CGIAR

Research Program on Water, Land and Ecosystems

Water, Land and Ecosystems

To feed the world in 2050 and beyond we will need to intensify agricultural production while maintaining vital ecosystem functions. Many believe, however, that intensification will cause unacceptable harm to the environment, perhaps even undercutting the vital ecosystem functions that support life.

Photo Credit: David Brazier/IWMI

The CGIAR Research Program on Water, Land and Ecosystems challenges this perspective.

Our vision is of a world in which agriculture thrives alongside vibrant ecosystems, and those engaged in agriculture live in good health, enjoy food and nutritional security, and have access to the inputs and resources they need to continuously improve their livelihoods. We see a future in which the increasing numbers of urban residents, particularly in developing countries, have access to safe and affordable food and water, made possible by gains in agricultural productivity and public investments in food safety and water quality.

To achieve this vision:

- we must redouble our efforts to increase agricultural productivity, while protecting the environment;
- we must ensure that advances in agriculture do not degrade the natural resource base on which agriculture depends;
- we must build on past successes of the CGIAR in boosting agricultural growth through scientific inquiry and policy analysis; and
- we must conduct new research on agricultural and ecosystem interactions.

Research themes

Within the broad topic of Water, Land and Ecosystems, we have identified five strategic research portfolios (SRPs):

- Irrigated systems
- Rain-fed systems
- Resource recovery and reuse
- River basins
- Information systems

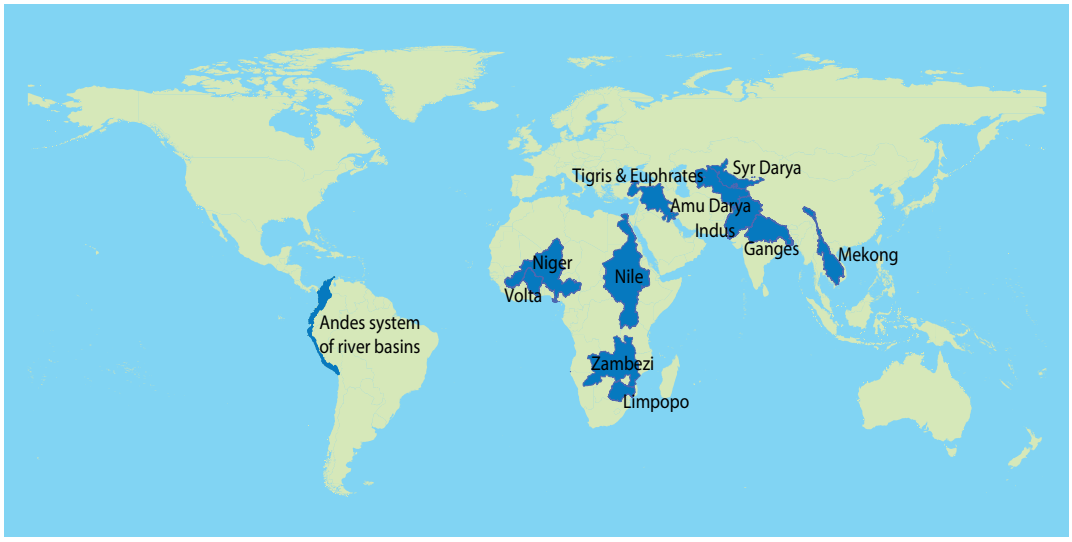
Photo Credit: Tom van Cakenberghe

In addition to the five SRPs, we have established two crosscutting themes that will influence and enhance our research:

- Ecosystem services
- Institutions and governance

Within each portfolio we will promote ecosystem resilience and seek to enhance, and increase the value placed upon, ecosystem services. In doing so, we will work to provide farmers and pastoralists with production systems that are better adapted to environmental change.

River basins where we will work



Potential impacts

Initial estimates suggest that at least 300 million women and men can benefit from the outcomes of this research program during the next 10 to 20 years. Additionally, work on resource recovery and reuse and rain-fed systems may help another 200 million urban poor people. To do this, the program will work at multiple scales and levels to achieve widespread impact. Engagement of partners and different actors in all stages of the research will be key to ensuring that this happens. The program will seek to influence investments in agriculture, national and regional policies, as well as the decisions of land and water managers at all levels.


Photo Credit: Vladimir Smakhtin

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IFPRI International Food Policy Research Institute

ILRI International Livestock Research Institute

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IRRI International Rice Research Institute

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