

Agribusiness Entrepreneur Grows Business While Addressing Climate and Environmental Issues and Making a Social Impact

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AN ENTREPRENEUR AND A BUSINESS MODEL

Mr Leonidas Mushimiyimana (cover photo) is a 43-year-old husband and father of two. He is also the CEO of DEYI Ltd, a company he created in 2014 that specialises in the production and selling of oyster mushroom tubes, located in Kabuye, Kigali, Rwanda. He is also the Chairman of the Mushroom Producers and Exporters Organisation in Rwanda. Mr Mushimiyimana established DEYI just one year after completing training in China on “Juncao technology” through a Rwanda-China government partnership. “Juncao” means “mushroom grass” used as a substrate to grow mushrooms. The aim of the training was to contribute to Rwanda’s efforts to enhance food and nutrition security while supporting mushroom farmers (mostly youth and women) to ensure reliable market opportunities to address poverty.

DEYI Ltd was identified by CASA as a company which recognises that the sustainability of its business depends on addressing climate change, environmental impact, gender equality, and social inclusion due to the proactive steps it has taken since its launch. DEYI’s business model includes mushroom tube production, mushroom farming, and processing mushrooms into various forms to mitigate post-harvest losses and enhance food and nutrition security.

A SUCCESSFUL JOURNEY TO SUSTAINABLE BUSINESS GROWTH

Mr Mushimiyimana started DEYI Ltd alone with the capacity to produce only 15 kg of fresh mushrooms per week and today the company has reached 60 tonnes per month, now with ten full-time and 45 temporary staff. They achieved this by adding to the company’s own production through the purchasing of mushrooms for processing and collection from out-growers trained by the company. With the 4,361 out-growers DEYI was able to mobilise with support from the consultant hired by CASA, the total quarterly production will rise to an estimated 137,848 kg. This will make DEYI the biggest producer of mushrooms in Rwanda with over 70% of market share.

Mr Mushimiyimana was happy with the progress made by DEYI before the CASA intervention, but the company kept facing several challenges. However, he said, “CASA came in at the right time to help us to solve them. They helped us to develop a business plan and organise the operations so that our market systems run smoothly, and now we have a clear understanding of the company’s future and what sustainable growth looks like.” He added that the experts hired by the FCDO-funded CASA Programme – implemented in Rwanda by Swisscontact and NIRAS – also helped them to be investment ready and build strong financial management systems as well as develop and test a contract farming model with their mushroom out-growers. The model included selection criteria, mapping out-growers, a collection system for fresh mushrooms, training on mushroom production and customised contract farming management, and cost-benefit analysis. The company signed 40 contracts with 15 out-growers and 25 farmer cooperatives for a total of 4,361 members, of whom 70% are women. Today, the CEO feels the company is able to attract investors and get loans or grants whenever needed.

CASA also helped DEYI to establish a modern processing unit to produce and supply high-quality mushroom powders and three nutritious instant soups enriched with vegetables, fish and chicken. This also helped them to conduct the required analysis for mushroom processing competencies for value addition to meet certification requirements before the new products are put on the market. This process involves passing through a training programme before getting the certificate, which DEYI has completed. The Rwanda Standards Board plans to do the site check but has already delivered an intermediary approval for the company to start producing and selling the soup products, with the official certificate to be delivered after the final checks.



A DEYI staff member with new instant mushroom soups

The CASA support also included the acquisition, installation, operation and maintenance of processing equipment and eco-friendly packaging that considers affordability for people with low incomes. One package costs 20 pence (400 Rwandan francs) once in Kigali while the normal packaging can cost three times more. As soon as the company receives final approval for their products from the Standards Board, they will be able to sell them not only to the local market but also export them to regional markets including in the Democratic Republic of Congo, Kenya, Tanzania and Uganda.

DEYI ADDRESSES CLIMATE CHANGE AND ENVIRONMENTAL ISSUES

Mr Mushimiyimana is among the entrepreneurs who recognise that sustainability of any agribusiness – including DEYI Ltd – depends on addressing key issues such as climate change and the company’s environmental impact. He was motivated to use the Juncao technology to cultivate mushrooms, not only as an innovation to promote food and nutrition security but also to transition to a green economy through more environmentally-friendly, sustainable agriculture.

Using examples from his China workshop, Mr Mushimiyimana demonstrated how the Juncao technology offers a sustainable alternative to traditional woodfire-based mushroom tube production, helping his team to minimise deforestation and soil erosion. He said, *“To maximise the benefits of this technology, instead of using so many trees here, we carbonise used tubes and we mix them with cassava flour to produce green charcoal. This helps us to reduce pollution and get a cleaner, safer eco-friendly alternative to traditional firewood for sterilising new tubes.”* He is doing his best to continue mobilising as many farmers as possible to cultivate this product and adopt this practice of using green charcoal for safer cooking and as another way of supporting Rwanda’s innovative drive to manage waste sustainably by turning it into valuable resources.



DEYI uses Juncao grass as mushroom substrate, to stop erosion and to make green charcoal.

According to Mr Fabien Kayitare, CASA Rwanda Vegetables Market Manager, it is in this context that CASA support to DEYI included coaching sessions and advisory services on good agricultural practices (GAP), climate-smart agriculture (CSA) and access to early warning of extreme weather events to all farmers they work with via lead farmers. He added that, *“The programme also supported them to have the processing capacity to make sure their new products have required certificates for standards compliance to help them gain access to the domestic market.”*

AN ENTREPRENEUR WHO HAS INFLUENCED HIS COMMUNITY

When Mr Mushimiyimana started DEYI, he was not only looking to make money; he also wanted to address some of the local challenges the country was facing, such as poverty, stunting and malnutrition, youth unemployment, education, climate change issues and environmental impact. Only one year after starting the business in 2015, with the large number of smallholder farmers he was able to train and the associated rise in production of mushrooms, he was unable to find a secure market for the produce. This is when, as an entrepreneur, he tried to find a solution by renting a small room for day care and requesting parents to bring their children so that his hired professionals can offer them early essential childhood education and feed them mushroom soup with bread while the parents are at work.



Mr Mushimiyimana at the school he built

With only 15 children at the beginning, not only did the parents like the idea and start to pay him for the service provided, it was also an opportunity for him to show them that mushroom can also contribute to the fight against malnutrition with many health benefits including boosting immunity, brain health and heart function. Today, he has transformed that initiative into a successful business that became a private nursery and primary school called Kabuye Hill School with over 519 students. In the year 2024/2025, 100% of the primary 6 students successfully passed the national exams allowing them to go to secondary school. Says Mr Mushimiyimana regarding this success: *“I feel so proud to have contributed to the wellbeing and education of such a large number of children and by creating economic opportunities for my community.”* He added that the business is still growing, and it is helping him to grow the market for his products, including signing contracts with a number of schools (such as the well-known College Christ-Roi in Nyanza District) to supply them with mushrooms for their feeding programmes.

EMPOWERING YOUTH AND WOMEN THROUGH KNOWLEDGE AND JOB CREATION

As part of its initial business model, DEYI took proactive steps from the beginning, including focusing on women suppliers of fresh oyster mushrooms. Among the 4,361 farmers who have been trained and who are ready to produce and supply fresh mushrooms, 70% of them are women including single mothers. *“When a woman is given capacity and is able to start her own business like this one with a minimum of investment, it is a sure deal as a contribution to fight poverty in our communities with the capacity to cover living expenses and pay school fees for their children,”* said Mr Mushimiyimana, outlining how DEYI Ltd is an inclusive company. It was a conscious decision to aim for a large percentage of women involved in mushroom production.

DEYI has also contributed to job creation for many mushroom farmers. Mr Mushimiyimana: *“As the leader of the mushroom producers in Rwanda, I also play a big role in helping our members to have access to the domestic market. In addition, through the great leadership of our country, we receive many young students here at DEYI Ltd for internships and at the end, most of them are able to create their own businesses because farming mushrooms does not really require a big investment other than the skills we provide to them.”*



IS Mushroom Farm in Gicumbi District

AGRIBUSINESS ENTREPRENEUR GROWS BUSINESS WHILE ADDRESSING CLIMATE AND ENVIRONMENTAL ISSUES AND MAKING A SOCIAL IMPACT



Mr Noel proudly presenting the production of his company



Mr Noel discussing progress made with DEYI and CASA visitors

One of many vulnerable youths who were trained by the CEO of DEYI Ltd – and who was able to immediately start his own business and create jobs for others – is Mr Muhire Noel, the owner and Managing Director of Innovation Systems (IS) Mushroom Farm Ltd, operating in Gicumbi District. Mr Noel has come a long way. He had to leave his job in a factory after an accident. After a frustrating unemployment period, it was an exciting moment for him when he discovered Mr Mushimiyimana on TV and attended his training on mushroom farming using the Juncao technology. *"Mushroom farming is the best thing to do. I started from nothing using the material given by the CEO of DEYI Ltd after giving me the knowledge. Today, I have the capacity to supply from 30 kg per month up to 15,600 kg every quarter after combining my production and what I collect from five cooperatives of 306 out-growers I partner with,"* reported Mr Noel.

Today, Mr Noel's company has three full-time and 40 part-time staff and has trained five farmer groups (totalling 200 farmers) on mushroom production, from which he collects produce to increase his capacity and grow the supply on the market. In addition to the production of fresh mushrooms and mushroom powder, Mr Noel is also increasing his product range to include biscuits, bread and samosa, all made from mushroom.



Mr Noel providing guidance on the construction of a mushroom farm by a team he trained

Products from IS Mushroom Farm Ltd, a company built by Mr Noel after being trained by DEYI





Commercial Agriculture for Smallholders and Agribusiness

