

Livelihood Enhancement of Mountain Women Farmers Through Oyster Mushroom Production

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By

Uttarakhand Jan Jagriti Sansthan



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Women are a strong pillar of the society and economy in the mountainous region of Garhwal. Due to rigid patriarchal traditions and the migration of most men, women shoulder over 80 percent of the work in agriculture and animal husbandry, which are the main pillars of mountain livelihoods. Consequently, women work 14 to 15 hours a day and endure heavy workloads, yet they are denied property rights and face challenges in accessing healthcare and education facilities, which hinders their social and economic progress.

Despite these obstacles, mountain women have established a unique identity. Through self-help groups, cooperatives, and individual efforts, they are creating sustainable livelihoods by engaging in employment opportunities like agriculture, animal husbandry, mushroom production, and food processing. These women embody their new identity through sheer vitality and resilience.

The Uttarakhand Jan Jagriti Sansthan has been working on grassroots issues for mountain women since its inception in 1983. The organization's efforts are continuously strengthened by the exceptional support of Himalaya Resources. In collaboration with Himalaya Resources, Jagriti Sansthan launched a project in 2025–26 to enhance the livelihoods of women farmers by training and connecting them with mushroom production.



Project Objectives:

- To enhance the livelihoods of local rural women through mushroom production.
- To provide nutritious food to the families of women farmers through mushroom production.
- To develop a local market for mushroom produce.
- To build the marketing skills of women farmers through mushroom production and sales.
- To cultivate leadership skills among women farmers.

Project Area

The project's primary focus lies in the Henwal Valley, located in the Narendra Nagar development block of the Tehri Garhwal district in Uttarakhand. Additionally, one woman farmer who had previously shown a keen interest in mushroom production was identified from the *Pratap Nagar* development block. In the Henwal Valley region, ten women farmers and one young man farmer were selected from villages situated between 850 and 1,500 meters above sea level. This primary project area falls within the catchment zone of the Henwal River, which originates in the *Surkanda* Mountains. Most of these participants are marginal farmers with very limited land and resources for cultivation.



Farmers in this mountainous region constantly face the vagaries of unpredictable weather. Protecting crops from wild animals also remains a major challenge in the Henwal Valley. These continuous hurdles are causing the traditional agricultural sector to shrink. Under these adverse farming conditions, mushroom production is emerging as a relief and a much better economic option for local farmers.

Project Beneficiaries

The project, "Enhancing the Livelihoods of Mountain Women Farmers through Oyster Mushroom Production," primarily involves women farmers. Ten women farmers were identified who had previous experience with mushroom production and wished to pursue it as a sustainable livelihood. Additionally, one local youth (male) who wanted to make mushroom production his primary source of income was included in the project. This young individual also brought prior experience in mushroom cultivation to the initiative.



Mushroom Spawn Bag Production Training

The local geographical conditions and climate of the region are particularly favorable for oyster mushrooms. Cultivating oyster mushrooms, which are perfectly adapted to the local climate, is more convenient and profitable than growing other mushroom species. They can be easily produced indoors simply by disinfecting a room in the home. Given the heavy workload of mountain women farmers, oyster mushrooms are highly beneficial as they yield results in a short time with minimal labor.



Spawn bag production is a key, highly technical, and sensitive stage of mushroom cultivation. To address this, beneficiaries were trained during the bag preparation phase before distribution. Under the project, an effort was made to establish a centralized spawn bag production unit. This unit was operated out of Kamala Devi's home in Chidiyali village, where the operating workers received hands-on training during the production process. A total of 650 bags were produced at this training unit between November 2025 and December 2025, with the average cost of preparing each spawn bag coming to ₹130

Mushroom Spawn Bag Distribution and Production

The spawn bags were prepared by the Mushroom Spawn Unit during the November 2025 training phase. These bags were successfully assembled and delivered to the beneficiaries by the second week of December. Concurrently, individual mushroom production units were established at each beneficiary's home throughout November and December. Cultivation within these units officially started during the second week of January and continued until the first week of March.

Oyster mushroom bags were distributed to the 10 selected women farmers and 1 youth farmer based on their individual capacities and available household space. A total of 600 mushroom spawn bags were prepared and distributed among all participating farmers. Initially, each bag was expected to yield approximately 2 kg of oyster mushrooms. However, due to weather unpredictability and relatively hot temperatures in the Henwal Valley, the average yield dropped to about 1 kg per bag. Despite these climatic hurdles, previous project efforts in the valley had successfully achieved an average yield of 2 kg per bag. Notably, in *Pujar* village of the *Pratap Nagar* block, one woman farmer successfully harvested the full target of 2 kg from each of her bags. In total, averages of 750 kg of oyster mushrooms were produced collectively by all 11 farmers.



Farmers' Consumption and Marketing

Beneficiary farmers used a portion of their oyster mushroom harvest to feed their families, successfully fulfilling one of the project's key objectives: family nutrition. Throughout the production cycle, fresh and highly nutritious mushrooms were readily available to the households of the participating farmers.

The majority of the farmers sold their surplus mushrooms within their own neighborhoods and villages. This hyper-local approach saved them transport costs, while village buyers gained access to fresh produce at affordable local rates. Meanwhile, a few farmers living close to urban centers supplied their produce to local markets, where consumer demand was so strong that every single mushroom brought to market was sold out. Additionally, some farmers supplied fresh oyster mushrooms to our restaurant "Mountain Food Connect," where the produce was cooked and served to guests who thoroughly relished the mushroom dishes.

The typical market price for fresh mushrooms hovers around ₹200 per kilogram. After accounting for home consumption, farmers sold an average of 40 to 45 kilograms of mushrooms. Based on a minimum sales volume of 45 kilograms and an average market rate of ₹180 to ₹200, participating farmers earned an average of ₹8,000 in cash. Even after deducting the ₹130 cost per spawn bag, the farmers cleared a net financial benefit of ₹1,000 to ₹2,000. For an enterprise requiring minimal time, low labor, and low setup costs, this income is highly rewarding for marginal farmers. Ultimately, the nutritious mushrooms consumed at home to supplement family diets can be viewed as their truest net profit.



Challenges and Obstacles in Oyster Mushroom Production



While oyster mushrooms are a relatively easy crop to grow, they do require specific technical knowledge. The cultivation room demands constant temperature and humidity control, which has caused some inconvenience for the farmers. This year, the weather was particularly unfavorable. Despite continuous monitoring, the overall yield did not meet initial expectations. Furthermore, because the beneficiary farmers live in remote villages, monitoring the individual household production units required extra time and labor. This remote setup ultimately increased operational pressures and made environmental management more energy-intensive.

To address these challenges, hands-on guidance was provided directly to the farmers at their homes. The mushroom production units installed in their houses were continuously monitored by project staff, and farmers were given precise instructions on how to adjust climate treatments based on shifting temperature and humidity levels.

Conclusion

The implementation of the project, "Enhancing the Livelihoods of Mountain Women Farmers through Oyster Mushroom Production," has demonstrated that oyster mushroom cultivation can become a primary pillar of mountain livelihoods. Despite facing environmental and logistical challenges, oyster mushrooms have successfully integrated into the local diet and remain in high demand. Moving forward, there is a clear need to improve technical efficiency at the household production level. Ultimately, this initiative revealed a substantial, untapped local market, proving that mushroom production is a highly promising option that can serve as a strong foundation for the rural mountain economy.

The Way Forward

Learning from past experiences, future efforts will focus on managing mushroom production with greater technical efficiency and precision. In the upcoming cycle, production units will be placed in closer geographical proximity to one another to streamline monitoring. Moving forward, steps will be taken to strengthen and stabilize the central spawn production unit. To optimize supply and demand, farmers will be encouraged to pre-order spawn bags before production begins. Furthermore, a centralized mushroom production unit will be established to serve as a hub for hands-on training and a source of inspiration for local farmers in the future.



Beneficiary Farmers List and Distributed Spawn Bags and Total Production

Sl. No.	Beneficiary Name	Village	Block	Number of Spawn Bag	Production in KG.
1.	Kamla Devi	Chidiyali	Narendra Nagar	93	100
2.	Sunita Devi	Aampata	Narendra Nagar	55	56
3.	Kavita Devi	Kudi	Narendra Nagar	55	58
4.	Pushpa Devi	Nala	Narendra Nagar	48	54
5.	Mamta Devi	Sabli	Chamba	50	58
6.	Sameera	Khadi	Narendra Nagar	30	35
7.	Anita Devi	Khankar	Narendra Nagar	50	50
8.	Sunita Devi	Than	Narendra Nagar	50	56
9.	Seema Devi	Tipali	Narendra Nagar	50	58
10.	Himla / Beera Devi	Pujar Goun	Pratap Nagar	65	120
11.	Dinesh Bhatt	Daduwa	Narendra Nagar	105	115
			Total	651	760

