

**Risk KAN Working Group**  
**Ecosystem-based approaches to disaster risk reduction**  
**(Ecosystem-based approaches to DRR)**

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... and more to join....

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This outline of the Risk KAN WG ecosystem-based approaches is a “living” document with periodic update.

## **Rationale**

Climate change impacts natural and human systems and is projected to intensify in the future. Our working group focuses on the risk of natural disasters, and it aims to contribute to risk reduction and risk management. Natural disaster risks result from the interaction between a climate-related hazard, and the exposure and vulnerability of human activities, so that adaptation to natural disaster risk can be realized by reducing exposure and vulnerability to hazards. Although hard-engineering natural disaster countermeasures have been effective in reducing natural disaster risks by lowering exposure and vulnerability, we are increasingly faced with the situations of devastating natural disasters. Also, hard-engineering countermeasures are sometimes criticized for their negative impacts on ecosystems and biodiversity. Ecosystem-based Disaster Risk Reduction (Eco-DRR) takes advantage of the multi-functionality of ecosystems and biodiversity, including their capacity to mitigate natural disasters while providing multiple ecosystem services. Eco-DRR complements conventional approaches to natural disaster management, although the effectiveness and multi-functionality of Eco-DRR are not yet clearly and quantitatively understood.

## **Goals**

- 1) Identifying the state-of-the-art understanding of effectiveness and multi-functionality of Eco-DRR and the research gaps to be filled
- 2) Deepening the understanding of Eco-DRR by the general public and implementing Eco-DRR at local, national and global scales

## **Activities**

To achieve the goals, we will take approaches including,

- 1) Networking relevant and motivated researchers, practitioners, etc.
- 2) Reviewing existing knowledge (scientific, local and traditional ones) and practices of Eco-DRR
- 3) Collaborating with managers, policy makers, etc. to implement Eco-DRR at local, national to global scales