

IMPROVED STRATEGIES FOR IDENTIFYING AND ADDRESSING FODDER-DEFICITS, IN THE MID-HILLS OF NEPAL

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Introduction

The research project "Improved strategies for identifying and addressing fodder-deficits, using participatory research techniques" is funded by the Department for International Development (DFID) and managed by the Natural Resources Institute in collaboration with the Nepal Agroforestry Foundation and Forest Research and Survey Centre, Nepal. The project started in September 1997 and has funding until August 2000.

Strategic research into the sustainable use of natural resources is funded by DFID under its Renewable Natural Resources Research Strategy (RNRRS). The purpose of the strategy is to enhance the productive capacity of the RNR sector on an economically and environmentally sustainable basis. The project comes under the Livestock Production Programme of the strategy which, together with the Animal Health Programme, is working to improve the performance of livestock (including draught animals) in forest/agriculture interface and upland systems.



Staff feeding of buffalo and goats

This project is located in the mid-hills of Nepal, in Sindlepalchok and Khabrepalanchok districts. Livestock are a crucial component of the hill farming systems in Nepal for their contribution to household subsistence and incomes, draught power, and most importantly recycling of nutrients and hence fertilisation of cultivated land. Traditionally communal grazing areas and off-farm fodder sources have been important sources of feed for the ruminant livestock. Increasing pressure on land, together with changed access rights to some communal resources, has led to a decrease in availability of off-farm fodder sources. Seasonal fodder shortages have become more severe and farmers report this as limiting livestock productivity in many areas.

Purpose

The project aims to develop and promote strategies to improve the seasonal availability of feeds, looking at both on-farm and off-farm sources and trends in the resources, for small-scale livestock production systems. This it hopes to achieve by increasing the cultivation and/or availability of feed during deficit periods. Specific focus will be given to the contribution of tree fodder to ruminant livestock feed, the effect of community forestry management arrangements on feed availability and opportunities for increasing cultivation of fodder on- and off-farm.

Proposed Outputs

- Measurement of the relative importance of on-farm and off-farm fodder resources in terms of quantity, quality and seasonal availability, for farmers with different livestock and land holdings.
- Identification of trends in the availability of on-farm and off-farm sources of fodder, and the effect of new policies such as Community Forest Management agreements on supply of off-farm fodder and grazing resources.

- Sustainable systems of fodder production to overcome constraints in supply identified.
- Fora for the discussion of findings and related work in-country between farmers and between research and extension practitioners
- Policy implications identified.

Methodology

The project aims to participatively identify fodder deficits faced by farmers with different resource bases and livestock production systems and to develop, with farmers, sustainable systems of fodder production to overcome the constraints in supply identified.

Both on-farm and off-farm sources of fodder will be considered, historical use and recent changes in these sources and opportunities for improved strategies for their individual and combined use.



Planning research activities with community members at Nayabasti, Kavre

Transferability of Project Findings

- Limitation of livestock productivity by fodder-deficits is a widely perceived problem by farmers throughout the hills of Nepal. Identification of improved strategies suited to specific resource-bases and livestock production systems, could have relevance in many similar areas.
- The incidence of increased pressure on off-farm fodder resources and the increased severity of seasonal fodder shortages is found not only in the mid-hills of Nepal, but in areas of India, particularly where joint forest management initiatives have been introduced.
- Pressures to increase fodder cultivation on-farm are likewise experienced in many other areas that are subject to increases in population, decreases in land holdings and the incentive of growing markets for livestock products.
- The inclusion of farmers' criteria and local knowledge in research planning and evaluation is crucial for the development of appropriate smallholder technology in interrelated and dynamic systems. The methods being developed by the project for working with farmers and local research and development institutions are likely to be applicable in other countries.
- Participation of local groups in forest management is increasingly being viewed at both a national government level and by donors as the answer to resource management and distributional problems. Methods of exploring heterogeneity of resource requirements within groups, and the reflection of this within different stakeholder group entitlements and allocations, would have potential relevance across a wide range of projects.

The Future of the Project

The collaboration with both the Nepal Agroforestry Foundation and the Forestry Research and Survey Centre will ensure that findings are distributed within both the NGO and GO communities. Research co-ordinators appointed by both collaborators will ensure that activities are coherent and that information from both the GO and NGO sectors are fed into the project. Research activities are focused within the districts in which NAF is working with member NGOs and in collaboration with the Nepal Australia Community Resource Management project. It is envisaged that as well as farmers' ownership of the research-initiatives for increasing fodder supply, NAF will be able to provide some support to on-going activities after the end of this project. Opportunities for a follow-on phase of research/assessment, possibly funded under the Hill Agriculture Research Programme, will be explored with collaborators at a later stage.