaptation responses can deliver multiple benefits in a continuum, explained by three aspects: (1) benefits that unfold at different periods [realization time], (2) intervention benefits cascade across sectors, scales, and space [interconnectivity], and (3) a benefit is valued differently depending on the receptor [receptor-specificity]. The framework considers adaptation responses as interventions that impact various sectors in different domains (e.g.,

social, economic, cultural, environmental, institutional, political, and technological). For example, an adaptation measure can improve the quality of life, foster energy, food and water security, support ecosystem functioning and health, or have other benefits that extend beyond the targeted system or community. This means that the MRD framework considers adaptation responses as a cross-cutting developmental aspect going beyond the scope of disaster risk management and reframes CCA investments as drivers of progress across the system (e.g., region, city, sector). Thus allowing decision-makers to identify adaptation options that build systemic resilience to climate change more effectively by encouraging cross-sectoral, long-term, and transformational adaptation processes.

As part of the Pathways2Resilience program, which will be deployed across 100 European regions over the next 4 years, the MRD Framework intends to shift the narrative in the CCA field from problem-centred to opportunities-oriented, supporting decision-makers in planning adaptation strategies with more positive, sustainable, and long-lasting impacts.