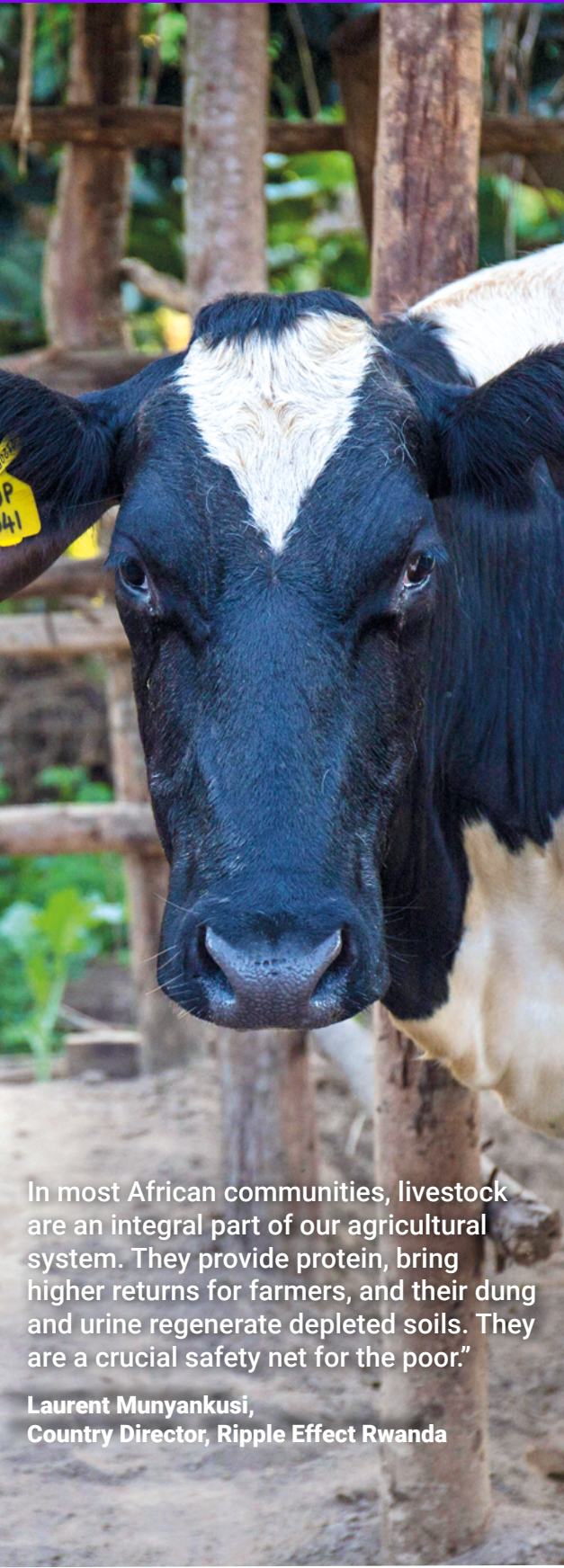


Ripple Effect's position on livestock in sustainable farming



In most African communities, livestock are an integral part of our agricultural system. They provide protein, bring higher returns for farmers, and their dung and urine regenerate depleted soils. They are a crucial safety net for the poor.”

Laurent Munyankusi,
Country Director, Ripple Effect Rwanda

United Nations Sustainable Development Goal 2

“End hunger, achieve food security and improved nutrition and promote sustainable agriculture.”



Our approach: integrated farming systems which produce enough good-quality food for African families.

Our experience, validated by independent consultants, shows that the right farm animals, well-chosen and well cared-for, can be an environmentally sustainable solution to providing the vital nourishment that rural families in Africa need.

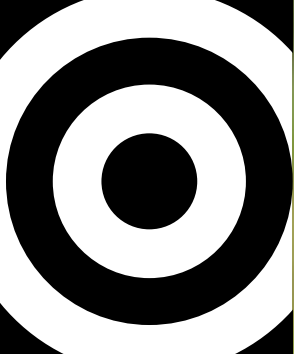
In this we're following the approach recommended by the UN's Intergovernmental Panel on Climate Change (IPCC), which is supported by the UK government.¹

Dietary needs vary widely according to age and lifestyle, within countries and across the globe. Pregnant and lactating mothers, and young children, are especially in need of quality nutrition.

In 2018, malnutrition was causing 24 million children in East Africa to be suffering from stunted growth by the age of 5.²

In many high-income countries, concerns about animal welfare and the environmental impact of livestock farming are driving a growth in demand for plant-based foods. (Most people in wealthy countries eat much more protein than they need: over a third more than the average daily requirement.³)

But access to varied, plant-based diets that can supply that high-quality nutrition is a luxury not available to most rural communities in Africa.



Family nutrition

- Most people in Africa eat less than a quarter of the amount of livestock protein consumed by people in the Americas, Europe and Oceania.⁴
- Livestock-derived foods are among the richest and most efficient sources of high-quality protein, essential fatty acids and micronutrients (including zinc, iron, calcium and vitamins A and B12).
- Children whose diets are supplemented with dairy products grow 0.4cm taller each year for each cup of milk they drink a day.⁵
- One egg a day for six months for an undernourished infant almost halves the restriction of their growth.⁶
- For people living with HIV/AIDS, good nutrition from livestock sources has been shown to delay progression from HIV to AIDS and related diseases.⁷

Environmental impact

On a global scale, the greenhouse gas emissions attributed to ruminant livestock are a significant contributor to the climate crisis.

But one or two cows raised on a small farm in a village in Africa have a very different climate impact.

A well-managed smallholding (typically less than 5ha) can entirely offset the environmental impact of all the livestock raised on the farm, and transform land care and productivity.

Good management includes:

- Improved livestock health and welfare so that each animal is more productive
- Growing fodder organically on the farm
- Collecting animal manure and urine to add nitrogen and cellulose-digesting bacteria to compost
- Planting leguminous trees and shrubs as part of the feed mix, which also capture greenhouse gases and stabilise soil
- Planting fodder grass and legumes around the border of maize plots as part of an organic [“push-pull” pest control system](#)
- Using farm manure to produce biogas for sustainable cooking fuel

When cows, or smaller farm animals, are integrated into sustainable small farm systems they are also very valuable in other ways:

- For farmers working in the harsher growing environments of Africa, manure from livestock can be almost as prized as the milk, eggs and meat they produce.
- Effective composting with manure from well-managed farm animals can be crucial in building soil fertility, and helping it to retain moisture.
- Animal fodder can be grown on land that's unsuitable for field crops, fruit or vegetables, or can be intercropped with them – maximising the food productivity of a small farm.
- Working animals such as oxen and donkeys can improve productivity, reduce the drudgery of farm labour in a low-impact way, and also provide transport to local markets.
- The sale of extra produce builds families' financial resilience and gives them an essential income buffer against poor harvests.



Which animals do we support in our projects?

At the beginning of our projects we work with the people in a community, any established groups, and local officials, to understand their immediate challenges, their plans and resources.

We find out what's working, and where the gaps are. A community might benefit from improved management of animals they already own. Sometimes we identify that the addition of a cow (but more often smaller farm animals) could strengthen sustainability when they're integrated into a well-planned family farm.

- Our emphasis is on animals that can provide food for families, and income from selling excess produce

- We will usually advise families on purchasing their own animals, and they will be sourced locally

- We encourage small ruminants, and chickens. Goats can often be more easily managed on a small farm plot than a cow

- We do offer support for working animals such as donkeys, which can increase a family's earnings by transporting fruit and vegetables to market, and also produce valuable manure. We provide training in their care, including harnessing and loading.



Passing on the gift

All the farmers involved in our projects commit to sharing their produce with other families. In the case of a cow that would be the first-born female calf, or more commonly kids, chicks, or seeds.

“Pass-on” ensures that that not only the first families involved in a project group benefit, but the growing wealth is shared around a village. And the ability to become a donor can be an extremely powerful expression of a farmer’s new status within their community.

Empowering women through livestock management

Cows also have an important cultural significance in many parts of Africa.

In some communities, cows are seen as “men’s business” and smaller livestock as “women’s business.” We have been challenging these ideas since the earliest days of our work. This is an issue of equity, and also of effectiveness: the FAO estimates that yields could increase by almost a third if women farmers are given the same access to resources as men.¹⁰

Women are the primary participants in our training, and when cows are part of one of our projects, we ensure that women own them, gain the skills in caring for them, and benefit from the sale of their produce.

Livestock as financial security

In remote rural areas, where there is no access to banks, cows and other livestock are tangible assets. Farmers “invest” in animals which they work hard to keep healthy and productive.

Smaller farm animals such as goats and chickens can be an important way for women, in particular, to manage their savings – by selling excess produce, and buying additional stock when they can, to build their income.

The training and support we provide

Before any animals are placed in a community, we ensure that the farmers we’re working with have the knowledge and skills for best-practice animal management. That includes training in:

- How to build the right kinds of shelter and enclosures for their animals
- Animal management and health
- Growing animal fodder, and feeding
- Disease control
- Animal reproduction, and improving breeding

In some projects we support artificial insemination programmes to improve breeding for resilience and productivity. Prior to starting a project, farmers sign a contract with their self-help group, committing to the welfare of their livestock. Sustainable Livestock Management committees monitor animal welfare, and will intervene if necessary.





“As a livestock veterinarian with a special interest in One Health and sustainability, it is crucial for me that our programmes deliver measurable impact on the wellbeing of livestock, the environment and the community.

Our training enables smallholder farmers to understand why exemplary management of one or two farm animals is better than poor management of more.”

– Simon Doherty, Trustee, Ripple Effect

The welfare standards we're committed to

The highest standards of animal welfare are central to our work. We encourage farmers to keep fewer animals, better. Milk production can be doubled with good animal husbandry, and well cared-for, healthy animals also produce more valuable manure that farmers can use to build soil health.

- We follow the internationally-recognised [One Welfare](#) and One Health¹¹ approaches, based on the interconnection between the health of people, animals, plants and the environment.
- Our programme designs are informed by the Five Welfare Needs and “a life worth living”.¹²
- Our training incorporates CowSignals®¹³ and other farm ecology work, as well as the detailed welfare training we have developed ourselves.
- Our extension workers provide frontline veterinary support.
- Our projects build on partnerships with government departments, NGOs such as The Donkey Sanctuary and Brooke, and technical support from veterinary partners.

In Ripple Effect's Kakrao Sustainable Livelihoods programme, which involved 600 families in Western Kenya, we set up disease control centres in conjunction with the Kenyan Ministry of Agriculture and Livestock. The result was a substantial increase in healthy poultry rearing, from an average of 10 chickens per household to more than 25 per household over three years.



Edith's chickens, goats and cow

Edith is a widow who lives in Eastern Uganda and has raised her eight children alone since her husband died.

“This cow gives me everything I need,” she says. The milk has improved her children's diet and also helped her save more than £160. The sale of a bull calf raised another £140, plus she earns interest on her savings.

“Learning to save has made a huge difference to my life,” she says, and she has built a new brick house with an iron roof.

Raising chickens means she always has eggs for when a child is hungry, “and if we need to pay for school fees, medical care or materials, I can sell a chicken easily.” She has now expanded into keeping goats, which she says are easy to manage.

She uses cow dung to fertilise her land and now grows beans, maize, ground nuts, soya beans, vegetables and bananas. “I have learned to be such a good farmer – both crops and animals. If you look at my land you would think it was always raining.”



We support safely enclosed livestock

Farmers growing multiple crops on small plots aren't able to support grazing or foraging livestock, which would destroy not only their crops but surrounding vegetation that's vitally important for soil stability and environmental health. Grazing animals are also vulnerable to diseases carried by pests such as ticks and tsetse fly.

Our best practice is for animals to be stall-fed, with spacious exercise yards, shelter, and "cut-and-carry" fodder supplied from the farmer's land.

This is in line with East Africa Organic Standards¹⁴, which recognise that well-managed stall-feeding may be the most appropriate system for many smallholders.

The benefits of stall-feeding are:

- Fodder can be grown as part of water conservation measures (such as along the banks of contour bunds created to reduce water run-off)
- Animals are protected from insects spreading disease, and also from eating noxious weeds, and parasites
- Manure and urine can be efficiently collected for composting
- Grazing damage to communal land is eliminated
- A child who would have to guard grazing animals can go to school



Read our other position statements:

Agriculture

Climate

Ripple Effect is the trading name of Send a Cow. It is a charity registered in England and Wales (299717) and Scotland (SC049792) which is a company limited by guarantee (02290024). Registered office is at The Old Estate Yard, Newton St Loe, Bath, BA2 9BR.

- [1 IPCC Report – Key points and questions - gov.uk](#)
- [2 jme-2019-key-findings.pdf \(who.int\)](#)
- [3 People Are Eating More Protein than They Need—Especially in Wealthy Regions | World Resources Institute \(wri.org\)](#)
- [4 http://www.fao.org/news/story/en/item/116937/](#)
- [5 Dairy products and physical stature: a systematic review and meta-analysis of controlled trials - PubMed \(nih.gov\)](#)
- [6 Animal source foods for the alleviation of double burden of malnutrition in countries undergoing nutrition transition | Animal Frontiers | Oxford Academic](#)
- [7 22357.pdf \(intechopen.com\)](#)
- [8 https://www.researchgate.net](#)
- [9 https://www.researchgate.net](#)
- [10 FAO - News Article: Women hold the key to building a world free from hunger and poverty](#)
- [11 One Health Basics | One Health | CDC](#)
- [12 Updating Animal Welfare Thinking: Moving beyond the "Five Freedoms" towards "A Life Worth Living" Mellor, D.J.: Animals 2016, 6, 21; doi:10.3390/ani6030021](#)
- [13 About us | CowSignals@](#)
- [14 One Stop Organic Shop East Africa East Africa Organic Standards \(kilimohai.org\)](#)