

## IMPORTANCE OF EVALUATION OF FORESTRY PROJECTS WITH REFERENCE TO RURAL DEVELOPMENT

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### Abstract

This article is mainly based on literature review and the practical experience of the author. The paper discusses the existing forests plans preparation, important characteristics and objectives of forestry projects and evaluation processes. The paper suggests that forestry activities must be integrated with rural development. It further suggests that the importance of Planning, Monitoring and Evaluation (PME) of forestry projects must be recognised and evaluation must be made an integral part of the plans.

### Introduction

Pakistan has very meager forest resource. As a result the country faces acute shortage of forestry goods and services. The gap between supply and demand of wood and wood products is increasing with the increase in human population. Presently, 41 percent of total demand of wood and wood products is met through import at the cost of Rs.4705.3 Million (1992-93) out of the hard earned foreign exchange. Fuel wood supply is also far less than the total demand. This has forced the people to use fossil and other bio-mass fuels for domestic energy.

Total area under the forest cover is 4.28 million hectares which is less than 5 percent of total land area of Pakistan. Including rangelands total area under the control of Provincial Forest Departments is 10.56 million ha or 12 percent of total geographic area (Table 1). Total forest

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area is far below than the minimum required (25 percent of total area) for economic development and environmental stability of any country.

Table 1. Area of forest and rangelands under the control of Forest Department (thousand ha.)

Province/ Territory	Forest Area		Rangeland	
	Area	% of total	Area	% of total
NWFP	1400	13.8	150	1.5
Punjab	570	2.8	2694	13.1
Sindh	650	4.6	393	3.5
Balochistan	299	0.98	795	2.8
Northern Area	950	13.5	2104	29.9
Azad Kashmir	420	31.6	51	14.4
Total	4280	4.9	6287	7.1

On the other hand rangelands, both under the control of Forest Departments and owned by farmers cover more than 32 percent of total land area of Pakistan. Rangelands production is very low and hardly provide forage needs of less than 25 percent of total livestock. The rangelands produce less than 20 percent of their production potential which is mainly attributed to nonconducive environment and low technical and financial inputs. This big chunk of land is given low or negligible priority by the policy makers and planners though it deserves more attention due to its role in rural development and environmental protection.

Integrated and intensive management of forests and rangelands is closely related to rural development. Rural population mostly depends on the natural resources for their livelihood. They depend for timber and fuelwood produced in public forests, for grass collection and grazing in rangelands and water produced from the watershed. The role in local and



national economy played by forests and rangelands is of paramount importance. Further rural development could be enhanced through balanced development of agriculture, forests, and rangelands.

### **Existing planning processes**

Presently, provincial forest departments exercise management practices through the forest management plans commonly called forest working plans which are prepared for different forest management units and are implemented for a period of at least 10 years. After the expiry of this period the plans are revised. Presently, these plans cover about 52 percent of total forest area and for remaining area plans are under preparation. However, these plans neither implemented in its true spirit nor they cover all the aspects of a forest resource management. There are no specialized permanent planning units except the province of NWFP for formulation of these plans and, most often, unmotivated junior staff are employed for the formulation of the plans. Similarly, there is no in-pit mechanism for evaluation of the plan achievements. Progress reports (monthly, quarterly and annual) are prepared and submitted to senior officers which lack credibility.

In addition, special forestry development projects for forest, rangeland and watershed management are prepared. These projects are mostly sponsored by the foreign donor agencies and are only for short project periods of 3 to 5 years or at the most for 10 years. These are generally discontinued when project period is over and the foreign financial assistance is withdrawn. All such projects are liable to mid-term and terminal evaluation by the sponsors. However, project activities and type of evaluation depend mostly on the nature, scope and size of the developmental projects.

### **Characteristics of forestry projects**

Forestry development projects vary widely in nature, scope and size covering wide fields of forestry based industry to management and conservation of forestry resources. Some of the differential features of forestry projects include:



1. A long gestation or production period.
2. The trees being both the production unit and the product (output).
3. A great flexibility in harvesting (rotational period) put no or little flexibility in its establishment.
4. Substantial uncertainty (due to variation in climatic and other factors).
5. Multiple uses of trees or forests (conflicting objectives and trade off between uses and special consideration in evaluation).

Due to the special nature of forestry projects mentioned above their objectives, constraints and purposes also vary.

### **Major objective of forestry projects**

In Pakistan, public sector is mostly interested in undertaking forestry projects for a variety of reasons taking due consideration of broader societal objectives. These are many and include:

1. Improve economic efficiency by increasing aggregate benefits out of the meager forest resources.
2. Improve socio-economic conditions of target community through employment generation.
3. Increase social, political and economic stability through sustained yield policy.
4. Improve, rehabilitate and conserve the environmental system and



## 5. Enhance revenue for Government for rural development.

Some of the multiple objectives listed above are put as constraints on the projects. For example an afforestation project may provide wood for consumption and also protect soil from erosion. However, its harvest may be subjected to conditions acceptable in terms of protection value. This is particularly true in case of all watershed/rangeland rehabilitation projects. Thus this may delay the direct benefits to the targeted communities.

### Evaluation process

The evaluation is one of the planning processes. It is an applied research and is specifically carried out for practical reasons. The results are applied often immediately to decide whether projects should stop or go, whether budget should expand or contract and whether project personnel should be hired or fired.

The evaluation is a systematic process which attempts to assess the relevance, effectiveness and impact in the context of a project. In this process the objectives and decisions of project are analyzed. Inputs and outputs are reviewed and validity and relevance are assessed.

The evaluation process is a learning and action-oriented management tool and seeks to improve the effectiveness, relevance and impact of both ongoing and future projects. It must clearly be differentiated from audit processes. Generally evaluation is carried out at different stages of project implementation as under:

1. on-going evaluation
2. terminal evaluation and
3. ex-post evaluation.

In the evaluation process all the 5 project components which are constituent parts of the comprehensive system and all are equally important are precisely assessed. Those project elements include operation, performance, effect, impact and context. First two elements



cover project input-output relationships and are easily assessed by on-going or terminal evaluation. Last three project elements are generally assessed under ex-post evaluation and will need appropriate evaluation research design. One of them is social survey.

Forestry, rangeland and watershed projects, as already stated, are of special nature. Their effect, impact and context generally appear after completion of their financial/economic age. Consequently, ex-post evaluation is more appropriate for assessment. However, the importance of on-going and terminal evaluations must not be ignored.

In Pakistan, on the other hand almost all the foreign sponsored projects are evaluated during mid term project period (on-going evaluation) or at their termination (terminal evaluation). No ex-post evaluation, in my knowledge, has so far been carried out in the country. Further the regular forest developmental activities (carried out under forest working plans) are never evaluated.

### **Direct inputs and outputs**

The direct inputs and outputs are most important project costs and benefit which are imperative for evaluation at any stage of project. The identified inputs and outputs are as under:

#### **Direct inputs:**

1. Manpower
2. Land
3. Equipment
4. Raw material
5. Structure and Civil Work and
6. Seed, fertilizer etc.

#### **Direct Outputs:**

1. Ecological (catchment protection, ecology and wildlife conservation, soil erosion control)



2. Indigenous consumptions (fuelwood, charcoal, agricultural uses, building poles, weaving material, sericulture, epiculture, grasses/leaves, water etc.) and
3. Industrial uses (gums, resins and oils, charcoal, poles, saw-logs, veneer logs, pulpwood, residue electricity).

#### Indirect effect:

There are a number of indirect positive and negative effects which can not be traded in market. Their shadow prices can be estimated where required.

1. Soil conservation, improvement of watersheds, wildlife and recreation habitats.
2. Trained and skilled personnel and
3. Cost savings.

#### Epilogue

Forestry developmental activities must directly be associated with rural development. Their role in local and national economy is of paramount importance. The natural renewable resources (forests, rangelands, watersheds) must be given due priority for their development. It would mean that the livelihoods of rural masses are being enhanced. Unless integrated rural development practices are undertaken the poor rural masses could not get their due benefits of development. The public resources on which their sustenance depends must be improved

Proper planning, monitoring and evaluation of forestry projects must be recognised. There must be an independent planning unit in provincial Forest Departments. Both financial and economical analyses of forestry projects at planning stage must be introduced and adhered to strictly. The evaluation must be made integral part of project planning and

for effective implementation there should be in built mechanism for continuous evaluation. Not only mid-term and terminal evaluation be carried out but impact and context analyses (Ex-post evaluation) must also be done.

## References

Amjad, M. and Nadir Khan. 1996. Forestry Statistics of Pakistan. Pakistan Forest Institute, Peshawar.

Anon, 1992. Forestry Statistics of Pakistan. Pakistan Forest Institute, Peshawar. 17 p.

FAO, 1979. Economic Analysis of Forestry Projects, FAO. Forestry Paper 17. Food and Agri. Org. of United Nations, Rome, 193 p.

FAO, Community Forestry: Socio-economic Aspects. FAO Regional Office for Asia and the Pacific (RAPA).

Gittinger, J. Price. 1982. Economic Analysis of Agricultural Projects. Second Edition, EDI. Series in Economic Development. The Johns Hopkins University Press, Baltimore and London.