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.

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 sequestered
- **$253 million** potential revenue via carbon markets

1 Estimate 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)
2 All estimates assume a $24/ton CO2 sales price.
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:

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<th>CHALLENGE</th>
<th>ONE ACRE FUND’S SOLUTION</th>
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| **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. | » 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 |
| **Permanence:** Carbon stocks must be permanently increased to be certified; meanwhile, farmers often need to harvest trees during times of financial shock. | Develop new programs that:  
  » Incentivize permanence (e.g., fruit trees), or  
  » Track avg. sequestration over a harvest/replant cycle |
| **Measuring, Reporting & Verification:** Requirements are cost-prohibitive and designed for 1,000+ hectare projects. | » Optimize existing MRV processes for efficiency  
  » Partner on remote sensing technology (e.g., satellite) |
| **Financing:** There are substantial up-front costs required, but a 5-6 year delay until the carbon begins generating revenue on the market. | » 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 recieve 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