Stable Foods, Homa Bay, Kenya

Development Stage

Concept — Fundraising — Implementation — Operation — Scaling

Smallholders constitute most of the food production in Africa but are trapped in a negative cycle, where they are vulnerable to adverse weather events and climate change, lack capital to invest in the productivity of their land and have limited bargaining power with and access to off takers. To increase their subsistence income, they often cut down trees to open up more land, resulting in high food prices and deforestation.

Stable Foods unlocks smallholders' potential at scale to produce affordable food for a growing population. To increase yields, Stable Foods offers smallholders an ultra-low-cost, climate-resilient "Irrigation-as-a-Service'-subscription. Stable Foods have requested reNature's assistance in implementing regenerative agriculture, by firstly setting up a Model Farm on their own leased land, before scaling the approach within their farmer network.

LOCATION:
Homa Bay, Kenya

SIZE OF PLANTED PLOT:
4 ha

SIZE OF POTENTIAL AREA:
90 ha over the next year

KEY CROP:
Traditional staple crops, including leafy greens, tomato, onion etc.

INDUSTRY:
Agri-business and biofuel

GOAL:
To produce healthy affordable produce for all, while safeguarding the soil and environment

MAIN FOCUS:
Develop, deploy and scale a smart, regenerative and ultra low cost food production system in order to combat food insecurity with climate resilient practices.

PARTNERS:
Stable Foods, Victory Farms

80,000
Investment

Andrew Massaro
Initiator

Assignment & Impact

Number of expected beneficiaries

500 families

Development Challenges

As well as high levels of deforestation and vulnerability to climate shocks, the community are over-reliant on harsh chemical additives which has led to soil depletion. Additionally, under-investment in the region has led to overall low production yield. Only about 3% of smallholder farmers in Kenya have access to irrigation services, because they are prohibitively expensive. This is the foundation of the challenge: that despite millions of people working in the agricultural sector, cost of production is incredibly high, so the average consumer spends an inordinate amount of money on produce.

Intervention

Stable Foods is offering a revolutionary approach to irrigation which could improve yields for smallholder farmers by 5-10x. This irrigation as a subscription service will be available at no up-front cost, and only a small fee per month, which makes it accessible to millions who could never before afford. With the help of reNature, Stable Foods will also bring regenerative agriculture to these farmers. The collaboration will begin with 1 Model Farm established on a plot leased by Stable Foods. This plot will serve as a proof of concept and demonstrate the efficacy of regenerative agriculture to the community. In subsequent phases of the project, additional Model Farms will be set up on the plots of community members, or so-called 'lead farmers.'

Financial Details

reNature Model Farm: est.	€ 80.000

Objective

The objective is to bring regenerative agricultural practices to the mass market of smallholder farms in Kenya. We see regenerative agriculture as necessary in order to achieve our two main focus area goals: reducing food insecurity and increasing climate resilience for those in areas and role of high fragility.

500	61% More	45% More	23% More
Community Members	Biodiversity	Soil Humidity	CO2 sequestration per ha/year

Inspirational Impact

The project will not only provide proof of the efficacy of regenerative agriculture through the implementation of the Model Farm, but it will also provide people with more healthy food at a lower cost. These two elements coupled together will combine to create a powerful inspirational force that will encourage the community to become involved. All smallholder farmers involved in the project and consumers of smallholder farmer goods will benefit, especially the particularly poor, since they spend the most outsized percentage of money on produce purchases.

Environmental Impact

Smallholders are vulnerable to adverse weather events and climate change. With each passing year, their land is continuously degraded. It is not enough simply to produce more food, this must be done using ecologically positive practices. This approach with reNature will reduce erosion, increase biodiversity, reduce the need for synthetic fertilisers and reduce the need for heavy machinery-based tilling. Via Stable Foods improved go-to-market logistics, this will reduce post-harvest loss, therefore further reducing greenhouse gas emissions.

Social Impact

On the production side, working with Stable Foods and reNature will improve field and soil health, thereby increasing outputs while reducing the need for expensive inputs. This will translate to greater income (up to 5-10x) and lower costs for our farmers. In early stage experiments, some of our fields are enjoying a 6x yield vs previous cycles, meaning that these interventions can make farming a viable economic opportunity which will encourage the younger generations to stay in the agricultural sector.

Secondly, the project will reduce the cost of staple goods for the poorest members of society. Anyone facing food insecurity cannot reach their own maximum potential. The more available we make nutritious food, the healthier we make the general population.

Economic Impact

The Stable Foods agricultural model is based on regenerative and ecological principles and practices. Stable Foods will offer four opportunities to work with smallholder farmers. One – Stable Foods leases and operates farmers' plots and pays ~$250/ year per acre for the opportunity. This is a tremendous benefit for a plot that is usually underutilized and represents 2x the standard market rate. It also requires zero effort from the land partner. Two – Stable Foods offers irrigation as a subscription. Stable Foods will install and own the irrigation systems and the farmer will pay a small fee per month for access to this irrigation system. This allows even the poorest farmer to access irrigation because there is no up front cost. This way, farmers can produce significantly more (5-10x) without the initial prohibitive costs. Three – Stable Foods offers a market access partnership, so that when farmers have larger than usual harvest, they will have a trusted partner who will buy their output. Lastly - in pursuit of our overall mission to reduce food insecurity, Stable Foods offers complimentary farmer training for any member of the local community, whether land partner of not. These four opportunities make it easy for essentially any farmer to work with Stable Foods, and together represent an opportunity for fundamental economic transformation.

Impact Metrics

Outcome Metrics

1) Increase yield of our smallholder partners

2) Lower cost for produce around Kenya, the region, etc.
   -> healthier lives for each consumer.

3) Reduction of CO2 emissions associated with agriculture

4) Reduction of land degradation

Evaluation Method

1) Increase in total yield -> volume of produce sold in the market (# of healthy meals made available)

2) Cost of production

3) Increase in farmer income

4) Increase in biodiversity and improved soil health