

Preface

Recently, there is an urgent demand for green production along with growing concern for environment. Environmental sustainability should play a vital role in the agricultural policy which deals both with the integration of environmental considerations into agriculture rules and with the development of agricultural practices preserving the environment and safeguarding the countryside.

Practice shows that agro-based environmentally friendly technology (agro-based “green” technology) contributes greatly to poverty reduction and sustainable development of agriculture. More policies for application and extension of agro-based green technology has become crucial for promoting the sustainable agriculture development and capacity building of the member countries in the Asian and Pacific region, especially the developing countries, in pursuit of sustainable rural livelihoods and poverty alleviation through “green growth” and income generation.

In this connection, APCAEM launched a project on green technology to promote sustainable agriculture development by focusing on rural environment concerns and income generation of the farmers with gender dimensions. Based on the project, a feasibility study on agro-based green technology has been prepared. In the study, appropriate green technologies and effective policies for promoting their extension are identified, and micro-policy recommendations and favorable regulatory frameworks for the application of green technology are also identified.

Another study is a case of the application of green technology in mushroom cultivation. It has been well recognized that mushroom cultivation techniques are recommended as an existing green technology. Mushrooms can be cultivated on a wide spectrum of farm organic wastes, and the spent substrates can then be composted and applied directly back to the soil as agro-fertilizers. Mushroom farming can generate fast investment returns and open many new job opportunities for rural and peri-urban communities as they are fast growing organisms. It also can generate many other tangible benefits in nutritional and medicinal terms. Practice in some member countries has witnessed that mushrooms can be developed into a very strong promising biological resource for enhancing food security, a strong agent for healthy food diet, a high-value cash crop for agribusiness promotion, and the agro-trade.

This case study – Training Manual on Mushroom Cultivation Technology focuses on the advanced cultivation technology for environmentally-sound production of mushroom, e.g., harnessing the use of common organic wastes (such as spent grain from breweries, agricultural crop residues and weeds, as well as water hyacinth weed, that are often seen as a nuisance, often polluting the environment), as “food” (“substrate”) for mushroom production. This paper provides a basis for establishing a training manual on selected species of mushroom.

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