

INTEGRATED RIVER BASIN MANAGEMENT OF THE MEKONG BASIN TRIBUTARY FOR ADAPTATION TO CLIMATE CHANGE



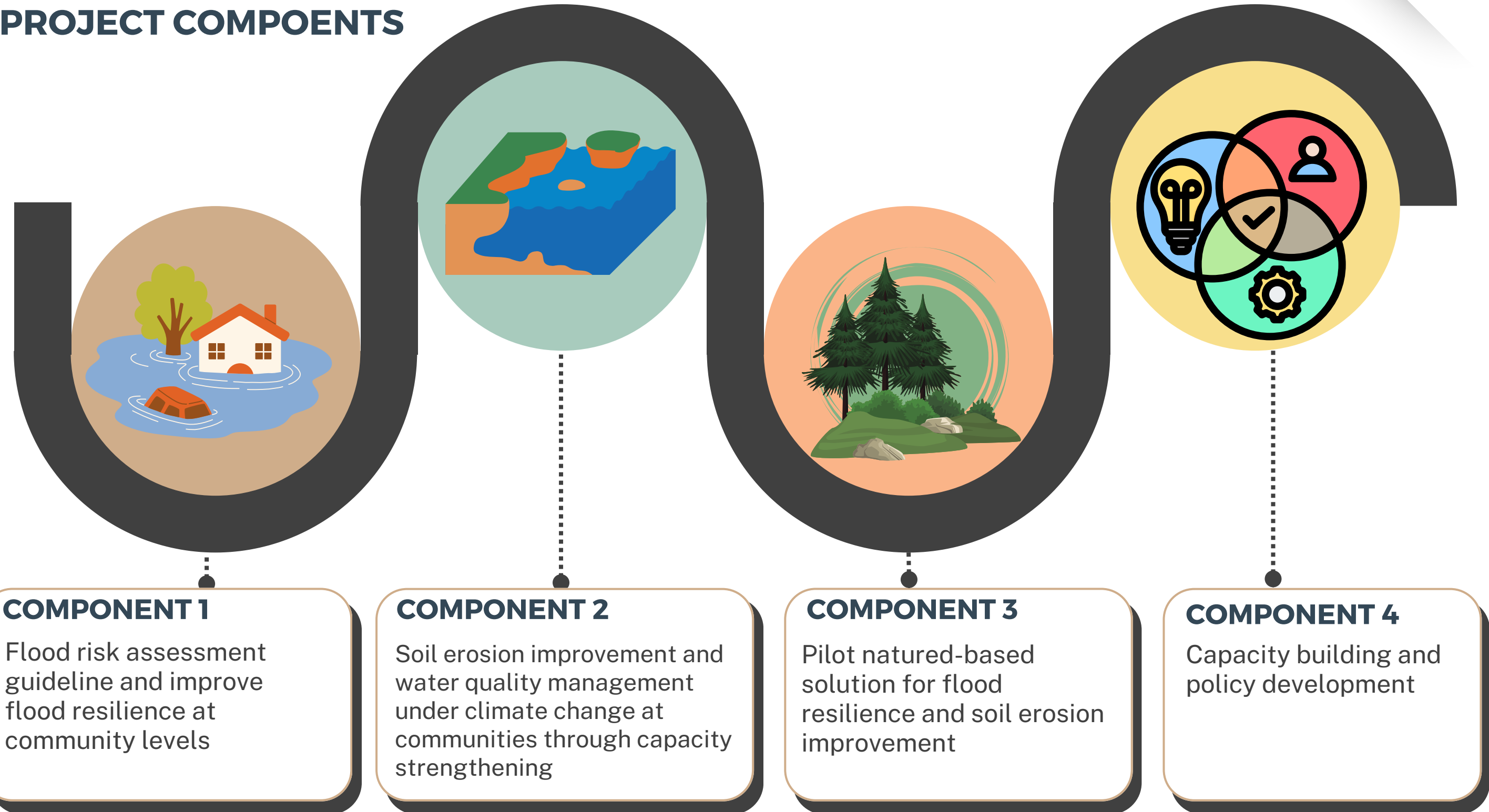
PROJECT BACKGROUND

The Mekong region is experiencing significant watershed deterioration due to human activities and climate change. Climate change is causing more frequent and severe floods, posing risks to infrastructure, livelihoods, and water availability. Soil erosion and degradation, driven by unsustainable land use, are leading to reduced agricultural productivity and ecosystem degradation. Bank erosion is displacing communities and affecting river habitats. Water quality is declining due to pollutants and excessive nutrients, negatively impacting aquatic ecosystems and human health. Soil degradation is further exacerbating agricultural challenges. These issues collectively undermine the socio-economic well-being and environmental health of the region. The lack of proper watershed management intensifies these challenges.

To address these challenges, the project aims to contribute to integrated river basin management and demonstrate methods to improve resilience and promote sustainable watershed management in the region, serving as a model for Cambodia and the Lower Mekong River Basin. The project team also commits to fostering human resources development in the field of Integrated Watershed Management to adapt to climate change through training, workshops, and other capacity-building activities by sharing information, best practices, research findings, policy briefs, and recommendations.

PROJECT DURATION: MARCH 2024 TO FEBRUARY 2027

PROJECT COMPOENTS



OBJECTIVES

SHORT-TERM



- Identify flood hazards through field-based and modeling approaches by integrating extensive update datasets (hydrology, climate, land use, water quality, infrastructure) and strengthening community resilience.
- Assess soil erosion and water quality to identify sustainable river basin management measures.
- Introduce Nature-Based Solutions into watershed management for improvement of flood risk and soil loss and biodiversity within river basin.
- Build capacity for integrated river basin management at the national and sub-national levels.
- Develop and mainstream the policy brief for multi-stakeholders from the sub-national to the national level.

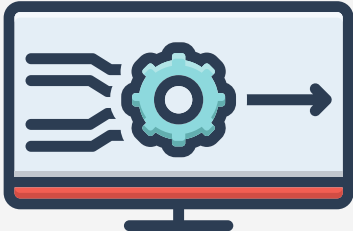
LONG-TERM



- Improve flood resilience and reduce damage and loss for social and economic development in river basin.
- Strengthen the watershed management under climate and land-use change pressure by integrating Nature-Based Solutions
- Enhance policy direction in sustainable watershed management from the national to the sub-national level.

EXPECTED OUTPUTS

- Flood risk assessment guidelines and improved flood resilience at community levels
- Soil erosion improvement and water quality management under anthropogenic activities and climate change at the community level through capacity strengthening
- Pilot nature-based solution for flood resilience and soil erosion improvement
- Capacity building and policy development



EXPECTED OUTCOMES

- Improved flood resilience and reduced damage and loss for social and economic development in river basin
- Strengthened watershed management under climate and land-use change pressure by integrating nature-based solution (NBS)
- Enhanced policy direction in sustainable watershed management from the national to the sub-national level



WORKING PACKAGE/ACTIVITIES/ STAKEHOLDERS

WP1: Flood risk assessment guideline and improve flood resilience at community levels

- Develop and Conduct approach for data collection, field-based assessment, and flood risk mapping.
- Pilot flood resilience at the flood prone community level and sub-national through enhancing adaptation capacity.
- Develop manual for community-based flood management.

WP2: Soil erosion improvement and water quality management under anthropogenic activities and climate change at community level through capacity strengthening

- Evaluate erosion-prone areas and communities’ risk to watershed deterioration under climate change in high-risk communities
- Assess communities’ adaptation capacity and need assessment for building resilience.
- Conduct training on strengthening community’s adaptation.

WP3: Pilot nature based solution for flood resilience and soil erosion improvement

- Identify demonstration sites for the selected flood- and soil erosion-prone areas.
- Select proper NBS techniques are responding to climate change identified.
- Apply the selected NBS
- Develop NBS guidance and hydrological reduction guideline for replication to other lower Mekong watersheds

WP4: Capacity building and policy development

- Conduct Capacity building on integrated river basin management for multi-stakeholders from the community to the sub-national level.
- Develop policy brief on integrated watershed management under climate change.

Practitioners, scientists, researchers and Institutions to gain expertise and conduct the researches in flood and river basin management and scientific contribution

Communities and local authorities, Interventions, and impact at the community level

Policy engagement with multi-stakeholders and capacity-building Stakeholders at different levels.



PROJECT PARTNERS

- Kyungpook National University
- Laboratory of Environmental Chemistry, Institute of Natural Product Chemistry, Vietnam Academy of Science and Technology
- Faculty of Environmental Sciences, National University of Laos
- Ministry of Water Resources and Meteorology and the National Committee for Disaster Management

PROJECT CONTACT



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