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Grassroots innovation journey spotlights new pathways

Creating impact in the innovation ecosystem and reaching disadvantaged communities has been central to the Inventor Assistance Program (IAP), helping turn innovative ideas into commercial assets. The IAP is the World Intellectual Property Organization's (WIPO) flagship project, launched in partnership with the Companies and Intellectual Property Commission (CIPC).

The programme serves as a catalyst for global innovation, ensuring inventors and small businesses globally have the chance to make a lasting impact. It empowers inventors by connecting individuals and small businesses with qualified professionals who help them navigate the patent system at no cost.

One success story is that of Tokosickle, invented by Vonnice Baloyi from Groblersdal in Limpopo. Tokosickle is designed for small-scale rural farmers to improve peanut harvesting efficiency and reduce postharvest losses.

The product is an animal fodder made from peanut crop waste and invasive sickle bush pods, turning underused biomass into affordable, high-nutrient feed for livestock and wildlife. It emerged directly from Vonnice's experience as a rural farmer facing the harsh realities of economic challenges, climate change and limited access to resources.

The Small Enterprise Development Agency (SEDA)'s Groblersdal Branch exposed Vonnice to the CIPC Intellectual Property (IP) Education and Awareness session, marking the successful start of this IP journey.

Through the IAP support, Tokosickle became a grassroots innovator, highlighting the agricultural circular economy. This created new opportunities towards a low-carbon, sustainable and resilient economy that benefits local farmers

With no formal business training, Vonnice was matched with pro bono patent experts from Spoor & Fisher (S&F). S&F helped refine patent applications and recognised Tokosickle as a distinct, independently patentable invention.

Vonnice's journey was not easy, and because of her strong will to succeed in business, Vonnice once had to leave university for financial reasons. In 2021, Vonnice and her fiancé manually cleared a 1.7-hectare plot to plant white sweet potatoes. Later in March 2023, Vonnice had a vivid dream about harvesting peanuts, a dream that changed her path forever.

According to Vonnice, a circular-economy business rooted in rural empowerment has been impactful, establishing buyback networks and employment opportunities for local farmers.

"Working with pro bono patent experts from S&F has truly opened my eyes, their support not only safeguards Tokosickle's creations but also inspired me to embrace my identity as an innovator" Vonnice Baloyi said.

"No one had ever told my story before, that a rural woman without a science lab could innovate for the planet, and this would not have been possible without CIPC-WIPO IAP," said Vonnice Baloyi.

Vonnice is proud that her vision has brought her village to the global stage of innovators, as she has been nominated as an innovator by AgriSA. She is also a semi-finalist in the Global Cleantech Innovation Programme South Africa (GCIP-SA) under the mentorship of the University of Johannesburg Process, Energy and Environment Technology Station (UJ-PEETS) mentorship.

"Innovation does not only live in labs or urban cities, but it also lives in deep rural villages, in the soil, in the struggles we face every day," said Vonnice Baloyi, inspiring young innovators to dream fearlessly, guard their visions, and trust that the right people will rally behind them.

As the IAP beneficiary, she feels proud to be at the stage of securing patents and getting ready for commercialisation. Vonnice's vision is to complete her studies, grow as a leader, and inspire other rural women to see their experiences as a source of innovation rather than limitation.