Irrigation-Nutrition Linkages

Photo: Desalegne Tadesse/IWMI

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Diets, Affordability and Policy in Ethiopia: From Evidence to Action
Addis Ababa | December 12, 2019

Irrigation in nutrition-related policies and strategies in Ethiopia

Food and Nutrition Policy (Nov. 2018):

- *Policy Framework (Page 8)*: " … lack of agriculture, irrigation and other economic infrastructures are considered as basic causes of malnutrition".
- *Policy Direction 7.4 (Page 14):* Ensure optimum nutrition at all stages of life, with the objective to "Improve the nutritional status of people with special focus on pregnant and lactating women, children and adolescents"

Nutrition Sensitive Agricultural Strategy (Nov. 2016):

- *Strategic Objective # 3 (Page 14)*: Increase year-round availability, access and consumption of diverse, safe and nutritious foods where increasing access to irrigation is one of the core activities

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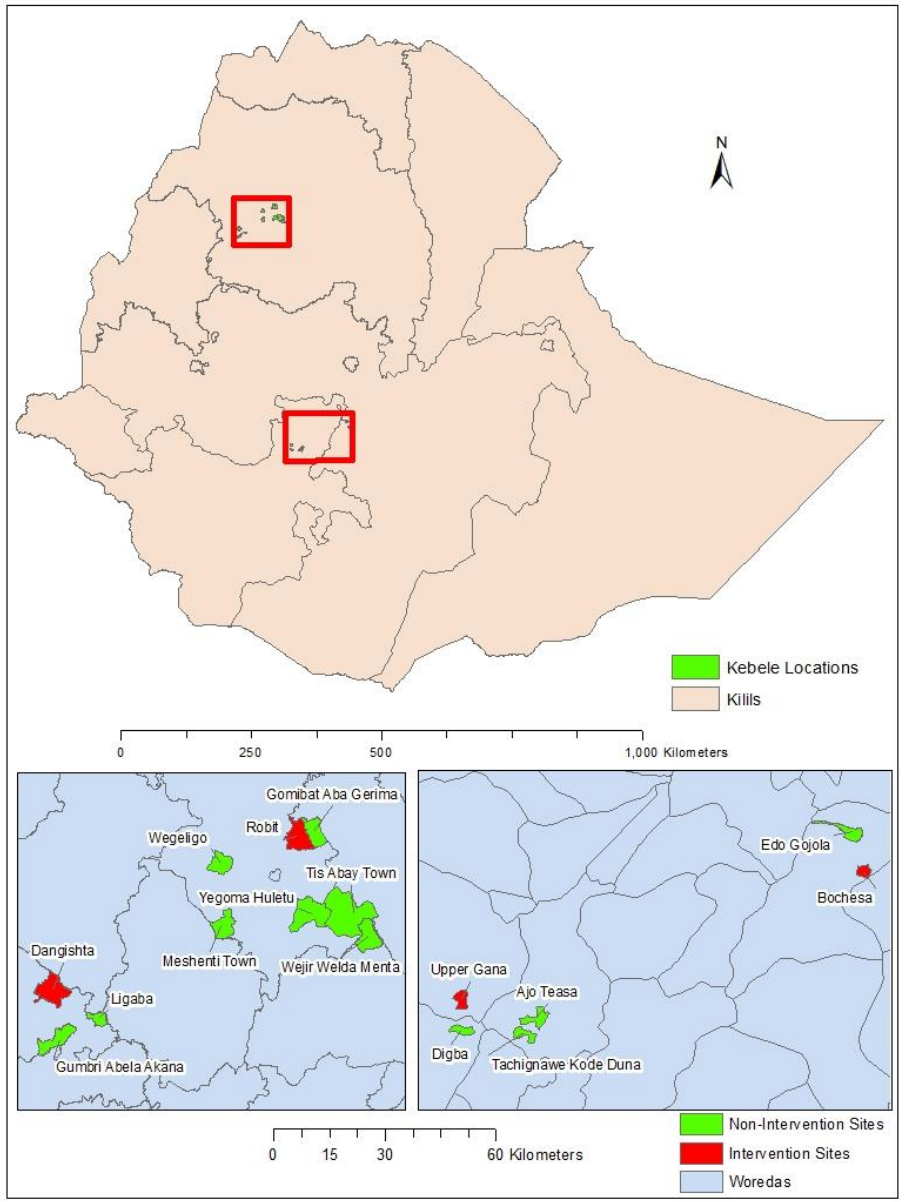
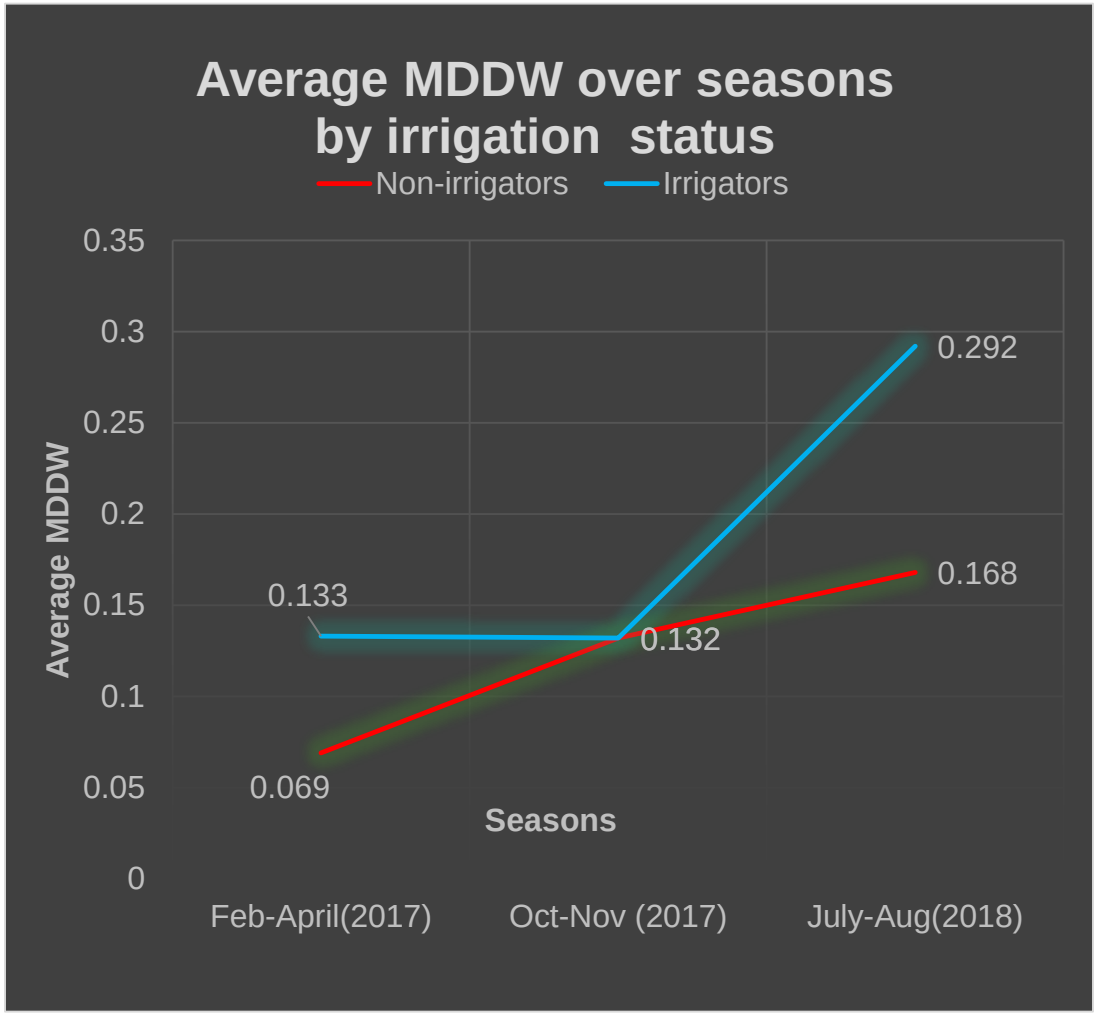
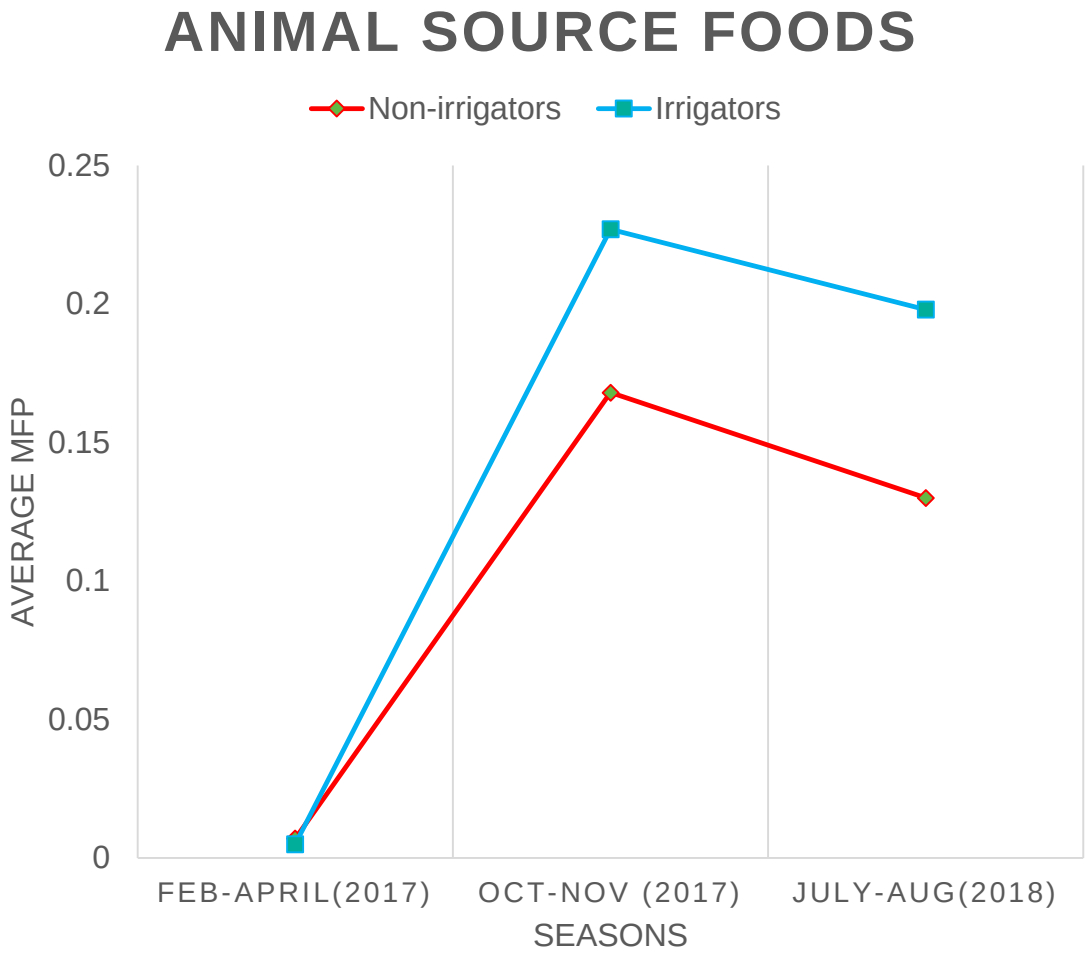
Pathways for the irrigation-Nutrition Linkages

- Production Pathway
- Income Pathway
- Water Supply Pathway
- Health Risks Pathway
- Women's Empowerment Pathway



Irrigation and Minimum Dietary Diversity for Women (MDDW)





Similar findings using women's dietary diversity score (WDDS)

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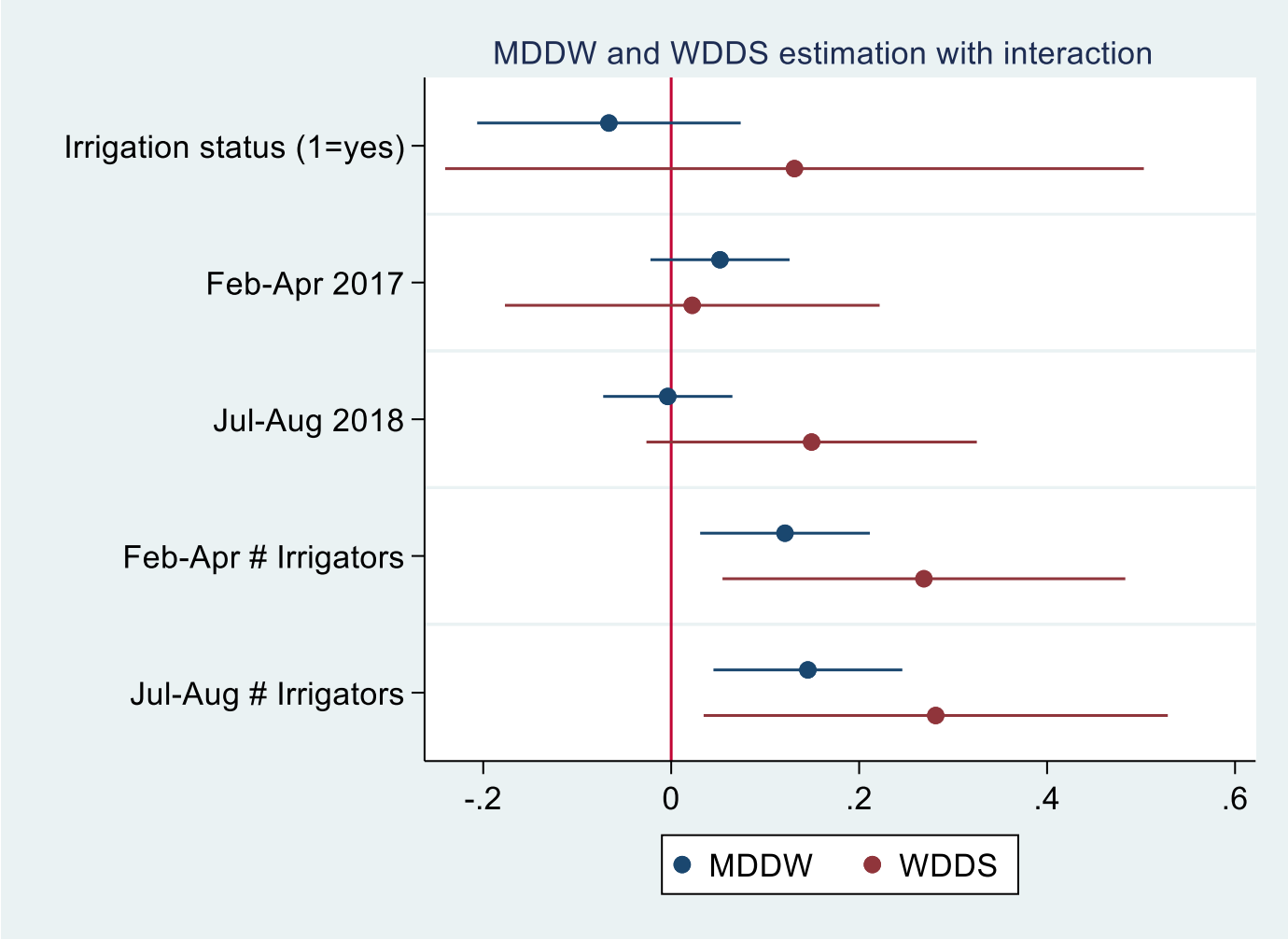
Irrigation and MDDW: Controlling for observed and unobserved effects statistically

- Irrigation buffers seasonal dietary gaps for women



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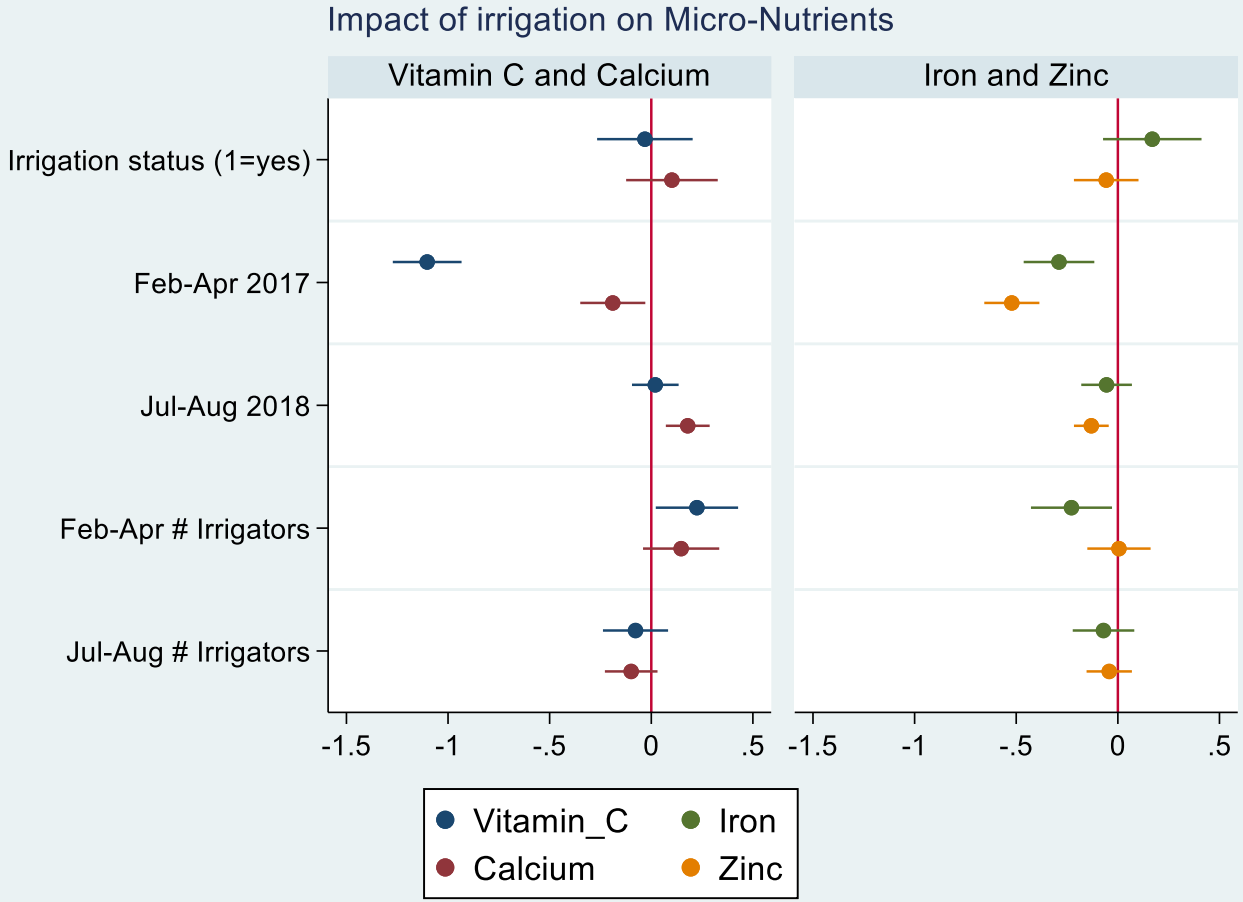
Irrigation and Micronutrients in Women's Diets

Compared to non-irrigators, women in irrigating households

- Have higher consumption of Vit-C and Calcium in February, March, and April (an irrigation and fasting season)
- Have higher consumption of iron in October and November



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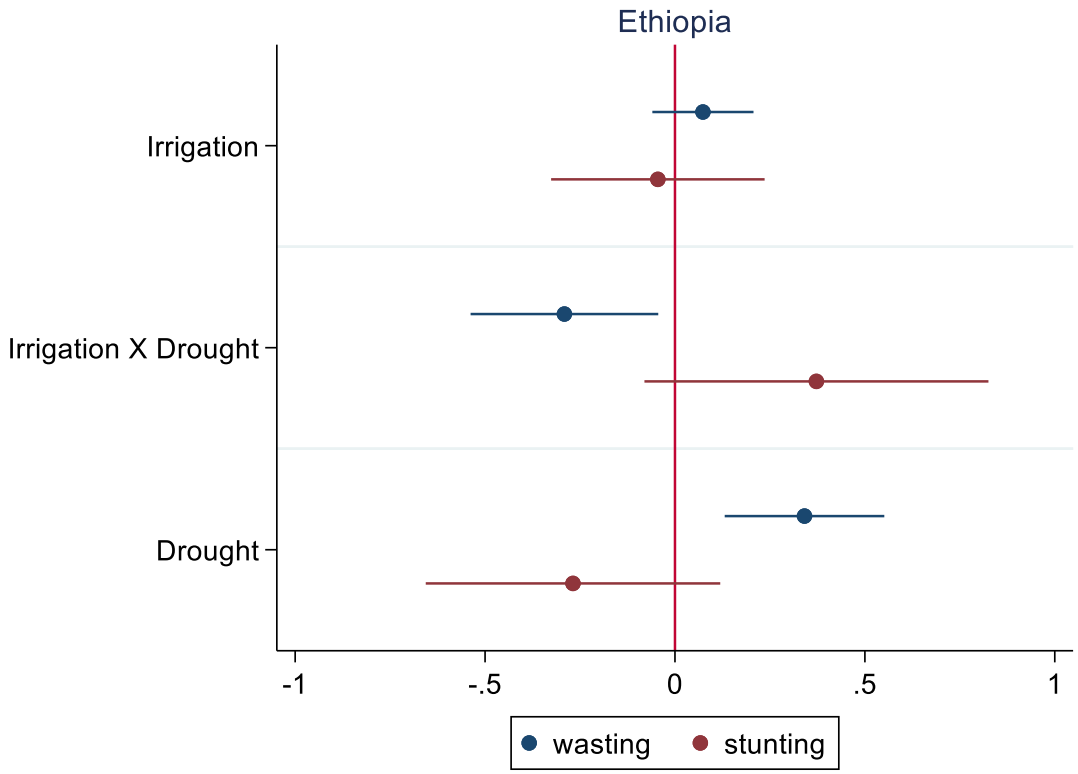
Irrigation on Stunting and Wasting of Children under 5 years

- Children in irrigating households in Ethiopia have a 0.79 SD higher WHZ scores than that of children in non-irrigating households

- Reduced wasting of children in irrigating HHs in Ethiopia, among children who live in HHs who reported drought at least once in the previous 5 years



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Conclusion

- Irrigation is shown to have a strong effect on household's economic access to food and on nutritional outcomes of women and children.

- As such, it needs to be promoted on its merit to improve nutrition, in addition to its potential for higher income and yield.

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Thank You!

Related Works

Passarelli, S., Mekonnen, D., Bryan, E., Ringler, C.. Evaluating the pathways from small-scale irrigation to dietary diversity: evidence from Ethiopia and Tanzania. (2018) Food Sec. 10: 981. https://doi.org/10.1007/s12571-018-0812-5

Baye, K.; Choufani, J.; Mekonnen, D.; Bryan, E.; Ringler, C.; Griffiths, J. K.; and Davies, E. 2019. Irrigation and women's diet in Ethiopia: A longitudinal study. IFPRI Discussion Paper 1864. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/p15738coll2.133399

Mekonnen, D. K.; Choufani, J.; Bryan, E.; Abizari, A.; Ringler, C.; and Amikuzuno, J.. 2019. Irrigation-nutrition linkages: Evidence from northern Ghana. IFPRI Discussion Paper 1887. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/p15738coll2.133515

Ringler, C.; Choufani, J.; Chase, C.; McCartney, M.; Mateo-Sagasta, J.; Mekonnen, D.; Dickens, C. 2018. Meeting the nutrition and water targets of the Sustainable Development Goals: Achieving progress through linked interventions. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE); Washington, DC, USA: The World Bank. 24p. (WLE Research for Development (R4D) Learning Series 7). doi: 10.5337/2018.221

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