

Greening and Circular Solutions in Banana Value Chain at Ziada

According to Emmanuel Mwit, Programme Officer at MESPT, “The DMDP project has been instrumental in driving greening and circular innovations that promote environmental conservation and ecosystem restoration among smallholder farmers. Through its interventions, farmers have planted over 242,000 agroforestry trees, contributing to carbon sequestration and improved soil health. The project has also built farmers’ capacity to convert farm organic waste into compost, enhancing soil fertility while reducing chemical fertilizer use. In addition, many farmers have transitioned from diesel-powered irrigation pumps to solar energy, cutting greenhouse gas emissions and lowering operational costs. To strengthen water conservation, farmers were capacity built to adopt drip irrigation systems, rainwater harvesting using dam liners, and water storage tanks, ensuring efficient use of water in crop production. Collectively, these initiatives have helped farming communities embrace sustainable practices that restore ecosystems and build climate resilience.”

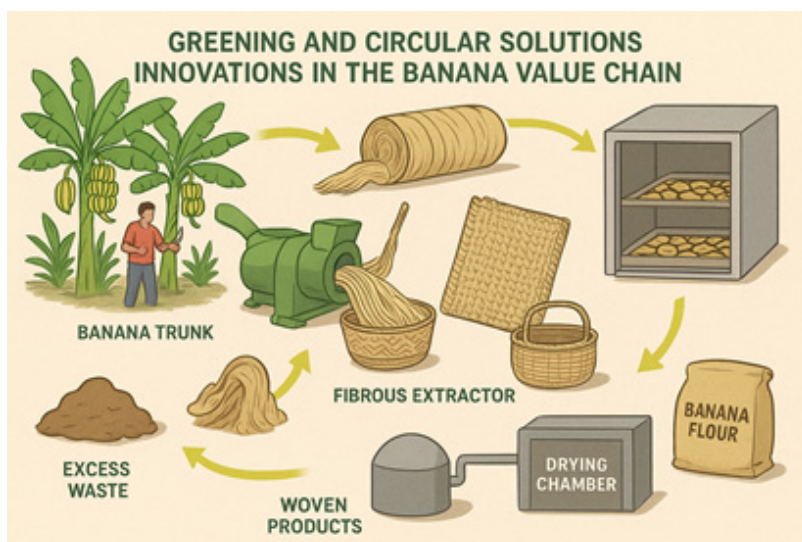
In Taveta Sub-County, Taita Taveta County, a quiet transformation is taking place, one that turns banana waste into meaningful green value. Ziada Solutions, a circular banana value addition enterprise, is redefining how waste can drive innovation, income generation, and environmental sustainability. The story of Ziada began not as a business idea but as an effort to revive a struggling banana farm.



Andrew Ndung'u Operations Manager, Ziada Solutions.

“We started off as a non-profitable banana farm that we were just trying to improve. In the process of researching how to make it better, we discovered that we could extract fiber from banana pseudo stems what most farmers saw as waste.”

At the time, the challenge facing farmers across Taveta was not just declining profits from banana farming, but also how to deal with the heaps of pseudo stems left behind as waste after harvest. These residues were left to rot, creating sanitation and environmental problems. Farmers did not realize that the same waste could become a new source of income. For Ziada, the challenge was how to turn that discovery into a sustainable enterprise while creating value for both farmers and the community.



Ziada's turning point came when the Micro-Enterprises Support Programme Trust (MESPT), through the DANIDA Market Development Partnerships (DMDP) Programme, visited the farm during its early setup. *"MESPT found out about Ziada, visited us, and we immediately saw we shared the same vision,"* Andrew says. *"In a short period, we developed an MOU, and that was the beginning of our journey together."* MESPT supported Ziada from the construction stage, providing technical guidance and linking the enterprise with smallholder farmers in the DMDP banana value chain. Through this collaboration, Ziada gained strong relationships with producers who now supply the pseudo stems that feed the plant's circular process.

MESPT also trained Ziada on Responsible Business Conduct (RBC), which enhanced their focus on fair labour, environmental responsibility, and ethical business management. *"The trainings helped us align our operations with the principles of sustainability and transparency,"* Andrew notes. *"We learned how to handle waste better, how to manage people ethically, and how to grow responsibly."* Beyond training, MESPT provided a solar-powered water pump, which has benefited not only the company but also the surrounding community members by making water more accessible. The organisation also supported Ziada with shade nets for raising tissue culture banana seedlings and facilitated several exposure visits and exhibitions, including participation in the Kenya Association of Manufacturers (KAM) Fair in Nairobi, a major milestone that introduced their products to new markets.

At Ziada, nothing goes to waste. The company purchases pseudo stems from local farmers, who now earn income from selling what they once discarded. Using a decorticator machine, Ziada extracts fiber from the stems, creating valuable raw material for various products.

"We use the pseudo stems to make banana fiber. From the extraction process, we collect banana pulp, which we feed into our biogas system. The gas we get runs a dryer that we use to dry our bananas into chips, and from the chips, we make banana flour."

– Andrew Ndung'u



A decorticator machine in the extraction process

The biogas system also produces slurry, which is used as organic fertilizer in their own fields, completing a fully circular system that maximizes every part of the banana plant while keeping the environment clean.





Products from banana value addition

From the banana fiber, Ziada produces hair extensions and handwoven carpets under their brand Ziada Craft, which employs local youth and women.



Handwoven mats from banana fiber

“We’ve created jobs, especially for women and young people who weave the carpets and help with product design and marketing. It feels good to know that what was once seen as waste is now creating livelihoods.”



Workers at Ziada Solutions

Farmers, too, are seeing the change. They now collect pseudo stems for sale instead of burning or dumping them, leaving their farms cleaner and more productive. *“Farmers now see value in what they used to call waste,”* says Andrew. *“They can sell it or exchange it for organic fertilizer, and that has changed the way they look at farming.”*

The partnership between MESPT and Ziada has not only helped the enterprise grow but also contributed to a shift in local attitudes toward sustainability. The solar energy system reduced dependence on fossil fuels, the use of biogas replaced conventional fuel sources, and the adoption of organic fertilizer promoted healthier soils. Through their integrated waste-to-value model, Ziada has become an example of how circular economy principles can drive rural transformation.

The results are visible. Over 200 farmers in Taveta now earn additional income from supplying pseudo stems. Women and youth have new employment opportunities in value addition and craft production. Waste in banana farms has reduced significantly, and cleaner production practices are being adopted more widely across the region. *“We’ve learned that there is no such thing as waste, it’s only a resource waiting to be used differently,”* Andrew reflects.

The journey, however, has not been without lessons. Setting up the processing systems required technical learning and consistent collaboration with partners. Market development for fiber-based products also needed innovation and customer education. *“The support we got from MESPT helped us refine our products and understand market expectations,”* Andrew says. *“Exposure visits and exhibitions helped us get feedback that has improved our production quality. The enterprise now processes about 100 banana stems daily, yielding around 8 kilograms of fibre, equivalent to roughly 240 kilograms per month. It also produces an average of 300 litres of slurry daily, nearly 9,000 litres monthly which is repurposed into organic compost to enhance soil fertility. Additionally, Ziada Solutions processes approximately 150 kilograms of banana flour each month, turning what would otherwise be waste into nutritious, marketable products.”*

As Ziada looks to the future, the vision is to scale this success beyond Taveta. The enterprise plans to introduce an outgrower model, equipping women’s groups with small decorticators so that they can extract fibers within their own communities. *“In the next few years, we want to expand by giving women groups the tools to process fiber themselves,”* Andrew says. *“We’ll then focus on refining and adding more value to the fiber to make high-end products such as carpets and hair extensions.”*

From a simple banana farm to a thriving circular enterprise, Ziada Solutions stands as a symbol of green innovation in rural Kenya, proof that sustainability, when powered by partnerships and creativity, can turn what was once waste into opportunity. As Andrew concludes, *“Through MESPT’s support, we moved from managing a small banana farm to producing valuable products from what people once called waste. Today, we generate income, empower women and youth, and protect our environment.”*