

Resilient Nature-Based Water Solutions for Food Systems and Women's Empowerment (RENEW)

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Duration: January 2026 onwards

- Led by the International Water Management Institute (IWMI) and the International Food Policy Research Institute (IFPRI)
- Under the CGIAR Food Frontiers and Security Program
- Focus-countries: Sudan, Nigeria and Bangladesh (Figure 1)

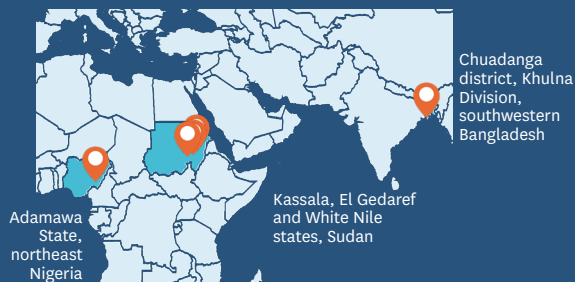


Figure 1. Map of RENEW focus countries. Source: Authors (2026)

RENEW builds on prior Resilient Nature-Based Water Solutions (RNBWS) experience across Africa and South Asia to develop scalable, investment-ready models for climate-resilient and conflict-sensitive water and land management.

The Context

Fragile and conflict-affected settings face interconnected pressures of water scarcity, land degradation, climate shocks and social tensions, often intensified by displacement, weak governance and competition over natural resources. Women and youth are disproportionately affected, as they play central roles in water collection, food production and household well-being, yet have limited access to resources, formal decision-making, institutional support and economic opportunities. Strengthening their agency, participation and institutional access is therefore critical not only for equity, but also for enhancing resilience, improving resource management and supporting long-term sustainability.

The Resilient Nature-Based Water Solutions for Food Systems and Women's Empowerment (RENEW) project aims to develop scalable, investment-ready models for climate-resilient water and land management in fragile settings. It does so by integrating resilient nature-based water solutions (RNBWS) with inclusive governance mechanisms and locally led adaptation approaches.

RENEW, led by the International Water Management Institute (IWMI) and the International Food Policy Research Institute (IFPRI), is implemented across Sudan, Nigeria and Bangladesh, which present diverse socio-ecological contexts where these challenges converge. By working across these settings, RENEW generates transferable insights and promotes South-South learning to advance climate-resilient water and livelihood systems and achieve scalable, long-term impacts.

Building on IWMI's demonstrated success in Sudan, Nigeria, Egypt, Jordan and Palestine, and the [SoLAR project in Bangladesh](#), RENEW leverages established partnerships to deliver high-impact, locally owned innovations.



Flood-affected irrigated land cultivated by refugees and host communities in the Somali region, Ethiopia (photo credit: Wolde Mekuria/IWMI)

The project is grounded in the understanding that effective solutions for fragile and conflict-affected areas must be conflict-aware and tailored to local realities. Addressing these interconnected challenges requires identifying the social-ecological and governance characteristics unique to each setting, that shape conflict dynamics.

Project Sites

Kassala, El Gedaref and White Nile states in Sudan:

In the three states of Sudan, prolonged conflict and large-scale displacement are placing intense pressure on water, forests and land in refugee-hosting areas, accelerating deforestation, land degradation and biodiversity loss. Increased demand for fuelwood, water and agricultural land is weakening ecosystem resilience and livelihoods, while heightening competition and tensions between host and displaced communities over scarce natural resources.

Adamawa State, northeast Nigeria: Persistent insecurity, driven by insurgency and resource-based conflicts, combined with environmental degradation and climate shocks, is severely disrupting agricultural systems and rural livelihoods in the Adamawa State. Flooding, soil degradation and declining productivity, alongside restricted farm access and displacement, are intensifying food insecurity and increasing competition over land and water, particularly among vulnerable farming and pastoral communities.

Chudadanga district in Khulna Division of southwestern Bangladesh:

Salinity intrusion from the Bay of Bengal, especially in the dry season, limits freshwater for irrigation and damages soil fertility. Brackish water shrimp farming competes with rice cultivation and accelerates salinization. Inadequate surface water storage and silted canals reduce dry season irrigation reliability and increase flood risk, exacerbating tensions over access to scarce water resources in a fragile system.

RENEW Work Packages

The RENEW approach is structured around six integrated component or work packages that provides a cost-effective, scalable and conflict-aware approach to water and land management in fragile contexts (Figure 2).

Work Package (WP) 1 forms the foundation of the project, with all other WPs building on co-designed solutions. WP2 and WP3 generate the spatial and economic evidence needed to inform scaling, while WP4 and WP5 strengthen social inclusion and participatory governance for sustainable scaling.

RENEW generates investment-ready, conflict-sensitive models that enable governments, donors and partners to scale resilient nature-based water solutions across fragile contexts.

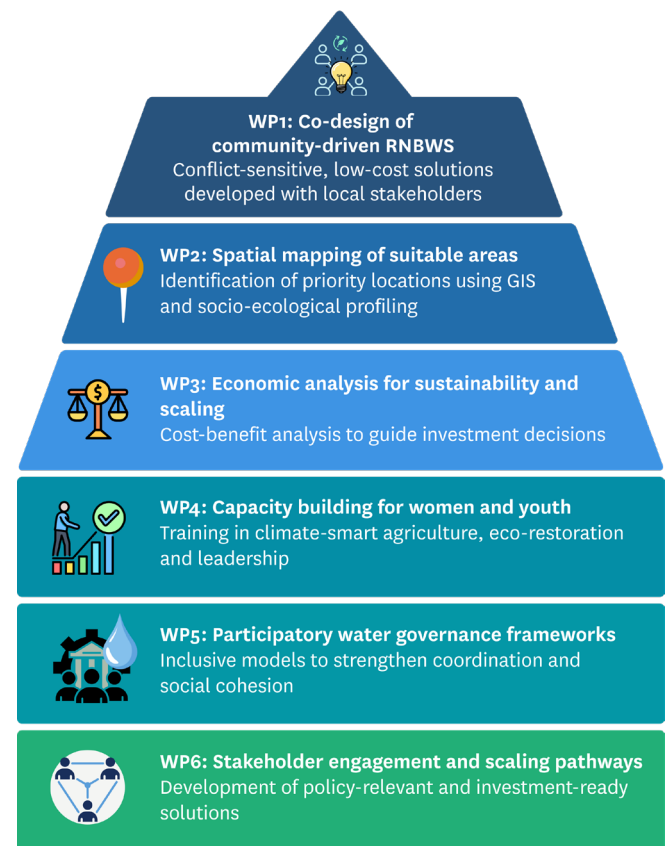
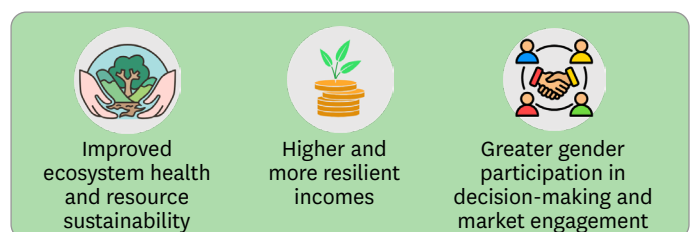


Figure 2. RENEW work packages. Source: Authors (2026)

WP6 brings these elements together, translating evidence and insights into actionable policy and investment strategies.

Together, these components provide an investment-ready model that contributes to 2030 outcomes for income, nutrition and climate resilience. By 2030, RENEW aims to deliver measurable gains in water-use efficiency, local economic benefits and women's agency in rural economies, improving resource access, enabling green innovation and strengthening resilience.



The project also aligns with CGIAR impact priorities, including improved ecosystem health and resource sustainability, higher and more resilient incomes, and increased gender participation in decision-making and market engagement.

Theory of Change

RENEW's Theory of Change links evidence generation, capacity building, governance and policy engagement into a coherent pathway for scaling RNBWS as outlined in Figure 3.

Spatial and economic analyses provide the foundation

for evidence-based investment decisions, while training, community engagement and inclusive decision-making translate these into practice. These governance frameworks strengthen coordination and ensure conflict-sensitivity.

Together, these elements enable institutional uptake and scaling of RNBWS into policies and programs. The outcomes are mutually reinforcing, leading to improved decision-making, stronger local ownership and sustainable scaling pathways that support resilient, inclusive and peaceful socio-ecological systems.

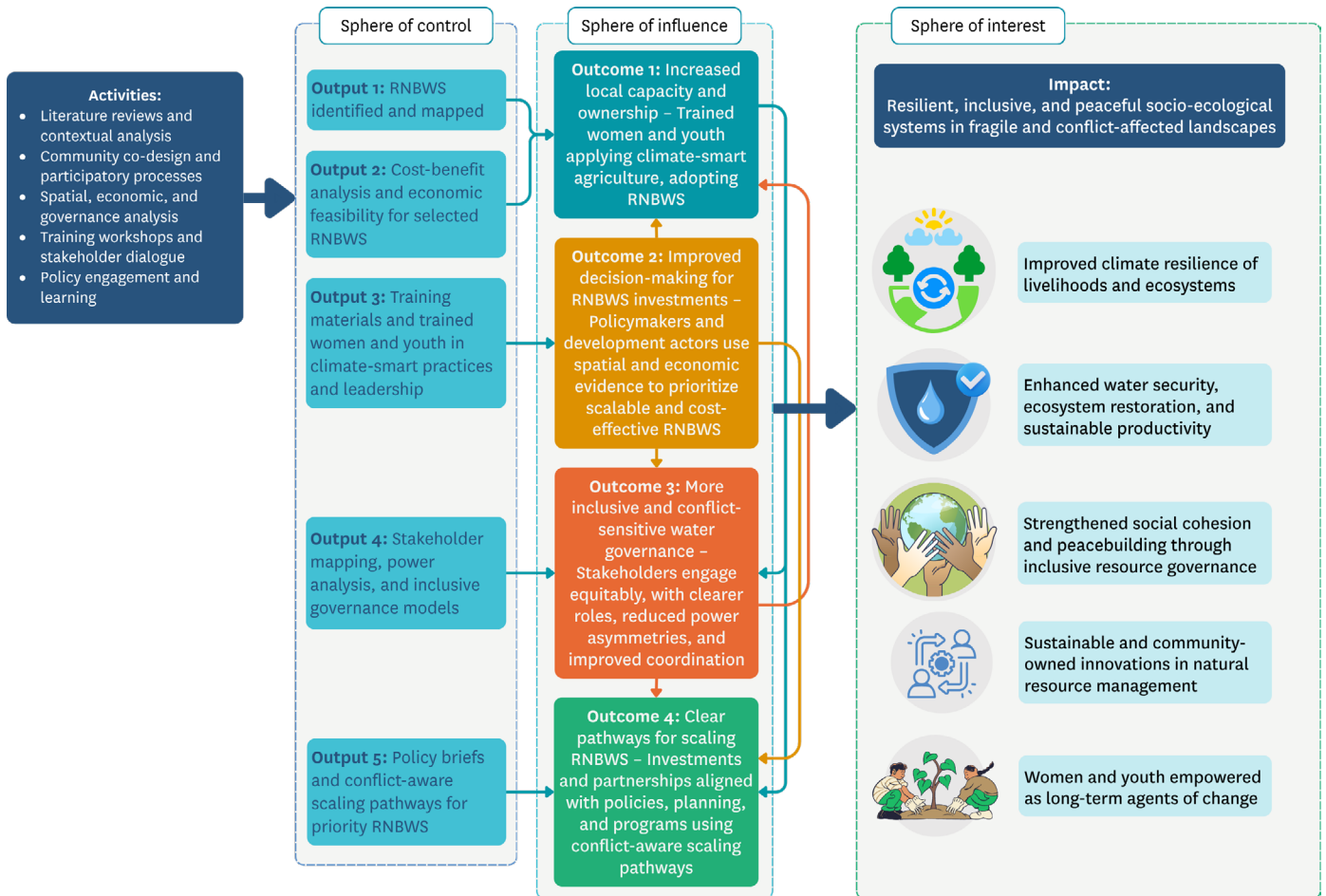


Figure 3. RENEW Theory of Change. Source: Authors (2026)

Why RENEW Delivers Value for Fragile Settings

RENEW delivers high value in fragile settings by developing co-designed, investment-ready nature-based water solutions that integrate technical feasibility, economic viability, inclusive governance and capacity strengthening. By linking spatial evidence, economic analysis, women and youth empowerment, and stakeholder-driven scaling pathways, RENEW reduces risks to adoption while strengthening livelihoods, water security and social cohesion.

Gender-disaggregated data generated through RENEW is not only a social inclusion metric; it provides critical investment intelligence to help design climate adaptation and water systems that are equitable, conflict-sensitive and sustainable over time.

This integrated research for development approach ensures that solutions are context-specific, conflict-sensitive, socially inclusive and economically viable, enabling locally owned interventions that can be scaled across climate-stressed and resource-constrained environments.



Rehabilitated degraded land using a bench terrace in Central Ethiopia (photo credit: Wolde Mekuria/IWMI)

Ultimately, by bringing together science, community knowledge and policy engagement, RENEW contributes to building resilient, inclusive and peaceful socio-ecological systems, where communities are better equipped to adapt to climate change, manage resources sustainably and sustain long-term development pathways.

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Acknowledgments

This brief provides information about the Resilient Nature-Based Water Solutions for Food Systems and Women’s Empowerment (RENEW) project implemented by the International Water Management Institute (IWMI) in collaboration with the International Food Policy Research Institute (IFPRI) under the CGIAR Food Frontiers and Security Program. We would like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund (www.cgiar.org/funders).

CGIAR Food Frontiers and Security Program

The CGIAR Food Frontiers and Security Program focuses on strengthening fragile, urban and island food systems by catalyzing innovative policies, investments and local capacities to improve food and water security, nutrition and climate resilience for the world’s most vulnerable communities. <https://www.cgiar.org/cgiar-research-portfolio-2025-2030/food-frontiers-and-security/>

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Citation

Mekuria, Wolde, Muhammad Khalifa, Sanjiv de Silva, et al. 2026. *Resilient Nature-Based Water Solutions for Food Systems and Women’s Empowerment (RENEW)*. International Water Management Institute.

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Published: May 2026