

Invited Speech by Dr. Lisa Maria Rebelo

Earth Observation for Agricultural Water Management

Given the scarcity of land and water resources, global strategies to increase food production need to focus efforts on sustainably increasing crop water productivity (or “crop per drop”). Closing the gaps in land and water productivity is a complex task which requires: (i) monitoring of current levels of productivity in various crop production systems; (ii) assessment of observed productivity relative to potential; (iii) identification and analysis of the underlying causes of the productivity gaps; and (iv) evaluation of options and identification of viable solutions to close the productivity gaps in the local context.

Earth observation has the potential to contribute, and the International Water Management Institute works with various partners to support these processes. This includes the analysis of remote sensing datasets and the development of ICT applications based on these to assist farmers to achieve more reliable yields and to improve their livelihoods; and irrigation operators to access new information to assess the performance of irrigation systems and to identify where to focus investments to modernize the irrigation schemes.

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