



OYSTER MUSHROOM FARMING

Increasing incomes of smallholder farmers
and improving nutrition

THE MARKET CONSTRAINTS

In Rwanda there are around 50,000 rural households involved in mushroom farming – of these around 60% are poor women and youth. Mushroom farming is substantially more accessible to women farmers as it doesn't present common constraints women face across agriculture sectors, such as access to land and capital. Tubes are only RWF 500/each and minimum assets are required to start up the business; a good number of mushrooms can be grown in as little as 1m², meaning that women can start off microenterprises in their back yards. However, the oyster mushrooms sector remains relatively small and underdeveloped, due to both supply and demand issues:

- On the supply side, limited access to inputs (spawns, which are then converted into tubes) as well as sub-optimal extension reaching farmers, limit the volume of oyster mushrooms produced. Similarly, the lack of cold chain logistics to transport mushrooms to local markets, coupled with poor post-harvest handling from farmers lead to high losses and limited volumes of quality produce reaching markets;
- Demand for oyster mushrooms is low largely due to limited consumers awareness, poor marketing and distribution; indeed, oyster mushrooms can only be found at some markets in the early morning hours and with varying quality and fluctuating prices.

THE SOLUTION

IMSAR first partnered with Deyi, a tube producer and mushroom farm, to first address the supply issue. The intervention entailed:

- **Improving access to inputs:** Deyi established a spawn laboratory increasing their tube production for their production and for sales and established a network of tube producers purchasing spawns and substrate from Deyi;
- **Improving access to extension:** Deyi established a training scheme to train mushroom growers on a weekly basis, organises training of trainers, and trains cooperative across the country on production, postharvest handling and have recently incorporated financial management and marketing in the training modules;

As the first intervention showed promising results, with a strengthened network of tube producers and increased production of oyster mushrooms, IMSAR partnered again with Deyi to improve aggregation and sales, also addressing constraints on demand side linked to poor awareness.

- **Identification and profiling of oyster mushrooms farmers:** Through the mushrooms forum Deyi has developed a data base of oyster mushrooms producers (coops, individuals and microbusinesses), which it updates regularly;
- **Branding and promotion:** Development of a new brand identify for Deyi, including a new logo and marketing materials, used to attract customers and improve awareness on oyster mushrooms;
- **Distribution channel expansion:** Recruitment and hiring of sourcing and sales agents as well as market vendors, and establishment of a market stall at Kimironko market. This selling point uses both printed materials and radio jingles at the market and nearby spots to increase awareness and generate demand.

THE RESULTS

- The spawn laboratory has produced more than 52,600 mushroom spawns, of which 30% was retained by Deyi for its own tube production, and 70% was sold to tubes producers;
- Sales turnover increased by over 50% and the company has hired 10 permanent staff of which 7 are women and continues to hire 30 casual daily workers, 80% being women;
- 80 kgs of mushrooms are sold every day at Kimironko market, ranging from 2,500 to 3,000 RWF/Kg. Deyi is also planning to expand their operations to two additional markets in Kigali;
- The company is also investing in R&D to test additional products – these include converting spent mushroom substrate, a waste raw material, into micronutrient fertiliser, as well as in briquettes replacing charcoal;

- Deyi reached an agreement with the Rwanda Workforce Development Authority (WDA) to train 25 nominated youths every two months. Once trained, these youth get access to mushroom tubes supplied by Deyi and then grow and sell mushroom themselves;
- 1,827 farmers (60% female) receiving private extension during the intervention;
- 11 companies and 10 cooperatives producing mushroom tubes were contracted by Deyi;
- 932 mushroom farmers were contracted by Deyi to supply mushroom;
- Over 7,000 farmers increasing their incomes; the net attributable income change is £83/farmer/year.

KEY LEARNING

- Oyster mushrooms farming is a viable business opportunity with high inclusion potential. Oyster mushrooms need very limited land and inputs are very accessible, even to the poorer farmers. Nevertheless, and partly due to the low demand, the sector remains very small compared to other agriculture commodities, which received higher attention and investment from GOR, development partners and private sector alike;
- Companies like Deyi can grow quickly. Indeed their inputs business is already expanding to engage more tube producers, and the stall at Kimironko is turning a profit (within just over a month from opening).
- These are all positive signs that the sector has great potential to grow. Development partners, including those focusing on private sector growth, have a role to play in strengthening the sector further, reaching farmers at scale. Learning from the horticulture sector can be leveraged, and linkages created. Similarly, the oyster mushrooms sector could be targeted by development partners who are focused on nutrition and social development.





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