MALIN FALKENMARK SYMPOSIUM 2018

The 2018 Malin Falkenmark Symposium focussed on financing an Africa Water Revolution. On Sunday, 26 August 2018, the esteemed Professor Falkenmark was joined by various water, agricultural and finance specialists to discuss how to finance and scale up green water practices across Africa and transform the "invisible majority" into net contributors in their national economies.

The Symposium demonstrated that capturing and maintaining soil moisture is an inclusive and affordable solution to productive rain-fed agriculture in Africa and critical to the success of the SDGs. To make this happen, the business case for investing in green water must be further developed and effectively communicated to farmers, cooperatives, local / national governments and international funding institutions.

Welcome

SIWI's Executive Director, Mr. Torgny Holmgren, welcomed participants to this year's symposium and to the African Water Revolution which is focussed on improving rainfed farming, enabled through green water management. Professor Falkenmark reminded the audience that plant roots only use green water which is stored in the upper layers of the soil and is at risk from evaporation. Her conclusion was that an "*African water revolution is the only way to support subsistence agriculture for a rapidly expanding population, especially in the African drylands*".

South Africa is one of Africa's most water scare countries, with significant impact on rural communities and in particular women and young people, reminded the Deputy Minister of Water and Sanitation, Ms. Pamela Tshwete in her welcoming speech. It is important to work together in partnership to harvest rain water as it will support African farmers and ensure food security. Ms Tschwete concluded her welcome by saying "*it is in all our interests to finance the African Water Revolution as it is a much needed catalyst for change*".

Africa's dilemma

"*Water is the foundation of nature's infrastructure*" reminded Mr. Kevin Urama, Senior Policy Advisor to the President on Inclusive & Green Growth at the African Development Bank in his keynote address. The combined effects of water scarcity, food insecurity and low productivity together with climate change has resulted in fragility in Africa's rural communities. Low crop yields are the result of lost

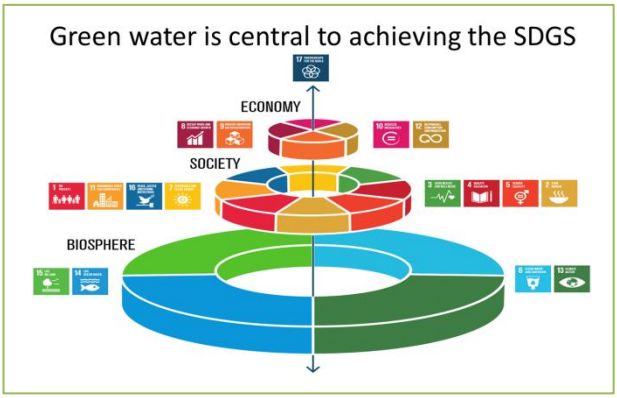
evaporation and only 35-50% of rainfall being used as productive green water. "*Addressing the water resource challenge is not rocket science*" said Kevin Urama, "*the key is to harness the benefits of green water and to focus on long term sustainable agricultural solutions*".

Recommendations on Financing the Green Water Revolution

Mr. Kevin Urama, Senior Policy Advisor to the President on Inclusive & Green Growth at the African Development Bank

1. Increase mobilization of existing funding sources including off-set financing, PES, Green Funds for Land Reclamation; climate finance, micro-credit schemes;
2. Crowd in or blend private finance (i.e., leveraging capital)
3. Improve sector governance and efficiency (i.e. improving creditworthiness)
4. Facilitate the mobilization of domestic finance.
5. Allocate sector resources more effectively to deliver the maximum benefit for every dollar invested (i.e., targeting capital to maximize asset value) ,
6. Improve government policies and incentives
7. Structure the financing mechanism to achieve impacts at scale
8. Advancing the research and knowledge products on green water infrastructure

Professor Urama then focused on the complex set of challenges in financing the African Water Revolution. To date, financing for this sector has predominantly come from public sources and has largely focused on blue water infrastructure. Providing funding to large numbers of African farmers would have high administrative costs which is further complicated by inefficient systems, inadequate data and a poor governance culture. Green water will require significant investments but to feed the next billion people, we have to find ways to innovate. Professor Urama made a set of concrete recommendations on how to finance the revolution which are summarized in the box below and the then concluded by saying *"Africa urgently needs a water revolution and innovative public and private sector financing is the key to making this happen".*



African Water Revolution

Green water cuts across the sustainable development goals and without improving the use of green water in Africa, the goals will not be achieved said Professor Johan Rockström, former director of the Stockholm Resilience Centre, incoming co-Director of the Potsdam Institute for Climate Impact Research and founder of the African Water Revolution (see SDG diagram). "*Green Water is the Black Elephant of the SDGs",* said Rockström.

A technical issue prevented Professor Rockström from sharing the remainder of his slides but it is worth noting the objectives of the African Water Revolution in order to frame the panel discussion. The Africa Water Revolution (AWR) is an emerging initiative to scale up green water. Led by Stockholm International Water Institute (SIWI), Stockholm Resilience Centre (SRC) and the Sustainable

Development Goals Center for Africa (SDGC/A)and a range of partners work to scale green water solutions by:

1. understanding the challenges and opportunities of implementing green water solutions;
2. enabling high level leadership and political commitments on green water;
3. unlocking public and private investments in green water across Africa.

Financing change

The main part of the meeting was a panel discussion moderated by Professor Jennie Barron, Agricultural Water Management, Swedish University of Agricultural Science (SLU). Professor Barron led discussions around the solutions for financing rainfed agriculture and investments in green water solutions in three key areas:

- What innovations are needed to support the scaling of green water solutions? What innovative financing mechanisms might support an African Water Revolution?
- What are the potential sources of funding for an African Water Revolution?
- Are there examples of successful models of investments, and models of financing mechanisms, particularly those at scale?

The Rockefeller Foundation is working to improve the well-being of humanity around the world and works across Africa in youth employment, health, philanthropy, agriculture and food security. Mr. Mamadou Biteye, Director of the Africa Office shared the Foundations innovative approach to finance where the using different financial mechanisms to leverage private sector capital into social, economic and environmental issues in Africa. In recognition of the trillions of US dollars that will be needed to address the SDGs, the Foundation is focusing on impact and scale through an initiative called Zero Gap. "*This approach uses public funds to de-risk new approaches and crowd in private capital, allowing for innovation and new ideas to flourish*, explained Mr BIteye. One example is a Forest Restoration Bond but there are a whole range of different tools and approaches.

Ms. Ziyanda Mpakama is a finance specialist working on the Africa-EU Water Partnership Project out of SIWI's African Regional Centre. This partnership, which seeks to improve the financial viability of water infrastructure projects in Africa, has many lessons to share with the Africa Water Foundation. An important first step was to design an appropriate financial framework and identify the key elements within the enabling environment. Attracting government funding was crucial, since without it, the private sector would not be encouraged to invest. However, explained Ms Mpakama, "*it was also important to encourage and support African governments to build capacity to secure their investment*". This required clear cut access to the market and the promotion of financial stability at the lowest scale.

Ms. Nompumelelo Ntshalintshali is responsible for coordinating and planning the implementation of the community water supply and sanitation programmes in the Kingdom of eSwatini. As Principal Water Development Analyst/ WASH Specialist at Department of Water Affairs she has a unique insight on the challenges of measuring and funding water initiatives and made two key recommendations to the African Water Revolution. Firstly, to help individual farmers to focus on rainwater harvesting but also to tackle the issue at community level. "*Farmers and stakeholders are encouraged to mobilise funding for large scale water harvesting and this will help save the already depleted surface water resources*" said Ms Ntshalintshali. Secondly, to try and influence the enabling environment through comprehensive messages and see how projects fit within the larger context.

Ms. Delphine Ouedraogo, Program Officer Natural Resources Management, Water, Sanitation & Climate Change, Embassy of Sweden, Ouagadougou highlighted that Burkina Faso needs to increase agricultural

productivity and simultaneously tackle the problem of more erratic rainfall. Small-scale agriculture employs as many as 80 per cent of the country's population and it is therefore possible to look at system changes throughout the country through a combination of land reform and improved soil & water management. "*Educating the farmers – or rather marketing the new solutions - is critical in the project Beog-Puuto to convince farmers to change*", said Ms. Ouedraogo. Another option for systems change is the construction of small dams for storage of rain and surface water. ProValAB – aims at improving food security and nutrition as well as increasing income for small-scale farmers by equitable and efficient use of water for strengthened value chains of vegetables, fruits and fish. ProValAB will work with 17 of the country's 1000 dams, hoping to create a model to be scaled up country-wise. In general, such actions can be funded through challenge funds, small grants and results based payments.

Mr. William Rex, Lead Water Resources Specialist, works in the World Bank on water resources across Africa. When asked about his experience in funding green water solutions, William suggested these solutions would have to be largely publically funded, since small scale investments in rainfed agriculture would be unlikely to attract commercial finance. The World Bank has supported a number of different programmes that include rainfed agriculture and has found that governments are critical to scaling up this type of approach. "The *World Bank gets a large demand for infrastructure, including large scale irrigation, since governments like to invest in tangible projects with clear economic returns*", explained Mr Rex. A key challenge for this agenda is to demonstrate that rainfed agriculture does have clear and widespread economic returns – and therefore that governments should invest more in it.

As an international multi stakeholder platform around water issues, the World Water Council (WWC) recognises the importance of green water but also the challenge of convincing others of its importance. President of the WWC, Mr. Benedito Braga, President Braga, congratulated Professor Falkenmark in continuing to push this agenda forward in different fora. He continued by saying "*how important it is to develop a business case for green water in order to sell it to the political community and convince them of its importance in terms of climate and livelihoods"*. He is also recognized the need for a blue and green investment mix highlighting its should not be one or the other but an increase in the total investment in water.

In the closing session, there was a reminder to participants that the key stakeholder in these discussions is the farmer and that even though our system is difficult for the farmer to navigate, they should have a role in these discussions. In his closing comments, Dr. Belay Begashaw agreed on the importance of the farmer in these discussions. Dr. Begashaw is the Director General of the Sustainable Development Goals Center for Africa and a key partner on the Africa Water Revolution. What we are talking here is about how to support farmers to manage those erratic rains , and be more resilient through increased infiltration and storage of green water. Increased productivity it critical for farmers but managing this topic is extremely complicated and of such a magnitude. The Kigali meeting set the stage for this work, where 80 experts endorsed this approach. It's very low investment but with a transformative impact.

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For more information on the Africa Water Revolution, please contact Xanani Baloyi (xanani.baloyi@siwi.org)