Finance Working Group Report

Exploring Innovative Finance Models to Scale Smart Water Solutions

Venue: DoubleTree by Hilton, Ngong Lane, Off Ngong Road, Nairobi

Facilitated by
National Irrigation Acceleration Platform

Date: Friday 28th September 2018

Contents

1.0 Background to the program

Smart Water for Agriculture (SWA) is a 4-year program implemented by a Consortium of partners that consist of SNV Kenya, MetaMeta, The Royal Tropical Institute (KIT), Practica Foundation and Aqua for All. The program aims to improve food security through optimized water availability and efficiency by small and medium farmers and businesses. SWA promotes more effective irrigation development jointly with farmers, and interaction, joint learning, coordination and cooperation among stakeholders involved in the development of farmer-led irrigation.

To address the issues of water stress in Kenya and to ensure the uptake of irrigation solutions among smallholder farmers, the SWA program in collaboration with WARREC, the Water Research and Resource Center of Jomo Kenyatta University of Agriculture and Technology, set up the National Irrigation Acceleration Platform (NIAP). NIAP is a multi-stakeholder consultation framework, which aims to initiate, support and scale innovations around smallholder irrigation in Kenya.

On July 20th, 2018 NAIP held its first Masterclass dubbed *"Smart Finance for Smart Water Solutions"*, to discuss on how to envision a workable finance model. This masterclass discussions confirmed the need to come up with financial models for upscaling the adoption of smart water solutions amongst smallholder farmers in Kenya. As a follow up to this master class, a finance working group was formed. This is a collection of people /organization who come together to achieve a stated objective. The group is engaged from time to time to brainstorm, formulate, give feedback, give insights and own a process that requires their particular expertise or time. To explore more on the Smart Finance for Smart Water Solutions a finance working group workshop dubbed *Exploring Innovative finance models to scale Smart Water Solutions* was scheduled on Friday 28th September 2018. The objective of this workshop was to brainstorm over the proposed working financial models during the master class and also look at some working financial models with the aim of creating or adopting a financial model that is suitable and scalable, with this working group.

2.0 Welcome, Opening Remarks and introductions

By SWA Program Manager, Eng. Sebastian Oggema

Eng. Oggema welcomed the participants to the workshop and wished them well on their mission to deliberate on sustainable finance model for the smart water solutions. He articulated on the aim of the workshop, stating the Smart Water for Agriculture objective and highlighting on its linkages to promote irrigation in Kenya.

This was followed by brief introduction from the member present. The workshop was attended by various partners/organizations as show below:

- KCB
- Amiran
- Ministry of Agriculture and Irrigation
- Sunculture

- IDH Kenya
- Mak5
- Africa Agribusiness Academy
- HORTIMPACT
- SNV
- Aqua for All
- Rebel Group
- Rabobank Foundation Kenya
- DRYDEV/WVK
- Faulu Kenya
- FarmTrees Services
- Global Communities
- Rafiki Bank.
- Juhudi Kilimo
- Industrial Promotion Services
- Future Pump
- ACRE AFRICA
- Hydroponics Kenya.
- JKUAT-WARREC

3.0 Presentations

3.1 Introduction to WARREC and Background to National Irrigation Acceleration Platform.

By Prof. Bancy Mati, Director of WARREC

In her presentation, Prof. Mati introduced the Water Research and Resource Center (WARREC) giving its objectives, mission vision as well as elaborating on WARREC's collaboration with SNV's Smart Water for Agriculture (SWA) program. She introduced the participants to the National Irrigation Acceleration Platform (NIAP) which was launched on 12th April, 2018 whose aim is to provide a "Platform" for knowledge sharing, learning and sharing of synergies to advance actions that promote and advocate for smallholder irrigation in Kenya. She categorically stated the objectives of the workshop as to including networking and knowledge sharing on Innovative finance models to scale Smart Water Solutions and linking stakeholders with technology providers and financial institutions for enhancing best practices in irrigation. She pointed out on the following four outcomes of the workshop:

- Chart a working initiative on innovative finance models to scale Smart Water Solutions
- Facilitate knowledge share between stakeholders focused on farmer-led irrigation;
- Interact with development partners and share synergies
- Improve linkages and networking between stakeholders/members of NIAP.

Prof. Mati articulated on JKUAT-WARREC and SNV's commitments in moving the National Irrigation acceleration Platform (NIAP) to greater heights and urged for support from the stakeholders in this journey of trying to promote smallholder irrigation in the Country.

Key issues raised:

- Need for inclusion of financing as a key project element in the NIAP initiatives since there is very potential for smart water financing.
- Need to share on the platform other smart water technologies that can be finance through the smart water financing models.
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3.2 The ingredients of innovative financial models

By Florence Kariuki

Ms. Kariuki began her presentation giving outcomes of the 1st masterclass held on July 20th, 2018. She pointed out the mismatch and risk involved in financing farmers who have a high degree of heterogeneity and SWS Products and services that are diverse, innovative and SMART. She further

noted that this is a problem that cuts across all farmers; large farmers, medium-sized farmers, commercial smallholders, semi-commercial smallholders and subsistence farmers. To mitigate on these risks, Ms. Kariuki pointed out that the SWA project has implemented the following models

- Financier+ SWS Provider +farmer
- Financier+ SWS Provider+ ICT tools + Farmer
- Funder+ Financier+ SWS Provider+ Farmer

However, Ms. Kariuki pointed out that the experience on working with these models lead SWA team to recognize the models miss some stakeholders/ingredients that are essential to the financing of farmers to adopt smart water solutions. These include; Insurance, Grant, Aggregator/agent and off- takers just to mention a few.

She pointed out that that financial Innovation is key to overcoming the challenges facing the financing of Smart Water Solutions. This can be achieved through use of new models (collaboration concepts) that are not widely used yet, adaptation of existing models and, downscaling models for smallholders sourcing from models and approaches that have worked in other sectors.

She further pointed out that these innovations should aim to:

- •Enable better risk assessment
- •Reduce administrative costs
- •Combine with other financial services
- •Improve security of the collateral and cash
- •Connecting players in the field –creating partnerships

In her conclusion Ms. Kariuki highlighted that in order to develop farmer friendly financing models the following considerations are key:

- High degree of heterogeneity of farmers makes it difficult to think of a single model and approach as silver bullet;
- There is need to understand and better classify farmers & specific challenges;
- No single innovation can be considered the ultimate –best fit;
- The success of creating a model needs patience, careful planning, understanding of the local context, and attention paid to details during the implementation;
- Many small ingredients put together, can make an innovative case work;
- Need for packaging financial products with smart solutions –partnerships are key;
- Solutions, need to be based on a number of coordinated actions aligned with the overall aim to improve access to finance for SWS.

3.3 Innovative financial Models to scale SWS

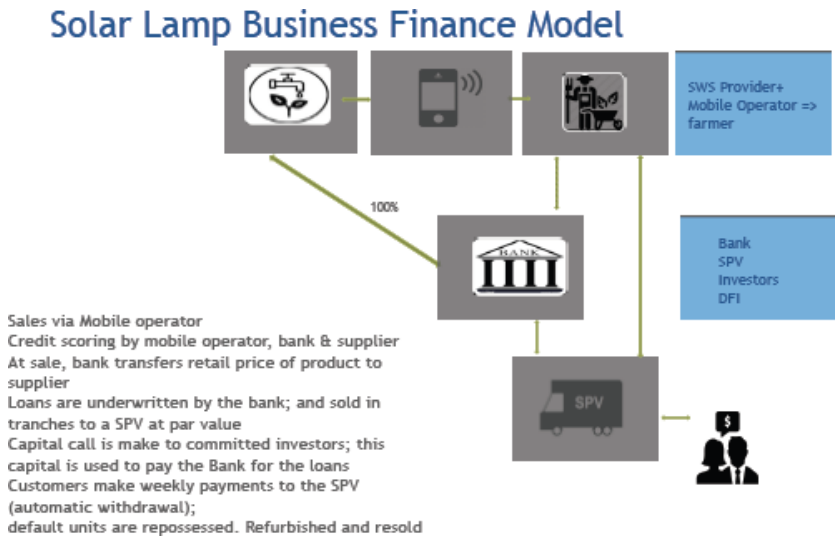
By Saskia Reus

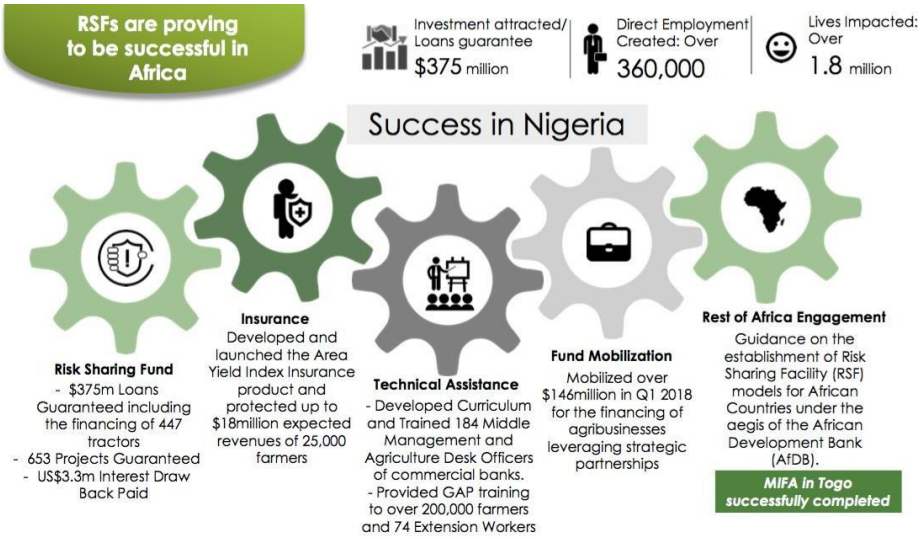
In her presentation Ms. Saskia explored a finance model that would be fit for solar lamps and the applicability for smart water solutions.

In this model, Ms. Pointed out that:

- Sales are done by the mobile operator;

- Credit scoring done by mobile operator, banks & suppliers;
- At sale, bank transfers retail price of product to supplier;
- Loans are underwritten by the banks and sold in tranches to a SPV at par value;
- Capital call is made to committed investors; this capital is used to pay the Bank for the loans;
- Customers make weekly payments to the SPV (automatic withdrawal); default units are repossessed. Refurbished and resold.





These model does however have its flaws despite solar being used for direct income generation. There is still a reluctance from financial service providers to invest in smallholder irrigation because of perceived high risks of agriculture related to weather unpredictability, pest & disease outbreaks, low entrepreneurial attitude of many farmers, price fluctuations of crops, poor infrastructure, and poor market information Fit of the product (e.g. refill of the well, etc.). Pointed out Ms. Saskia.

Saskia during her presentation

She further added that farmers are also not able to demonstrate good decision making skills around irrigation technology adoption and business management practices that provide a track record and illustrate their capacity to become bankable. She shared practical case studies among them being the movable Collateral as elaborated in box 1.

Box 1: Case study on movable Collateral:

A secured transactions framework that allows businesses, especially micro, small, and medium enterprises, to access finance by offering movable assets as collateral is the road ahead. In fact, it is critical financial infrastructure for any economy, and has the potential to unlock significant financing for SMEs. The frameworks required to allow and encourage the use of movable assets as collateral for loans include a Secured Transactions Law, a Collateral Registry, and developing movables lending capacities." "Secured transactions laws and collateral registries have the potential to significantly boost the country's economic development. One of the reasons why movable assets are not accepted as collaterals in many countries is because there are no relevant laws or registries to track them. Registries reduce the risk of potential loss for lenders, and make it easier for borrowers to use assets they already have as collateral - for example, it allows a farmer to pledge his cows as collateral for a tractor loan" according to IFC.

3.4 Building Blocks – A presentation on Farm Tree cash flow planning tool

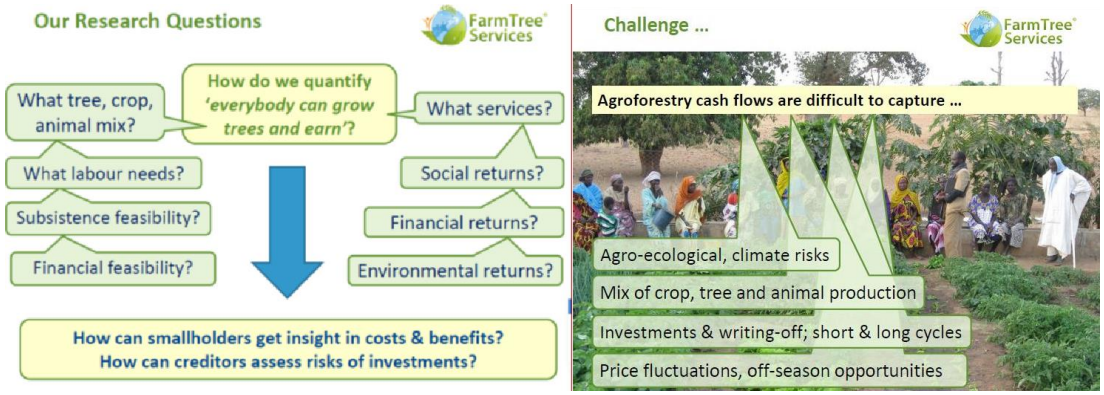
By Frank van Schoubroeck

In his presentation Mr. Schoubroeck gave a case study of The Farm Tree services tools that helps to forecast farm performance & likely repayment of investments; Capturing costs and benefits in Smart Water Solutions Investments.

Frank van Schoubroeck during his presentation.

He articulated further on the following:

- Why quantify agroforestry benefits.
- The Challenge
- Research question on how smallholder can get insight on cost and benefits. And how creditors can assess risks of investments.
- Production and services in Agroforestry.
- Local expert data tool and
- Promoting trees on farms in Kenya.



Concern raised:

- What financial institutions use to access the farmers.
- Need to deal with the right farmer in financing irrigation

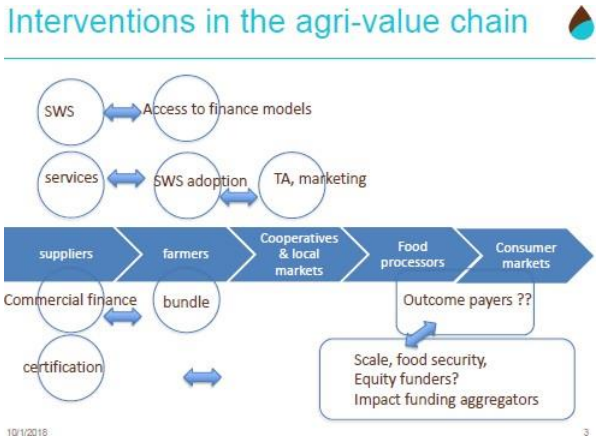
3.5 Exploring Innovative finance models to scale Smart Water Solutions

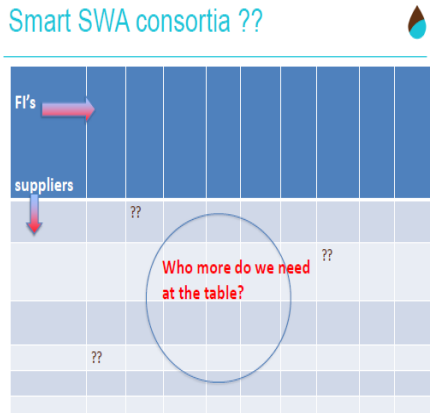
By Sjef Ernes

Mr. Ernes articulated that alone you are faster, together you get further. He urged the SWA stakeholders to think outside the box specifying on:

- What to be learnt looking to the food-value chain;
- How current models (in SWA) from suppliers, distributors and finance institutes can join forces to achieve shared objective of scale;
- How grant money (like from SWA) support to scale;

- What needs to be done with Grant money to unlock private capital (de-risk (commercial) investment)
- What ingredients do we need to make it attractive to improve or scale the current models and/or incentivize the actors
- How outcome payment for impact for other SDG's add revenues/finance/subsidise interventions (like gender empowerment, women, food security, and climate smart solutions).





Concern raised: Need to involve county governments in the scaling up the SWA technologies

4.0 Breakout sessions

During the breakout sessions the participants were divided in four groups with each group having a representative from a financial institutions and an irrigation technology service provider. The groups were tasked to come up with a workable financial model for smart water solution.

Sessions during group discussion

The exercise involved use of a number of ingredients to build a financial model; and the four groups came up with four different financial models as elaborated in model 1 to 4.

Model 1: The model looks at a financing system supported on one hand by commercial investors to supply capital or risk mitigation, this can be through an SPV that links with a financial institution. The Financial institution lends to the farmer and /or the aggregator and draws from the SPV Other supporting ingredients are;

1. The ICT tools helps in the supply of information for the vendor/supplier, financier, farmer, off taker and the retailer.
2. The government plays a facilitative role at policy level.

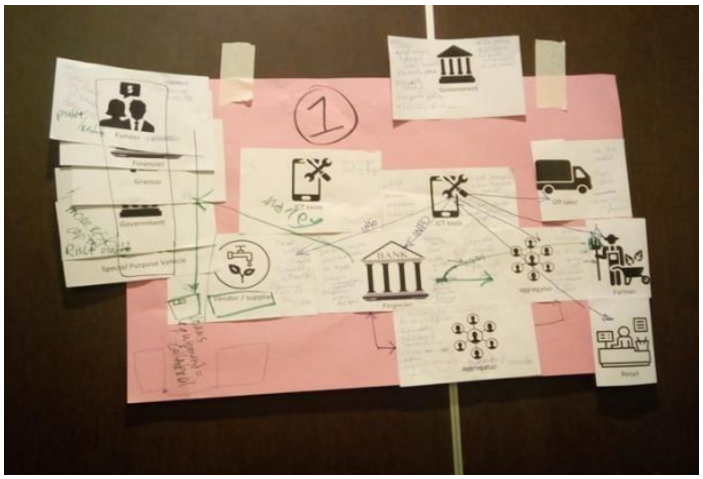


Plate 1: Model 1

Model 2: This model looks at a farmer (commercial farmers or farmer groups) working with an off taker. Farmers can generate credit requests through the vendor/input supplier who is has an arrangement with a financier. The ICT tools are both for data collection as well as money movement.

The financier can lend to the vendor or to the farmer

Other supporting ingredients are;

1. Grantor – the group felt that the role of a grantor would be to proof the concept and not in the whole process
2. The government should play a facilitative role in ensuring there is a conducive environment to operate.

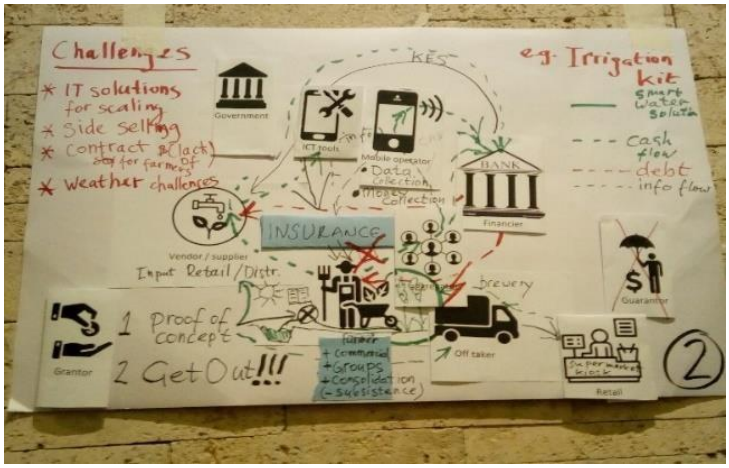


Plate 2: Model 2

Model 3: This model is anchored by an off taker or an aggregator and contracted farmers .The Financial Institution signs a tripartite agreement with the off taker and the supplier of equipment .The offtaker operates an account with the FI where monies lent out to buy the equipment can be deducted upfront.

Other supporting ingredients are

1. ICT tools linking the aggregator and farmer
2. A funder can offer a guarantee to the FI

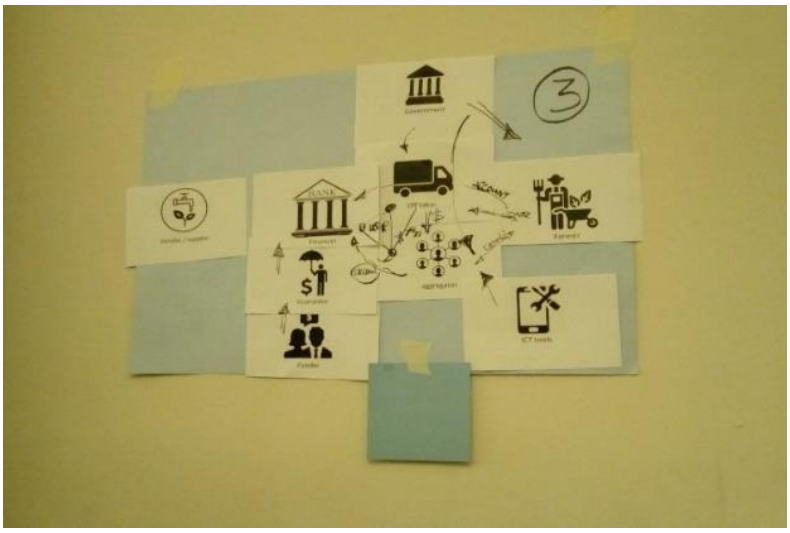


Plate 3: Model 3

Model 4: This model considers beginning with a manufacturer and working through a distributorship model to avail the SWS to farmers who sell their produce to an off taker. In this model the Financial Institution can either lend to the retailer, the farmer, or the aggregator Other supporting ingredients are;

1. ICT tools working for all
2. Guarantor through an SPV to the Financial Institution
3. Government acting as a funder or grantor either to the FI or the manufacturer

Plate 4: Model 4

When asked to select which model to work with, these were the results;

Model 1	Model 3	Model 4
Amiran	Faulu Kenya	Rafiki Bank
Rebel	KCB	Future Pump
Hydroponics	Global Communities	Rabo BankFoundation
Juhudi Kilimo	IPS Kenya	Juhudi kilimo
	MOA	

The project implementation team was left to investigate which financial model(s) can be implemented.

Appendix I: Workshop programme

Time	Agenda	Facilitator
8:30	Arrival and Registration	NIAP Secretariat
9:00 – 9:30	Welcome, Opening Remarks and Introductions	Prof. Bancy Mati & Sebastian
9:30 - 9:45	Recap and agenda setting	Florence /Marlies
9:45 -10:30	The ingredients of innovative financial models	Florence
	Innovative financial Models to scale SWS	Saskia
10:30 -10:45	Building Blocks – A presentation of Farm Tree cash flow planning tool	Frank van Schoubroeck
10:45 -11:00	Q&A	All
11:00 -11:30	Tea /Coffee Break	NIAP/SNV
11:30 -11:45	The scaling perspective nexus	Sjef Ernes
11:45 -12:45	Breakout sessions	Florence /Marlies
12:45-13:15	Feedback from Break Out sessions	Florence
13:15 -13:30	Wrap up and vote of thanks	Florence/Marlies
13:30	Networking Lunch	NIAP/SNV