

East Africa's smallholders are among the most climate-vulnerable populations on the planet. Yet carbon markets — the world's primary funding mechanism for climate solutions — are not designed for them. **One Acre Fund is committed to connecting climate financing with the people who need it the most.**

Meet Patricia. As a smallholder farmer in Rwanda, her entire livelihood derives from less than one acre of land, and she depends on rain-fed agriculture to feed her family. Intensifying climate change — which brings floods, drought, pests, and more — now regularly threatens her harvests, putting her family's future in jeopardy.

Meanwhile, as the climate crisis takes center stage across the world, both demand and funding for climate solutions has grown. Carbon markets alone will be worth an estimated \$50 billion by 2030.

This presents an exciting opportunity for farmers like Patricia — *if we can make carbon markets more inclusive.*

As-is, markets require large land sizes and up-front capital, which are out of reach for our rural clientele. One Acre Fund's **1.4 million-strong farmer network** currently plants **36 million trees per year**, but cannot benefit from the billions of dollars pledged to climate change mitigation.

One Acre Fund is dedicated to bridging the gap between farmers — who are on the front lines of climate change — and climate financing. **We are now launching a portfolio of inclusive carbon projects that will improve farm livelihoods while driving environmental outcomes, sustainably and at scale.**



PATRICIA MUKAMPARIRWA

KEY FACTS & FIGURES

Since launching our agroforestry program in 2012, One Acre Fund has built the **largest farmer-led tree-planting initiative in Sub-Saharan Africa** — and we are not done growing. Over the next ten years, we will reach:



187,493,031
seedlings delivered,
across



9
countries



331,255 acres
of tree cover
planted



14,079,750 Mt
est. carbon
sequestered¹



\$253 million
potential revenue via
carbon markets²

¹Estimate based on a 10-year lifespan for incremental surviving trees (i.e., those that would not have been planted without One Acre Fund's support) • ²All estimates assume a \$24/ton CO₂ sales price.

DESIGNING *for* INCLUSION

One Acre Fund is building a **scalable carbon strategy** that will empower the smallholders we serve to engage in certified carbon markets. **Below are the four primary barriers to achieving our goals, along with our plans for addressing each:**

CHALLENGE

Documentation: Carbon verification requires proof of land ownership (uncommon in East Africa), GPS mapping of individual trees planted, signed transfer of complex carbon rights contracts, and more.

Permanence: Carbon stocks must be permanently increased to be certified; meanwhile, farmers often need to harvest trees during times of financial shock.

Measuring, Reporting & Verification: Requirements are cost-prohibitive and designed for 1,000+ hectare projects.

Financing: There are substantial up-front costs required, but a 5-6 year delay until the carbon begins generating revenue on the market.

ONE ACRE FUND'S SOLUTION

- » **Design carbon packages and support land tenure for larger-but-still-accessible farms (i.e., 1 acre)**
- » **Leverage technology to develop streamlined, farmer-friendly verification processes**

Develop new programs that:

- » **Incentivize permanence (e.g., fruit trees), or**
- » **Track avg. sequestration over a harvest/replant cycle**

- » **Optimize existing MRV processes for efficiency**
- » **Partner on remote sensing technology (e.g., satellite)**

- » **Design a portfolio of carbon projects to minimize risk**
- » **Secure multi-year funding commitments from key partners**

FINANCING A PORTFOLIO OF CARBON PROJECTS

We are proud to have launched two new pilot programs in 2021. Over the next two years, we plan to add three more:

Model 1: ALLEY CROPPING

Farmers plant a soil-improving tree species in between rows of their annual crop, and receive yearly payments to keep them in the ground.

10yr Impact: \$20M new farmer income, **110K** acres of new tree cover planted, **820K** tons CO₂ sequestered. ***Launched in Zambia**

Model 2: SUSTAINABLE TIMBER

Farmers plant an acre of timber trees, then harvest & replant them at regular intervals; carbon benefits are based on long-term averages.

10yr Impact: \$17M new farmer income, **150K** acres of new tree cover planted, **9M** tons CO₂ sequestered. ***Launched in Tanzania**

Model 3: FRUIT & NUT ORCHARDS

Farmers plant an acre of macadamia, avocado, orange, etc. trees. They maintain the trees long-term and generate revenue from the produce.

10yr Impact: \$62M new farmer income, **20K** acres of new tree cover planted, **60K** tons CO₂ sequestered

Model 4 & 5: ON-FARM SEEDLINGS

Farmers plant a diverse range of species across their farm (e.g., as field boundaries or windbreaks). One model assumes a harvest/replanting cycle; the other pays farmers not to harvest.

10yr Impact (Combined): \$57M new farmer income, **50K** acres of new tree cover planted, **4M** tons CO₂ sequestered



XAVERINE UWIHOREYE