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Big Bets for Kenyan Food Security in a Time of COVID

Focus on Irrigation, Financial Services & Farmer Engagement

Leesa Shrader
AgriFin Programs Director

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Nairobi, Kenya

BILL & MELINDA
GATES foundation

Agenda

- **Welcome and Introductions**
- **Introductory Presentation**
- **Panel Discussion**
- **Audience Virtual Q&A**
- **What's Next & Wrap-Up**



Introducing our Speaker & Panelists

INTRODUCTORY SPEAKER

- **Michael Tweed**, Dalberg Advisors

PANEL

- **Dr. Hamadi Iddi Boga**, Principal Secretary of the State Department for Agricultural Research, Ministry of Agriculture, Kenya
- **Vinay Vutukuru**, Head, Agriculture Portfolio, World Bank, Kenya
- **Lauren Hendricks**, CEO, Equity Group Foundation International
- **Martha Haile**, VP of Africa, WeFarm
- **Samir Ibrahim**, CEO, SunCulture

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Why should we consider a 'big bet' on irrigation and a modern solar water pump?

They increase levels of irrigation



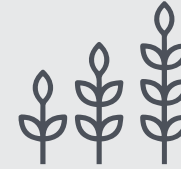
Better yields



Opportunity to plant in off-season



Greater resilience



Can grow higher value crops

They are typically better than current irrigation options



More environmentally friendly than diesel pumps



Lower total lifetime cost of alternatives

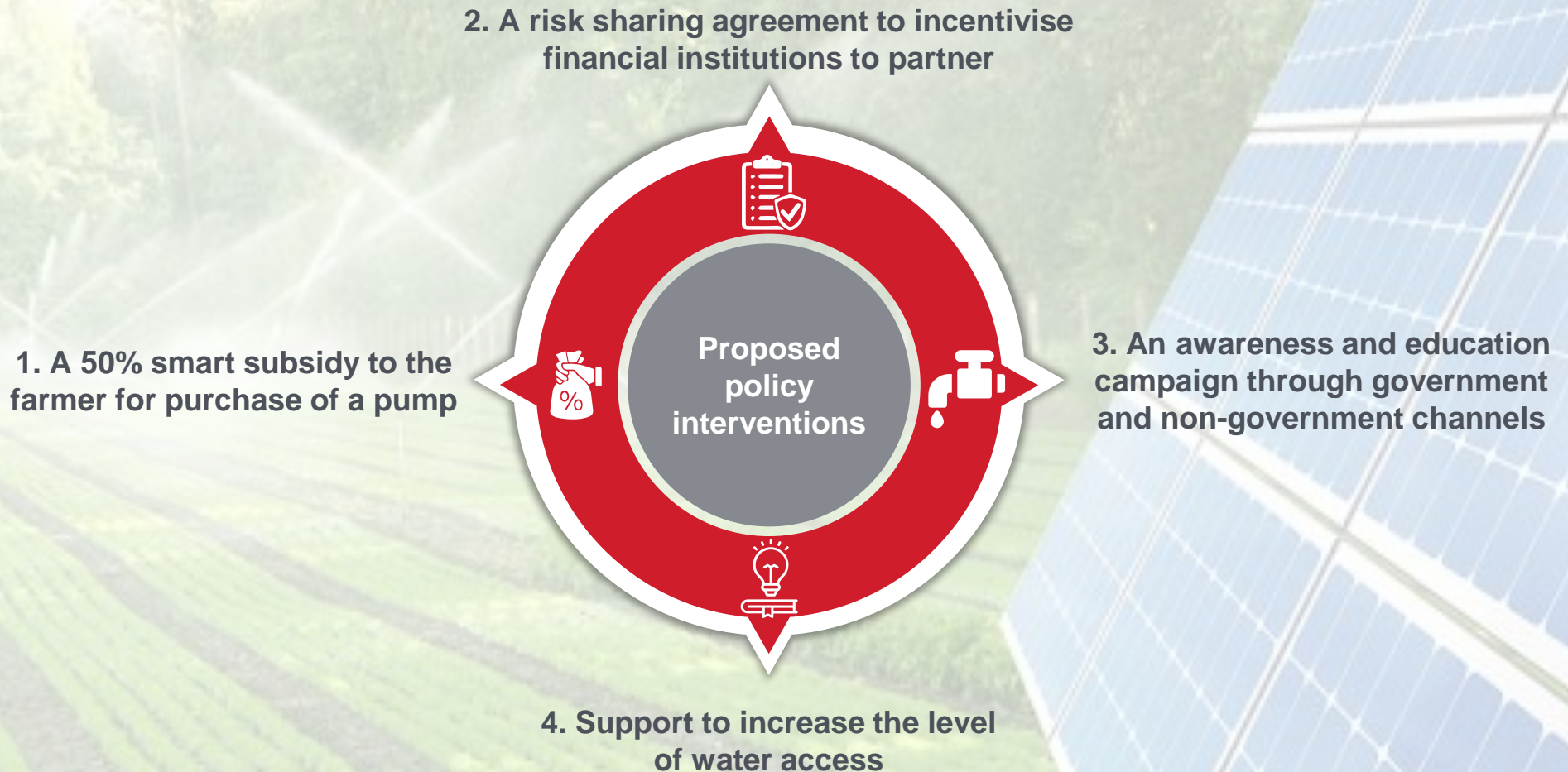


Can be 'smart', so controlled and monitored remotely (to check for over-usage of water)



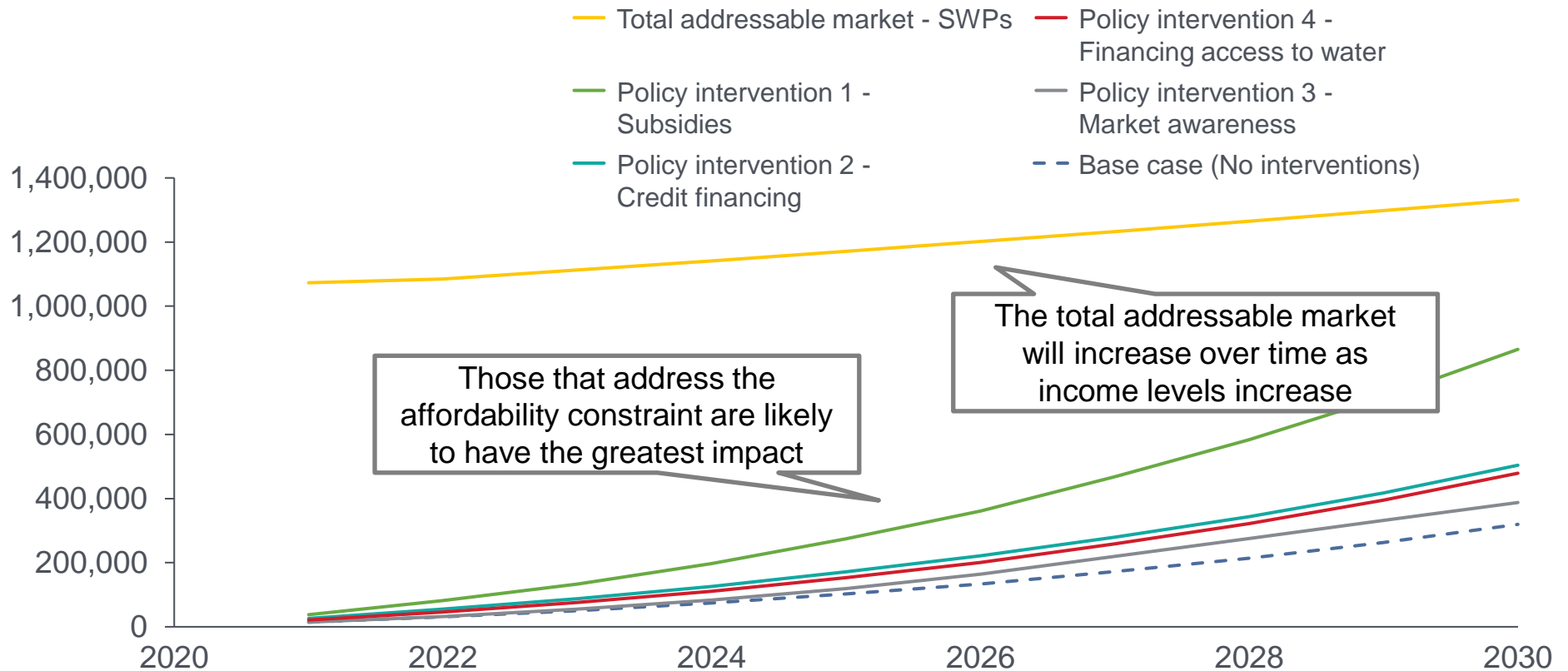
Control is in the hands of the farmer (he makes the purchase decision)

However, we expect uptake of irrigation and solar water pump technology will be slow, unless policy interventions are made



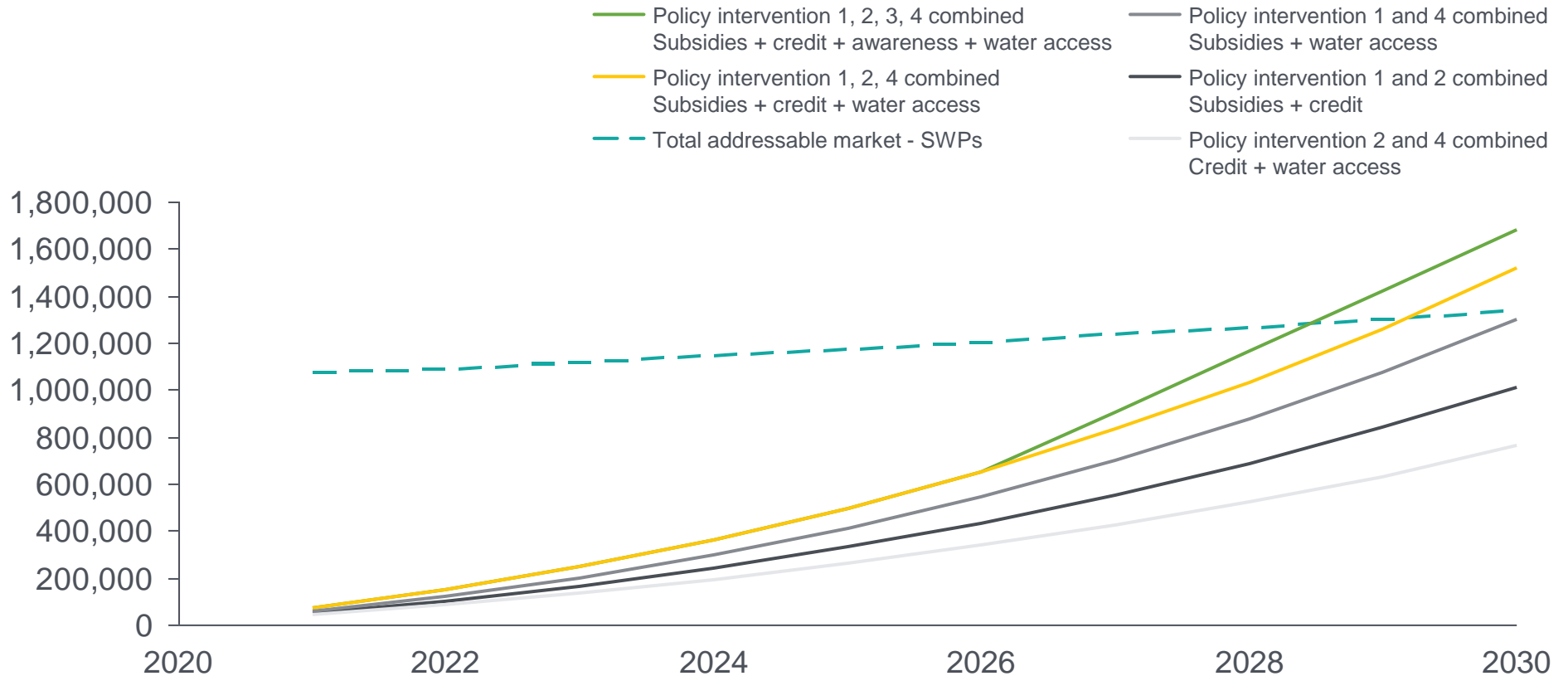
Several policy interventions have been modelled to project the uptake of irrigation with SWPs over time

Number of households with a solar water pumps in Kenya under each policy intervention (no of HHs)



Combined policy interventions will have an even greater impact

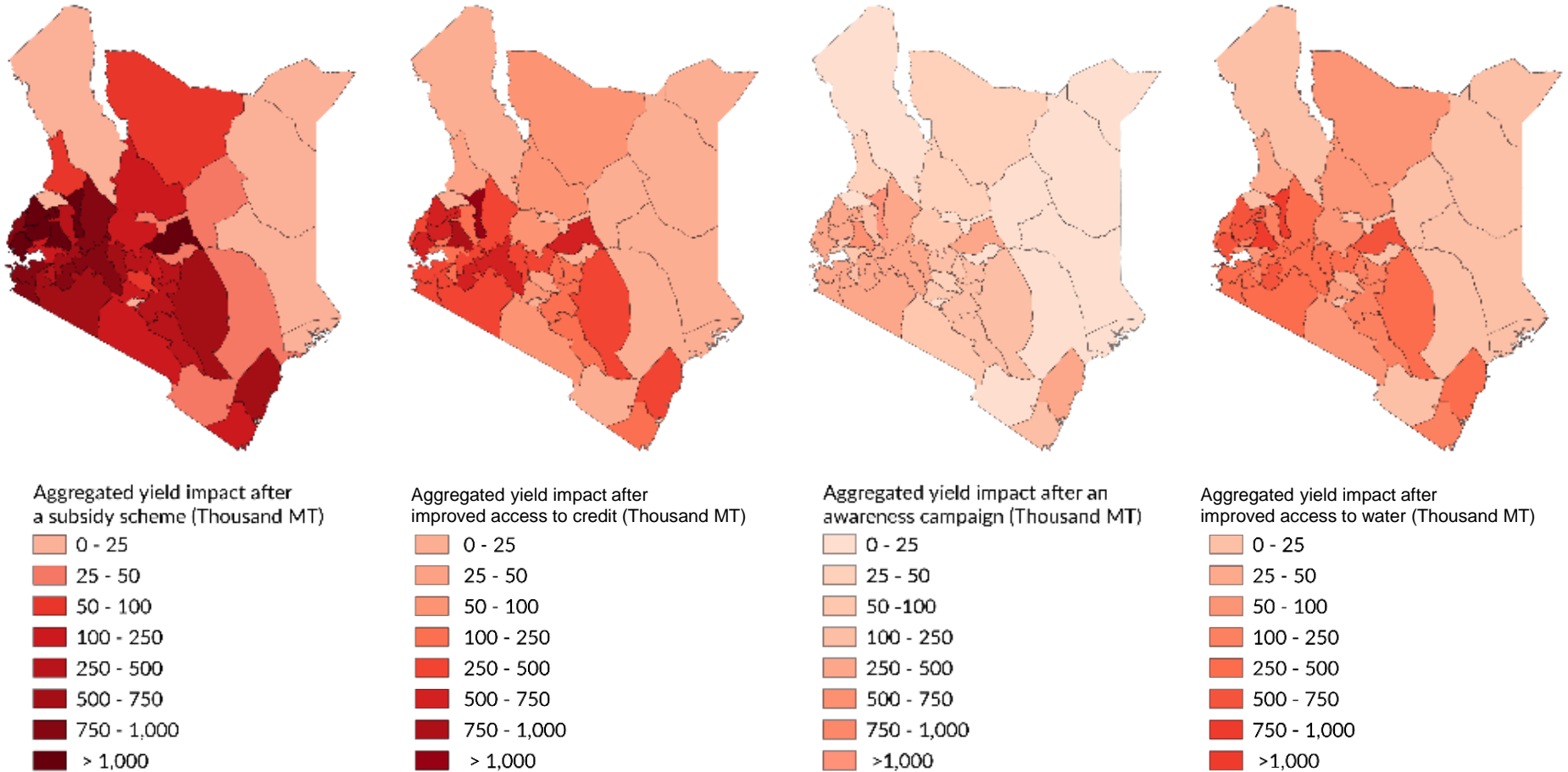
Cumulative uptake of SWPs under combined policy interventions (no. of HHs)



Under the combined policy interventions, around **1.1 Million additional hectares** will be irrigated by 2030 compared to 165k currently irrigated (3% of Kenya's arable land)

2030 projected irrigation with SWP uptake by county, with interventions

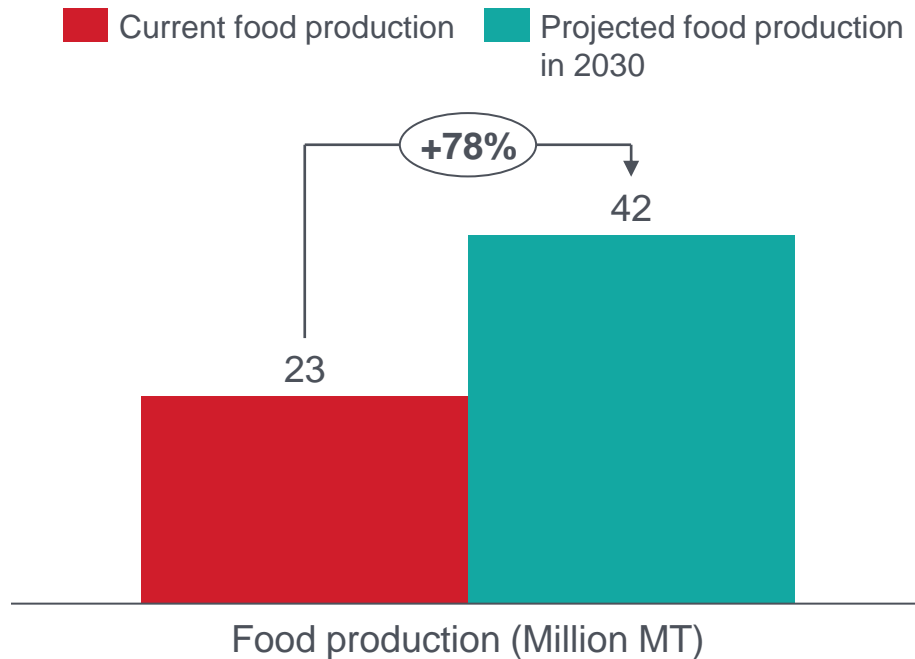
Aggregated impact in terms of yield per county under combined policy interventions 1,2,3,4 (MT)



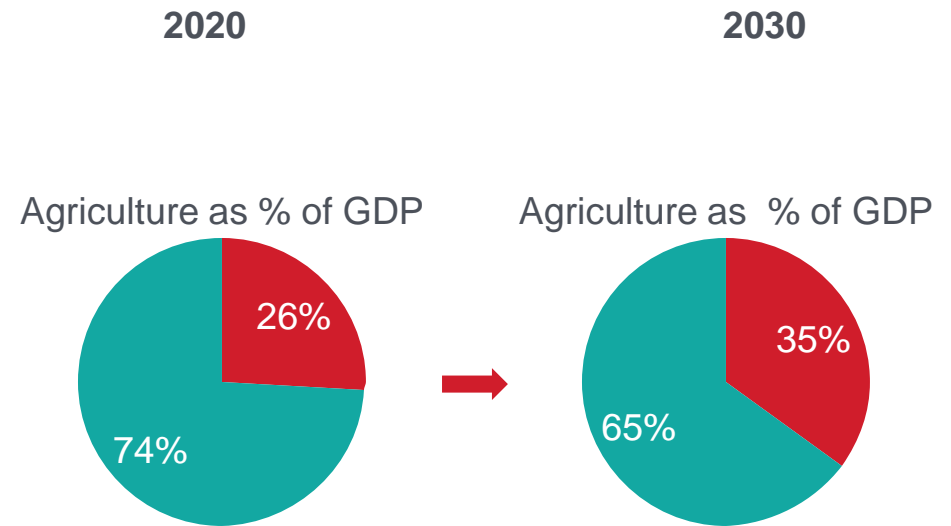
Source: Dalberg analysis

The uptake of irrigation and SWPs will contribute to the Big 4 Agenda's priorities in terms of food security

Projected annual food production due to combined policy interventions (Million MT)



Increase of the agricultural part of GDP under combined policy interventions (%)

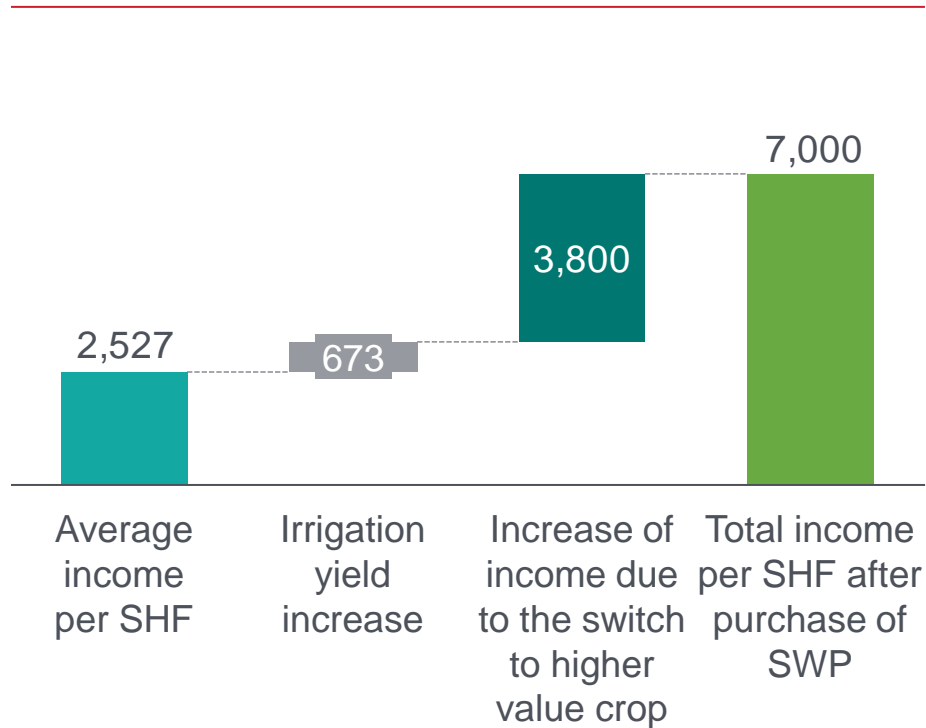


Food production will increase 78%, supporting the aim of a 50% of reduction in the number of food insecure Kenyans

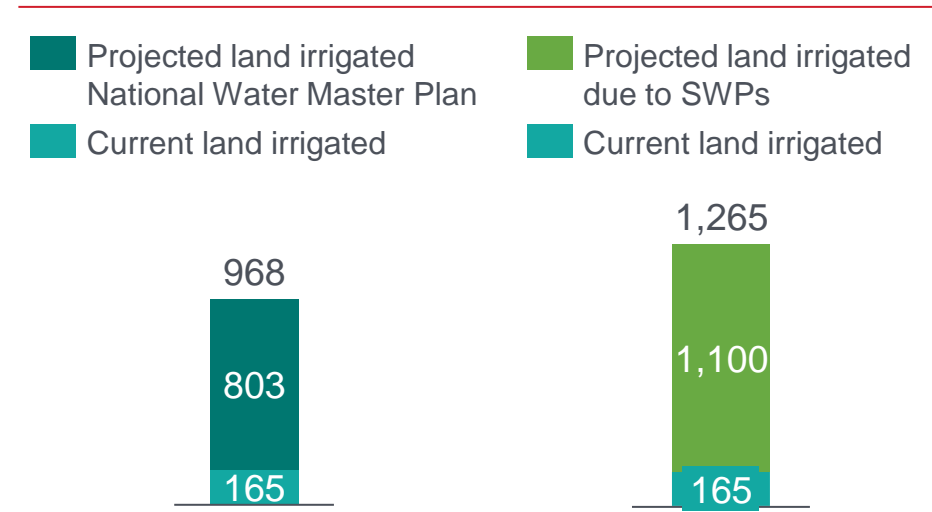
This will represent a 35% increase in the proportion of agriculture in Kenya GDP in 10 years.

The uptake of SWPs will also contribute to the Big 4 Agenda and to the National Water Master Plan 2030

Increase in small-holder farmers income (USD)



Increase of land irrigated under combined policy interventions (Thousands of Ha)



The income increase will exceed the objective of 34% increase of SHF income

The land irrigated will exceed the projected land irrigated in the National Water Master Plan

Source: Dalberg analysis, FAO (2015), The economic lives of small-holder farmers. Assumption of 0.7 Ha average land in a farm under irrigation

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BIG BETS FOR KENYAN FOOD SECURITY

Panel Discussion

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Vinay Vutukuru, Head, Agriculture Portfolio, World Bank, Kenya

Lauren Hendricks, CEO, Equity Group Foundation International

Martha Haile, VP of Africa, WeFarm

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Using
Zoom
chat
function

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BIG BETS FOR KENYAN FOOD SECURITY

What's Next & Wrap-Up

Find the paper through:

1. Mercy Corps AgriFin website (mercycorpsagrifin.org or [here](#)).
2. 2-pager summary of the paper is [here](#).

Reach out to Mercy Corps AgriFin if you would like to get involved in our COVID-19 and Desert Locust response efforts in Kenya, Ethiopia, Tanzania and Nigeria.

POLICY BRIEF: ACHIEVING FOOD SECURITY IN KENYA THROUGH SMART SOLAR IRRIGATION

JUNE 2020



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