



Women empowerment through mushroom cultivation

Bangladesh- মশরুম চাষের মাধ্যমে নারীর ক্ষমতায়ন

Cultivation of mushroom as nutritious vegetable by women for better livelihood through project initiative.

Mushroom is considered as a special delicious vegetable dish among some communities in Bangladesh. The approach to promote mushroom cultivation has opened up a new opportunity of earning extra income for a good number of small, marginal and landless farmers in the country. The greatest advantage for these farmers is that mushroom cultivation does not require any cultivable land rather it can be grown at the homestead or inside the dwelling house if suitable space is available.

The main objectives of mushroom cultivation project at East Jamsheng village of Savar by the Mushroom Development Project were to make mushroom as vegetable popularised in Bangladesh where mushroom had long been considered not as a vegetable rather simply a fungus in some parts of the country, to produce a highly nutritious food for the people suffering from malnutrition in the country, to enhance income and the food security as well as to improve the living standard of mushroom growers. Mushroom cultivation is a very easy job. Mushroom seeds or spawn produced through tissue culture are available for its cultivation. To get the harvest from the spawned saw-dust bags, they have to be kept in a shaded moist place and need to be sprayed with water three times a day. Mushroom can be harvested for over two months from each spawn-saw-dust bag.

The women of the East Jamsheng village were not aware about mushroom cultivation; some of them were earlier involved in making handicrafts for petty cash earning whereas others were busy in household chores only. The project officials of the Mushroom Development Project found the villagers ignorant about the prospect of mushroom cultivation and made them interested in mushroom cultivation one year ago. They provided training for them and the villagers are now used to grow mushroom successfully. The village is now known as 'Mushroom Village' and has become well known in the area. But some people in the village are still superstitious and sceptical to eat mushroom as vegetable. When some of them observed their neighbors to begin growing mushroom after training in the adjacent Mushroom Development Project, they become interested in growing mushroom.

Mushroom production and its demand as vegetable have increased very recently but its formal marketing has not yet started. The amount that is being produced is being sold without any formal institutional support. There is also a great demand for mushroom in big hotels and restaurants. Moreover, there is a great potential for export and earning foreign currency after meeting the domestic demand, if proper marketing and packaging support is made available by the government. The amount of money earned by exporting mushroom is very low at this moment. There is a need for extensive awareness program on raising the acceptability of mushroom as vegetable among the Bengali communities.

left: Mushroom blooming from spawned bag. (Farzana Hossain).

right: Photo shows mushroom bag. (Farzana Hossain).



Location: East Jamsheng, Savar, Dhaka AEZ 28(Madhupur tract)

Approach area: <0.1 kms

Land use type: Homestead

Type of Approach: Project/programme based

Focus: Nutrient rich vegetable for enhancing income

BANCAT database reference: QA BAN11

Related technology (ies): QT BAN 12

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Problem, objectives and constraints

Problem

- Superstition and unawareness of the rural people of Bangladesh about the nutritious value of mushroom as vegetable.
- Lack of initiatives of selling the products in city market personally.
- Lack of access to markets.

Aims/Objectives

- To make mushroom popular in Bangladesh where this had long been considered as a fungus, not as nutritious vegetable.
- To promote a highly nutritious food for people suffering from malnutrition.
- To generate income and increase the food security of the people.
- To improve the standard of life of mushroom growers.

Constraints addressed

Major	Constraint	Treatment
Technical	Lack of knowledge of cultivators of producing spawn bags by themselves. Susceptibility to high temperature during summer season	Through research, heat resistant variety can be developed.
Institutional	Participation of men is negligible as they are mainly involved with other agricultural and business activities. People are sceptical to take mushroom as food considering it as a fungus.	Initiatives should be taken nationally to inform people about the nutritious and medicinal value of mushroom. The involvement of men can be ensured by encouraging them to participate.
Financial	Non-availability of financial support	Bank loans, financial support from NGO's

Participation and decision making

Stakeholders / target groups



Land users, group



SLM specialists, agricultural advisor

Approach costs met by:

Land user	100%
TOTAL	100%

Annual budget for SLM component: N/A.

Decisions on choice of the Technology (ies): Mainly by the mushroom spawn production specialists with consultation of land users. The positive result of the technology transfer and the information about the high nutritious value of mushroom have created the scope to take the decision.

Decisions on method of implementing the Technology (ies): Mainly by mushroom production specialists with consultation of land users. The high benefit and scope of better livelihood were the influencing factors of taking the decision.

Approach designed by: Program specialists.

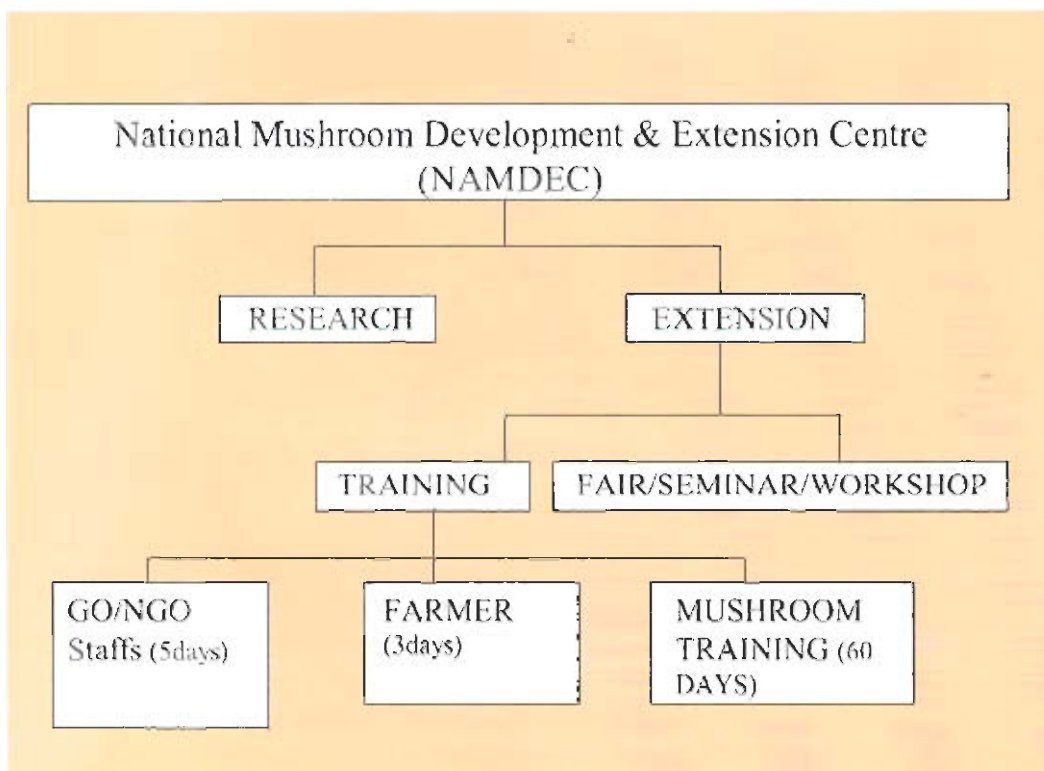
Implementing bodies: Local community/ Homestead land users.

Land user involvement

Phase	Involvement	Activities
Initiation/motivation	interactive	Training programmes
Planning	interactive	Training programmes
Implementation	interactive	Advisory services
Monitoring/evaluation	interactive	Observation by training officer
Research	interactive	Laboratory research and spreading the result among cultivators

Differences between participation of men and women: Mainly female participants are involved in mushroom cultivation whereas the men take part in field crop production and business activities.

Involvement of disadvantaged groups: Yes, rural women are considered one of the disadvantaged groups in Bangladesh



Organogram :
Institutional framework between NAMDEC, NGO, GO and cultivators. (Farzana Hossain)

Technical support

Training / awareness raising: The Mushroom Development Project provided training for 5 days at free of cost. Moreover they invited the women from their own initiatives and at first distributed free spawn packets after completion of training.

Advisory service: The Mushroom Development Project officers visited the project area frequently and gave advice as and when it is necessary.

Research: The Mushroom Development Project has their own research centre in Savar.

External material support / subsidies : The project provides material support.

Contribution per area (state/private sector): None.

Labour: The production procedure of mushroom is not labour intensive; the family members themselves provide labour.

Inputs: Full costs of seeds/ spawn packets are borne by cultivators.

Credit: Though credits are provided by Agricultural Bank, none of the cultivators take it.

Support to local institutions: Attitude of traditional / local institutions towards the use of mushroom as vegetable is changing.

Monitoring and evaluation

Monitored aspects	Methods and indicators
Bio-physical	ad-hoc observations of spawn bags by NAMDEC training officers
Technical	regular observations by cultivators
Socio-cultural	regular observations of rate of adoption, attitudinal changes
Economic/production	regular recording by cultivators
Area treated	ad-hoc measurements
No. of land users involved	ad-hoc observations
Management of Approach	regular observations by training officers as membership feedback

Changes as result of monitoring and evaluation: The training officers are continually refining their advice on the basis of results monitored from the village. There has also been a move to encourage other villagers to take up the technology.

Impacts of the Approach

Improved sustainable land management: As the approach is not related to land, it has no direct effect on land management.

Adoption by other land users / projects: Apart from Savar, the Mushroom Development Project has activities in Dinajpur, Jessore, Barisal, Chittagong, Sylhet, Comilla, Khulna, Mymensingh, Bandarban, Rangamati, Khagrachari, Chapainawabganj and Rangpur for motivating people to cultivate mushroom.

Improved livelihoods / human well-being: The Approach has led to improved livelihoods greatly.

Improved situation of disadvantaged groups: There is definitely improved situation of socially disadvantaged groups.

Poverty alleviation: The Approach has helped to make the women to contribute to their family to alleviate poverty.

Training, advisory service and research: The training and advisory service are excellently effective for the cultivators. The extension strategy is greatly contributing to the approach's effectiveness.

Land/water use rights: Land and water use rights help the implementation of the Approach greatly.

Long-term impact of subsidies: No subsidies are needed.

Concluding statements

Main motivation of land users to implement SLM: The main motivations of mushroom cultivators to implement SLM are to increase profit, improve social well-being and livelihoods.

Sustainability of activities: Continuation of the use of the technology by the cultivators without support has created a great expectation of sustainability.

Strengths and → how to sustain/improve	Weaknesses and → how to overcome
Orientation of the people with a new nutritious vegetable → Spreading the information of the food value of mushroom among people through proper campaign.	Few consumers are still reluctant to take mushroom as a food → Informing them about the high nutritious value of mushroom.
Appropriate training opportunities for all → More training supports may be provided as and when necessary.	Some people are reluctant to grow mushroom → Informing them about the high demand and market price of mushroom.
An easily adoptable technology without much effort and equipments → Spreading the technology throughout the country.	Lack of own initiatives to sell the products directly to the city market → By encouraging them to form growers' cooperative.
Others can easily see and copy → A growers' associations can be made and can take initiatives to sell the products to city market by their own.	
Strengthened self sufficiency → Keeping up the activities.	
Very low inputs are required → More support to reduce cost may be provided.	

Key reference(s): Mushroom extension materials published by the centre

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