



Issue 208 | Sept. 25, 2015 | Focus on Water & Agriculture

Studies predict that there will be sufficient water, globally, to achieve food production goals and sustain rural and urban livelihoods, if resources are allocated and managed wisely. Yet, water shortages will constrain agricultural production and limit incomes and livelihood opportunities in many areas. Experts recommend that policies and investments be put in place to extend and ensure access to water for household use and agricultural production. This weekly has information on upcoming water and agriculture-related conferences and webinars and includes studies from USAID, the International Food Policy Research Institute, and the World Health Organization.

EVENTS

Webinar on Water Smart Agriculture in East Africa, Sept. 30, 2015 | [Webinar registration](#) | [Time of the event](#) |

This webinar is about one key factor at the center of farming development: the establishment of water-smart agriculture (WaSA). Nested within the broader contexts of climate-smart agriculture and sustainable intensification, WaSA is an approach to developing and using water in smallholder farming that seeks to systematize thinking on investments, enabling farmers and those working with them to make sound strategic choices within rapidly evolving social, economic, and physical systems and amidst major climate uncertainty.

USAID Online Course on Nutrition-Sensitive Agricultural Programming. [Link](#)

This comprehensive three-hour course is explicitly designed to support the Feed the Future nutrition-sensitive agricultural programming guidance. Developed by the Bureau for Food Security and Global Health, the course introduces the fundamentals of nutrition-sensitive agriculture and provides guidelines for practitioners to use when designing programs that promote access to nutrient-rich foods and dietary diversity.

Water for Food Security: A Global Conference, Oct. 5-6, 2015. [Link](#)

Hosted by the World Food Center at the University of California, Davis and the International Food Policy Research Institute, the conference will address key issues from the global level down to the individual basin scale. It will analyze the extreme case of California, now in its fourth year of drought, as well as the challenges globally of sustainable management of ground and surface water resources and declining water quality. The World Food Center will address the growing demands on water systems for agriculture. A panel of international experts and thought leaders will bring new solutions to the table.

USAID RESOURCES

Agricultural Water Management: Water and Development Strategy Implementation Brief, 2015. [Link](#)

The best-fit agricultural water management practices are environmentally, socially, and economically sustainable; increase food security; improve livelihoods; and increase resilience to climate change and variability.

Feeding Africa's Hungry: USAID Global Waters, June 3, 2015. [Link](#)

Eric Postel, Associate Administrator of USAID and Assistant Administrator for the Bureau of Economic Growth and Environment and Assistant to the Administrator for Africa, gives his perspective on the importance of improving agricultural water management across the continent. He addresses the fact that no one-size fits-all solution exists in water-scarce regions. He also points out that smarter management of natural resources can make transformative change that lasts.

REPORTS/ARTICLES

Agricultural Insecticides Threaten Surface Waters at the Global Scale. *PNAS*, May 2015. S Stehle. [Link](#)

Findings indicate that surface water pollution resulting from current agricultural insecticide use constitutes an excessive threat to aquatic biodiversity. Overall, the analysis suggests that fundamental revisions of current regulatory procedures and pesticide application practices are needed to reverse the global environmental impacts of agrochemical-based high-intensity agriculture.

Water-Smart Agriculture in East Africa, 2015. A Nicol, CGIAR Research Program on Water, Land and Ecosystems. [Link](#)

As a set of theoretical and practical approaches broadly nested under the term water-smart agriculture, this sourcebook complements materials on climate-smart agriculture but addresses the specific challenges and uncertainties surrounding water availability, access, and use, particularly within systems reliant on rainfall.

Global Nutrition Report 2015. International Food Policy Research Institute. [Link](#)

The Global Nutrition Report is the first comprehensive summary and scorecard on both global and country level progress on all forms of nutrition for 193 countries. The 2015 edition builds and reflects on new opportunities, actions, progress, accountability, and data for nutrition, with the aim to build greater commitment to improved nutrition in all countries.

Potential Business Opportunities from Saline Water and Salt-Affected Land Resources, 2015. Q Manzoor. [Link](#)

This report delivers four case studies on saline water recycling and reuse. These examples suggest that strategic investments in salt-affected irrigated zones can make a significant contribution to poverty reduction, generate additional economic benefits, and ensure equitable social development for smallholders and marginalized groups.

Water for Food Security and Nutrition: A Report by The High Level Panel of Experts on Food Security and Nutrition, 2015. Food and Agriculture Organization. [Link](#)

This report explores the relations between water and food security and nutrition, from

household level to global level. It investigates these multiple linkages, in a context of competing demands, rising scarcities, and climate change. It explores ways for improved water management in agriculture and food systems, as well as ways for improved governance of water, for better food security and nutrition for all, now and in the future.

Managing Water and Fertilizer for Sustainable Agricultural Intensification, 2015. P Drechsel. [Link](#)

This is a reference guide to improve general understanding of the best management practices for the use of water and fertilizers throughout the world to enhance crop production, improve farm profitability and resource efficiency, and reduce environmental impacts related to crop production.

Water Stewardship in Agriculture Policy Brief, 2015. World Wide Fund for Nature. [Link](#)

In this paper, the authors look at some of the potential risks and unintended consequences of private sector interventions in agricultural water management and begin to outline a different approach to water stewardship.

Wastewater Reuse for Irrigation: Practices, Safe Reuse and Perspectives, n.d. A Navarro, Intech. [Link](#)

This chapter of *Irrigation and Drainage - Sustainable Strategies and Systems* discusses wastewater for irrigation and its role in sanitation and human health. Human impact on water bodies has become relevant since water withdrawal, especially for agriculture, has resulted in overexploitation of rivers, lakes, and aquifers. In most countries agriculture represents by far the largest use of water, and worldwide it represents about 70 percent of total withdrawal and 90 percent of water consumption.

Global Assessment of Urban and Peri-Urban Agriculture: Irrigated and Rainfed Croplands. *Env Res Letters*, Nov 2014. A Thoebe. [Link](#)

This study instead integrates global data on croplands and urban extents using spatial overlay analysis to estimate the global area of urban and peri-urban irrigated and rainfed croplands.

Food Safety in Low and Middle Income Countries. *Int. J. Environ. Res. Public Health*, Aug 2015. D Grace. [Link](#)

Evidence on foodborne disease (FBD) in low and middle income countries (LMICs) is still limited, but important studies in recent years have broadened our understanding. These suggest that developing country consumers are concerned about FBD; that most of the known burden of FBD disease comes from biological hazards; and that most FBD is the result of consumption of fresh, perishable foods sold in informal markets. FBD is likely to increase in LMICs as the result of massive increases in the consumption of risky foods (livestock and fish products and produce) and lengthening and broadening value chains.

Farming on the Doorstep, 2014. P Drechsel, International Water Management Institute. [Link](#)

Food production, globally, is taking on an increasingly urban flavor, according to a study that finds 456 million hectares—an area about the size of the European Union—under cultivation in and around the world's cities, challenging the rural orientation of most agricultural research and development. The study finds that, within cities alone, there are about 24 million hectares of land under irrigation, globally, and 44 million hectares that are under rain fed cultivation. Those numbers are larger than the respective total area under rice cultivation in south Asia, the area under maize in sub-Saharan Africa, or the cultivated croplands of the

Cerrados and Llanos in Latin America and the Caribbean.

How Can Irrigation Water Improve Women’s Empowerment and Nutrition? An Untapped Potential for Africa South of the Sahara, 2015. L Domènech. [Link](#)

Water, nutrition, health, and women’s empowerment are closely interlinked. Irrigation water can make water access reliable year-round, generating a range of benefits. Reliable water access provides greater availability and stability of food supplies during the dry season, enables crop diversification, including micronutrient-rich vegetables and fruits, and generates income during the lean season. Women tend to invest more than men in household nutrition, education, and health, and therefore, enhancing women’s access to and control over irrigation can have a positive multiplier effect on reducing undernutrition.

Renewable Energy in the Water, Energy and Food Nexus, 2015. International Renewable Energy Agency. [Link](#)

The water, energy, and food nexus is at the center of global policy, development, and the research agenda. This focus is testament to the determinant role that the nexus will have in the efforts to meet rapidly growing demand for water, energy, and food in an increasingly resource-constrained world. Energy demand will nearly double, while water and food demand will grow by more than 50 percent, between now and 2050.

VIDEOS

Water Use in Agriculture Needs to Be More Efficient, 2015. [Video](#).

Jens Berggren, director of World Water Week, talks about water-use efficiency in agriculture and food production. He speaks from Stockholm with Francine Lacqua on Bloomberg Television's "On the Move."

Water Channel videos:

- Video: [More Chances, More Change: Water-Smart Agriculture in East Africa](#)
- Video: [Water-Smart Agriculture: Making Water Work for Farmers](#)
- Video: [Hot, Windy & Dusty: Water-Smart Agriculture in the Dry Zone](#)
- Video: [Leading with Agriculture by John D. Liu](#)

WASHplus Weeklies highlight topics such as Urban WASH, Household Air Pollution, Innovation, Household Water Treatment and Storage, Handwashing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus Knowledge Resources Specialist, at dacampbell@fhi360.org.



About WASHplus - WASHplus, a multi-year project funded through USAID’s Bureau for Global Health, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and household air pollution (HAP). WASHplus uses at-scale, targeted as well as integrated approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.

