Photo credit: Arne Hoel / World Bank

#WorldWaterDay: Efficient water management essential for agricultural productivity and resilience

March 19, 2021

Every drop of water counts when trying to close the agricultural productivity gap

Currently, over 70 percent of total water usage globally comes from agriculture, where the resource is used to produce crops and livestock.

However, in 30 years, researchers project that the demand for water globally will increase by 30 to 50 percent. Climate change will only exacerbate shortages that are already limiting crop productivity. Meanwhile, industrial and domestic demands of the resource are projected to increase.

Current irrigation efficiencies are below 50 percent, as a large amount of water used in irrigation is lost in the conveyance system or through inefficient application to the plants. Jain Irrigation Systems Ltd., an India based Ag-Tech leader and world's largest integrated irrigation systems manufacturer offers solutions to address the water use inefficiency in agriculture.

Driven by its mission- *"Leave this world better than you found it",* the company brings innovations in the field of agriculture, irrigation, food technology and green energy sectors. With their **hi-tech micro-irrigation products and extension services**, Jain provides access of knowledge and technology to the farmers in India and abroad.

The company's agribusiness model is designed on the concept of "resource to root" which not only contributes to water and energy savings, but also helps the farmers to improve their incomes significantly.

More than 6 million farmers have already benefited from the pioneering irrigation technologies of Jain Irrigation across the globe. The downstream impact of water and energy saved by Jain's micro irrigation products alone is estimated to the **saving of water exceeding to 135 billion cubic meter (BCM) and corresponding GHG emissions reduction (as a result of energy saving) to the tune of 17 million tons of CO2 equivalents in the last three decades.**

Women play a vital role in water management for agriculture and community health

It's clear that effective management of water is critical to ensure agricultural needs can be met to feed a growing population.

As leaders and decision-makers implement water management at the local, national, and global level, one factor that cannot be overlooked is gender. Around the world, women are often central to water management in their societies, yet evidence shows that their perspectives are not always involved in water management.

Women are estimated to comprise about 43 percent of the world's agricultural labour force, and the labor burden of rural women tends to be uneven compared to men. This means women often have more unpaid household responsibilities, which includes the collection of water. In some places, like small-scale fishing communities, women help maintain sustainable use of natural resources with their knowledge of watersheds and wetlands.

Photo credit: Allison Kwesell / World Bank

Failing to take these valued perspectives into account leads to designing systems that do not adequately address the needs of women, who are responsible for half the world's food production.

In many places, these stakeholders – professionals who are often men – may not perceive women as farmers due to long-held beliefs about gender roles and norms. On top of this, women often lack formal rights to the land they farm and the water resources they need. They also lack the status in their communities to influence decisions made about communal natural resources.

Gender considerations increasing in water management programs

As mounting evidence demonstrates the importance of taking a gender approach in water management, attitudes are shifting. Previously, projects and programs in agricultural water management focused on technical issues, but recently, the focus has shifted to participatory approaches from both men and women for planning and designing projects.

International agencies are taking steps to recognize and address the gender approach in water management. The UN's Committee on the Elimination of Discrimination against Women passed a general recommendation that states rural women have a fundamental human right to land and water resources. Through this, they urge governments and the global community to work toward equality in natural resources for rural women and to address discriminatory beliefs and practices that prevent rural women from receiving equal land and natural resource rights. Additionally, the Sustainable Development Goals include goals for improving the lives of rural women, which helps put gender equality on the forefront of food security and water management.

At a time when water resources are increasingly scarce, making women full partners in water management is critical to improving the sustainability and resilience of agriculture and the health of communities.

Learn more about World Water Day.

Resources on water management and gender:

1. https://www.thechicagocouncil.org/publication/scarcity-security-managing-water-nutritious-food-future
2. http://www.fao.org/3/i2096e/i2096e.pdf
3. https://www.unwater.org/publications/gender-water-sanitation-policy-brief/
4. http://www.fao.org/land-water/water/watergovernance/water-gender/en/
5. https://www.un.org/esa/sustdev/sdissues/water/casestudies_bestpractices.pdf

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