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HEALTHY SOIL HEALTHY FOOD & AGROECOLOGY SUCCESS STORIES

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

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.

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