

Water for Food

Modernizing agriculture
for a climate-smart future



Agriculture is a thirsty business, accounting for 70 percent of global freshwater withdrawals—and climate change makes it harder for farmers to produce enough to feed the planet. The 2030 Water Resources Group (WRG) advances sustainable water use in agriculture and builds food systems that are more resilient in the face of a changing climate.

ALIGNING AGRICULTURAL PRODUCTIVITY WITH CLIMATE GOALS

WRG is an impact-focused global partnership between the private and public sectors. As a trust fund housed within the World Bank, we provide a platform for businesses, governments, and civil society to work together to close the gap between water supply and demand.

Together with our partners, we are driving the adoption of water-efficient agricultural practices. These include micro-irrigation to enhance water efficiency, improved cultivation methods to reduce greenhouse gas emissions, and market innovations to expand mechanization and boost productivity.

We also improve the sustainability of agricultural value chains and facilitate well-functioning markets where farmers have access to critical inputs, services, financing, and technologies. This helps increase farmers' yields and income, ensure a stable food supply for communities and countries, and protect vital water resources.

WATER FOR THE FUTURE: LOW METHANE RICE

Our public-private collaboration models have unlocked new possibilities. We are leveraging these successes to pursue bold solutions that were previously out of reach. Our new Low Methane Rice initiative builds on the success of the Uttar Pradesh PRAGATI Accelerator by replicating the accelerator in the key rice-growing regions of South and East Asia for transformative impact—substantially reducing global methane emissions while improving agricultural productivity and water efficiency at scale.

EXAMPLES OF OUR WORK

Scaling climate-smart rice cultivation in India

In Uttar Pradesh, where the cultivation of wheat, rice, and sugarcane by small farmers dominates, WRG is helping change farming practices to save water and improve yields. Agriculture in the state uses two to three times more water per ton of food produced than the global average and is one of the largest sources of greenhouse gas emissions. WRG is supporting the state to reach 1 million smallholder farmers over five years, increase the area under micro-irrigation fivefold, increase the area under direct seeded rice tenfold, and reduce greenhouse gas emissions by 60 percent.






Boosting agricultural productivity with water-efficient technologies in Bangladesh

In the water-scarce Barind Tract of Bangladesh, WRG is supporting water-efficient and sustainable production of mango, rice, and other key crops through farmer hubs that provide advanced irrigation technologies and practices, and connect farmers with suppliers and markets. The project aims to reduce groundwater abstractions, lower carbon emissions, and boost agricultural productivity. Over the past five years, the project has trained 19,500 farmers and impacted an additional 58,500 beneficiaries linked to farmer households. Rice production has increased by about 400 kilograms per hectare and mango productivity has increased 200-fold.

FIRSTS IN IRRIGATION

Over the past decade, we have developed and implemented first-of-their-kind solutions, empowering farmers in Africa and Asia to enhance productivity while using water more efficiently. These successful initiatives can be replicated and adopted in other regions.

FIRSTS		World's first and largest community drip irrigation project in Karnataka, India	New financing model for smallholder farmers to access modern irrigation systems in Kenya	South Africa's first automated water administration system for six major irrigation systems	
	RESULTS		Reduced water abstraction by 24 million cubic meters	Benefited 500 smallholder farmers	Reduced water distribution losses by up to 20 percent
		OUTCOMES		Model replicated across an additional 100,000 hectares	Pilot contributed to the broader development of farmer-led irrigation development

FIND OUT MORE ABOUT OUR WORK

WRG works with governments, corporations, and civil society to address water risks affecting food, cities, and ecosystems.