F3 Financing Systems

Climate Smart Credit Systems

We Reduce Climate Risk for Lending Institutions and their Farming Clients

What is F3 Financing Systems (F3)?

(1) **Advisory and Fintech for Climate Risk Management**
F3 is an advisory service and fintech provider which helps lending institutions to issue climate-smart credit to farmers

(2) **Our Clients**
We work with financial institutions, companies managing outgrowers and NGOs

(3) **Our Value Proposition**
Our systems aim to help you manage climate and environmental risk in your lending portfolio and improve your bottom line

What is Climate Smart Credit?

1. **Climate Smart Loan Term**
Climate-smart credit incorporates climate-smart agricultural and land-management practices into loan terms

2. **Land Management Agreement**
When a client signs a loan agreement, they also sign a land-management agreement which requires the client to manage their land in a way which is designed to protect them and their farm from climate-change related events

3. **Monitoring & Climate Smart Credit Scoring**
We help organisations which lend to smallholders with design and implementation of climate-smart credit products, and provide tools to monitor implementation and produce climate-smart credit scores

Why work with F3?

If you are a financial institution, company or NGO which lends money or provides inputs on credit to smallholder farmers, F3 systems are designed to deliver:

1. Reduced exposure to climate-change related default risk
2. Improved debt service coverage ratios
3. Credit users who are more resilient to climate change
4. New channels to raise debt

How does the F3 climate-smart credit system work?

A farmer signs a loan and land management agreement
Included in the loan agreement are requirements for adoption of climate-smart agricultural or land-management practices

1

Repayment and Implementation
The farmer implements the required climate-smart agricultural and land management practices on their land

2

Monitoring
F3 systems are used to monitor implementation of climate-smart practices

3

Climate Smart Credit Scoring
Where a farmer is in compliance with the climate-smart requirements of their loan terms, they are provided with a "climate-smart credit score" which can be included in your credit scorecard or credit-scoring algorithm

4

Results
Through implementation of this system, farmers build their resilience to climate change and in so doing protect your agricultural lending portfolio from climate change risk
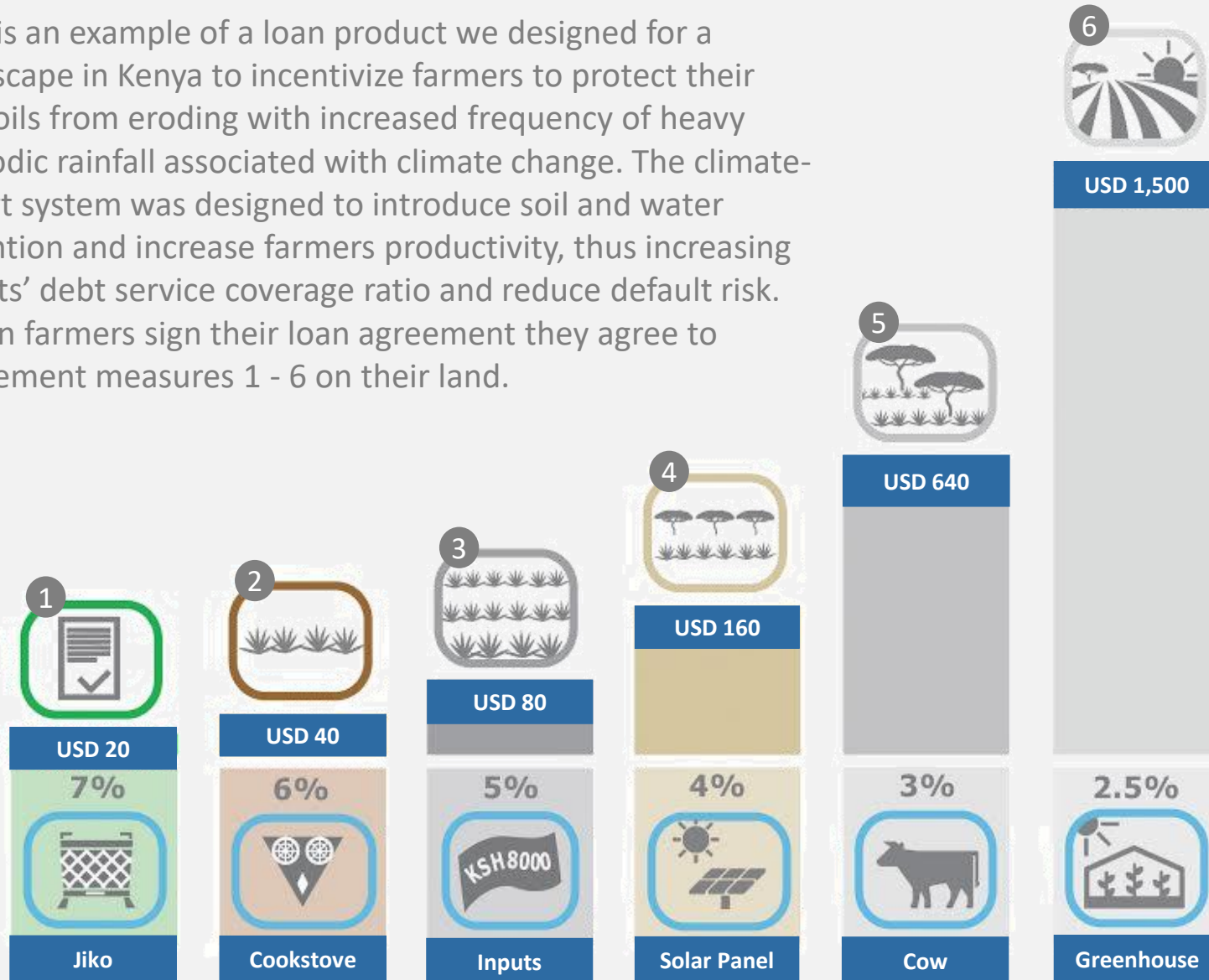
5

An Example of a Climate Smart Credit Product

This is an example of a loan product we designed for a landscape in Kenya to incentivize farmers to protect their topsoils from eroding with increased frequency of heavy episodic rainfall associated with climate change. The climate-smart system was designed to introduce soil and water retention and increase farmers productivity, thus increasing clients' debt service coverage ratio and reduce default risk. When farmers sign their loan agreement they agree to implement measures 1 - 6 on their land.

6 **USD 1,500**

5 **USD 640**

4 **USD 160**

3 **USD 80**

2 **USD 40**

1 **USD 20**

7%	6%	5%	4%	3%	2.5%
Jiko	Cookstove	Inputs	Solar Panel	Cow	Greenhouse

KSH8000

1 Training
Farmer client attends a climate-smart training

2 First Grass Strip
The client plants one grass contour strip on their land

3 Multiple Grass Strips
The client plants multiple grass contour strip on their land depending on its slope

4 Tree Seedlings
The client reinforces grass contour strips reinforced with tree seedlings

5 Well Established
Grass contour strips and tree seedlings well-established

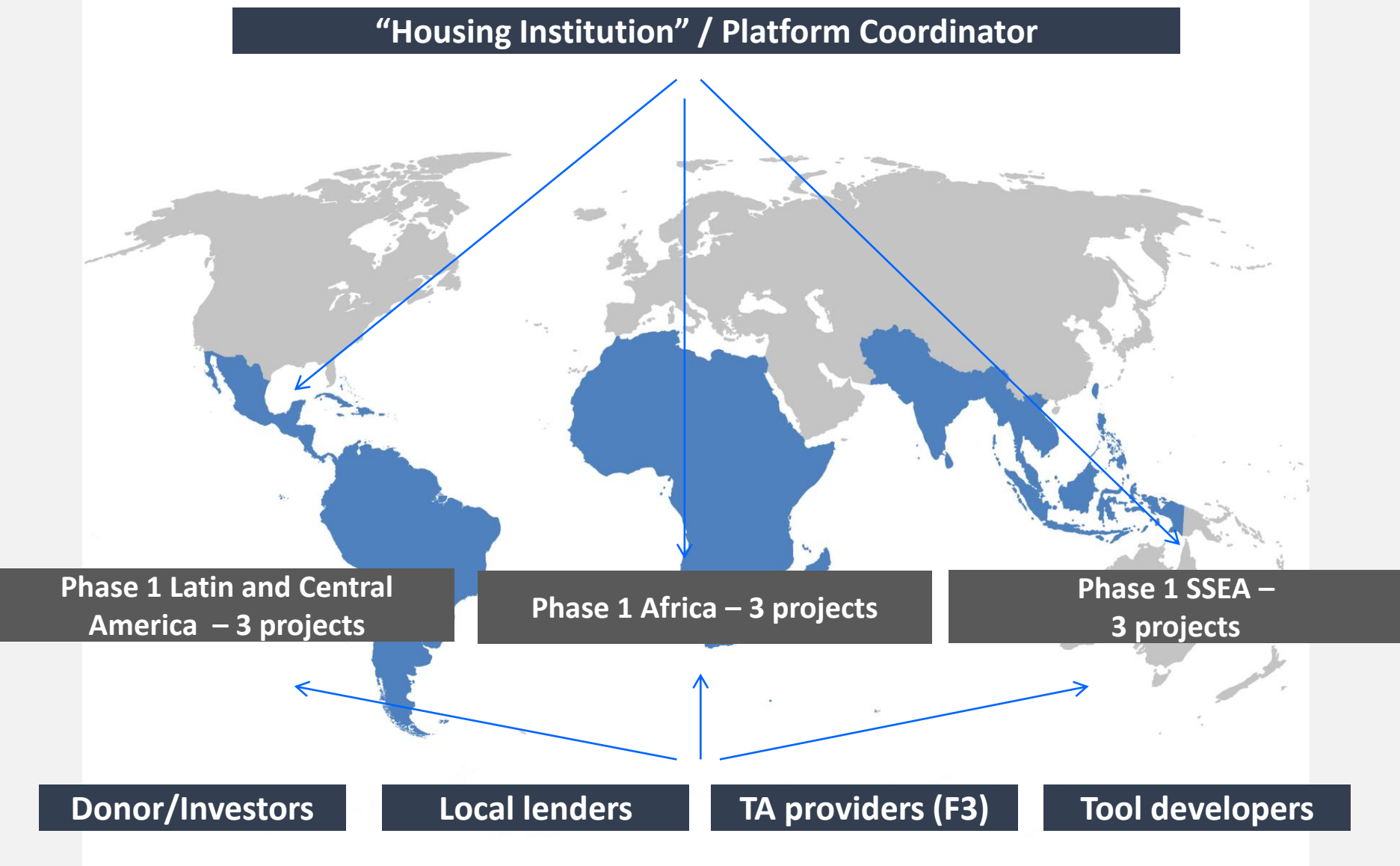**6 System Thriving**

Climate Smart Lending Platform (1)

1   **F3 Launch through the Climate Smart Lending Platform (CSLP)**
The CSLP concept was developed by F3, with support during 2016 from Climate Policy Initiative under the Global Innovation Lab for Climate Finance (the Lab).

2   **Support for the Platform**
The CSLP is endorsed and supported by the Lab's principals including investment banks (Deutsche Bank and Merrill Lynch), development banks (IDB, World Bank, IFC, KfW, African Development Bank), funds (OPIC, BlackRock) and donors (US, British, French, Dutch and German governments).

3   **Aim of the Platform**
The Climate Smart Lending Platform brings together the tools, actors, and finance necessary to help lenders incorporate climate risk in their loan portfolios while incentivizing the adoption of climate-smart farming methods by smallholders at scale. The platform aims to mainstream climate smart agriculture (CSA) metrics into the loan terms and credit scoring systems of financial institutions without concessional backing, to enable them to increase the climate resilience of their agricultural lending portfolios.

CSLP Structure for Phase 1 – 15 Clients

"Housing Institution" / Platform Coordinator

Phase 1 Latin and Central America – 3 projects

Phase 1 Africa – 3 projects

Phase 1 SSEA – 3 projects

Donor/Investors

Local lenders

TA providers (F3)

Tool developers

Principles for design of "climate-smart" credit

1 **Farmer-friendly**

Climate-smart requirements for loans, which we identify, are efficient and low cost, designed to secure higher returns for the farmer

2 **Bottom-line friendly**

All climate smart requirements for loan agreements are designed to improve client debt service coverage ratios and reduce the likelihood of credit default in the event of climate-change related weather events

3 **Incremental**

The contractual changes in land-management practice are not overnight requirements, but require farmers to steadily change their practices step-by-step over time

4 **Participatory**

We design requirements for climate-smart loans together with your farming clients so that they are centrally involved in the development of climate-smart farming measures that are appropriate for them

5 **Appropriate**

Climate-smart requirements for your loan agreements are designed to be appropriate for your clients, their farming systems and where they farm

6 **Easily monitored**

All climate-smart farming practices required by loan agreements must be capable of being remotely monitored

What F3 provides

1. Credit product designs
2. Impact models
3. Cost-efficient monitoring systems
4. Climate-smart credit-scoring system
5. An advisory service/technical assistance to help you on-board new systems

See the following slides for further information relating to points 1-5

Credit Product Designs

1 **Technical Expertise**

We bring farming and natural resource management expertise to identify enhanced farming practices, which if used by your farming clients are designed to increase their resilience to climate change

2 **Market Research & Consultation**

We consult with you and farmers in your target demographic to ensure climate-smart farming requirements are relevant to the needs of your lending portfolio and appropriate to the needs of your clients

3 **Appropriate to the Needs of Your Organisation**

We build these practices into your existing or new credit products to create climate-smart credit products appropriate to your core banking system

Impact Models

① Modelling for Credit Product Design

During the product design process, we model the impact of the new climate-smart credit product on:

> ① lending institution default risk
>
> ② client debt service coverage ratio
>
> ③ client returns

② Improving our Models with Data

We use the modelling exercise to inform the design of the climate-smart farming practices and our models can be validated and improved on an ongoing basis following product roll-out

Monitoring System

The F3 monitoring system allows:

1. Your risk management and audit functions to ascertain whether your clients are adopting climate smart farming practices

2. Your credit committee to verify that a client is in compliance with the climate-smart requirements of their loan agreement

3. Your clients, loan officers or extension agents to easily upload geotagged smart-phone photos and other data to a database which can be easily reviewed by your employees

As a climate-smart system matures, compliance monitoring will be enhanced using satellite imagery and geo-sensing approaches

Climate Smart Credit Scoring System

1 The F3 credit-scoring system assesses the implementation of climate-smart farmland management actions by a client against the requirements of their loan agreement

2 This generates a "climate-smart" credit score which can be incorporated into your internal credit score card or credit-scoring algorithm

Climate Smart Lending Results

Climate smart loans are designed to achieve:

1. Smallholder behaviour change, by incentivising farmer credit clients to farm in a more climate resilient, productive and sustainable way

2. Reduce lenders' climate-related default risk, reducing losses and increasing lender profits

Request a demonstration

If you'd like to know more or see how our monitoring system works please contact info@f3-life.com