



# Mushroom

## Spawn Production Enterprise:

### Providing Employment Opportunities for Youth

Youth unemployment is one of the country's most pressing issues and challenges. In addition, the COVID-19 epidemic has exacerbated the situation. According to the Labour Force Survey Report for 2021, the country's current unemployment rate is 5%, which is nearly double (2.7%) that of 2019. The unemployment rate is higher among women (6%) than men (4.1%). Therefore, in the 12th Five Year Plan (FYP),

the Ministry of Agriculture and Forests (MoAF) has been mandated to promote 12 Renewable Nature Resources (RNR) enterprises to provide job opportunities and come up with strategies and solutions to address this pressing issue. Mushroom is one of the commodities identified in these 12 RNR enterprises.

Due to rural-urban mi-

gration, the number of youths in agriculture has decreased. As a result, fallow land in the rural areas have increased owing to the labor shortage. To retain youth in the rural community and fulfill the MoAF's mandate for entrepreneurship development, a mushroom production enterprise was established in the region with funding from the Commercial Agriculture and Resilient Livelihoods Enhancement Programme (CARLEP) under the Mushroom Production Intensification Program.

Mushroom farming has become increasingly popular throughout the country. Only two mushrooms are now being promoted on a commercial scale: Shiitake and Oyster mushrooms. With support from CARLEP, mushroom cultivation has now reached every corner of rural communities in the region. Some have recognized the potential of mushroom



Name of Spawn producer	Location	Spawn produced (bottle)	Spawn Sold (bottle)	Income generated (Nu)
Sacha Dorji	Tsakaling, Mongar	1100	700	56000
Nandi Pokhrel	Pemathang, S/Jongkhar	500	400	32000
Sonam Gyeltshen	Kalapang, Mongar	2000	1800	180000
Lekshey Dorji	Ngar, Lhuentse	500	400	40000
<b>Total</b>		<b>4100</b>	<b>3300</b>	<b>308000</b>

cultivation and have pursued it commercially with the help of financial institutions.

Despite the increasing interest in mushroom cultivation, the Mushroom unit of the Agriculture Research and Development Sub-Center, Khangma (ARD-SC-Khangma) is unable to meet the year-round demand for mushroom spawn from mushroom producers in the region. As a result, the illegal import of mushroom spawn from border towns in India has been increasing posing higher risk of introducing new pests and diseases to organic mushroom production. Therefore, this enterprise development program will help curb illegal trade of spawn, create employment opportunities, and improve year-round mushroom production. The project supports the basic equipment for spawn production (autoclave, laminar airflow, Panel heater, Rice cooker and refrigerator), and the youth bear the cost of building the laboratory unit.

The selection of interested youth is carried out in close consultation with the Geog

Agriculture Office. The mutual agreement between the spawn producers and the Mushroom unit are drawn. The agreement emphasizes that the spawn producer must return the supported equipment to the mushroom unit if they cannot continue spawn production and that the equipment will be made available to other interested youth. The enterprise shall produce mushroom spawn as well as grow mushrooms in its mushroom farm. Surplus mushroom spawn will be sold to interested mushroom growers in their community to generate income.

After the youth have been selected and confirmed, they are trained for 10 days at the center in spawn production, management, and cultivation techniques before being given the equipment. A total of Six spawn production enterprises have been established: two in Samdrup Jongkhar, two in Mongar, and one each in Lhuentse and Pemagatshel. Four of the six enterprises have begun producing and marketing spawn, while the other two have just finished construction of the laboratory and will begin production as

soon as they obtain the whole set of equipment.

To date, the youth have sold 3300 bottles of spawn across the country, raising Nu 0.308 million. Among the spawn producers, Sonam Gyeltshen has earned the highest income with Nu.0.18 million and Nandhi Pokhrel has earned the lowest income with Nu. 0.032Million.

#### Enterprise Sustainability

The mushroom unit provides pure culture mother spawn and monitor spawn at regular intervals to maintain and produce quality spawn. Gradually, the unit will pass on the demand for mushroom spawn from the regions to the enterprises as they are able of producing 1000 bottles of spawn in one month. The selling price of the spawn will be set according to the production cost in the business plan developed for the enterprise. Currently, it is being sold at Nu.80 per 400g spawn without delivery and Nu.100 per 400g spawn with delivery. However, the price of the spawn may fluctuate depending on the price of raw material in the market.

The enterprise development program has played an important role in the lives of young people. It has given them employment opportunities that contribute to the development of the community and provide them with a better livelihood. As their business grows, they will be able to create employment opportunities for unemployed youth.

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