From success to scale: improving rainfed agriculture in Africa

14 00 – 15 30, Sunday 25th August 2019, World Water Week, Stockholm

With inputs from World Vision, ICRAF, IDH and 2030 WRG, this session identified the key success factors from enhanced rainfed agriculture initiatives in Africa and the opportunities for scale. The Dryland Development Program and the Billion Dollar Business Alliance initiatives demonstrated that enhanced rainfed agriculture can have a positive economic, social and environmental impact. However, further research and analysis is needed on different approaches to understand the full range of benefits but also any potential shortcomings. Enhanced rainfed agriculture has the potential for scale up but at a minimum will require: the involvement and engagement of a range of stakeholders, markets with well-developed value chains, adequate investment, the support of government and an enabling environment.

Opening with a set of questions to frame the discussion, participants were first invited to define green water. Green water was explained as the portion of rainwater that falls on a crop, infiltrates into the ground, is stored in the upper layers of soil and available for uptake by plant roots through transpiration. This has potential to increase productivity and food security, ecosystem resilience and sustainable livelihoods. Management of green water goes hand in hand with other practises to increase productivity and yields, termed by SIWI as enhanced rainfed agriculture. The second question was around the importance of green water in Africa, where the percentage of irrigable land is just over 5%, leaving most of Africa dependent on rainfed agriculture. Producing 95% of the food in Africa, rainfed agriculture suffers from a lack of investment. The final question highlighted that although the figures vary and are changing, currently only 5% of public investment into agricultural water goes into rainfed agriculture. A short video reminded participants of the need for investments into enhanced rainfed agriculture.

> *"Now is the time to put the big investments where the bulk of the water is, and where the enormous untapped potential is, which is innovations in green water".*

There are a range NGOs, UN Agencies, multi and bi-lateral development financiers, academic institutions, governments and civil society working on different aspects of enhanced rainfed agriculture and a bank of good practice is emerging. The Drylands Development Programme is providing direct development support to farmers through interventions such as farm-level water and soil management and agricultural commodity production and by influencing wider policy, practice, and investment decisions. It has enabled over 230,000 smallholder farmers in Ethiopia, Kenya, Burkina Faso, Mali and Niger to transition from subsistence farming to sustainable rural development. Assefa Tofu, the Director for Ethiopia's Dry Lands Development Program and working for World Vision Ethiopia, gave valuable insights on the initiative. Assefa highlighted that this is not just about green water but providing support right along the value chain and that community mobilization is a key leveraging strategy. DryDev Ethiopia can be considered a success with large areas of degraded land rehabilitated, crop and livestock production increased, access to inputs, markets and credit enhanced and overall livelihood improvement with 23,877 farmers reached.

> *"In Ethiopia, the drylands cover is 75% and there is much demand for long term approaches to sustainable land management".*

The Billion Dollar Business Alliance for Rainwater Harvesting was launched in June 2015 as part of the Addis Ababa declaration: "Unlocking the Potential of rainwater". The initiative reflects the high need for water harvesting in the drylands and for public partnerships to scale up technologies such as the farm pond approach. Within the broad approach is important to recognise the need for customisation and that different

situations require appropriate solutions including subsidies which will vary according to the different sizes of farms. Theme Leader for Water Management and presenting on behalf of ICRAF, Maimbo Malesu highlighted that there is a lack of knowledge and lack of acceptance around water even though water management goes from the beginning of the value change to the end, including the selling of the agricultural products. The Billion Dollar Business Alliance has now supported over 5,000 farmers in Kenya in adopting a business approach to food production and income generation using farm pond technology demonstrating positive impacts on livelihoods, income, women & youth employment and combating climate change. Key success factors including empowering individuals and organisations can enhance benefits and the role of champions which for this initiative was the UNCCD Drylands Ambassador Dr. Dennis Garrity.

"Markets with well-developed value chains are critical drivers for the upscaling process."

A short video followed, bringing the voice of the farmer into the session and highlighting the benefits of enhanced rainfed agricultural practices ranging from improved yields, to increase water availability, increased time and resources for education and improved nutrition. Despite examples and benefits, much of Africa has not benefited from improved rainfed agriculture and the rural population faces increasing food insecurity and widespread poverty, against a backdrop of climate change and population growth. In small groups, participants discussed the barriers to scaling up rainfed agriculture highlighting issues around awareness, empowerment, policies and investment. A panel discussion then made reflections on the enablers to scaling up rainfed agriculture.

Warwick Easdown, Senior Fundraising Manager at the International Trade Initiative (IDH), a Dutch based organisation explained that IDH convenes companies, CSOs, governments and others in public-private partnerships, typically through a value chain approach for example in tea, coffee and cocoa or through a landscape lens in Kenya, Ethiopia and Liberia. He highlighted IDH work in Mozambique where IDH is investing in smallholder cotton farmers on rural transformation and development of agri business including rainfed agriculture. Warwick recognises overcoming the mindset of "donor support" is an important way to achieve scale and that in the long term, its critical to involve government because they are responsible for both conserving water and boosting sustainability. Finally, it is also critical to have a comprehensive perspective and ensure all stakeholders are involved in the process, including business who have a critical role in creating markets, developing skills and bringing the required innovation for impact.

Nick Tandi, Senior Water Resources Management Specialist from the World Bank was speaking on behalf of the 2030 Water Resources Group which brings together public, private, and civil society stakeholders to have open discussions about water management and to develop concrete proposals that can help improve the management of water resources and where Nick is leading the African activities. Enhanced rainfed agriculture is a key issue for 2030 WRG stakeholders in Tanzania and the Kilimanjaro Water Stewardship Platform which is developing, coordinating and scaling up interventions and solutions to tackle the growing water resource challenges. Nick reminded the audience about women and the high number of women that have the potential of benefiting from enhanced rainfed agriculture. He also raised the idea of a third-party facilitator or intermediary that could support enhanced rainfed agriculture and farmer led irrigation since they would have an overview of the issues, challenges but also the potential solutions.

Discussion with the audience highlighted a range of issues including the role of the farmer in driving enhanced rainfed agriculture and the potential to leverage the potential role of the private sector in investing and for the public sector in terms of procurement. There was also some discussion around the increased use of green water and the potential negative impacts downstream and with regards to long term rainfall patterns. Overall, the session concluded that enhanced rainfed agriculture has the potential for scale but with some caveats and requires the involvement and engagement of many different players at all levels, including adequate investment, supportive policies and effective policy.

The Transforming Investments in African Rainfed Agriculture (TIARA) is a SIWI led initiative to increase advocacy and investment in enhanced rainfed agriculture as a cost-effective approach to improving agricultural productivity, climate resilience and building sustainable livelihoods across rural Africa.

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