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# The Underlying Causes of Deforestation and Forest Degradation in Pakistan

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## Abstract

This paper is based on the findings of a workshop held in December 2002 to identify the underlying causes of deforestation and forest degradation in Pakistan. It provides a brief overview of the diverse stakeholders perspectives on forests and forests degradation in the country. The purpose of this paper is to highlight issues of deforestation and systematically identify its underlying causes, by incorporating the views of all stakeholders, forestry sector experts and policy makers from the federal, provincial and local levels. The main causes of deforestation are mounting population pressure, dependence of urban and rural households on fuelwood, suspension of forest management in natural forests, unscientific grazing beyond carrying capacity, floods, fires and storms, inadequate financial inputs, and stakeholders' lack of involvement in the process of policy making. The activities of the timber Mafia and lack of political will on the part of the government to bring them to book have further aggravated the situation. The analysis suggests, that involvement of all the stakeholders in the policy making process, irrespective of their interests, should go a long way to arrest the sharp forest decline in the country.

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## 1. Introduction

Pakistan faces immense problems of deforestation and forest degradation. Less than five percent of its total area is under forests. The rate of deforestation of 1.5% is very high and alarming. Efforts aimed at combating deforestation and increasing the forest area have failed to yield the desired results due to gaps in policy maker's information, financial and social constraints and stakeholders' lack of involvement in policymaking.

The rest of the paper unfolds as follows: Section II outlines the main objectives of this paper. Section III presents the underlying causes of deforestation and forest degradation. Section IV outlines the main land tenure and rights issues confronting the country. Section V explains local level approaches to deal with deforestation and being practiced in some parts of the country. Section VI identifies the main areas of further research in the light of the findings of this paper. The last section concludes the paper.

## II. Objectives

The specific objectives of this study are to:

- raise awareness of the benefits of forests, and adverse effects of deforestation;
- analyze gaps in policy makers' information;
- document the diverse stakeholder perspectives on forests;
- build capacity of all stakeholders for sustainable management of forests;
- suggest possible solutions to the top decision makers i.e. the Ministry of Environment, Local Government and Rural Development, and provincial forests departments by bringing into their notice concerns of the timber traders, forest owners and purchasers of rights to policy makers of the country.

## III. Causes of Deforestation

Pakistan is a forest deficient country. It has suffered loss of forest biodiversity (conifers, riparian, thorn, mangroves) owing to poor management practices of over hundred years, which administer forest systems by dividing conifers into periodic blocs. Policy makers gave preference to certain species on the basis of commercial interests. They ignore taxonomy and follow no scientific procedures. All these practices have led to fragmentary ecosystems and brought some species to the verge of extinction.

The underlying causes of deforestation, identified are as follows:

1. There is a wide gap in the production and consumption of wood. In 1993, the consumption of wood was 29.5 million cubic meters whereas in the year 2018 it is projected to go up by 52.6 million cubic meters. At present, Pakistan is producing only 14 million cubic meter of wood. By 2020, it will require 50 million cubic meter of wood in order to cater to demands of the people. This wide gap in the production and consumption of wood is one of the main factors of deforestation.
2. The ban imposed by the government on cutting trees has not prevented the timber mafia from their activities because of political interference, theft, corruption and lack of serious commitment on the part of the government to bring the culprits to book. The timber traders are using all possible means to smuggle wood for short-lived gains.
3. Commercial exploitation and harvesting of forests by the contractors with the connivance of the concerned officials is not only exploiting small forest owners with weak financial positions but also causing deforestation on a massive scale. The forest department has failed to bring them to book and rectify the situation.
4. Studies carried out show rich people are involved in the cutting and selling of trees in collusion with the timber mafia. <sup>1</sup> The government has failed to eradicate poverty in forest areas, and check fuel woodcutting by providing alternative means of livelihoods. Moreover, forest management approaches and laws are heavily tilted in favour of income generation and don't consider social and economic conditions of the communities.
5. The nexus between integrated family health and forestry systems in the North Western Frontier Province (NWFP) shows that poverty is one of the main factors of deforestation. Studies suggest that one single illness in the household would push

the family into the poverty trap, compelling the people to resort to deforestation as a source of livelihoods. <sup>2</sup>

6. Poor communities consume available natural resources for their immediate survival. For example, in the absence of the provision of gas and electricity or the availability of renewable sources of energy at affordable rates, wood is the only source of energy for communities in hilly areas. Uncertain property rights and insecurity of tenure lead the poor to resort to actions such as cutting of trees. This evidence establishes close correlation between poverty and deforestation.

7. An evidence obtained from Balakot, a sub division of North Western Frontier Province shows that more than 80% of the population is living below the poverty line. Lack of education, and limited means of transport and communications has exacerbated the problem. In such a socio economic environment, it is difficult for the people to appreciate the significance of forests and the ensuing benefits for sustainable development.

8. The natural factors affecting forests are arid climate, heavy dependence on irrigation water, long gestation periods of forestry, and fragile watershed & rangeland.

9. Burgeoning population pressure resulting in unsustainable removals, dependence of 90% of rural & 60% urban households on fuelwood as primary source of energy; suspension of forest management in natural forests, unscientific grazing beyond carrying capacity, lack of adequate and sustained financial inputs for natural regeneration and sustainable development of fragile ecosystems (mountain, riparian, desert, mangrove), floods, fires storms, pests and diseases, developmental pressure i.e. construction of roads, buildings, and water reservoirs disturbing riparian and mangrove ecosystems lead to widespread deforestation in Pakistan.

10. Stakeholders lack of involvement in the policy making process has held the policy makers back from designing a broad based forest policy.

## **IV. Land Tenure and Rights Issues**

The main land tenure issues are lack of a sense of participation in public forests, haqdari rights in fragile watershed ecosystem (unsustainable), tree tenure in community forests (village shamlats), tree tenure in tenant at will and land lessees, land tenure in guzara forests (individual & common ownership).

The issue of trade in rights remained controversial especially in NWFP. Forest contractors employed by forest departments for harvesting, road construction, and carriage of timber exploit poor locals by purchasing their property rights. Whereas the government held the contractors responsible for the abuse of rights, the contractors blame the forest department for their incompetence.

The Joint Forest Management Committees (JFMCs), the forest department officials argue, are still dependent on the timber mafia from whom they have to borrow money. There is no credit available for JFMCs, their claim notwithstanding.

## **V. Local level Approaches to Deal With Deforestation**

Village Land Use and Planning (VLUP) is a new approach developed at the community level for the participatory management of designated forests in NWFP. Each village community has its own (exclusive) land use principles, which are often in conflict with other stakeholder's views. Under VLUP all communities settle their disputes by coming to terms with each other. This consensus building process involves identification of units for land use and finalization of management plans. It calls for strengthening civil society at different levels as genuine requirement for the success of the process.

Farm Forestry is another approach and it targets the poor and disadvantaged groups through the involvement of local CBOs and NGOs in NWFP. It was launched to check increased pressure on the resources leading toward reduced vegetation cover and fertility. This participatory and holistic approach is a paradigm shift, which focuses on areas of plantation, has low opportunity cost and higher return and aims at poverty reduction through encouraging enterprise. It ensures sustainability by creating skills enhancement and ownership, systematic planning and management of the resources. If management plans are worked out properly, it holds out greater opportunities for diversification and maximization of profits and leads to sustainable livelihood and positive impact on local biodiversity and water regime.

## **VI. Areas for Further Research**

The findings of this study suggest further research to carry out baseline study to collect authentic and reliable data on forest biodiversity and ecology. It also calls research into how and where GIS and remote sensing techniques can be usefully employed in forest sciences and management in Pakistan. Improvement of forecasting techniques (for example, projections of rates of deforestation, changes in land use, or estimates of soil erosion over a period of time in the future) can also play a very important role to bridge information gaps in the policy making process. And last but not the least research into an analysis of what kinds of community forestry projects work and which don't work, the reasons for success or failure and new legislation on forests use and management and to check trading of timber should go a long way to get to grips with the challenge of deforestation.

## **VII. Conclusions**

There is a need for a permanent think tank outside the government and advocacy groups to support forest policy formulation and implementation process on a perpetual basis as reflected in the Forest Policy 2001. The government should focus on improvement of forest management practices to prevent the loss of biodiversity (for example, reduce the practice of giving preference to certain species for their commercial value and ignoring other species). The integration of ecosystem approach into forest management can prevent further fragmentation of forest habitats.

The government needs to incorporate taxonomy in forest management. Including women in forest management decisions and forestry projects should address the gender dimensions of deforestation. In the final analysis the effective enforcement of the existing laws and regulations on forests use and management and involvement of the communities in the policy making process from the very outset enables the government to address and

arrest sharp forest decline by creating a feeling of sense of ownership and empowerment among communities.

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<sup>1</sup> Zia, S. (2002) "*Communities and Forests: Indigenous Capacities and the Rights of the Forest Dependent Communities*" A paper presented in workshop on underlying causes of deforestation and forests degradation in Pakistan held in Islamabad LEAD Pakistan.

<sup>2</sup> Zia, S. (2002) "*Communities and Forests: Indigenous Capacities and the Rights of the Forest Dependent Communities*" A paper presented in workshop on underlying causes of deforestation and forests degradation in Pakistan held in Islamabad LEAD Pakistan.