CASE STUDY

Integrating agroecology practices into programmes to strengthen their impact: lessons learnt from 2 local NGOs in the Sahel

Integrating **agroecology practices** into programmes to strengthen their impact

Most local and national NGOs in Africa contribute very little to the humanitarian sector's carbon emissions – let alone to global emissions, yet they remain strongly committed to advancing climate and environmental actions.

This case study illustrates how **two medical NGOs** (*SOS Médecins Burkina Faso* and Bien Être de la femme et de l'Enfant au Niger - *BEFEN*) have integrated **agroecological practices into their day-to-day activities,** thereby strengthening the scope and impact of their actions. In Burkina Faso, the NGO SOS Médecins has set up a vegetable garden in a prison where it provides medical assistance to inmates. In Niger, the medical NGO BEFEN has launched a project to plant trees in the health centres where it operates and to establish vegetable gardens in surrounding communities.

RESULTS

100 endemic and resilient trees planted around seven health facilities in Niger.

Soils protected against erosion and desertification + nearly **600 vegetable gardens and moringa fields planted** (one for each community group, representing a total of around 3,000 women) in Niger.

Improved **well-being** for hundreds of beneficiaries who visit health centres daily.

A **one-hectare ecological vegetable garden** created within a detention centre for 40 minors in Burkina Faso producing on average 4.5 tonnes of vegetables and fruits per year.

Increased agricultural production leading to greater food diversity.

Beneficiaries acquired **agroecology skills,** strengthening their **economic prospects.**

SUCCESS CONDITIONS

- **Organisational adaptability and flexibility**

Both organisations successfully adapted their programmes, going beyond their initial mandate as medical NGOs to expand their activities in response to beneficiaries' needs and local realities.

- **Ensuring the sustainability of the project**

Protecting plants and trees from grazing animals and clearly defining who is responsible for their maintenance and how often, are essential to ensuring the long-term sustainability of such activities. These aspects are crucial at the outset of a project, when plants require regular watering and special care, but remain equally important in the medium and long term. Encouraging community engagement is also key to fostering collective ownership of the plants, gardens, and plots.

- **Community mobilisation**

The active participation of beneficiaries from the identification of needs to the implementation of the activities was central to the success of both projects.

- **Collaborations beyond the humanitarian sector**

Given their local anchorage, these two NGOs were able to develop technical partnerships with local environmental experts with whom they co-created sustainable solutions. For instance, these collaborations led to the use of local species and techniques that are resistant to climate and water stresses, thereby ensuring the sustainability of the actions carried out.

WHY THIS CASE STUDY?

The Climate Action Accelerator wanted to highlight these two pilot projects to illustrate how humanitarian actors can contribute to climate adaptation efforts through simple, and low-cost measures that are accessible to all. Close to the concerns and realities of populations affected by climate change, local actors are often able to demonstrate agility and innovation by integrating climate actions into their current programmes, strengthening as such, their action and its impact.

The commitment of these two NGOs is reflected in the adoption of a sustainable, resilient, low-carbon development model and an ambition to contribute to global efforts.

In addition to having conducted carbon footprint assessments aimed at identifying 'hot spots' to reduce emissions, BEFEN and SOS MBF have sought to directly respond to the concrete threats posed by climate change in their areas of intervention.

WHAT ARE THE BENEFITS OF AGROECOLOGY?

Agroecology is a **holistic approach to agriculture and agroforestry** that applies principles respectful of the environment. It promotes crop diversification, the use of organic inputs, and resource optimisation. By improving soil quality and by protecting biodiversity, agroecology contributes to a **resilient and equitable agriculture** that is adapted to environmental challenges, thus playing a key role in the ecological transition and decarbonisation of food systems.

In the Sahel region, which is increasingly facing challenges such as desertification, more frequent heat waves, and food insecurity, agroecology offers numerous benefits, including soil preservation, erosion control, and the efficient use of natural resources.

WHAT IS THE PROBLEM?

Environmental degradation and the consequences of climate change

In the Sahel region, local organisations operate in contexts where environmental degradation and climate change directly impact the health, food security, as well as the well-being of local communities. Heat waves, droughts, floods, soil degradation, etc. are factors that weaken ecosystems and threaten the health and resilience of populations.

For local actors, these issues create complex operational challenges but also a strong determination to respond to them.

WHAT ARE THE SOLUTIONS?

Integrate agroecology into organisations' regular programmes to strengthen their impact

As they are often the only humanitarian actor providing assistance in their area of intervention, actors such as BEFEN Niger and SOS MBF have chosen to go beyond their medical mandate by gradually adapting their programmes to address the challenges posed by climate change. By doing so, these NGOs have at the same time strengthened the relevance and sustainability of their work.

Photo 1 - SOS Médecins Burkina Faso

SOS Médecins Burkina Faso (SOS MBF) : An agroecological vegetable garden for a rehabilitation centre

By providing medical assistance to detainees in a rehabilitation centre, the NGO SOS MBF was able to identify that patients both lacked nutritional diets and professional prospects. To address this dual challenge, the NGO developed a project aimed at creating an agroecological garden within the facility, which would help increase both the availability and variety of food provided to minors (thereby having a direct impact on their health) and develop their professional skills by training them in agroecological practices. Training inmates and prison staff in agroecology was a key step of the project.

The training was both practical and theoretical and focused on several topics:

- **Agricultural entrepreneurship:** understanding the different phases from production, processing, to marketing.

- **Off-ground cultivation techniques:** using alternative substrates such as rice husks, coconut fibre, or gravel to grow plants using water saving techniques.
- **Manufacturing organic inputs:** Local production of natural fertilisers and pesticides.
- **Sustainable gardening systems:** Such as nurseries and transplanting.

The inmates then set up nurseries for several varieties of market garden crops (e.g., tomatoes, onions, cabbages, lettuces, corn, and peanuts), produced biofertilisers, prepared the plot, tended the seedlings, and transplanted them. Today, they maintain the plots on a daily basis using these environmentally friendly techniques (e.g., sustainable water management, maintenance using natural fertilisers).

Photo 2 – SOS Médecins Burkina Faso

By integrating agroecology into its humanitarian mission, SOS MBF is contributing to global climate adaptation efforts as well as creating sustainable solutions for marginalised populations. In the future, the NGO plans to invest in reforestation around the centre, using medicinal plants.

BEFEN Niger – Planting trees and shrubs around health centres

The NGO BEFEN is providing medical and nutritional assistance in several health facilities in the Niamey and Maradi regions, areas which are particularly arid and affected by the consequences of climate change. In response to patients and their families expressing a need for more shade, BEFEN decided to plant fruit trees and shrubs in and around the health centres and hospitals where it operates, as well as in nearby communities. In total, around 100 different types of endemic and resilient trees and shrubs were planted. The creation of these natural hedges brought numerous benefits:

> They **provided shade** for staff, patients, and their families in areas where temperatures regularly exceed 40°C. They also **helped reduce wind-induced soil erosion,** enrich the soil around the centres, and restore local biodiversity.

The maintenance of the trees was initially insufficient, particularly for the trees located outside the health centres which were subject to animal grazing. Due to a lack of proper identification of who was responsible for the maintenance, some of the trees did not survive. These important lessons learnt led BEFEN to better anticipate maintenance in its activities going forward.

BEFEN has also developed vegetable gardens and moringa fields in communities in the Maradi area. This helped **diversify the diet of beneficiaries and thus prevent malnutrition** in these communities, as well as contributed to provide an additional income for families. BEFEN's agroecological project is part of a broader environmental approach that the NGO has gradually developed alongside its medical and nutritional activities.

The organisation also **conducts community awareness-raising activities** on environmental protection and promotes waste management and composting, particularly the use of rumen content as an organic fertiliser to enrich the soil.

Low-cost solutions for climate change adaptation

The work of local and national African NGOs such as SOS MBF and BEFEN provides inspiring examples of organisations that make efficient use of their financial resources. These case studies show that climate adaptation solutions can involve the deployment of simple and low-cost measures. While these solutions depend mostly on the mobilisation of

beneficiaries, they require in fact **very little financial investment** (e.g., planting and maintaining a tree is estimated to cost a maximum of €30 in the Sahel; the estimated cost of the creation of the garden in Burkina Faso was €6,000).

Faced with difficulties in mobilising international funds, these organisations are propelled to **develop cost-effective actions to achieve their objectives.** These examples demonstrate the effectiveness of civil society actors in implementing relevant and sustainable actions with limited resources.

Projects co-developed with communities

Community engagement and participation have been key factors of success for both projects. Both the direct beneficiaries (incarcerated minors, health centre patients) and indirect beneficiaries (community centres and relais communautaires, families) actively participated in each stage of the project, from the identification of the needs to the implementation of the activities and maintaining plots, etc.

In ***Niger,*** BEFEN provided the seedlings and tools for planting and watering, while the local population and the technical services of the local authority provided labour, identified the sites, and ensured the protection of trees and hedges against stray animals. A monitoring and maintenance committee was also set up to ensure the long-term survival of the trees. In the Maradi area, the management of moringa fields and vegetable gardens is carried out directly by women's committees in the villages. In ***Burkina Faso,*** the active involvement of minors in the preparation and maintenance of plots means that ecological practices are now systematically used in the centre's garden.

This genuine participation, made possible by the strong linkages which these local organisations have developed with the populations they assist, has ensured the ownership of the actions by the communities and in turn their sustainability.

Photo 3 - Protecting planted trees from stray animals is essential

CONCLUSIONS

Agroecology and reforestation in Africa are essential levers in the fight against land degradation and climate change. These two projects illustrate how local health organisations can become **hubs of the ecological transition,** by implementing environmentally friendly measures while continuing to provide essential services to communities.

By leveraging agroecology and reforestation as practical, low-cost, and participatory interventions, SOS MBF and BEFEN demonstrate that local organisations can play an important role in promoting climate adaptation measures and in the **dissemination and scaling up of practices,** becoming as such key actors in the climate transition.

RESSOURCES

Climate Action Accelerator, 'Guide Des Acteurs Nationaux', Section Agroécologie et biodiversité, 2024, Available here.

Agroecology Europe, 'The 13 Principles of Agroecology', Available here (accessed 19 August 2025).

Sustainability Directory, 'How Can Agroecology Mitigate Climate Change?', 2025, Available here, (accessed 19 August 2025).

The Lancet Planet Earth 'Impact of tree-based interventions in addressing health and wellbeing outcomes in rural low-income and middle-income settings' 2025, Available here (accessed 10 October 2025).