

Designing new business models for rainfed agriculture

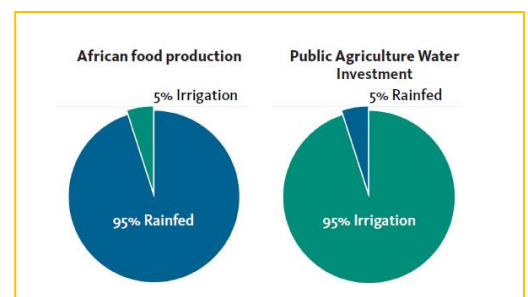
On Tuesday 12th February 2019, SIWI hosted a lunchtime discussion in Addis Ababa to explore increasing investments in rainfed agriculture. With representatives from multilaterals, development investors and bilateral agencies, participants discussed the challenges of investing in green water and identified new business models for investing in this sector¹.

Mr. Torgny Holmgren, Executive Director of the Stockholm International Water Institute (SIWI), welcomed participants to the session. After introducing [SIWI](#) and its [Africa Regional Centre](#), he highlighted the annual funding gap to meet water infrastructure needs in Africa has been estimated at over 11 billion USD. The [Transforming Investments in African Rainfed Agriculture \(TIARA\)](#) initiative aims to reduce this gap and unlock investments in rainfed agriculture across Africa. Led by SIWI, [Stockholm Resilience Centre](#) (SRC) and the [Sustainable Development Goals Centre for Africa](#) (SDGC/A), TIARA is an emerging advocacy effort to scale up green water and enhance rainfed agriculture across Africa through financial investments and political leadership.

A [short video](#) reminded participants that nearly 95 per cent of Africa’s agricultural land is rainfed and depends on infiltrated rainfall water or “green water”, stored in the upper layers of the soil and is available to plant roots. Senior Adviser to SIWI, Ms. Malin Falkenmark reminded viewers that maximising the capture, storage and utilization of green water is key to unlocking agricultural productivity and reducing vulnerability to climate change. “*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*” said Professor Johan Rockström.

Mr. Anton Earle, Director of SIWI’s Africa Regional Centre presented the business case for investing in green water flagging this unique opportunity to unlock human capital across Africa through rural regeneration and increased food security. Anton argued that the infield cost of investing in rainfed smallholder farming can be as low as \$250-500 per hectare, a yield per dollar investment worth six times that of large-scale irrigation. Rainfed agriculture is therefore a cost effective approach to transforming rural areas in Africa but will require significant resources to achieve a step-change in rainfed agricultural practices.

Anton reminded participants that although 95% of African food production comes from rainfed agriculture, it only receives 5% of the overall investment into public agricultural water. There are many sources of funding that can help address that balance ranging from large-scale, publically funded initiatives into public



¹ Participants included: Ulla Andrén, Embassy of Sweden • Mure Agbonlahor, AU SAFGRAD • Xanani Baloyi, SIWI • Gizaw Desta, WLRC / AAU • Anton Earle, SIWI • Anya Eilers, Global Green Growth Institute • Mark Gibson, Global Green Growth Institute • Torgny Holmgren, SIWI • Eleni Kyrou, European Investment Bank • Katherine Madden, SIWI • Laketch Mikael, Independent • Joseph Nganga, International Fund for Agricultural Development • Aytnew Tatek, Embassy of the Kingdom of the Netherlands • Mekuria Tafesse, 2030 Water Resources Group • Abeba Tesfai, Enat Bank • representative from JICA

work programmes and extensions services, through to micro-credit for inputs and small-scale infrastructure such as small dams and rainwater harvesting systems. Multilateral development agencies such as the World Bank and the African Development Bank could provide governments with credit to invest in enhanced rainfed agriculture and regenerating rural economies. And there is an opportunity for newer approaches such as Payment for Ecosystem Services or off-set financing to increase climate resilience.

Ms Katherine Madden, TIARA Process Facilitator moderated a discussion in which participants made five key points before concluding with their recommendations on a role for TIARA in the future.

1. **Definitions:** the TIARA initiative should promote an integrated green / blue water approach with investment options across a continuum from rainfed through to irrigated agriculture. It is also important to define improved green water management and indicate whether it is inclusive of micro and small scale irrigation – for example in Ethiopia this distinction implies different funding sources.
2. **Evidence based:** the benefits to improved rainfed agriculture are not always clear, especially the wider economic impacts. There is a need to identify which approaches work in which conditions and draw out best practices, particularly when thinking about scale. The potential impacts on women should be further investigated.
3. **Advocacy:** there needs to be a mindset shift with decision makers encouraged to think differently about the opportunities around improved rainfed agriculture. There is an emerging business case but green water is not a sexy topic and there is some suspicion about its simplicity. There is an urgent need to demonstrate the value proposition and translate and / or package the message for different audiences.
4. **Business models:** a number of models were discussed as potential vehicles for investing in rainfed agriculture including the Wood Foundation, impact investors such as the Land Degradation Neutrality Fund, Enat Bank for women, microfinance models including cooperatives and large scale funds / facilities.
5. **Investments principles**
 - Different types of investment should be categorised e.g. public (capacity & institution building) and private investments (infiltration systems, harvesting technologies)
 - There should be a clear economic basis for all investment decisions and an opportunity to leverage any private contributions.
 - If there is private financing, the investment must be made attractive, with a clear return on investment (particularly since the infrastructure is limited and low tech).
 - The risk to farmers should be assessed and where possible considered in a broader context which includes access to resources and markets.

“We need to demonstrate that what we find in the market does not come from irrigation but rainfed agriculture”

Meeting participant

Recommendations: role of SIWI / TIARA

- Increase awareness of the potential of green water
- Establish a stronger evidence base for green water - use knowledge to drive action
- Make a comprehensive link between existing initiatives and approaches
- Be a neutral facilitator / honest broker in this space
- Convene stakeholders e.g. Minister of Water and Agriculture
- Establish champions to support the green water cause
- Keep focus on small scale farmers
- Develop an advisory service on green water

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