



CGIAR

POLICY  
INNOVATIONS

# Water-Energy-Food-Environment (WEFE) Nexus Policy

*A key Area of Work in CGIAR's Science Program on Policy Innovations*

## Why WEFE nexus?

The world's food systems are faced with deep inequities, fragmented governance systems, and a lack of integrated solutions. These challenges reach across water, energy, food, and environmental systems – the WEFE nexus – that are deeply connected with and essential for functioning food systems. Addressing them will require **integrated planning, policy, institutions, and investments**.

The **CGIAR Science Program on Policy Innovations** supports evidence-based policymaking by co-developing research innovations with partners in six interlinked Areas of Work. Among these, WEFE Nexus Policy plays a critical role: integrating **systems analysis** for larger, transformational food and water systems changes.

## Tackling fragmented policy approaches

WEFE Nexus Policy focuses on overcoming disjointed systems that disproportionately burden the poorest and most marginalized populations. The objective is to enable integrated WEFE management through:

- ✓ Applying nexus policy analytics
- ✓ Utilizing advanced systems modeling
- ✓ Advancing climate-resilient water management and irrigation
- ✓ Strengthening water governance
- ✓ Building capacity on nexus methods
- ✓ Achieving cross-sectoral synergies

## Gains that scale

Policy Innovations builds on the significant achievements of the CGIAR Initiative on NEXUS Gains that operated during 2022–2024. NEXUS Gains pioneered WEFE nexus solutions in Central and South Asia and Eastern and Southern Africa, developing and applying decision-support tools to enhance cross-sector planning, policies, institutions, and investments. This proved crucial as governments and investors often struggle to address trade-offs and synergies across interlocking sectors. The outcomes directly informed the Policy Innovations ambition: to advance climate-resilient and resource-efficient food systems by scaling WEFE nexus innovations in national and regional development planning.

## High-level outputs of WEFE Nexus Policy

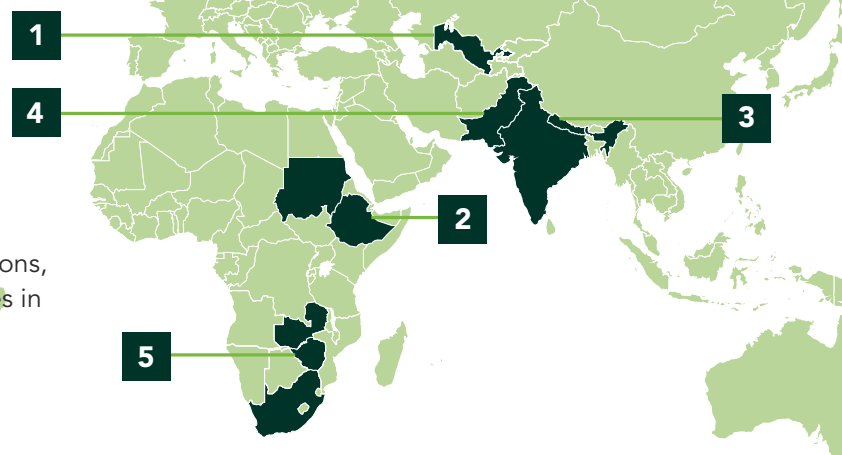
1. **WEFE nexus models and data:** Develop tools that assess synergies and trade-offs to support decision making.
2. **Evidence for integrated policies:** Generate research to inform national and regional policies, investments, and institutions.
3. **Capacity sharing and global influence:** Capacitate stakeholders in WEFE analysis and drive the global WEFE discourse.
4. **Governance mechanisms:** Innovate institutional approaches that transform inequitable WEFE management.

## Five target river basins

1. **Aral Sea Basin** in Uzbekistan
2. **Eastern Nile Basin** in Ethiopia and Sudan
3. **Ganges Basin** in India and Nepal
4. **Indus Basin** in Pakistan
5. **Limpopo/Incomati Basin** in South Africa, Zambia, and Zimbabwe.

In addition to long-term engagement in these focal regions, we are working in countries with critical WEFE challenges in West and Central Africa and parts of East Africa.

Partnerships – established with governments, river basin institutions, international agencies, investors, universities, non-governmental organizations, and community organizations – are critical for the success of WEFE Nexus Policy.



## The big questions: **How can WEFE nexus solutions...**

### maximize synergies?

WEFE Nexus Policy research identifies targeted WEFE nexus investments that achieve the largest synergies while minimizing trade-offs and achieving sustainable outcomes.

### affect real lives?

Our solutions directly support income generation and jobs, food security and nutrition, and equity.

### change how policy is made?

We emphasize co-developing human and institutional capacity as a path to effective WEFE nexus policymaking.

### make governance inclusive?

We co-design governance mechanisms and institutional innovations that best enable inclusive nexus-based solutions.

WEFE Nexus Policy is finding the answers – working within the larger Science Program on Policy Innovations, and building on CGIAR's proven expertise. A more interconnected view of water, energy, food, and the environment awaits.

Follow us on LinkedIn: CGIAR Policy Innovations

**Contact:** Dr Mohsin Hafeez ([m.hafeez@cgiar.org](mailto:m.hafeez@cgiar.org))  
Lead, WEFE Nexus Policy  
Strategic Program Director, Water, Food, and Ecosystems,  
International Water Management Institute

**Contact:** Dr Claudia Ringler ([c.ringler@cgiar.org](mailto:c.ringler@cgiar.org))  
Co-Lead, WEFE Nexus Policy  
Director, Natural Resources and Resilience,  
International Food Policy Research Institute

CGIAR is a global research partnership for a food-secure future. CGIAR science is dedicated to transforming food, land, and water systems in a climate crisis. Its research is carried out by 13 CGIAR Centers/Alliances in close collaboration with hundreds of partners, including national and regional research institutes, civil society organizations, academia, development organizations, and the private sector.



Map boundaries do not imply the expression of any opinion whatsoever on the part of Policy Innovations concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Border lines are approximate and cover some areas for which there may not yet be full agreement.