Evidences

Study #4401

Contributing Projects:
- P492 - Innovation Lab for Small Irrigation Project (ILSSI) and Evaluation of the Relationship Between Sustainably Intensified Production Systems and Nutritional Outcomes (SIPS-IN), plus a small irrigation studies

Part I: Public communications

Type: OICR: Outcome Impact Case Report
Status: Completed
Year: 2021

Title: The World Bank is using International Food Policy Research Institute research results to enhance the nutrition outcomes of irrigation investments in sub-Saharan Africa

Short outcome/impact statement:
Since 2013, researchers at the International Food Policy Research Institute (IFPRI) have generated evidence of the relationship between small-scale irrigation and nutrition to fill an important research gap. The World Bank approached IFPRI to develop guidance, drawing on this research. The guidance highlights the pathways through which irrigation improves nutrition, intervention options, and indicators to measure food security and nutrition outcomes. It informed the design of two projects in Uganda and Tanzania and will be scaled out to other projects.

Outcome story for communications use:
Improving food security and nutrition remains one of the key challenges in sub-Saharan Africa. IFPRI research shows that expanding access to irrigation is one way in which small farming households can increase yields and incomes and improve their diets. These benefits may be achieved through multiple pathways, including through the production of more nutrient-dense crops; increased income from the sale of high-value, irrigated crops; improved water access for multiple purposes, including hygiene; and women’s empowerment.

Growing evidence of the nutritional benefits of irrigation attracted the attention of the World Bank. The Bank asked IFPRI to develop guidance for project implementers, highlighting the pathways through which irrigation can improve food security, diets and, ultimately, nutrition. The resulting guidance also suggests entry points for making irrigation and water investments more nutrition sensitive and provides a set of indicators that may be used to monitor progress towards improving food security and nutrition.

The guidance was used to design more nutrition-sensitive water-related investments in Tanzania and Uganda that reach thousands of farm households, and has attracted interest from other World Bank projects, including in Sudan, and other partners, including the International Finance Corporation. Moreover, the USAID Mission in Mali has also asked for a set of recommendations, stemming from the guidance, on how to make irrigation investments more nutrition sensitive in the Malian context. Thus, further efforts to integrate nutrition activities and indicators into irrigation interventions will likely increase in the near future.
Links to any communications materials relating to this outcome:

- https://tinyurl.com/y8xvyyb2
- https://zoom.us/webinar/register/WN_FY1bAFLZTw6XqgZktMATTQ
- https://ilssi.tamu.edu/2021/10/05/nutrition-sensitive-irrigation/
- https://tinyurl.com/ybyd4dqz
- https://www.youtube.com/watch?v=OOq5zVjKhq0
- https://www.ifpri.org/event/wasag-actions-water-and-nutrition-security

Part II: CGIAR system level reporting

Link to Common Results Reporting Indicator of Policies: Yes

Policies contribution:

- 850 - World Bank adopts guidelines to include nutrition in irrigation investments

Stage of maturity of change reported: Stage 2

Links to the Strategic Results Framework:

Sub-IDOs:

- Reduced smallholders production risk

Is this OICR linked to some SRF 2022/2030 target?: Too early to say

Description of activity / study: <Not Defined>

Geographic scope:

- Multi-national

Country(ies):

- Tanzania, United Republic
- Mali
- Uganda
- Ethiopia
- Ghana

Comments: Research was carried out in Ethiopia, Ghana, Mali and Tanzania. The guidance that developed from research results was applied to projects/activities in Uganda, Tanzania, and Mali (potentially Sudan and others).

Key Contributors:

Contributing CRPs/Platforms:

- WLE - Water, Land and Ecosystems

Contributing Flagships:

- F2: Land and Water Solutions for Sustainable Intensification (LWS)

Contributing Regional programs: <Not Defined>

Contributing external partners:

- UDS - University for Development Studies
- SUA - Sokoine University of Agriculture
- Tufts University
- Texas A&M University
- The World Bank
- AAU - Addis Ababa University
CGIAR innovation(s) or findings that have resulted in this outcome or impact:
IFPRI developed a conceptual framework detailing pathways from irrigation to nutrition (1,2).
Subsequent research using this framework showed that changes in income are particularly important for increasing dietary diversity through irrigation in Ethiopia (1) and that both production and income changes from irrigation influence diet patterns in Ghana (4). Furthermore, irrigation reduces seasonal fluctuations in diet quality in Ethiopia (3).

Innovations:
- 2748 - Conceptual framework detailing pathways from irrigation to nutrition

Elaboration of Outcome/Impact Statement:
IFPRI’s research on irrigation-nutrition linkages since 2013 has shown that irrigating households tend to have better food security and diets (1,3,4,5), and that women play an important role in realizing nutrition gains from irrigation (6,7).

This research generated interest from the World Bank, and IFPRI was asked to lead the development of guidance for project implementers to improve the nutrition sensitivity of irrigation investments (8). The guidance highlights the pathways through which irrigation can improve food security, diets and, ultimately, nutrition. The guidance also suggests entry points for making irrigation and water investments more nutrition-sensitive and provides a set of indicators that may be used to monitor progress towards improving food security and nutrition. The World Bank is now using the guidance document to pilot nutrition-sensitive activities in selected irrigation projects.

Specifically, the World Bank’s water team used the guidance to support the design of two projects. One is the Uganda Water for Climate Resilience Project ($185 million), which provides support to 7,525 farm households in the Kabuyanda Irrigation Scheme and includes the training of field extension officers in nutrition-sensitive agriculture and food safety based on the guidance (9).

The second project, the Tanzania Water Security for Growth project ($350 million), which is set to launch in 2022, aims to encourage upper-watershed farmers to include nutrition-sensitive considerations in their choice of crops, and will include baseline monitoring and support to community education campaigns linking to the guidance (9). Furthermore, the guidance will be used to support a new irrigation modernization project in Sudan (9). The International Finance Corporation's Manufacturing, Agribusiness and Services unit, one of the partners in the Uganda project, has also expressed interest in applying the guidance across its portfolio of projects (9).

Finally, the USAID Bureau for Humanitarian Assistance and the USAID Mali Mission have asked IFPRI to develop specific guidance for nutrition-sensitive irrigation investments in Mali, drawing on IFPRI's previous research and World Bank guidance. Additional empirical research results are under development, including in Mali, and will be used to inform this work (10). IFPRI continues to promote this research through multiple communications channels including international events and social media.
References cited:
•[1] Personal communication: Nicole Lefore, Director, Innovation Lab for Small-Scale Irrigation, July 12, 2021. (https://tinyurl.com/yddtctyd)

Quantification: <Not Defined>

Gender, Youth, Capacity Development and Climate Change:

Gender relevance: 1 - Significant
Main achievements with specific Gender relevance: Women's empowerment is one of the key pathways identified in the conceptual framework linking irrigation and nutrition. Research has explored the extent to which women's participation in irrigation can accelerate outcomes. Specific indicators and guidance suggest targeting women with irrigation activities and measuring changes in women's empowerment (3,6,7)
Youth relevance: 0 - Not Targeted
CapDev relevance: 0 - Not Targeted
Climate Change relevance: 0 - Not Targeted
Other cross-cutting dimensions: <Not Defined>
Other cross-cutting dimensions description: <Not Defined>
Outcome Impact Case Report link: Study #4401
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