Our aim in the countries where we work is enough food, for all, forever.

Over the past three decades we have learned the most appropriate ways of supporting rural African families in growing more food, and a wider range of it. So that no matter how small their farms may be, they can become food secure.

Smallholder farmers in East Africa face the challenge of producing food in some of the most difficult growing conditions on earth. Research by the University of Bonn’s Center for Development Research says:

“In Eastern Africa the resource loss due to land degradation is believed to be huge. About 1 billion tons of topsoil are lost annually in Ethiopia due to soil erosion, costing the country 3% of its Agricultural Gross Domestic Product.”

We don’t just want to generate enhanced harvests quickly, at the expense of soil quality and biodiversity. Our work needs to be effective long-term, helping farmers to produce good food for their families for years to come.

We also recognise that food security is not just about food production.

In Africa, and around the world, most people go hungry because they don’t have enough money to buy the food that is available. They may not have access to suitable land to grow their own food, or local food distribution systems may be inadequate.

Our work also aims to build farming families’ financial resilience.
How our work supports sustainable agriculture

Our projects and training programmes are based on two key principles: firstly, a “systems” view of farming, and secondly our Agroecological Climate-Positive Approach.

1. Our systems-based approach

We believe that well-diversified small farms, which are based on traditional knowledge and skills, are the most successful systems for helping rural families to grow the food they need in challenging environments.

They have the capacity to help them build ambitious futures beyond the immediate demands of subsistence farming.

Encouraging farmers to see their farm as a whole system allows them to recognise the resources they have, the “inputs” they need as well as what they produce, and how they’re connected with their neighbours and the wider community.

2. Our Agroecological Climate-Positive Approach (ACPA)

This slightly unwieldy term sums up accurately the methodology we have developed from our commitment to organic agriculture – which, historically, has been broadly based on a pragmatic recognition of its effectiveness, rather than a fixed ideological standpoint.

ACPA is a programme delivery framework built on those same organic principles, which also includes our approach to land, health, people and production, and reflects the changing environment. The practical training that we provide, based on agroecological principles, includes:

• Growing techniques suited to each farm’s location
• Integrated pest management
• Agroforestry – incorporating multi-purpose trees into farms
• Improved animal management
• Using animal manure, and any plant waste, to make nutrient-rich compost that builds soil fertility
What’s different about “agroecology”?

The system of farming that we support emulates natural processes which are adaptive and resilient and don’t rely on expensive inputs such as chemical fertilisers, mechanisation or genetic modification.

We don’t support farm systems that lead to lack of diversification and monocultures, which primarily produce food for export, and grow crops at the expense of the land.

We champion the kind of small farms which have a wide diversity of crops and livestock maintained by a variety of soil, water and biodiversity regimes. They’re well-adapted to local conditions and have been shown to help farmers sustainably manage harsh environments.

Agroecology goes beyond “nature-based solutions” and producing good food sustainably. It addresses the problems in global food systems to ensure food sovereignty for local producers and consumers.

What is “climate-positive”?

Our work is also climate-positive because our planting programmes include trees, shrubs and grasses in addition to food and fodder crops.

Our research and evaluation by external consultants, shows that as well as improving soil stability and fertility, these measures have a net effect of removing greenhouse gas emissions from the atmosphere.

Why does ACPA work for African farmers?

This system of farming protects the environment and local ecology by making use of natural, organic processes (such as composting). The natural resource management techniques initiate a positive regenerative cycle, so that increased yields are maintained long-term.

Farm systems which are designed and managed according to agroecological principles encourage:

- Productivity: more food grown, often from small farm plots which were often previously regarded as unproductive
- Diversity: mixed cropping, intercropping, agroforestry and livestock integration
- Resilience: families have enough food reserves or financial resources to be able to survive emergencies, including droughts and floods, without going hungry
- Efficiency

The Ripple Effect results

94% of farmers planted new varieties of vegetables and fruit tree seedlings in Ethiopia, and 92% implemented at least five new technologies on their smallholding (over a 3-year project to 2021)

Families classified as fully food secure increased to 69% (from zero) in Uganda, and families experiencing fewer than two “hunger months” in a year increased from 34% to 93% (over a 3-year project to 2021)

Families eating at least 6 different food types increased to 87% (from zero) in Kenya (over a 3-year project to 2021)

Sales of surplus produce increased from 192kg to 2,611kg in Kenya (over a 3-year project to 2021)
Using the skills of the whole family

In many of the rural communities where we work, indigenous farming skills have been undervalued, lost, or don’t provide an effective response to new challenges. We train families in how to maximise what they can grow by:

- Improving soil fertility
- Planting at the right time
- Reducing the burden of weeds

The evidence also shows that family farms are much more productive if men and women share decision-making, and the burden of work is shared. What resources we provide, and how they’re shared, our focus is on skills and training. We only provide the actual inputs (locally-appropriate seed varieties, and livestock) if and where they’re necessary to achieve impact.

Farmers commit to “passing on the gift” by sharing seeds they produce, or by giving away the first female young of any livestock they were given. This enables even the poorest people in a village to express their generosity.

What we do and don’t advocate

Our principles are based on the needs of the land, the local environment and the local people. In providing training and education, we help to create choices; it’s not for us to tell local farmers what they should or shouldn’t be doing.

But based on the evidence, this is what we do and don’t support:

**Fertilisers, herbicides and pesticides**

- **Organic compost** produced on the farm
- **Traditional hand-weeding,** which makes use of the family labour available on small farms
- **“Push-pull” companion-planting** on cereal crops, to control weeds and insect pests.
- **Chemical ‘inputs’** which are costly and environmentally damaging

**Supply chains**

- Enabling small farmers to feed their families and serve **local food markets**
- Helping small farmers to access long supply chains sending food to **supermarkets in high-income countries**

**Seed choices**

- **Open-pollinated seed varieties** which can be saved from one season to the next, and shared. In particular, “heirloom” open-pollinated seeds are time-tested for resilience and well-suited to local conditions.

- **Hybrids** can produce better yields, and crops that propagate from suckers (“plantlings”) can reproduce hybridised traits successfully. Farmers we work with are reproducing suckers of disease-resistant hybrids of banana trees that have been developed in Kenya. Farmers may be able to save their own seeds, however, they won’t reproduce the same desired traits year after year, so farmers are still committed to re-purchasing from seed companies.

- **GM seeds:** it’s often argued that genetically modified “superfoods” are needed to feed the world, but;
  - There’s strong evidence that GM crops do not increase long-term yields
  - Patented GM seeds are more expensive, and engineered so that farmers cannot propagate their own – committing them to additional costs year after year
  - Crops that are modified to withstand herbicide spraying have been shown to increase the use of environment-damaging herbicides, and encourage herbicide-resistant weeds
Experiences of GM in Africa

- In Ethiopia, genetically modified Bt Cotton trialled from 2018 proved to be no more productive than organically produced cotton.

- In Burkina Faso, farmers found that the high cost of patented Bt Cotton seed, and of its companion herbicide, compelled them to ask higher prices for the GM cotton they produced – which buyers were unwilling to pay. The Burkina Faso government subsequently suspended the approval for Bt Cotton.

- In South Africa, when genetically modified Bt Maize was introduced in 1997 a previously unseen maize disease developed on both Bt Maize and local maize crops. The South African government subsequently withdrew permission for the growing of Bt Maize.

Caroline’s farm

Caroline lives in Alupe in western Kenya. When she first moved here she found her husband’s land was covered with bushes: “I thought nothing can grow here. We used to go hungry for a long time. Ripple Effect trained me on how to prepare my farm and plant crops such as bananas which we can sell and eat. I sell seedlings as well as fruit. “I have had training on animal housing and making compost - I save money instead of buying fertiliser, and it does not have chemicals. My keyhole garden uses a small amount of water; it retains the water and it’s easy to do mulching. “I practise intercropping by planting vegetables in the bananas, and sweet potato in the Napier grass. I also practise crop rotation to improve soil fertility. “What you learn and practise sticks in you. The changes in me have made my neighbours ask about the technologies I use, and that’s how I started training them.”