AFSA

ALLIANCE FOR FOOD SOVEREIGNTY IN AFRICA

HEALTHY SOIL HEALTHY FOOD & AGROECOLOGY SUCCESS STORIES

Contents

Foreword

As the AFSA's team leader, deeply committed to the advancement of agroecology in Africa, it is my profound honor to present this publication, a comprehensive compilation of transformative agroecological initiatives across our diverse and vibrant continent, Africa.

The journey of agroecology in Africa is one marked by resilience, innovation, and the unwavering spirit of communities striving to secure their livelihoods in harmony with nature. This publication derived from stories told by practitioners stands as a testament to the remarkable strides made in the field of agroecology. It encapsulates the essence of our collective endeavor – to foster a sustainable, equitable, and prosperous agricultural future for Africa.

In these pages, you will find stories of hope and perseverance from Kenya to Cameroon, Uganda to Mauritania, each narrative echoing the underlying principles of agroecology. The initiatives detailed here are not just projects; they are the living, breathing embodiments of communities' aspirations and hard-fought battles against the challenges of soil degradation, climate change, and resource scarcity.

The adoption of bio-fertilizers, the empowerment of small-holder farmers, and the revitalization of lands through agroecological methods shine as beacons of what can be achieved. These stories underscore the indomitable resolve of African farmers and the transformative power of collaborative, knowledge-based approaches to agriculture.

Yet, this book also lays bare the challenges that lie ahead. It underscores the urgency for continued research, policy support, and funding, particularly in arid and semi-arid regions. It calls for a collective awakening to the necessity of scaling these practices, ensuring their longevity, and integrating them within the larger framework of national and regional agricultural policies.

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As we turn these pages, let us be inspired by the lessons they offer and the paths they illuminate. This book is not just a compilation of success stories; it is a roadmap for the future, a call to action for all stakeholders in African agriculture to join hands in nurturing the seeds of sustainable growth.

I extend my heartfelt gratitude to the contributors, researchers, and farmers whose experiences and insights have shaped this narrative. Their dedication and commitment light the way forward in our ongoing journey towards a sustainable and resilient agricultural future for Africa.

Million Belay Ali (PhD)
General Coordinator, AFSA

Introduction

Agriculture is a vital sector in Africa, fundamental to the livelihoods of most of the population. However, it is confronted with significant challenges, including soil degradation, climate change, and insufficient rainfall, posing risks to food security and livelihoods. In response, the adoption of sustainable farming practices and bio-fertilizers has emerged as a promising solution to these pressing issues.

Across Africa, numerous initiatives are actively promoting sustainable agriculture and the utilization of bio-fertilizers. Countries like Kenya, Uganda, Togo, Zambia, Ethiopia, Niger, Cameroon, Mauritania, and Benin are at the forefront of this movement. These projects involve training farmers in agroecological methods, encouraging the use of organic fertilizers, and fostering collaborations with governments and various organizations. For example, the Service d'Appui Aux Initiatives Locales de Développement (SAILD) project in Cameroon's Extreme North region is tackling challenges such as land degradation and inadequate rainfall, while also navigating the threat posed by Boko Haram. This initiative has been transformative for over 5,000 families. In Kenya, small-holder farmers are successfully converting non-arable lands into productive farms through sustainable practices.

Despite these successes, there are still significant hurdles to overcome. Challenges include time constraints, funding shortages, and the necessity for policy reforms to bolster sustainable farming practices. Notably, research and funding focused on sustainable agriculture in arid and semi-arid lands are inadequate. There is a crucial need for more in-depth research to comprehend the potential of sustainable farming in challenging environments and to develop strategies to address these challenges. This publication aims to address this gap by analyzing the successes as reported by practitioners of sustainable farming initiatives across Africa and identifying effective strategies to surmount the existing challenges. This publication is pivotal in ensuring that sustainable agriculture continues to grow and adapt, providing a resilient and productive pathway for African agriculture in the face of environmental and socio-economic challenges.

Abstract

In the compiled success stories, we'll learn from several agroecological initiatives across Africa which are promoting sustainable farming practices and the use of bio-fertilizers to combat soil degradation and climate change. These initiatives involve training farmers in agroecology, promoting the use of organic fertilizers, and fostering partnerships with government and other organizations. Despite challenges such as time constraints, funding inadequacies, and the need for policy shifts, these agroecology-oriented projects have been successful in improving soil quality, increasing crop productivity, and fostering community unity.

This compilation documents projects that are addressing challenges such as land degradation, inadequate rainfall, and the threat of political insurgents, transforming the lives of thousands of families. These initiatives are also promoting agroecological practices and empowering small-scale farmers. The stories show that agroecological farms are challenging the notion of non-productive arid lands through agroecological and organic farming principles. In this compilation, we see that small-holder farmers are transforming non-arable lands into productive farms using agroecological practices such as planting trees with crops, soil testing, agroforestry, composting, animal rearing, soil coverage, crop rotation, and minimal tillage. However, research and funding for sustainable agriculture in arid and semi-arid lands are still lacking. Farmers have seen success with agroecological practices, leading to increased yields and improved livelihoods. These success stories highlight the potential of agroecology in challenging terrains and the need for more research and funding in these areas.

What do the stories say?
A meta-analysis of the 17 success stories.

The meta-analysis of 17 success stories from various African countries showcases a unified movement towards sustainable agriculture and food security via agroecological practices. These projects, rooted in countries like Kenya, Uganda, Zambia, Niger, Ethiopia, Togo, Cameroon, and Benin, adopt various approaches to achieve their goals.

A key strategy is the utilization of bio-fertilizers, particularly in Kenya, Uganda, and Zambia. Bio-fertilizers like bokashi are employed to rejuvenate soil health and

sustainably enhance crop yields. In Niger, Ethiopia, and Kenya, projects concentrate on revitalizing soil health through organic matter management, addressing land degradation, and implementing soil conservation techniques. The initiatives in Kenya and Uganda emphasize functional crop diversity, promoting biodiversity and fortifying food security.

Community engagement and training form the backbone of all these projects, focusing on equipping local farmers with agroecological skills. This aspect is pivotal in Togo, Cameroon, and Benin. Furthermore, there's a consistent effort to establish sustainable, resilient agricultural systems, particularly noted in Uganda's Mityana Municipality and Cameroon's Sahel Region, designed to withstand environmental and economic challenges.

The outcomes of these approaches have been substantial. The widespread adoption of bio-fertilizers and organic farming methods has resulted in improved crop yields and soil health. These projects have also yielded economic benefits, such as cost savings from reduced reliance on chemical fertilizers and new income streams from agroecological products. Increased biodiversity and crop yields have notably enhanced food security, especially in regions grappling with climatic and economic difficulties. Community empowerment is another significant impact, with training and involvement helping local farmers, including women and youth, to actively participate and lead in sustainable agriculture. Additionally, these initiatives have contributed to environmental well-being through improved water retention, increased biodiversity, and reduced land degradation.

However, challenges persist, mainly in scaling and replicating these successful practices to larger areas and different contexts. Many initiatives highlight the need for supportive policies and governmental backing to foster broader adoption of agroecological practices. Ensuring the long-term sustainability of these projects is also crucial, necessitating continuous community engagement and resource allocation.

In conclusion, these agroecological projects underscore the immense potential of sustainable agricultural practices in enhancing food security, improving soil health, and empowering communities. The success stories from these African countries serve as inspiring models for adopting agroecology globally, underscoring the need for continued investment, research, and policy support in this crucial field.

Bio-fertilizers tackling climate change in Kiambu, Kenya

STORY BY:
Esther Bett, Resources Oriented Development Initiatives (RODI Kenya)
estherbett@yahoo.com, +254724177670

Makdalin showing Esther Bett how her avocado crop is doing very well after application of bokashi, super magro and ash brew.

In Kiambu County, Kenya, a promising venture is unfolding that seeks to rejuvenate soil fertility and champion the fight against climate change. Initiated in 2021 by Resources Oriented Development Initiatives (RODI Kenya), the initiative spearheads the introduction of bio-fertilizers into the agricultural practices of the local farming communities of Mangu, Gatundu, and Matara. This transformative journey, overseen by Esther Bett, encompasses a cohort of 137 members, predominantly small-scale farmers, who are avidly adopting these agroecology farming techniques.

Previously, the region witnessed an alarming degradation of soil quality, primarily due to overexploitation and the rampant use of chemical fertilizers and toxic pesticides. This dire scenario culminated in decreased crop yields, thus exacerbating food insecurity issues prevalent in the community. These challenges beckoned a change, a shift in perspective and approach towards agroecology. Consequently, the development partners introduced the concept of bio-fertilizers to organizations working in Kenya, inspiring RODI Kenya to establish a bio-fertilizer production site within their centre.

This initiative was amplified with the support from the Alliance for Food Sovereignty in Africa (AFSA), which enabled the training of 22 community agroecology volunteers (CAVs) in the nuanced understanding of climate change and the crafting and utilization of bio-fertilizers. This novel approach not only aimed to replenish the impoverished soils but also sought to enhance the understanding of climate change impacts on current food production systems.

Undertaking a multi-faceted approach, the project orchestrated a series of activities, which included the training and mobilization of CAVs from various community groups, focused on the principles of agroecology and the formulation of bio-fertilizers. Furthermore, they engaged in community group training, testing, and certification of bio-fertilizers, and explored marketing avenues for these agroecological products. These concerted efforts have culminated in encouraging developments, such as a marked increase in soil water retention capacity, improved crop yields, and a notable shift in the community's trust towards bio-fertilizers as a viable alternative to chemical toxic inputs.

As a testament to the project's success, tangible changes are palpable in the region. Farmers report increased crop health and productivity, improved nutritional value of the harvested produce, and a resurgence of beneficial insects and birds in the farms where bio-fertilizers have been implemented. Moreover, this endeavour has fostered community

This novel approach not only aimed to replenish the impoverished soils but also sought to enhance the understanding of climate change impacts on current food production systems.

Makdalin showing Esther Bett how her avocado crop is doing very well after application of bokashi, super magro and ash brew.

unity, with farmer groups collaborating to manufacture bio-fertilizers, thus reducing costs, and fostering a sense of camaraderie and skill-sharing amongst the members.

Despite its palpable impact, the journey has not been without its challenges. The project grappled with time constraints and funding inadequacies, which were somewhat mitigated through the substantial support from RODI Kenya. Additionally, the need for enhanced documentation skills among CAVs and more extensive community mobilization were identified as areas for future improvement.

Nonetheless, the voices of the participants echo the project's success vividly. Mr. Musheru, a beneficiary, shares, "I used to buy three bags of chemical fertilizer to plant my arrowroot per season... I learned to make bokashi- a biofertilizer from RODI Kenya and used it on my arrowroots... I am happy I trained as a CAV in RODI Kenya. I also make and sell Bokashi for income... I sold 500 kg to other farmers."

Echoing this sentiment, another participant, Makdalin notes, "I grow maize and avocado. In the last season, I used bokashi to grow my maize and top-dressed it... The skills I learned have helped me make my own fertilizers, and now I have saved money... Thank you to RODI Kenya, we now have safe and healthy food."

RODI calls upon the educational system and training institutions to craft a curriculum that promotes and facilitates the practice of agroecology.

In reflection, RODI underscores the urgent need for Kenya and the African continent at large to adopt agroecology as a pivotal strategy in fostering healthy soils and safe food production. RODI calls upon the educational system and training institutions to craft a curriculum that promotes and facilitates the practice of agroecology.

As this groundbreaking initiative enters its final phase, the overarching sentiment remains clear: Agroecology is the linchpin for securing Africa's food future, nurturing healthy communities, and fostering environmental harmony. The voyage embarked upon by RODI Kenya serves not just as a beacon of hope but as a prototype for agroecology practices that can steer the continent towards a prosperous, resilient future.

Makdalin showing Esther Bett how her avocado crop is doing very well after application of bokashi, super magro and ash brew.

Field learning session on biofertilizers

Reviving dead soils: A hidden treasure for healthy food in Kenya

STORY BY:
Ferdinand W Wafula, Bio Gardening Innovations, BIOGI, Kenya
fwwafula@gmail.com +254711270905

Vihiga and Kakamega, Kenya – In the heart of Western Kenya, the traditional delicacies of the Luhya, a dominant Bantu-speaking group, were once at risk. The widespread use of toxic chemical pesticides threatened their signature dishes and indigenous vegetables. But a local initiative is turning things around, harnessing the power of bio-fertilizers and functional crop diversity to revive the land's natural balance.

The Luhya community, with its 18 dialects and shared greeting of *"mulembe"* (peace be with you), primarily relies on mixed farming. Their diet predominantly includes dishes like *omurere* (Jute mallow), *ugali* (maize meal), *obusuma*, *musonye* (mashed sweet

The widespread use of toxic chemical pesticides threatened their signature dishes and indigenous vegetables.

potatoes and bananas), among others. However, modern monoculture practices and the use of toxic industrial chemical inputs were degrading the soil, diminishing crop yields, and eradicating wild harvests.

Local non-government organization (NGO), Bio Gardening Innovations (BIOGI), intervened with a mission: to rejuvenate the land using eco-friendly strategies. Through training sessions and practical demonstrations, they introduced the farmers to soil amendments like bokashi, a popular bio-fertilizer. Made from fermented dry animal manures, ashes, and charcoal dust, this bio-fertilizer invigorates the soil with beneficial fungi, ensuring healthy crops.

Collaborative online trainings with AFSA and the Andhra Pradesh Community Managed Natural Farming (APCMNF) further equipped the farmers with new recipes like solid bio-stimulants. Made from cow dung, pulse flour, and animal urine, these organic inputs became a game-changer for the local farming community.

The results have been transformative. Gardens are once again teeming with edible mushrooms, leafy vegetables, bees, and butterflies. Old recipes, previously lost to the annals of time, are being rediscovered and shared among the generations. Moreover, with the application of bio stimulants, crop yields have doubled or even tripled on some farms.

Miria Ehifindi with multiple crops

Local farmer, Lydia, enthusiastically shares, "I want my farm to be a model learning and experimental area, so I can reach out to my neighbours with more information on diverse food systems." Another participant, Wyclife Lumumba, admits, "I used to think only synthetic fertilizers were responsible for good produce, now I know the difference organic inputs make in revitalizing the soil and benefiting human health."

However, challenges persist. The national emphasis on subsidized synthetic fertilizers threatens the wider adoption of these ecological alternatives. Advocacy for policy shifts is crucial to shift the narrative and promote the immense benefits of organic farming. BIOGI is actively involved in the Vihiga county agroecology policy-making platform, leveraging the results from this initiative to advocate for bio-fertilizers as a more sustainable and efficient solution for soil rejuvenation.

As the project continues, the hope is that more regions will recognize the hidden treasure in reviving dead soils and choose a path that not only benefits the environment but also ensures healthy, nutritious food for all.

A Revolutionary Farming Blueprint: "Plant Every Day to Harvest Every Day"

With objectives firmly rooted in creating a self-sufficient, high-yield farming ecosystem requiring minimal labour, the intervention adopted an innovative approach.

STORY BY:
Nyanzi Samuel, Samuel2005nyanzi@yahoo.com +256772469003
Rural Community in Development (RUCID), Uganda

In the verdant terrains of Kigogozi cell, Kireku parish, nestled within the Busimbi Division of Mityana Municipality in Uganda, a ground-breaking agricultural initiative is flourishing, piloted by the visionary team at the Rural Community in Development (RUCID). This radical agroecological project, which commenced in 2019, is fostering a seismic shift in the domain of sustainable farming, embodying the transformative principle of "Plant every day to harvest every day."

The inception of this project stemmed from a deep-rooted desire to unravel the enigmas surrounding agroecology. RUCID embarked on this journey with pertinent questions reverberating: Can agroecology empower small-scale farmers with consistent food and revenue streams? What is the true potential for productivity in an agroecological setting?

With an unyielding spirit of inquiry, the team initiated an experimental farm unit on a 12 by 35-meter piece of land that once served as an access road. This barren area, marred by compact sub stony soil, transformed dramatically within a year, burgeoning into a lush green oasis teeming with diverse plant life.

With objectives firmly rooted in creating a self-sufficient, high-yield farming ecosystem requiring minimal labour, the intervention adopted an innovative approach. Utilizing organic waste as a fertile medium for plant establishment, a rich tapestry of crops blossomed spontaneously, creating a vibrant mosaic of flora that found uses as food, fodder, medicine, or cash crops.

A kaleidoscope of new crops, including bananas, yams, kale, and green pepper, were introduced, infusing the area with rich nutritional diversity. The revolutionary 365-days green cover method has played a pivotal role in nurturing a self-regulating environment, obviating the need for artificial fertilizers and pest control.

The outcomes of this pioneering initiative have been nothing short of remarkable. Daily harvests from the farm have ushered in increased productivity, fostering a balanced diet sourced

The photo above is from when the area was just demarked for agroecology while the photo below is now.

directly from the farm's diverse yield. A restored soil fertility, coupled with the creation of a self-regulating ecosystem, has significantly reduced labour and input requirements.

This thriving agroecological unit has become a living testament to the success of the initiative, exemplifying increased productivity per unit area and fostering a symbiotic relationship between humans and nature. As one observer noted, "The kales in this agroecological farm unit look healthy with no pests or disease signs; it is a source of healthy food."

As RUCID's agroecological project steers into the future, it stands as a beacon of inspiration and a model for sustainable farming practices. To replicate this success, it is imperative that aspiring agroecologists understand and adopt the 365-day green cover principle, a concept that promises to revolutionize farming systems globally.

RUCID is advocating for policies encouraging the establishment of agroecological pockets on every parcel of land, fostering crop and animal diversity, food, and nutrition security, and demonstrating increased productivity while minimizing labour and input requirements.

This innovative farming blueprint, spearheaded

by RUCID, is not just confined to paper but thrives as a living case study at the RUCID centre. What began as a small demonstration has now blossomed into a vital training tool, gradually expanding its influence to encompass the entire RUCID farm and neighbouring farms. This case study serves as a beacon of inspiration, showcasing the transformative power of sustainable agriculture in nurturing healthy soil, healthy food, and ultimately, a healthy populace.

Agroecology Farmers More Resilient in the Face of The Rising Prices of Agricultural Inputs

Ayissou Marie happy in her cowpea field at the fruit set stage, combined with maize

STORY BY:
Gadah Kokou Nenonéné Jérémie, Jérémiegadah@gmail.com +228 99170032
Nénonéné Farmers' Academy, Togo

In response to the skyrocketing prices of agricultural inputs, a project spearheaded by the Académie paysanne Nénonéné (Nénonéné Farmers' Academy) has been making significant strides in Togo, helping farmers become more resilient and sustaining a healthy food production cycle.

Amidst the verdant stretches of Kévé, Togo, a example of optimism arises for struggling farmers grappling with the steep prices of agricultural inputs. In November 2022, Gadah Kokou Jérémie, a visionary from the Nénonéné Farmers' Academy, embarked on a transformative journey to equip 100 conventional farmers across five villages with the knowledge and skills necessary to adapt to the escalating costs, especially the dramatic rise in fertilizer prices which now stands at 18,000 FCFA per bag, a 33 per cent (6,000 FCFA) increase from the previous rates.

Aiming to foster a culture of self-sufficiency and promote healthier food production, Jérémie and his team undertook a series of three-day workshops where farmers were introduced to a spectrum of agroecological practices. The initiative centred around organic solutions such as the production of bokashi, super magro, and ash broth, along with techniques like mulching and composting.

Kpondjo Antoine, proud of his beautiful ears of maize produced using ecological inputs

The outcomes of this pioneering effort have been nothing short of revolutionary. Within a mere nine months, a staggering 90% of the participants have incorporated at least one of the agroecological practices taught into their farming routines. A considerable portion, predominantly women, have witnessed a notable increase in both yield and income over the same area of land. Moreover, they acclaim the enhanced quality and extended preservation of their harvests.

As Adjomé Akossiwa, a young woman participant, enthusiastically shares, "Thanks to mulching, compost, and the zaï technique, my white pepper fields have been exceptionally generous

The objective now is to empower the 100 trained farmers to impart their newfound knowledge to other farmers in their vicinity, thereby bolstering the community's resilience to the surging agricultural input costs.

Gnato Cosmas marvelled at the size and quantity of fruit in his orange grove after applying Bokashi

this year. From a bi-monthly harvest, I now reap a bountiful yield every week, allowing me to earn at least 10,000 FCFA weekly. It's truly a great pleasure."

Similarly, other participants like Gnato Cosmas, an older man, noticed substantial development in his orange and corn crops with the application of bokashi. "As the harvest season approaches, I am confident of a grand yield. My household is set to enjoy quality corn reminiscent of the kind from my grandparents' time," he said, mirroring the sentiment of rejuvenation that the project has instilled in the community.

The initiative does face challenges, chiefly in expanding the reach of the training to create a ripple effect in the locality. The objective now is to empower the 100 trained farmers to impart their newfound knowledge to other farmers in their vicinity, thereby bolstering the community's resilience to the surging agricultural input costs.

ADJOMÉ Akossiwa harvesting white chilli peppers in her field

At the heart of this transformation lies a unanimous call for a return to the roots of agroecology, as echoed by the African agricultural sphere. Recognizing the pressing need for sustainable solutions, Jérémie advocates for the education of state agricultural advisors, fostering a genuine support system that would usher producers towards a realm of healthy and sustainable agriculture in their nations.

This grassroots movement signals a hopeful future where farmers, equipped with the tools and knowledge to sustain themselves, can thrive despite the rising tide of challenges in the agricultural sector.

Francis Ngiri (trainer) and Mungai Gathingu demonstrating to farmers on the scouting of pests on the farm.

BIBA Kenya champions sustainable agriculture in Nakuru: A beacon of hope and resilience amidst challenges

STORY BY:
Anne Maina, anne.maina@bibakenya.org +254 722 386 263
Biodiversity and Biosafety Association of Kenya (BIBA Kenya)

Farmers preparing Ash brew at Mungai Farm for practical demostrations

> *The initiative had an ambitious agenda of sensitizing the populace to the detrimental effects of agrochemical usage and championing safer and more beneficial alternatives.*

In a groundbreaking initiative aimed at fostering agroecology and promoting soil health in Nakuru, Kenya, the Biodiversity and Biosafety Association of Kenya (BIBA Kenya) has spearheaded a remarkable project that underscores the need for adopting agroecology practices over conventional farming techniques.

The initiative, which originated in 2020, had an ambitious agenda of sensitizing the populace to the detrimental effects of agrochemical

usage and championing safer and more beneficial alternatives. Not only did it aim to spotlight the merits of agroecology, but it also worked towards propelling policy alterations that would facilitate this transition.

Farmer to farmer exchange and learning visits at Mungai's Farm

This multi-faceted project was structured in several phases. Initially, stalwarts from the farming community were handpicked to drive this transformative journey. These designated 'farmer champions' took the reins in organizing educational forums that illuminated the myriad benefits of nurturing soil health and adopting agroecology practices. In addition to this educational facet, a concerted effort was undertaken to scrutinize soil health meticulously and adopt agroecological interventions to amend identified deficiencies, hence rejuvenating the land.

As per the available documentation, outcomes have been nothing short of inspiring. Farmers who embraced agroecology witnessed a surge in productivity coupled with a substantial reduction in expenditure, thereby establishing the economic feasibility of this approach. Furthermore, improvements in soil fertility facilitated enhanced crop diversity and resilience, creating a cycle of positive impacts.

Central to this transformation were the empowered change agents and farmer groups who have become ardent practitioners of agroecological farming methodologies. Their experiences and testimonies stand as a testament to the initiative's success, which was catalyzed by a combination of factors including heightened consumer awareness towards safe food consumption and governmental endorsements encouraging secure food production methods. Moreover, collaborations with organizations such as Slow Food Kenya and the Seed Savers Network were vital cogs in this well-oiled machinery.

While the journey was punctuated with challenges including water scarcity and financial constraints, the project displayed a remarkable tenacity, achieving its objectives and fostering a positive shift in the community's agricultural dynamics.

To fortify the gains and carve pathways for future endeavours, BIBA Kenya emphasizes the necessity of heightened awareness about pesticide repercussions, governmental support, and advocating the gradual elimination of toxic agrochemicals from farming practices.

Elphas Masanga, Agronomist, taking soil samples for testing at Mungai's farm in 2021.

Green Community Farmers group at Mzee Wanyama showing their Bokashi enterprise shop

Busaino Fruits and Herbs: A green oasis transforming Uganda's agroecology landscape

STORY BY:
Patrick Delba Kiirya kiiryadelba@gmail.com +256 772 644197
Busaino Fruits and Herbs (BuFruit)

JINJA CITY, Uganda - For the last ten years, a change has been sweeping across Uganda's agricultural landscape, as heralded by Busaino Fruits and Herbs (BuFruit). Spread over a vast 1004 acres in rural Bugiri and an additional 32 acres in Jinja city, BuFruit is not just an enterprise; it's a revolution.

In a bid to address consumers' soaring demands for nutrient-rich, safe, and affordable food, and to combat the challenges of land degradation, BuFruit has embraced agroecology with zeal. This award-winning enterprise has championed practices such as increased plant diversity, self-production of livestock feed, and bio-energy. Central to their operations in Jinja is the Agroecological Skills Training Academy (ASTA) which stands as a testament to BuFruit's commitment to imparting hands-on agroecological training, especially to student interns at an affordable fee.

They planted a combination of tall and short trees, intercropped diverse species, and utilized an Agrosilvo pastoral system to bring biodiversity back to the land.

But the transformative reach of BuFruit doesn't end with cultivation. At the Jinja Wanyange Eco-Village farm, visitors are treated to an immersive experience, where they can relish Ugandan herbs-infused meals, enjoy traditional music performances, and partake in ecotourism and cultural engagements. The imminent launch of their on-farm community market will further bolster their dedication to selling products birthed exclusively from agroecological conditions.

Addressing land degradation has been a significant focal point for BuFruit. A poignant example is their efforts to reverse the effects of rain and wind erosion on previously degraded land. They planted a combination of tall and short trees, intercropped diverse species, and utilized an Agrosilvo pastoral system to bring biodiversity back to the land.

As a result, wildlife, including mushrooms and bees, returned, and the land saw a resurgence of the white cattle egret, a bird symbolic of the village's name "Wanyange."

However, challenges were aplenty. The extreme heat during the pre-rainy season threatened soil moisture and life. BuFruit's innovative solution was to create micro-climates of tree shades and ever-green valleys, leading to diversified consumer-preferred aromatic products and enhanced livestock quality. By integrating a variety of plants and feeding methods, even the quality of lamb, mutton, chicken, and eggs from the farm saw a significant improvement, meeting the consumers' aromatic taste preferences.

Another challenge was the high labour and fuel wood costs due to its peri-urban location. Solutions like self-fermentation technologies and fast-growing shrubs under the shade of tall trees showcased BuFruit's innovative approach to these challenges.

Furthermore, their efforts have not just been about soil and agriculture. Through initiatives like serving authentic Ugandan food, live music performances, and creating a richly biodiverse landscape, BuFruit has positioned Wanyange village prominently on Jinja's tourism map.

"Seeing is believing," says Patrick Delba Kiirya, the contact person for BuFruit. "We aim to provide physical evidence that loss of soil fertility can be reversed using agroecological approaches."

Indeed, BuFruit's journey is a clarion call highlighting the potential of agroecological practices. With plans in motion, including the soon-to-be-launched agroecological on-farm community market by 2024 and a drive to rejuvenate and mentor 250 micro agroecology farmers, Busaino Fruits & Herbs is poised to redefine the future of agriculture in Uganda.


A mother from local community collects manure prepared on the farm.


A secondary school visiting BusHfruits farm.


Banana, Lemon grass, aloeVera growing together fruit & non-fruit trees,grass growing in-between.


Trees providing shades, cooling temperatures on farm, neighbouring Lands.


Restored Land,sheep grazing under mango, jackfruit trees.Lake Victoria in background.

Green Turn: Cameroonian young agricultural entrepreneurs revolutionize farm fertilization

STORY BY:
Simon Valdez Ngah Mbessa simonvaldezngah@yahoo.com (00237) 655 62 89 26
Association Foi et Justice, Cameroun

Yaoundé, Cameroon – In the picturesque village of Nkol-Ngon, nestled within the Ngoya II sector of Okola, a green revolution is underway. A dynamic group of 15 young agricultural entrepreneurs, under the auspices of the Association Foi et Justice, is spearheading an initiative that holds the potential to redefine farming in Cameroon. This project, which blossomed this 2023 is already showing promising results.

The backdrop of this initiative stems from the overarching commitment of the Association Foi et Justice to environmental preservation. Their recent focus was triggered by the challenge faced in Nkol-Ngon: the proliferation of pathogens affecting leguminous plants and diminishing soil fertility due to past chemical use and poor nutrient recycling. To tackle this, the association, with support from partner organizations, introduced workshops on low-cost organic fertilizer and bio-fertilizer production to enhance the quality and yield of legumes, a staple in the local diet.

This innovative solution entails hands-on workshops where farmers are trained to produce organic liquid fertilizers. The standard measure is a one-litre bottle filled with a third of animal manure for nitrogen, another third of green matter for minerals, a mixture of soil and wood ash for various microorganisms and minerals, and finally water. This mixture is stirred daily for two weeks, ultimately offering an affordable and sustainable

Simon Valdez Ngah_Fabrication bio engrais.

A dynamic group of 15 young agricultural entrepreneurs, under the auspices of the Association Foi et Justice, is spearheading an initiative that holds the potential to redefine farming in Cameroon.

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Their recent focus was triggered by the challenge faced in Nkol-Ngon: the proliferation of pathogens affecting leguminous plants and diminishing soil fertility due to past chemical use and poor nutrient recycling.

solution for nourishing plants. A bonus training involved creating fertilizer from banana peels, a resource readily available in the region.

And the results? Plants now boast lusher foliage, crop yield improved significantly, and the overall soil health has enhanced, leading to decreased presence of pests and diseases. Such advancements have translated into financial gains as well. The increased sale of vegetable products has substantially augmented revenues for local farmers. Many even report that earnings from legume sales alone can cover their educational expenses. Furthermore, there's been a noted decrease in diseases from contaminated foods and an evident rise in food sufficiency.

A testimonial from a young participant underscores the project's success: "Thanks to Foi et Justice, we've significantly boosted our agricultural production using very simple resources," while another added, "We no longer need to purchase fertilizers for our family's fields; we make them ourselves."

Considering the tangible positive outcomes, there's a pressing need for a sustained effort in environmental education involving all stakeholders. The call-to-action stresses nurturing a love for nature, fostering collaboration between civil administration and agricultural actors, and reinforcing the environmental dimension in the African agricultural system.

Picture taken after a training on bokashi production in 7Sesheke. Photo by Royd Michelo

Green revolution: Zambia's trailblazing bokashi fertilizer initiative reshapes agriculture

STORY BY:
Royd Michelo katckapetea@gmail.com +260 974004061
Kapete Ecological Centre, Zambia

In the heart of the Kapete farming block situated in the Chongwe district of Lusaka province, Zambia, a remarkable project has been blossoming since 2018, spearheaded by the efforts of the Kapete Ecological Centre (KEC) under the visionary guidance of Royd Michelo. The project resonates as a beacon of hope in combating the widespread decline of soil fertility and escalating impacts of climate change that have notably threatened Zambia's food systems.

Recognizing the daunting challenges of the fragile food ecosystem, characterized by plummeting crop yields and escalating food insecurity, Michelo initiated the KEC. The centre emerged as a potent force aiming to rejuvenate the beleaguered soils of Zambia, embarking on a journey to foster conservation agriculture and introduce agroecological farming systems.

At the crux of this innovative initiative is the production of bokashi, a potent organic soil enhancer and bio-fertilizer, formulated following a market-led approach. Aspiring to revolutionize agriculture in the region, the project delineated a series of objectives encompassing sustainable food production enhancement, nurturing healthy soils, reducing food production costs, and augmenting the climate resilience of the existing farming systems.

In a concerted effort to realize these objectives, a multitude of activities were orchestrated. These activities spanned acquiring knowledge on bokashi production, setting up trial plots at the KEC, and fostering zonal committees. These committees played a pivotal role in identifying and training lead farmers in the nuances of bokashi production technology. After a series of successful trials under varied farm conditions, the remarkable efficacy of bokashi as a soil enhancer was established, paving the way for its commercial production due to heightened demand.

Notably, the project garnered a certificate of

analysis and effectiveness from reputable government institutions such as the Zambia Agricultural Research Institute and the Ministry of Agriculture. This certification marked a significant milestone, substantiating the nutritive value of bokashi and fostering its commercial production and distribution. Consequently, a marketing strategy was devised, facilitating individual farmers to produce and aggregate bokashi for sale, a move that has witnessed enthusiastic participation and knowledge sharing among the community members, including students and pupils.

The ramifications of this project have been profoundly positive, with the community witnessing a surge in the utilization of bokashi, increased organic matter density in soils, and heightened resistance to drought owing to improved soil moisture retention capabilities. Moreover, the initiative has catalyzed a remarkable increase in crop yields within the community, evident from the leap in maize production from 2.7 to an impressive 5.0 tons per hectare on average.

Undoubtedly, the initiative's success can be attributed to several factors, including establishing synergistic partnerships with fellow farmers, traditional leaders, and like-minded organizations. Moreover, the engagement of media houses in information dissemination and active participation in various agricultural events have significantly contributed to the project's outreach and impact.

Despite its triumphs, the initiative faces challenges, including limited production levels of bokashi due to the lack of requisite equipment and facilities to secure organic matter. Additionally, the project encountered initial resistance to accepting the effectiveness of bokashi among communities.

Training participants mixing bokashi at KEC 9

Headman 10 Katiba work suit participating in the bagging of bokashi

Undoubtedly, the initiative's success can be attributed to several factors, including establishing synergistic partnerships with fellow farmers, traditional leaders, and like-minded organizations.

As testimonials from diverse community members, including lead farmers, teachers, traditional leaders, and female farmers reverberate, the success of the initiative is palpable. Echoing sentiments of transformation and resilience, these testimonials bear witness to the life-changing impact of the bokashi project, contributing significantly towards fostering sustainable development and combating climate change in their communities.

As the project strides towards its conclusion, it leaves behind a rich legacy and a pathway for policy advocacy. It stands as a testament to the potential of bokashi and bio-fertilizers in enhancing the resilience of farming systems and fortifying food and nutrition security at various levels. Consequently, recommendations for government adoption of bokashi as a part of farmer support packages, increased sensitization on the use of bio-fertilizers, and fostering youth participation in bokashi production are burgeoning.

Fertility management: Unveiling Union Alheri's blueprint for soil revitalization in Niger

STORY BY:
Souleymane Ousmane Mamadou
Niger - RECA (National Network of Chambers of Agriculture of Niger).

The Chairman of Union Alheri (Souleymane Ousmane)

In the region of Dosso, nestled within the village of Goberi, a groundbreaking initiative spearheaded by Union Alheri has been taking monumental strides towards revolutionizing soil fertility management. Initiated in 2021, the project encompasses 40 villages within four municipalities in the Boboye department, positively impacting 2,938 individuals, including most women.

Situated at the crossroads between two significant geomorphological zones of Niger - the plateau zone of Fakara and Dallol Bosso valley, Goberi offers a rich tapestry of agroecological opportunities. With fertile grounds ideal for both pastoral and agricultural activities, the region presents itself as a living laboratory to experiment with innovative agroecological practices that have been a focal point for Union Alheri for over two decades.

Through this initiative, we witness the transformation of the landscape, notably affecting the soil due to the consistent application of these practices and the abundant water resources in the Dallol area.

Under the aegis of the second phase of the ACOTAF project implemented by RECA in Niger, Union Alheri is showcasing the ideal practices to augment soil organic matter, fostering a symbiotic relationship between labour and agroecological transitions, and facilitating adapted mechanization to support these transitions.

This novel approach not only aimed to replenish the impoverished soils but also sought to enhance the understanding of climate change impacts on current food production systems.

The collective, aptly named "Alheri" which translates to "well done" in the local dialect, has developed a comprehensive strategy that integrates organic matter management, mechanized transportation for soil fertilization, and encouraging the use of agroecological techniques. Their combined efforts over the years have dramatically enhanced soil fertility, thereby boosting agricultural productivity.

Union Alheri has embarked on a mission to utilize all possible organic materials without waste. They have initiated a comprehensive program to increase organic material supply, involving the distribution of animal kits to members, particularly targeting women. This initiative ensures the steady production of organic manure, a critical component in enriching the soil.

Moreover, the introduction of carts facilitates the efficient distribution of organic matter across cultivated lands, optimizing the use of organic waste and residues in agricultural processes. Through sustained efforts and collaborations, Union Alheri managed to secure significant funding to bolster its mission, distributing necessary kits to members at subsidized rates.

In an interesting turn of innovation, the problematic invasive plant, Pergularia tomentosa, once a menace, now plays a crucial role in soil conservation, capturing and retaining organic matter, and preventing its erosion through winds.

Collection of organic residues (Souleymane Ousmane)

The strategy adopted by Union Alheri is deeply ingrained in a series of complementary actions that integrate various supports and funding into a cohesive, long-term vision. This approach embraces traditional practices, local innovations, external advancements, and substantial training programs, weaving them into a coherent and sustainable strategy to enhance soil fertility.

Trapping of sand particles and organic matter by Pergularia tomentosa

Restoring vitality to Afar region's dry valleys: A beacon of hope and innovation in Ethiopia

STORY BY:
Indris Siraje Indris.siraje@giz.de +251912138251
GIZ-LSRP (Lowlands Soil Rehabilitation Project), Ethiopia

Addis Ababa, Ethiopia - In the semi-arid regions of the Afar state, the narrative of land degradation and climate change impact is taking a turn towards rejuvenation and productivity, thanks to the innovative efforts of the Lowlands Soil Rehabilitation Project (GIZ-LSRP) spearheaded by the German development agency GIZ.

The tale begins in Chifra district, situated in the Afar Regional State, a region characterized by its semi-arid climate, erratic rainfall patterns, and a community deeply rooted in pastoral and agro-pastoral traditions. The journey embarked upon in 2015, aims to transform the eroded dry valleys into verdant lands of opportunity, benefiting over 6,500 individuals spread across three dry valleys in the region.

Decades ago, these lands were cloaked in lush forests, home to towering grass species and nurturing four distinct seasons of rain, providing an abundant haven for the pastoral community's livestock. Unfortunately, climate change and improper management of natural resources have dwindled the wealth of these lands, reducing the once lush scenery to sparse vegetation, and exposing the community to severe shocks such as drought.

Facing the adversities head-on, the community initiated coping mechanisms including rain-fed agriculture, although faced with the challenge of unpredictable rain patterns. Acknowledging the magnitude of the issues, local government bodies along with other stakeholders rallied to conserve moisture and curb soil erosion, laying the foundation for greater intervention.

In 2013, GIZ launched the Strengthening Drought Resilience (GIZ-SDR) Program, birthing the Afar Soil Rehabilitation Project (ASRP) in 2015. This project has brought to life the Dry Valley Rehabilitation and Productive Use (DVRPU) approach, a holistic blueprint that infuses technical, social, economic, and biological interventions, rejuvenating the barren valleys with nurturing waters and sediment-rich soils, thanks to an intricate system of Water-Spreading Weirs (WSW) and Dry-Stone Measures (DSM).

Showing efforts of local partners. Photo by Ismael Tessema

Dry stone measure impact; before. Photo by Indris Siraje

Dry stone measure impact; before. Photo by Indris Siraje

Beneficiary of the restoration. Photo by Indris Siraje

Challenge of land degradation. Photo by Indris Siraje

The project has fostered community engagement and collaboration, paving the way for the rehabilitation of entire dry valleys, and crafting a synergy between local communities and governmental bodies.

The initiative's efforts bore fruit with the 2016 production season, revealing promising increases in biomass and grain yield, and fostering food and fodder security for the local communities. The advent of rehabilitated lands has initiated a ripple effect of positive changes, notably in livestock health and market values, fortifying the region's food security fabric.

"The land is breathing again, clothed in new species of plants, giving us hope and sustenance," shares Mr. Ibrahim Ali, a resident of the Sheqayiboru Village in Chifra district. Echoing his sentiments, a local elder remarked, "We've learned to mend the torn fabric of our lands, thanks to GIZ's guidance, restoring vitality where we once saw desolation."

As the ASRP project illustrates a triumphant narrative, it beckons a comprehensive approach to sustain and magnify its impacts. The policy roadmap advocates for a coalition of stakeholders from diverse sectors to forge a united front, fostering educational initiatives and integrating technical expertise to build a resilient and prosperous community.

Moreover, the ASRP serves as a beacon of hope and innovation, extending its reach to other lowland areas of Ethiopia, demonstrating a scalable and sustainable model that promises to reshape the livelihoods of pastoral communities across the nation.

Landscape Renaissance: The Ethiopian village reversing degradation and drought

Above: Rehabilitated degraded land at Abreha We Atsbeha. Photo Credit: Dawit

STORY BY:
Dawit Gebregziabher and Mitiku Haile, dawit.gebregziabhernrem@mu.edu.et +251991603580
Mekelle University, Ethiopia

TIGRAY, ETHIOPIA - Nestled in the northern region of Ethiopia, the once drought-stricken village of Abreha We Atsbeha is now hailed as a beacon of success in landscape restoration. Since 1998, a transformative initiative has brought about not just an environmental revival but also a socio-economic renaissance for its residents.

Abreha We Atsbeha, once fraught with the threats of deforestation and land degradation, was provided with two options by the Ethiopian government: relocate or rejuvenate. Opting for the latter, the community took matters into their own hands, determined to turn around their landscape and fortune. Their efforts were aimed at combating forest degradation, land degradation, water scarcity, soil erosion, decline of agricultural productivity, and food insecurity.

As a result of their persistent efforts, backed by expert technical designs, the village now stands as one of the premier examples of restoration in the Tigray region. Their remarkable transformation has garnered attention nationwide, with thousands of farmers, government officials, and international agencies touring the area to learn and derive inspiration.

"The leader must be a model farmer and take the initiative to test techniques and crops, to demonstrate to other farmers that they work. It's challenging to change others without altering the leader's attitude," remarks Gebremicheal Gidey, affectionately known as Aba Hawi (Father of Fire), the visionary village leader behind the initiative.

This community-led endeavor's accomplishments are numerous. Of the 6,766 hectares that form the Abreha We Atsbeha watershed, 69% has been restored. The restored land, combined with the increased groundwater recharge, has greatly diversified and

Hand dug well with water at Abreha We Atsbeha. Photo Credit: E. Ludi

boosted agricultural production. This has led to improved nutrition, heightened food security, increased income, and thus, a stark reduction in poverty. Specifically, the village has seen an 80% reduction in soil loss, a 20-50% increase in cultivated area, and a 300% rise in crop production.

Beyond the numbers, the human impact has been profound. Women, who previously walked long distances for water and firewood, now have easier access to these resources. They, along with the village youth, played a pivotal role in the restoration activities. The project has enabled young residents to find viable income opportunities in their hometown, stemming the tide of migration to cities or abroad.

Despite its success, the initiative isn't without challenges. The potential damage from heavy rainfall remains a concern. Still, the story of Abreha We Atsbeha is one of resilience, community spirit, and transformative change.

The lessons from this village are clear: landscape restoration isn't just about the environment; it's also

about sustainable economic and social development. It's a tale that underscores the significance of community involvement, effective collaboration among stakeholders, and the need for a comprehensive approach that combines economic and environmental benefits.

The landscape transformation journey of Abreha We Atsbeha didn't just breathe new life into the soil; it infused a renewed sense of purpose and self-reliance among its inhabitants. The integration of women and youth into the heart of restoration activities is a testimony to the holistic and inclusive nature of the project. Their involvement not only expedited the restoration process but also ensured its long-term sustainability by instilling a sense of ownership and responsibility across all demographics.

The village's success wasn't merely a result of hard labor and dedication but also due to the strategic incorporation of innovative techniques. Implementing terraces and percolation trenches proved critical in reducing erosion and boosting groundwater recharge. The environmental benefits were swiftly followed by economic gains. The boost in groundwater levels paved the way for irrigation of once barren lands, promoting cultivation of fruits and vegetables. The local market soon flourished with produce from the village, further stabilizing the economic condition of the residents.

One of the pivotal success factors was the community's shift from a mindset of dependency to one of self-reliance. Guided by forward-thinking leadership, they developed locally-agreed bylaws that supported landscape

A young boy Collecting guava fruit. Photo Credit: The Community

Checkdams along the gully at Abreha We Atsbeha Photo Credit REST

Household with agroforestry at Abreha We Atsbeha Village. Photo Credit: REST

Landscape of Abreha We Atsbeha. Photo Credit: REST

restoration, ensuring that the project remained rooted in local needs and values. This community-first approach has been the bedrock upon which the Abreha We Atsbeha transformation stands.

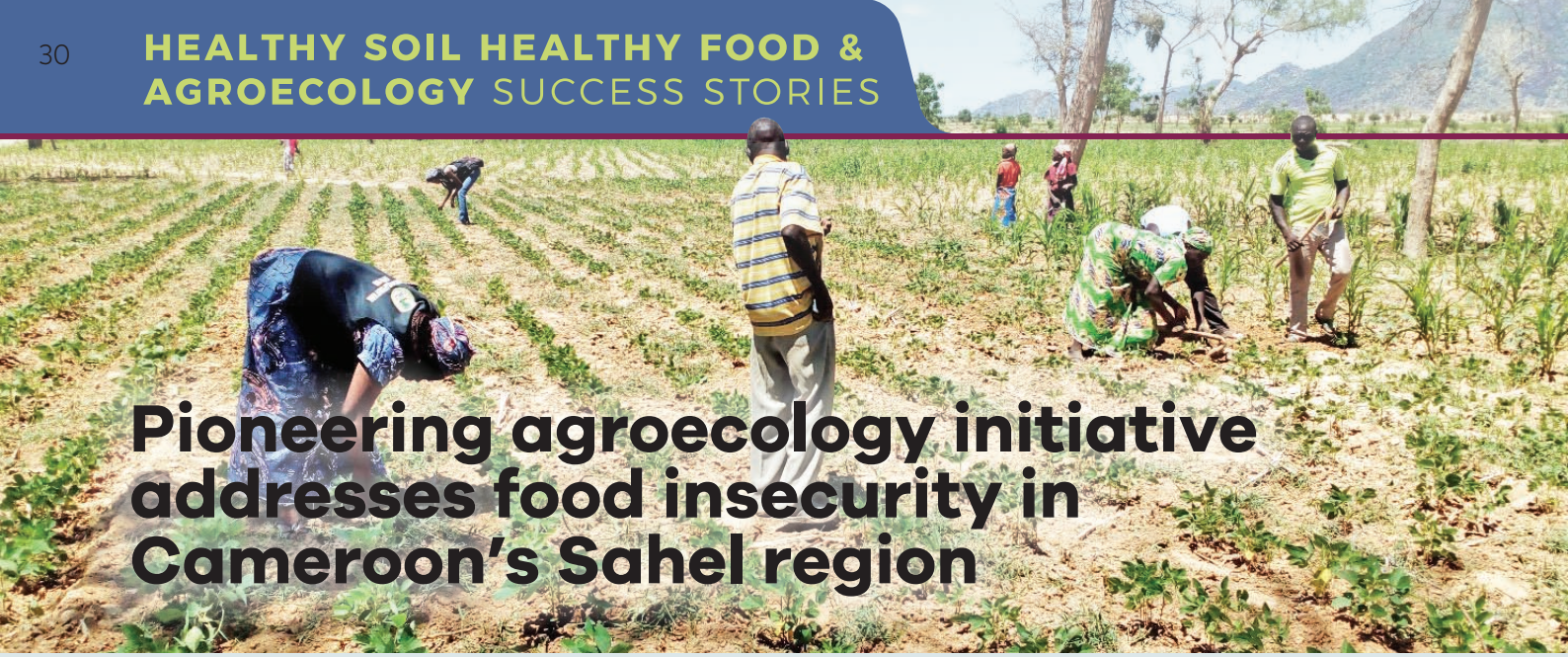
However, as the village marches ahead on its path of continued growth, the need for vigilance is ever-present. The structures vital for the landscape's revival are susceptible to damage from intense rainfall. Thus, regular

Aba Hawi using Water lifting Machine to lift water from his Borehole. Photo Credit: Dawit

maintenance and monitoring are imperative to safeguard the community's hard-earned progress.

Furthermore, the experience of Abreha We Atsbeha provides valuable insights for regions globally facing similar environmental challenges. Emphasizing the importance of community involvement, the blending of traditional knowledge with modern techniques, and the pivotal role of effective leadership, this village serves as a blueprint for sustainable landscape restoration.

In conclusion, the tale of Abreha We Atsbeha is a testament to human resilience, innovation, and community spirit. It is a stark reminder that, with a united front, even the most challenging environmental issues can be tackled, leading to a harmonious coexistence of man and nature. The village stands as a shining beacon, not only for Ethiopia but for communities worldwide, underlining the transformative power of unity, vision, and unwavering determination.



Pioneering agroecology initiative addresses food insecurity in Cameroon's Sahel region

Practical training for producers in a CEP. Photo: Oumarou

STORY BY:
Mohamadou Abbo, +237 674 13 86 42 abbo.zenden@gmail.com
Service d'Appui Aux Initiatives Locales de Développement (SAILD), Cameroun.

In the face of escalating challenges such as land degradation, inadequate rainfall, and the persistent threat of Boko Haram, a revolutionary project spearheaded by the Service d'Appui Aux Initiatives Locales de Développement (SAILD) is ushering in a wave of change in Cameroon's Extreme North region.

Since its inception in April 2020, the initiative has significantly transformed the lives of more than 5,000 families, comprising approximately above 30,000 individuals. This targeted demographic, primarily residing in 10 villages of the Sahel region in Cameroon, included a substantial proportion of women and children under the age of 18, who were facing stark food insecurity and limited diet diversity.

The Extreme North region, which falls under the soudano-sahelian agroecological zone, is grappling with multiple adversities. The soil degradation rates here are among the highest in the country, exacerbated by inadequate rainfall averaging at 726.2 mm per annum and soaring temperatures

Facilitators in a farmer field school. Photo: Oumarou

Practical training in composting. Photo: Bahane Lynda

Practical training in the manufacture of neem-based biopesticides. Photo Oumarou

that often reach 47-48 degrees Celsius. These climatic conditions, combined with recurring natural disasters like floods and droughts, significantly affect agricultural productivity. Moreover, the influx of refugees and internally displaced populations due to the menace of Boko Haram since 2013 has strained the already scarce resources.

To combat this dire scenario, the Italian Cooperation Agency, through the AID 11762 initiative, facilitated the implementation of the project titled "SANTE: Food Security and Water Access for Migrating Populations and Host Communities in the Mayo Kani and Diamaré Districts - Extreme North Cameroon." This project aimed to enhance the living conditions of refugees, displaced individuals, returning populations, and host communities in the Lake Chad basin, who have been victims of humanitarian crises and the adverse effects of climatic conditions.

Through this initiative, SAILD sought to bolster the resilience of vulnerable populations in 10 rural villages in the Diamaré and

Mayo-Kani departments. This was achieved by refining agricultural activities, ensuring potable water availability, and enhancing the food security of displaced individuals and host communities.

Theprojecthasreportedsignificant impacts, both quantitative and qualitative. Close to 30 hectares of land owned by the beneficiaries were restored through the knowledge garnered from this initiative. Moreover, 357 farmers who participated in Farmer Field Schools (FFS) utilized organic fertilizers across approximately 45 hectares, drastically reducing production costs and enhancing soil health. This shift from traditional fertilizing methods to more efficient approaches, coupled with crop rotation and intercropping, improved yields by around 10% and diversified the food options available to local households.

Furthermore, the project has fostered sustainable revenue-generating activities revolving around soy cultivation, now a preferred choice in several beneficiary villages. Products derived from soy, including cakes, milk, caramel, coffee, porridge, and roasted soy, have become a vital source of income for many households.

Jacques Ibrahima, a beneficiary from Bankara in the Gazawa commune, shared his personal experience: "We were grappling with extensive land degradation issues. Initially, we were unaware, but our own bad practices were causing this. Now, with the knowledge and techniques acquired, we are noticing a remarkable transformation in our lands and lives."

Sinama Spreading organic manure. Photo Oumarou

Practical training in the manufacture of neem-based biopesticides. Photo Oumarou.

Practical training in composting. Photo: Bahane Lynda

The project's triumph is fundamentally grounded on three critical pillars. Firstly, the Capacity EnhancementthroughFarmerField Schools (FFS), not only facilitated a rich learning environment but also encouraged the replication of demonstrations in individual fields, enhancing hands-on skills and knowledge. Secondly, it leveraged local expertise by entrusting farmer facilitators, who were specifically chosen to steer the FFS, enabling them to ardently address the localized challenges, thereby nurturing a community grounded in shared wisdom and collaborative effort. Lastly, the active engagement of all stakeholders played a crucial role, with local authorities and community leaders spearheading community mobilization efforts aligned with the project objectives, fostering unity and seamless execution of strategies. Nevertheless, this journey of success was not without its set of hurdles, as the project grappled with challenges like limited land availability and the imperative to modify learning schedules to harmoniously align with the daily routines of female participants, thus ensuring inclusivity and broader reach.

Practical training for producers in a CEP. Photo: Oumarou

Tracking a beneficiary's field. Photo Mohamadou Abbo

Blooming Resilience: The transformational journey of N'goral Guidala's women

Pioneering a shift towards a greener future, they delve deep into the realms of agroecology, ...

STORY BY:
Niang Ibrahima banlieuesdumonde@gmail.com +22246412973
Banlieues Du Monde Mauritania

In the heartland of the Mauritanian landscape, where the vivid red of the Diéri soils meets the tranquillity of the Senegal River, a tapestry of change and revolution weaves steadily in the hands of resilient women. Nestled in the southern region of Mauritania, N'Goral Guidala has become the pulsating heart of an agroecological movement steered with conviction by Ibrahima Niang and his dedicated organization, Banlieues Du Monde Mauritanie. From 2019, this riveting initiative cast a transformative spell over the sleepy hamlet, scripting a tale of empowerment and sustainable innovation, which witnessed the metamorphosis of 170 women and a village that now stands as a beacon of sustainable development.

In this riparian environment, where waters of the Senegal River nourish the alluvial valley, an intricate relationship between the land and its inhabitants unfolds. Diverse and rich, the soils of the region offer an enthralling canvas where women, previously confined to the fringes, have emerged as custodians of the land. Pioneering a shift towards a greener future, they delve deep into the realms of agroecology, nurturing gardens that bear not only fruits and vegetables but also the seeds of change and emancipation.

But to understand this revolutionary transition, one must first acquaint themselves with the prelude of the saga. The origins of this project date back to 2013, when a seed was planted, laying the foundations for a resilient community that would later flourish amidst adversity. A close-knit bond with nature, coupled with innovative agricultural practices, fostered a symbiotic relationship that thrived on mutual respect and conservation. Despite the slow pedogenesis, characterized by the fragile red-brown soils and limited vegetative cover, the relentless spirit of N'Goral Guidala's women turned challenges into opportunities, crafting an agricultural narrative steeped in resilience and innovation.

As the seasons changed, so did the narrative of this community. Through the cultivation of seasonal vegetables such as

beans, watermelons, and maize, among others, the once barren land transformed into a living testament to human perseverance and ecological harmony. The initial venture, focused on the production and commercialization of Guinea sorrel and other horticultural products, soon expanded, enveloping the village in a blanket of green prosperity. The local mango and lemon orchards stood as silent witnesses to the unfolding agrarian revolution, fuelled by a daily water requirement of 30 cubic meters, sourced sustainably from the Senegal River.

With each passing day, the women of N'Goral Guidala, equipped with newfound skills and knowledge, forged ahead, embracing the principles of agroecology with open arms. Their journey, characterized by sustainable practices such as compost preparation and the use of organic fertilizers, not only amplified their yields but also resonated with a deeper philosophy - to tread lightly upon the Earth and to nurture it for generations to come.

> *The initial venture, focused on the production and commercialization of Guinea sorrel and other horticultural products, soon expanded, enveloping the village in a blanket of green prosperity.*

Yet, this story transcends the boundaries of agriculture, weaving into its narrative threads of social and economic empowerment. In the bustling marketplaces, the fruits of their labour found eager buyers, cementing a fruitful alliance between producers and wholesalers. Moreover, training programs facilitated the transfer of knowledge on product transformation, unveiling avenues of economic prosperity through the creation of beverages and jams. And amid this bustling activity, renewable energy emerged as a silent ally, powering a new era of sustainable food preservation and storage.

Makda bokas

But the true testimony to the success of this revolutionary journey can be found in the words of those who have witnessed it firsthand. As Mme Kadiata Samba Sow, the secretary-general of the village's women's cooperative, reflected during an interview with television animator Aissata Ba from AIDS TV, the rewards of their labour in the 2019 and 2020 agricultural campaigns have been bountiful, both in terms of personal growth and community development.

Indeed, the echoes of change reverberate through N'Goral Guidala, whispering tales of resilience, innovation, and a greener future. Here, in this small corner of Mauritania, the world finds a beacon of hope, where dreams blossom amidst orchards and where women lead the charge towards a sustainable and inclusive future, painting a canvas of possibilities where nature and humanity coexist in harmonious symphony.

Pioneering agroecological initiative flourishes at "Le Jardin D'eden" in Benin

STORY BY:
Wuemenou Théophile thwuemenou@yahoo.fr 0022995059075
Christian relief Network (CRN), Bénin

To bolster food security and empower small-scale farmers, the "Le Jardin d'Eden" agroecological project in the commune of Allada, Benin, continues to make strides in promoting sustainable farming practices. Initiated in 2018, the project has emerged as a beacon of hope and resilience, benefiting the agrarian communities spanning across 12 villages in the region.

Guided by the mission to augment the resilience and food security of small-scale farmers and vulnerable groups, the initiative encourages an uptick in agricultural production through the adoption of agroecological practices. At the heart of the venture is the commitment to train farmers on climate change adaptation techniques and foster a nurturing ground for agroecology.

Koto Christine from the village of Agbanou. Photo by Théophile Wuemenou

A key facet of the project is the establishment of a dedicated farm and a learning center, envisioned to be a hub for farmers and budding entrepreneurs to assimilate and apply agroecological methodologies.

A key facet of the project is the establishment of a dedicated farm and a learning center, envisioned to be a hub for farmers and budding entrepreneurs to assimilate and apply agroecological methodologies.

In a significant move to cultivate a sustainable farming environment, the project vehemently discourages practices that have adverse effects on the ecosystem, including burning, herbicide and pesticide use, and unwarranted tree felling. As an alternative, it accentuates soil fertility management and embarks on a series of activities that resonate with the principles of agroecology.

From grooming small farmers to become agroecology ambassadors to encouraging youth entrepreneurship in the sector, the project has broadened its horizons. It is notably involving farmers in applied farm research, innovative on-farm developments, and conservation of

Makdalin showing Esther Bett how her avocado crop is doing very well after application of bokashi, super magro and ash brew.

native seeds, coupled with training on the medicinal plants and the ingenious use of dry latrine products.

The endeavour has also paved the way for breakthroughs in soil fertility management. A noteworthy practice is the compost production utilizing waste from animal and human latrines. Farmers have embarked on experiments with various organic materials to produce liquid compost, with pigeon droppings showing promising results in enhancing yields, followed by rabbit and human excrement. The initiative to use urine as a natural fertilizer has also marked a positive uptick in crop yields.

Furthermore, the farmers have adopted a unique method of traditional latrine construction, facilitating the easy collection of organic waste for crop fertilization. This pioneering approach, paired with crop rotation and the incorporation of maize and legumes like lentils in agriculture, showcases the transformative potential of agroecological innovations in the precincts of the "Le Jardin d'Eden" farm.

As the project continues to flourish, it stands as a testament to the synergy between nature and sustainable agricultural practices, fostering a brighter, greener future for the communities in Benin.

Turning arid lands into breadbaskets: Rehema farm's journey to feed Africa

STORY BY:
Sylvia Kuria sylviakuria@gmail.com +254 722 493 202
Sylvia Basket, Kenya


Animal integration

Above background photo: When we plant legumes to keep soil covered and retain moisture as well as protect the soil microbiome, we are able to build soils in a very short period time

NAKURU COUNTY, KENYA – Nestled in the heart of the Rift Valley, Mai Mahiu Ward to be specific, lies an oasis named Rehema Farm, challenging the traditional notion of non-productive arid lands in Africa.

Since its establishment in 2017, Rehema Farm has championed agroecological and organic farming principles. Despite beginning on barren, salt-ridden soils in a region known for its challenging climatic conditions, today the farm serves as a beacon of hope and inspiration to over 250 small-holder farmers. These farmers have witnessed first-hand how sustainable farming practices can transform seemingly non-arable lands into productive farms.

Historically, agriculture-focused projects in Africa have been limited to regions with high agricultural potential, which only cover approximately 30% of the continent. The remaining 70% consists of deserts, grasslands, and shrublands, often dismissed as non-productive. In Kenya, this division mirrors the continent, with 70% of its land classified as Arid and Semi-Arid Lands (ASAL).

When Sylvia Kuria first laid eyes on the stone-harvesting land that would become Rehema Farm, the challenges were evident. The nearby volcanic mountain rendered the soil sodic and the available water either too saline or too hot for traditional farming. Yet, where others saw insurmountable challenges, Kuria envisioned opportunity.

The journey began with tree planting. Over 3,000 trees, primarily nitrogen-fixing species, have been planted since 2018. These trees not only helped to improve the farm's microclimate but also played a pivotal role in rejuvenating the soil.

As part of their holistic approach, the farm also emphasized soil testing, agroforestry, composting, animal rearing, soil coverage via green manuring, crop rotation, and minimal tillage. Such diverse strategies ensured robust soil health and sustainable growth.

The impact? Recent tests show a significant improvement in soil health, with a 65% increase in organic matter. Every crop cycle witnesses a minimum growth of 40%. There has also been a stark


Minimum tillage practices at the farm

This picture depicts the state of the soil when starting off Rehema Farm.

increase in farm biodiversity, with over 10 bird species now calling it home. With balanced ecosystems, pest pressures have naturally dwindled, reducing costs, and bolstering organic produce yields.

However, challenges remain. As Kuria points out, research and funding remain predominantly focused on high-potential areas, neglecting the vast expanses of ASAL regions. This oversight perpetuates food insecurity.

Dr. Tom Owino of Egerton University, Nakuru, was taken aback during his visit, remarking, "As I was driving to your farm, I almost thought we were lost until we came in and I was surprised to find an oasis in a desert."

In conclusion, to genuinely unlock the immense agricultural potential of the African continent, a multi-faceted approach is urgently required. Firstly, there needs to be a surge in research focusing on the nuances of agroecology within ASALs, providing a solid foundation of knowledge to foster sustainable farming practices in these regions. Secondly, financial support must be significantly escalated for farmers making the transition to sustainable agriculture within these ASAL areas, ensuring they have the resources necessary for success. Additionally, champion farmers must receive backing to create exemplary farms in dry locales, serving as beacons of innovation and progress. Furthermore, a widespread initiative for the development of extensive training programs and resource creation centred on Agroecology should be geared specifically towards the needs and conditions of ASAL farmers. Such a transformation in focus and resources might not only herald a revolution in African agriculture but potentially establish a global blueprint for sustainable farming within challenging terrains. Rehema Farm stands as a testament to this potential, showcasing that with unwavering determination and groundbreaking practices, even the most parched lands can indeed flourish and yield abundant harvests.

Planting trees on the farm as mentioned above has created a microclimate and greatly improved the states of our soils.

Trees planted on the farm in form of a woodlot (picture taken during the wet season

Kenyan farmers triumph over climate adversity with agroecological practices

STORY BY:
Makonge Righa kenya.jrigha@wn.org +254 722902561
World Neignours

In the heart of Kenya's Kvisumu West Sub-County, a remarkable transformation is unfolding, nurturing hope among small-scale farmers who have battled the wrath of nature for years. Spearheaded by the Kisumu Community Development Program (KICODEP) under the World Neighbours (WN) umbrella, this initiative is empowering farmers with agroecological practices to enhance their agricultural yield, mitigate climate change effects, and march towards food sovereignty.

The journey commenced in 2015 and has since burgeoned, impacting over 1,500 farmers across 7 villages and improving the lives of 6,000 household members. Amid the lush, rolling hills, the echo of triumph resonates through tales of farmers like Florence Otieno from Kanyamony village, who has seen her maize yield soar from 4 bags to 13 bags over an eight-year span.

Kisumu County, nestled by the Lake Victoria basin, is home to marginalized farming communities that bear the brunt of climate change. A panorama of challenges - dwindling soil fertility, scanty rainfall, and destructive windstorms has often left the fields barren, hurling the populace into the chasm of food insecurity and poverty.

Determined to rewrite this gloomy narrative, Florence, like many others, embraced the sustainable farming techniques imparted through the KICODEP. With a modest grin, she narrates, "Heavy windstorms destroyed my maize crop, soil erosion and inadequate rainfall reduced productivity. I had to find a suitable and sustainable solution."

The core of the intervention has been to instil a suite of agroecological practices tailored to local conditions. This includes the construction of ridges to control water flow, bolstering soil's water retention, and the establishment of woodlots and agroforestry which not only curtail soil erosion but also serve as windbreakers, safeguarding the crops from nature's fury. Furthermore, the promotion of organic manure has revitalized soil health, enabling the soil to kiss the seeds into fruitful crops.

In Florence's farm, now a living classroom of sustainable farming, the ridges direct rainwater towards an underground storage, quenching the

thirst of the soil and her livestock in drier spells. The trees she planted, swaying gently to the winds, bear not only a shield against windstorms but also fruits, enriching her family's nutrition and pocket.

This transformation has rippled through the community, with income levels rising by an average of 30% among households embracing these practices. The saga of enhanced yields has wooed over 1,000 farmers to adopt soil and water conservation practices, making a bold stride from a mere 200 in 2017.

One of the golden threads of this initiative is the symbiosis between the farmers and the facilitators. Through community-led organizations, farmers are at the forefront of planning, executing, and monitoring the projects. Peer-to-peer learning sessions, fostered by WN, have become a crucible of knowledge exchange, enriching the community with skills to adapt and innovate.

Despite the strides, challenges like labour shortages and the initial patience required before the benefits of these practices materialize do loom. However, the farmers' spirits remain unbroken, their eyes fixed on the verdant horizon of possibilities.

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In conclusion, the reverberations of this initiative underscore the imperative of agroecological practices in bolstering food sovereignty. The narrative woven in the farms of Kisumu West sub-County isn't just about enhanced yields; it's a narrative of resilience, community, and the promise of a lush, food-secure future in the face of climate adversity.

Ridges that slow down and control the flow of the water, which is directed towards crops or harvested and stored in an underground storage or a small earth pan on the farm and later used to irrigate crops.

Water harvested on the farm.