

Jammu and Kashmir State Forest Policy 2010

1. PREAMBLE

1.1 Forests are vital for existence of humankind on earth. The State of Jammu and Kashmir is richly endowed with diverse forest resources which play an important role in preserving the fragile ecosystem of the region and also serve as catchments for important Himalayan rivers. Forests are essential for soil conservation, water security, and for meeting the needs of local population for timber, firewood, fodder and other forest produce. Forests of the State were constituted alongwith the initial revenue settlement as per State specific demarcation rules. Being the largest land based resource in the State, forests have immense potential for supporting livelihoods and alleviating poverty.

1.2 Commercial extraction of timber from the forests in the past, coupled with excessive grazing, encroachments, illicit felling of trees, and diversion of forest land for non-forestry purposes has resulted in degradation of forests and loss of forest land. Deficiencies in infrastructure and trained manpower for managing forest resources have further aggravated the problem. Deforestation diminishes the flow of ecosystem goods and services from forests, and is one of the contributing factors of global warming.

1.3 Ecological restoration of forests will have a mitigating effect on climate change besides addressing the concerns of poverty alleviation and biodiversity conservation. Therefore, forests have to be conserved and managed in a sustainable manner with the active participation of local communities so as to ensure a continuous flow of benefits to all stakeholders, present as well as future. The productive potential of forests will be optimized by scientific management in accordance with working plan prescriptions and simultaneously the unique aesthetic value of forest landscape of the State will be sustainably managed and utilised through eco-tourism and nature tourism. Adequate infrastructure, trained manpower and matching financial resources will be the pre-requisite for sustainable use of forest resource. In the backdrop of the essential need for maintaining a healthy forest resource, the valid concern for its continued depletion and degradation, and, also being aware of the close association between people and forests, the Government of Jammu and Kashmir, accordingly adopts this forest policy.

2. BACKGROUND

2.1 Forest Area of Jammu and Kashmir

The recorded forest area of the State is 20,230 km². About 59 % of the geographical area of the State is under permanent snow cover, glaciers and cold desert and unable to support tree growth. Forests of Jammu and Kashmir

exhibit remarkable diversity ranging from sub-tropical to temperate to alpine because of the distinctive geo-climatic conditions prevalent in the State.

2.2 Functions and Importance of Forests

Forests have multifunctional role, ecological as well as economic. Soil, water, and air are the three components of biosphere that form the basis of life on earth. Forests have a profound influence on these vital resources which also form the bedrock of all economic activity. In mountainous regions like Jammu and Kashmir, the perennial supply of water including groundwater recharge, and health of soils, primarily depend upon the extent and quality of forest cover. In addition, people of the State lean heavily on forests for their firewood, fodder, food and small timber requirements. Therefore, forests are integral to the sustainability of primary sectors like agriculture, horticulture and animal husbandry, particularly in hilly regions. In this context, the famous Kashmiri saint, Sheikh Noor-ud-din Wali (1377-1440 CE) has aptly stated, "*Ann poshi teli, yeli wann poshi*, i.e., food will last as long as forests last."

Since regular flow of water in the rivers and control of soil erosion have a direct bearing on hydroelectric power generation, a healthy forest cover in catchments is essential for long term operation of hydroelectric projects. In addition, forests provide raw material for different industries and in the process, influence other sectors of the economy as well. The State of Jammu and Kashmir is endowed with breathtaking scenic beauty in the form of snow capped mountains, sparkling streams and rivers, picturesque lakes, and lush green forests and meadows. Therefore, there is immense potential for tourism in the State, and forests play a pivotal role in making the State a preferred tourist destination.

Besides, forests provide environmental services like carbon sequestration, pollution abatement, amelioration of climate, *in-situ* conservation of biodiversity and maintenance of ecological balance. In nutshell, the economy of the State, environmental security and livelihood opportunities are intimately linked to the tangible and intangible benefits that flow from forests.

2.3 Present Status of Forests

Past few decades have witnessed exponential increase in human and livestock population, rapid industrialization, and a spurt in developmental activities. These developmental processes have resulted in loss of forest area accompanied by an overall degradation of forest vegetation and forest soils. Earlier, forests were managed mainly for timber production. Although, commercial felling of green trees has now been discontinued, mortality of trees due to natural causes is unavoidable. Further, due to continuous and unrestricted grazing, most of the forests in the State are deficient in regeneration. Other factors like forest fires, illicit felling of trees, invasive weeds, unregulated tourist movement and lack of timely silvicultural operations also

contribute towards failure of regeneration. Resultantly, nearly half of the forests in the State have slipped into the category of open forests. Similarly, a marked reduction in population of species yielding important non-timber forest products, particularly medicinal plants, has also been noticed throughout the State.

Exploitation of forests beyond their sustainable capability has resulted in degradation, and thereby severe impairment of their ability to provide environmental benefits. The effects of degradation of forests are already visible in drying up of perennial water sources at many places, accelerated soil erosion, flash floods, silting up of reservoirs, loss of biodiversity and reduced forest productivity.

3. BASIC OBJECTIVES

The basic objectives of the State Forest Policy of Jammu and Kashmir are as follows:

3.1 Conservation of biodiversity and natural habitat through preservation of natural forests with the vast variety of flora and fauna.

3.2 Rehabilitation of degraded forests so as to optimize their productivity and restore their potential to provide ecosystem goods and services on sustainable basis.

3.3 Poverty alleviation by meeting livelihood needs of forest dependent communities through sustainable supply of forest produce by improving productivity of existing forests, and through forestry activities, schemes and programmes.

3.4 Extending tree cover outside forests to reduce pressure on natural forests for supply of forest produce.

3.5 Checking denudation and soil erosion in catchments through integrated watershed management techniques and practices.

3.6 Maintenance of the health of forest vegetation and forest soils for augmenting water supplies through recharge of underground aquifers and regulation of surface water flows, sediment levels and water quality.

3.7 Optimally utilising the mitigation and adaptation potential of forests in the context of climate change.

3.8 Reducing pressure on forests through appropriate interventions including development of forest fringe belt into high production tree strips.

3.9 Utilisation of natural resources using best management practices including development of non-timber forest produce and institutionalization and operationalization of concepts of eco-tourism and nature tourism.

3.10 Creating a sustained people's movement for achieving the aforementioned objectives, so that environmental security is ensured.

4. STRATEGY

4.1 Area under Forests

Nationally, the goal is to have at least two-thirds of the total land area in the hills and mountainous regions under forest and tree cover. In Jammu region and Kashmir Valley, forests account for 47% of the geographical area. Ladakh region, which is mostly devoid of tree cover, has a distinct ecosystem and supports many rare and endemic species of flora and fauna. Therefore, the goal of maintaining adequate forest cover will be achieved in various regions of the state, with due consideration for the cold desert conditions of Ladakh.

4.2 Protection of Forest Land

Encroachment of forest lands is a serious issue concerning forest protection and this problem is becoming more serious with every passing day. For effective protection of forest land, the following strategy will be adopted:

- a. Land records of Revenue Department will be reconciled with Demarcation Record of Forest Department in a time bound manner starting with highly vulnerable areas.
- b. The system of forest demarcation will be completely modernized. In the field, existing boundary pillars will be strengthened and their locations will be recorded using Global Positioning System and other modern technologies.
- c. Demarcation record will be maintained in digital format on GIS platform. Remote sensing technology will be used for monitoring encroachments.
- d. Wherever possible, inhabitants of *chaks* within and completely surrounded by forests will be resettled on fringe forest, or outside forest with adequate compensation.
- e. Administrative and legal measures to reclaim encroached forest land will be initiated with the assistance of other concerned departments. An action plan for reclamation and rehabilitation of encroached forest land will be put in place.
- f. Vulnerable forest areas will be given special treatment with focus on effective boundary protection coupled with intensive management options.

4.3 Protection, Conservation and Development of Natural Forests

Conservation and development of forests for ecosystem goods and services will be the principal objective of forest management and derivation of direct economic benefit shall be subordinated to this principal aim.

- a. For effective protection and management of forests and wildlife, the infrastructure, manpower and organizations will be strengthened, particularly at the field level.
- b. Areas with chronic problem of forest damages will be managed holistically by reinforcing protection and legal measures and simultaneously providing alternate livelihood opportunities to local people.
- c. Working plans for every division will be formulated, or revised, with focus on regeneration of indigenous species in open forests and conservation of biodiversity, and, silvicultural prescriptions will be applied accordingly. At least, one fourth of the forest area in each division will be set aside for regeneration in accordance with working plan prescriptions. These areas will be strictly closed to grazing in consultation with local communities including nomadic graziers and continuously managed till such time the regeneration gets established.
- d. Management practices which help in maintaining the perennial flow of water from underground and surface water sources originating in the forests will be integral to the overall conservation and management strategy for natural forests.
- e. As a part of long term planning, and with an eye on future management of forests, subject to review of present ban on green felling, selection felling system will be the preferred silvicultural system to manage the forests in future with a view to keeping them closest to their natural form.
- f. Germplasm of valuable medicinal plants in natural forests and pastures will be conserved and commercial exploitation of such plants from natural habitats will be regulated in a sustainable manner.
- g. Forest areas heavily infested with invasive weeds will be systematically treated to restore the natural mix of vegetation in order to augment the supply of fodder, firewood, timber and other forest produce.
- h. Watershed approach for soil and water conservation will be adopted to check soil erosion and denudation in catchments.
- i. Management of forest fires is an important aspect of forest protection. Proper equipment and trained manpower will be provided for effective management of forest fires in vulnerable areas. Involvement of local

communities in prevention and control of forest fires will be further strengthened through incentive based mechanism.

- j. Forest areas at the fringe of habitations will be managed for meeting the demands of local population for varied forest produce, and such areas will be rehabilitated in participatory mode to increase their productivity. In these areas, thrust will be on raising fast-growing species that provide fodder, firewood and small-timber.

4.4 Diversion of Forest Land for Non-Forestry Purposes

Significant forest area is lost due to diversion of forest land for non-forestry purposes. Proliferation of developmental activities in forest areas also results in fragmentation of habitat which has an adverse effect on wildlife and plant biodiversity. Therefore, diversion of forest land will be regulated on the following principles:

- a. Diversion of forest land for non-forestry purposes will be considered only as a last resort, after exploring all other alternatives, and not in a routine manner.
- b. In order to compensate for the loss of forest area on account of diversion of forest land for non-forestry purposes, other unutilized state lands appropriate for forestry land use will be brought under compensatory afforestation.
- c. In protected and ecologically sensitive areas, Environmental Impact Assessment will be conducted in accordance with environmental policies and laws before allowing the use of forest land for non-forestry purpose.

4.5 Expanding Forest and Tree Cover

Afforestation will be carried out on all degraded and denuded lands in the State, within and outside forests, in order to bring maximum geographical area of the State under forest and tree cover. This will involve:

- a. Planting of trees along roads, railway lines, rivers, streams and canals, and other available lands under State, institutional or private ownership.
- b. Development of tree crops and fodder species on village and community lands in partnership with local people.
- c. Encouraging farm forestry and agro-forestry by providing quality growing stock and other technical inputs to farmers, and developing market linkages for proper sale of their produce.
- d. Rationalization of felling and transit rules, and other relevant laws, to encourage planting of tree crops on farm lands, and to facilitate harvest and marketing of produce from such plantations.

4.6 Supply of Timber and Other Wood Based Produce

- a. Efforts will be made to bridge the gap between demand and supply of timber by increasing productivity and actively facilitating import of timber.
- b. Technologies and processes that minimize deterioration and wastage of timber during conversion, extraction and transportation will be adopted so that dry and fallen trees do not deteriorate in forests.
- c. Use of timber substitutes and composite wood will be encouraged in government constructions and popularized amongst general public also.
- d. Wood based industries will meet their requirement from privately raised plantations on non-forest lands, preferably in partnership with farmers or through imported timber.
- e. In view of the above, and other options available for reducing the dependence on natural forests for supply of major goods, the subsidy component on timber and firewood supplied through Government Depots will be gradually phased out.

4.7 Management of Concessions

To ensure protection of forests, their scientific management, and also the needs of the inhabitants of neighbouring villages and nomadic graziers, the concessions traditionally enjoyed by them are duly acknowledged as recognized during settlement. The bonafide concessionists, particularly those living in remote areas will continue to get forest produce and other usufructs from the forests subject to the silvicultural availability.

4.8 Meeting Domestic Fodder and Firewood Requirements

- a. Productivity of pastures and grasslands will be enhanced by control of unpalatable species, introduction of nutritious grasses and herbs, and by adopting improved grassland management practices.
- b. Fodder production in degraded forest areas, particularly those invaded by alien weeds, will be enhanced through appropriate management interventions with special focus on migratory routes of graziers.
- c. Grazing in the forests will be regulated in accordance with the carrying capacity, and in consultation with the nomadic graziers and the local community through an appropriate institutional mechanism.
- d. In order to reduce grazing pressure on forests, and to increase the productivity of livestock, stall feeding and breed-improvement will be encouraged and incentivised through formulation and adoption of appropriate schemes.

- e. Tree planting on private lands and community lands will be encouraged in order to meet the requirements of firewood, fodder and small timber.
- f. Use of energy sources like electricity, LPG etc. will be encouraged in rural areas to reduce consumption of firewood. As an interim measure, use of fuel efficient stoves would be encouraged to economize on use of firewood.

4.9 Non-timber Forest Produce

- a. Package of practices for cultivation of medicinal plants will be developed and farmers will be encouraged to undertake cultivation of such medicinal plants and tree species on non-forest lands and private lands. Simultaneously, handling, processing, transportation and marketing of medicinal plants and related products will be facilitated.
- b. Value addition and processing of non-timber forest produce within the State will be encouraged alongwith development of market linkages and trade related information so that these are not exported in raw form, and producers get remunerative price for their produce.
- c. To facilitate conservation and development of medicinal plants in natural forests, including high and low level pasturelands, local communities will be encouraged to form co-operatives at village level for non-destructive harvesting, processing and marketing of medicinal plants and other species having commercial value with a view to augmenting their income.
- d. Ladakh region of the State is a repository of many valuable medicinal plants. Cultivation of these herbs and shrubs in Ladakh will be taken up on priority so that wild populations of these plants are not over-exploited to meet the ever-increasing demand.
- e. Resin tapping will be regulated in a sustainable manner ensuring that the chir crop, and its potential to regenerate, is not adversely affected.
- f. Laws, rules and regulations will be revisited, reviewed and rationalized to encourage activities referred to in the sub-paragraphs above.

4.10 Wildlife Conservation

- a. Habitat destruction and disturbances in habitat of wild animals are the foremost reasons for reduction in their populations, and man-animal conflict. Therefore, forest management outside protected areas will also focus on habitat conservation and management of wildlife.
- b. Human activities in core habitat areas of important wildlife species will be restricted to minimise disturbance to wild animals.

- c. Being a repository of biodiversity and genepool, the national parks, wildlife sanctuaries and conservation reserves will receive utmost attention for their conservation through improved management plans and techniques.
- d. Zoological parks and animal rescue centres will be further developed as centres of environmental and wildlife education and awareness. For this purpose a chain of zoological parks and rescue centres will be developed across the State in Ladakh, Kashmir and Jammu regions.
- e. Special attention is required to address the man-animal interface through a joint mechanism between agencies such as Forest Department, Forest Protection Force, Wildlife Protection Department, Revenue Department, Police, Local Administration and local institutions and by creating awareness amongst general public.

4.11 Biodiversity Conservation

Apart from *in-situ* conservation of bio-diversity in natural forests and habitats, the rich genetic resource base of the State will be preserved through following actions:

- a. Biodiversity of the State will be surveyed and documented systematically, and sites having exceptional taxonomic and ecological value will be conserved. If this process leads to curtailment of traditional or legal rights of people on usufructs from forestland, appropriate and adequate compensation for the purpose will be provided to local community.
- b. Legal and administrative measures for protection of biodiversity of the State against bio-piracy will be taken. Intellectual property rights of the tribals and local communities will be protected, and domesticated species and varieties of plants and animals will be conserved as an integral part of the State's rich genetic diversity.
- c. Modern techniques of ex-situ conservation will be promoted for the preservation of endangered and threatened species.
- d. Adequate regulatory and institutional mechanisms will be established for protection and conservation of wetlands.

4.12 Forests and Climate Change

Trees utilize carbon dioxide in the atmosphere for biomass production, and provide mitigation and adaptation services. In order to tap the potential of forests for climate change mitigation and adaptation, following strategy will be adopted:

- a. Conservation, sustainable management of forests and enhancement of forest carbon stocks will be encouraged to offset emissions from core sectors of energy, industry and transport.
- b. Forest carbon stocks will be conserved and enhanced by reforestation of regeneration deficient and open forest areas.
- c. Unutilized areas suitable for tree growth will be afforested by planting fast growing species to meet the energy requirements of local population in order to offset use of fossil fuels. Technologies for efficient conversion of energy from biomass will also be developed and popularized.
- d. In order to benefit from international incentivization of conservation, maintenance and enhancement of forest carbon stocks, institutional framework will be established to synergize actions of individuals, organizations and Government Departments. Cent percent incentives will flow to the local community wherever such incentives accrue because of involvement of the community in protection, afforestation and reforestation activities.

4.13 Eco-Tourism and Nature Tourism

Jammu and Kashmir has immense potential for eco-tourism which provides basic framework for ecologically sustainable tourism with livelihood opportunities for local communities. Following actions will be taken to promote and popularize eco-tourism in the State:

- a. Eco-tourism activities will be regulated in a manner that preserves the health, scenic beauty and natural attributes of the eco-tourism sites.
- b. Local communities will be trained and motivated to be an integral part of the eco-tourism activities.
- c. Eco-tourism will compulsorily focus on providing eco-sustainable livelihood support to the local communities.

4.14 Participatory Forest Management and Forestry Extension

- a. Conservation of forests requires active involvement of every citizen. Therefore, participatory approach will be central to forestry activities in forest as well as in non-forest areas. This will be achieved by creating livelihood opportunities for forest dependent communities and their institutionalised involvement in the decision making process.
- b. Employment generation through implementation of forestry activities, schemes and programmes will essentially augment livelihood opportunities available to the local communities. To realise this imperative, all major activities, schemes and programmes will henceforth

have a provision for creating a corpus as a compulsory component, and put adequate money in the same to cater to the watch and ward, fire protection and maintenance needs of the assets created, during and after the project period. Focus of the employment generation will be on youth from local community and tribal communities.

- c. Public will be sensitized about the value of forests, wildlife, and nature in general. For this purpose, suitable extension activities will be undertaken including publicity through different forms of media and involvement of educational institutions.
- d. Conservation of forest and environment will be included in the curriculum of schools.
- e. Local communities, particularly women folk, will be involved in development of degraded forest fringe belt into highly productive tree strips incorporating appropriate proportion of fast growing tree and plant species. Cent percent share of produce from fringe belts will flow to the participating community.

4.15 Revenue Generation

Meeting requirement of local communities with respect to timber, fodder, firewood and other ecosystem goods and services from forests in a sustainable manner will be accorded highest priority. The potential of forests to generate revenue for the State will be optimised through best management practices including development of non-timber forest produce and institutionalization and operationalization of concepts of eco-tourism and nature tourism so as to derive sustainable benefit from the unique forest landscape of the State.

4.16 Forestry Research

- a. Applied Research in forestry will be undertaken to address key problems like low productivity, rehabilitation of degraded forests, conservation of biodiversity, and forest protection.
- b. Infrastructure and skilled manpower required for research will be strengthened keeping in view the future trends in forestry management in general and climate change issues in particular.
- c. Management information system will be developed so that the field functionaries can keep abreast with the latest advances in the field of environment and forestry for effective decision making.

4.17 Development of Infrastructure and Human Resources

- a. Forest administrative units will be right-sized for effective protection and management with provision for commensurate manpower and infrastructure.

- b. Timely recruitment at various levels in forest and allied wings will be accorded top priority in order to ensure availability of trained manpower, and preference will be given to local youth of the respective Forest Divisions.
- c. Capacity building measures will be undertaken for personnel in forest and environment sector to improve their skills and professional competence keeping in view the arduous nature of their duties, often in remote and inhospitable places.
- d. Adequate infrastructure and professionals will be provided to meet the training requirements of all levels of forest staff keeping in view the current needs and future trends in forestry management and administration.
- e. For effective implementation of forest and environmental laws, regular trainings on legal aspects of forest and environmental issues will be conducted for forest personnel.

4.18 Legal and Institutional Framework

- a. Appropriate laws, rules and regulations, as per requirement, will be made for effective implementation of this Forest Policy, and, institutionalized legal support shall form an integral part of the forest administration and management.
- b. Administrative and institutional reforms will be undertaken to improve accountability, transparency, delivery, and participation at the grassroots level.

4.19 Investment Needs

Forests constitute nearly 47 percent of geographic area of Kashmir and Jammu regions. Protection of this vast and valuable resource requires adequate investment keeping in view the pressures on these forests, and the ecosystem goods and services that they provide to the people, especially in rural areas.

- a. Nearly half of the forest area in the state has degraded into open category due to immense biotic pressure and lack of appropriate investment. Therefore, funding for forest and environment sector will be based on the extent of forests in the State, the quantum of goods and services they provide and level of their degradation. The budget of forestry sector will be appropriately enhanced so that the objectives enshrined in this Forest Policy can be achieved.
- b. Keeping in view the seasonal and continuous nature of forestry works, the fund flow mechanism will be devised in a manner that ensures availability of funds for various activities at appropriate time of the year.

- c. Environmental cess, green tax or carbon tax may be levied on certain products and services for generating resources for rehabilitation and development of forests.

4.20 Resolution of Inter-Sectoral Conflicts

- a. Forests influence, and in-turn are influenced by activities and functions of different departments like Revenue, Tourism, Sheep and Animal Husbandry, Agriculture, Horticulture, Industry, Irrigation and Flood Control, Public Works Department etc.
- b. Necessary steps will be taken to ensure that the policies, objectives and activities of different departments and organizations of the State are in harmony with the objectives enshrined in the State Forest Policy, and conflicts, wherever these exist, will be resolved appropriately.

4.21 Implementation and Review

The Forest Department will prepare an implementation schedule for realizing the objectives of this Policy. A high powered institutional mechanism will be put in place to monitor and review the implementation of the Policy.
