

BIOLOGICAL DIVERSITY IN JAMMU AND KASHMIR: LEGAL CONSERVATION AND CONCERNS

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The state of Jammu and Kashmir, as an integral part of western Himalayas, is known for its beauty and biological resources¹. A plethora of state enacted laws regulate multiple components of biological resources, creating a wide range of authorities who operate in their respective jurisdictions to the exclusion of each other. Conservation of resource is an indirect or incidental concern in some of these laws while optimum utilization of resources to generate revenue is the main object hidden between the lines of the statutes. After the Stockholm Conference of June 1972 host of centrally enacted laws for the protection of the environment have either a direct application in the state or have been applied with the concurrence of the state. A comprehensive law for conservation, sustainable use and benefit sharing of biological resources has been legislated by the Parliament of India in the shape of Biological Diversity Act, 2002 which is also applicable to the state of Jammu and Kashmir. Thus a wide variety of laws, old and new, state and central, operate in Jammu and Kashmir without a thorough probe to ensure that the laws reconcile with each other and to screen out the laws and policies that are incompatible with or contradictory to conservation goals. Adoption of an integrated approach to biodiversity, integrating biodiversity concerns squarely into existing related statutes and rules, strengthening of EIA system, and the legal action infrastructure including locus standi and right to information of citizens and other like issues are vital to the efficacy of the laws. Here an attempt is made to trace out the existing biodiversity laws and their flaws and to suggest a workable alternative to make them achieve the goals of conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of utilization of genetic resources in Jammu and Kashmir.

Biological Diversity and Resources —the Legal Definitions

A decade after signing the United Nations Convention on Biological Diversity, 1992, the Parliament of India enacted the Biological Diversity Act, 2002² which extends to the whole of India including the state of Jammu and Kashmir². A comprehensive definition of the term biological diversity has been given under the Act³. The section defines it as "the variability among living organisms from all sources and the ecological complexes of which they are part and includes diversity within species or between species and of ecosystems". Likewise the term "biological resources" under section 2 (c) of the Act means "plants, animals and micro-organisms or parts thereof, their genetic material and by-products (excluding value added

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¹ Lawrence, Walter R, " The Valley of Kashmir"(1996 ed.) Kashmir Kitab Ghar, Jammu Tawi at p.66, giving a more than century old account of the flora of Kashmir and the associated traditional knowledge the author reports as " Kashmiri's turn nearly every plant and tree to some use, and attribute medicinal properties to every growing thing ".

² Biological Diversity Act, 2002, section 1(2).

³ *Id.* section 2(a).

Products) with actual or potential use or value but does not include human genetic material. The Act has used some other terms which are vital to the conservation of biological diversity under the law. The term "benefit claimers" means the conservers of biological resources, their by-products, creators and holders of knowledge and information relating to the use of such biological resources, innovations and practices associated with such use and application. Bio-survey and bio-utilization means "survey or collection of species, sub-species, genes, components and extracts of biological resource for any purpose and includes characterization, inventorisation and bioassay"⁴. Of all the terms used, the term "commercial utilization" is of paramount significance under the Act which means "end user of biological resources for commercial utilization such as drugs, industrial enzymes, food flavours, fragrance, cosmetics, emulsifiers, oleoresins, colours, extracts and genes used for improving crops and livestock through genetic intervention, but does not include conventional breeding or traditional practices in use in any agriculture, horticulture, poultry, dairy farming, animal husbandry or beekeeping"⁵. The Act provides for fair and equitable sharing of benefits arising out of the use of accessed biological resources, their byproducts, innovations and practices associated with their use and application, and knowledge relating thereto in accordance with mutually agreed terms and conditions between the persons applying for such approval, local bodies concerned and the benefit claimers⁶.

National Biodiversity Authority

With the above basic premise the Act provides for the establishment of the National Biodiversity Authority by the Central Government to advise the said Government on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilization of biological resources⁷. The Authority is also invested with power to advise the state governments in the selection of areas of biodiversity importance to be notified as heritage sites and the measures for the management of such heritage sites⁸.

The Authority as representative of the Central Government is invested with power to take all necessary measures to oppose the grant of intellectual property rights in any country outside India on any biological resource obtained from India or knowledge associated with such biological resource which is derived from India⁹.

In order to prevent bio-piracy the following persons are required to obtain the prior approval of the National Biodiversity Authority before accessing any biological resource occurring in India or knowledge associated thereto for research or for commercial utilization or for bio-survey and bio-utilization¹⁰:

1. a person who is not a citizen of India;
2. a citizen of India, who is a non —resident as defined in clause (30) of section 2 of the Income Tax Act, 1961;
3. a body corporate, association or organization-not incorporated or registered in India; or incorporated or registered in India under any law for the time

4 Id. section 2(d).

5 Id. section 2 (f).

6 Id. section 21.

7 Id. section 18(3) (a).

8 Id. section 18(3) (b).

9 Id. section 18 (4).

¹⁰ Id. section 3.

being in force which has any non-Indian participation in its share capital or management.

Likewise the Act prohibits, without the approval of the National Biodiversity Authority, the transfer of the results of any research relating to any biological resource occurring in, or obtained from India for monetary consideration or otherwise to the aforesaid persons¹¹. However, transfer does not include publication of research papers or dissemination of knowledge in any seminar or workshop, if such publication is as per the guidelines issued by the Central Government. The scheme of prior approval does not apply to collaborative research projects involving transfer or exchange of biological resources or information relating thereto between institutions including Government sponsored institutions of India, and such institutions in other countries provided that the collaborative research projects conform to the policy guidelines issued by the Central Government and are approved by the said Government¹². Again no person can, without obtaining prior approval of the National Biodiversity Authority, apply for any intellectual property right in or outside India for any invention based on research or information on a biological resource obtained from India¹³. The Act also prohibits transfer of biological resource or ledge associated thereto by approved persons without the prior permission from the National Biodiversity Authority¹⁴. All the approvals and permissions granted by the Central Government are subject to equitable benefit sharing which includes:-

- a) grant of joint ownership of intellectual property rights to the National Biodiversity Authority, or where benefit claimers are identified, to such benefit claimers;
- b) Transfer of technology;
- c) Location of production, research and development units in such area which will facilitate better living standards to the benefit claimers;
- d) association of Indian scientists, benefit claimers and the local people with research and development in biological resources and bio-survey and bio-utilization;
- e) Setting up of venture capital fund for aiding the Cause of benefit claimers;
- f) Payment of monetary compensation and other non-monetary benefits to the benefit claimers as the National Biodiversity Authority may deem fit¹⁵.

The amount of money fixed as benefit -sharing is to be deposited in die National Biodiversity Fund but where biological resource or knowledge was a result of access from specific individual or group of individuals or organizations, the National Biodiversity Authority may direct that the amount shall be paid directly to such

¹¹ Id .section 4.

¹² Id. section 5

¹³ Id. section 6.

¹⁴ Id .section 20, such transfer is commonly known as third party transfer.

¹⁵ Id. section21.

individual or group of individuals or organization in accordance with the terms of any agreement and in such manner as it may deem fit¹⁶. The Authority, however, has been conferred with power to frame guidelines in order to implement the benefit sharing mechanism in tune with the above lines¹⁷.

Restrictions on Activities related to access to Biological Resources

The Authority, if it deems necessary and appropriate, shall take the steps to restrict or prohibit the request for access to biological resources for the following reasons¹⁸.

1. The request for access is for any endangered taxa;
2. The request for access is for any endemic and rare species;
3. The request for access may likely result in adverse effect on the livelihoods of the local people;
4. The request for access may result in adverse environmental impact which may be difficult to control and mitigate;
5. The request for access may cause genetic erosion or affect the ecosystem function
6. Use of resources for purposes contrary to national interest and other related international agreements entered into by India.

State Biodiversity Board

Section 22 of the Act provides for the establishment of a State Biodiversity Board in each of the states by the respective state governments by notification in the official Gazette¹⁹. At the state level the Boards is to advise the state Government, subject to any guidelines issued by the Central Government, on matters related to the conservation of biodiversity, sustainable use of its components and equitable sharing of the benefits arising out of the utilization biological resources²⁰. The Board is also to regulate by granting of approvals or otherwise, requests for commercial utilization or bio-survey and bio-utilization of any biological resource by Indians. The Board is to perform such other functions as may be necessary to carry out the provisions of the Act or as may be prescribed by the state Government²¹.

Citizens of India or bodies corporate, associations or organizations which are registered in India need to give prior intimation to the State Biodiversity Board before obtaining any biological resource for commercial utilization or bio-survey and bio-utilization for commercial utilization²². This norm, however, does not apply to the local people and communities of the area, including growers and cultivators of biodiversity, and vaidas and hakims, who have been practicing

¹⁶ Id section 21 (3)

¹⁷ Id section 21 (4)

¹⁸ The Biological Diversity Rules, 2004 Rule 16.

¹⁹ In Union Territories the National Biodiversity Authority is to exercise the powers of a State Biodiversity Board which powers can be delegated by the National Authority upon such person/s as the Central Government may specify, see section 22 (2) read with section 16 of the Act.

²⁰ Biological Diversity Act 2002 section 23 (a).

²¹ Id. section 23 (b) and (c).

²² Id section 7, section 24 (I) repeats the requirements of giving prior intimation to the State Biodiversity Board in accordance with a format as the State Government may prescribe.

indigenous medicine²³. The Board may, on receipt of such intimation and in consultation with the local bodies concerned and after making such enquiries as may be deemed fit, by order, prohibit or restrict any such activity if it is of the opinion that such activity is detrimental or contrary to the objectives of conservation and sustainable use of biodiversity or equitable sharing of benefits arising out of such activity²⁴. All such orders of the Board are to be made after giving an opportunity of being heard to the person affected and all information received by the Board in the format relating to the intimation is to be kept confidential and cannot be disclosed either intentionally or unintentionally to any person not concerned thereto²⁵. Like the National Biodiversity Authority the State Biodiversity Authority may, for an efficient discharge of its duties and performance of its functions, constitute communities and in particular agro-biodiversity committee for the conservation of agriculture related species and their wild relatives²⁶.

Biodiversity Management Committees

Every local body²⁷ is to constitute a Biodiversity Management Committee (BMCs) within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivators, domesticated stocks and breeds of animals and micro-organisms and chronicling of knowledge relating to biological diversity²⁸.

A cultivator under the Act means ‘a variety of plant that has originated and persisted under cultivation or was specifically bred for the purpose of cultivation’ .Land race means, primitive cultivar that was grown by ancient farmers and their successors’. Similarly folk variety means a ‘cultivated variety of plant that was developed, grown and exchanged informally among farmers’.

A BMC is to consist of a chair person and not more than six persons of whom not less than 1/3 shall be women and not less than 18% shall be from Scheduled Castes/ Scheduled Tribes. The local MLA/MLC and Member Parliament can be special invitees to the meetings of committee²⁹. The mandate of at least 18% representation to Scheduled Castes/ Scheduled Tribes in BMCs may be a difficult task in some areas of Kashmir Valley where members of such communities do not reside. It may be taken as an intrusion by the locals of an area if members of such communities from other area are nominated by the local body in the BMC. Rule 22 (2) of the Biological Diversity Rules, 2004 will have to address the issue of providing a substitute to the above agreement for areas where people from Scheduled Castes/ Scheduled Tribes are not residing.

²³ Id. Proviso to section 7.

²⁴ Id. Section 24 (2).

²⁵ Id section 24 (3)

²⁶ Id section 13 that confers such a power upon the National Biodiversity Authority is applicable mutatis mutandis to a State Biodiversity Board.

²⁷ Id. Section 2(h) defines local bodies as Panchayats and Municipalities by whatever name called, within the meaning of clause (1) of Article 243 B and clause (1) of Article 243 Q of the constitution and in the absence of any Panchayats or Municipalities, institutions of self-government constituted under any other provision of the constitution or any Central or state Act.

²⁸ Id. Section 41.

²⁹ The Biological Diversity Rules, 2004 Rule 22.

The main function of the BMC is to prepare People's Biodiversity Register in consultation with local people which shall contain comprehensive information on availability of local biological resources, the knowledge associated with such resources, their medicinal value or any other use or any other traditional knowledge associated with them³⁰. Besides the People Biodiversity Register the BMC is also to maintain another register which shall contain information about the grant of access to local biological resources and the traditional knowledge, the details of the collection fee imposed, the details of the benefits derived and the mode of their sharing³⁰.

The National Biodiversity Authority and the State Biodiversity Boards are to consult the BMC while taking any decision relating to the use of biological resources and knowledge associated with such resources occurring within the territorial jurisdiction of the Biodiversity Management Committees³¹. The BMC is to maintain the data about the local vaids and practitioners using the biological resources. It may levy charges by way of collection fees from any person for accessing or collecting any biological resource for commercial purposes from area falling within its territorial jurisdiction³².

Legal concerns in J&K A Birds Eye View

1. The Biological Diversity Act is in addition and not in derogation to other laws relating to Forests and Wildlife.

The Biological Diversity Act, 2002 specifically provides in section 59 that the legislation is in addition to and not in derogation of the provisions in any other law, for the time being in force, relating to forests or wildlife. The state of Jammu & Kashmir has shown its unique legal caliber in framing laws on protection of biodiversity even before Indian independence and in the field of medicinal plants a law had been in vogue from as back as 1921 A. D. in the form of the Kuth Act 1921. There were no clear-cut provisions in the legislation setting conservation as a priority goal nor had the legislators made an effort to fill the conservation gap in the legal scheme. The legislation was highly penal in character providing an armory of officers with wide powers to store every ounce of wild medicinal wealth in the store banks of the state where it had been counted so far simply as a minor forest produce and graded only in terms of revenue if fetched each year. The State Forest Act, 1930, a piece of colonial vintage like the Indian Forest Act, 1930 has added fuel to the fire by arming the Forest Department with more powers to over-exploit all wild resources by sidelining the local people under the garb of protection trees from thieves. The Wildlife (Protection) Act, 1978 has not changed the position in any way obviously for the reason that it is heavily loaded with the objective of protecting fauna and ignores the flora³³.

The Jammu & Kashmir Game Preservation Act, 1942 A.D. provided for preservation and protection of game in the state by inter alia prohibiting export and sale of Small and Big Game. The Act has, however, been repealed to the extent to which matters therein have

³⁰ Id. Rule 22(11).

³¹ Id. Rule 22(7).

³² Biological Diversity Act, 2002, section 41(3)

³³ See Dar, M.Ayub, "Indigenous Medicinal Plants and the People: Modulating Conservation and Law in Action in Jammu and Kashmir" VIII KULR (2001) P.P. 17-62 at 28-35.

been dealt under the Wildlife (Protection) Act, 1978³⁴. The Jammu & Kashmir State Forest Corporation Act, 1978 provides for better preservation, supervision and development of forests and better exploitation of forest produce within the state³⁵. Sustainable grazing in the demarcated forests of the state has been an esteemed concept and in 1940 on the basis of the recommendations made by the Grazing Committee the state has ushered an era of sustainable grazing as follows:

'Government recognize that ,even in areas thrown open to grazing in any particular year, steps should be taken to ensure that those areas are not over-grazed and are not thereby allowed to deteriorate for providing adequate grazing for the future'³⁶.

Subsequently the Jammu and Kashmir Kahcharai Act, 1954 was enacted that deals with the concept of grazing in a holistic manner and provides a scheme of sustainable grazing to avoid overgrazing and maintain adequate grazing for the future. The Act, therefore, can be said to be a unique legislation in as much as it applies the concept of 'intergenerational equity' in respect of livestock³⁷ of the state.

These and some other laws relating to biodiversity in the state need overhauls so that they operate in tandem with the Biological Diversity Act, 2002 and the Rules of 2004 framed there under.

2. Document, encourage, and integrate customary laws and practices relevant to biodiversity, into statutory laws, providing it a more substantial role than at present

The indigenous people have had a close dependence on their local environment and in process they have not only developed a stake in conserving the local biodiversity for their survival but have gained a detailed empirical and qualitative knowledge base about the biological resources³⁸. One of the oldest customary practices still prevalent amongst the agricultural class is to send their livestock to distant grazing grounds on the high mountains in the summer season in charge of professional shepherds. Twice or thrice in the season the villagers used to go themselves taking salt for their sheep and they used to bring back various drugs and roots, the leaves and seeds resulting in considerable income to the hill villages. Violets and seeds thus collected were largely exported and had a readily available market through Pangabi traders. Identifying the indigenous communities who have remained the storehouses of traditional knowledge about the herbal plants, the noted colonial writer W.R. Lawrence gives a century old account in the following words:

'Hakim have a considerable knowledge of herbs and their herb collectors are the shepherds, who spend the summer on the high mountains where most valued plants are found such simples as the Hakim does not obtain from the shepherds are brought from

³⁴ See The Jammu and Kashmir Wildlife (Protection) Act, 1978, section 68.

³⁵ See the Preamble to the Jammu and Kashmir State Forest Corporation Act, 1978.

³⁶ . J&K Government Council Order No.999-C of 1940, published in Government Gazette dated 9th Katik 1997; see also J&K Government Council Order No.873-C of 1938 appointing a Grazing Committee in the state.

³⁷ The state has likewise enacted the J&K Livestock Improvement Act, Samvat 1996 which corresponds to the year 1942.

³⁸ Supra note 34 at p.21.

the druggists. Besides the profession & Hakim there are many wise women in the villages who have considerable knowledge of the properties of herbs, and it is remarkable fact that nearly every peasant seems to know something about the medicinal powers of plants"³⁹.

The close nexus of the indigenous people with the biological resources of especially the medicinal plant life from top hills down to lakes has resulted in the accumulation of knowledge base which has got disrupted and disturbed because of deprivations from customary rights commenced by the state even from times when there were no hard and fast rules for protection of wild life in the state.

The wiser men had smelt that the state was planning to uproot the rural people from their customary rights and snatch away natural resources so sustainably used by them more than a century before with the following message in response to such apprehensions:

*"I have pointed out in the Assessment Reports that the land revenue taken from the villages really includes rights enjoyed from time immemorial in the forest which surround the valley. Up to the present the agricultural classes have been allowed timber for their houses and farm implements, and fuel free of charge. I would urge most strongly that no restriction be placed upon these old rights of user in the forests. If hereafter, forest conservancy does impair those rights, it will be necessary to reconsider the rates put upon the land by me, for I would never have taken so high a revenue had I known that timber and fuel would be charged for by the state. Any drastic measures which would tend to curtail the privileges hitherto enjoyed in the forests may lead to serious difficulties...In a small country like Kashmir the tight policy is to encourage cultivation and I believe that if the whole of the village area, which includes all land up to the slopes of the mountains and the borders of the forests, were brought under cultivation, grass, timber and fuel sufficient for agricultural requirements could be supplied without injury to the state forest"*⁴⁰.

The holders of customary rights and concessions in forest areas of the state were not in a position to raise voices against their curtailments primarily because of their indigence, ignorance, illiteracy and lack of legal guidance. Though community conservation, control and use of community based resources came under the purview of customary rights, the effected people did not move the courts to assert these rights even if snatched⁴¹. There is less conservation and more alienation when one views the relation between the people and the forest and wildlife laws of the state. In order to integrate biodiversity concerns into existing statutes and associated rules, notifications and regulations, wherever necessary, a thorough review of the State Forest Act and the wildlife (Protection) Act is needed⁴².

³⁹ Lawrence, Walter R, "The Valley of Kashmir"(1996 ed.) Kashmir Kitab Ghar, Jammu Tawi at p.233;see also Kaul, M.K, "Medicinal Plants of Kashmir and Ladakh-Temperate and Cold Arid Himalaya", Indus Pub.(1996),New Delhi at p.37, observing that the medical practitioners (Hakims) prescribe herbal mixtures emphasizing the principle of synergetic activity amongst the components of plant ingredients in these mixtures and it is assumed that 'just as the body is designed to extract multiple components from food, it is also designed to do same from medicinal plant material'.

⁴⁰ Id. Lawrence, W. R., at p.p.427-28.

⁴¹ See supra note 34 at p.25.

⁴² Id. at p. 60.

Besides reviewing the current forest classification system from the conservation and livelihood point of view, a greater role needs to be assigned to forest dwelling men and women in achieving the conservation goals⁴³.

It has been argued that in an iniquitous situation of alienation from basic rights to land and resources benefit sharing can hardly ever achieve 'fairness and equity'⁴⁴. The Government of Jammu and Kashmir has undertaken the task of involving the forest dwelling communities in the regeneration of forest resources on the basis of benefit sharing arrangements. The Government, in exercise of the powers conferred on it by section 5 and 14 A of the Forest Act, 1930 has framed the J&K (Rehabilitation of Degraded Forests and Village Plantation) Rules, 1992⁴⁵. These Rules provide for formation of Village (Rehabilitation of Degraded Forests) Committees and Village Plantation (Protection and Management) Committee with full participation of the people residing at the edge of degraded forests and other villages. While the members of Village(Rehabilitation of Degraded Forests) Committees are entitled to share harvest up to 50% in cash or in kind to be utilized for the welfare of villagers, the members of the Village Plantation (Protection and Management)Committee are entitled to share 75 % of the harvest to be utilized for the welfare of the villagers. The committee is to select areas for raising plantation for the benefit of villagers, their cattle and agriculture and for prevention of denudation and soil erosion. The programme has shown a good success⁴⁶ but needs to be fully extended to medicinal plant cultivation in at least the areas providing *insitu* conditions for the development of viable population of medicinal plant species in their natural surroundings⁴⁷. The J&K Forest (Conservation) Act, 1997 also needs to be updated so that the power conferred under section 2 is not used to achieve any purpose other than conservation of demarcated and other forests.

The Advisory Committee envisaged under section 3 of the Act need to be broad based where experts from the field of biodiversity need to be given an effective say in decision making relating to use of forest land for non-forest purpose or de-notifying of demarcated forests. There is no justification for allowing exercise of powers under section 2 even by the Government without following the ETA procedures Similarly the Environment (Protection) Act,1986, the Mines and Minerals (Regulation and Development) Act , as well as the Patents (Amendment) Act need a fresh review to give life to the logic of conservation as enshrined in the Biological Diversity Act, 2002.

3. Reviewing the Property Rights and the State Land Laws

The property laws do not reflect principles of biology, ecology ,and other natural sciences to anywhere near the extent that property laws reflect principles of philosophy, sociology, economics

⁴³ Supra note 34 at p.60.

⁴⁴ R V Anuradha and Ashish Kothari "Law Relating to Biodiversity: Challenges for the Lawyer" IJEL (2000) June, Vol.1, No1 p.p.31-51 at p.35.

⁴⁵ See SRO 61 OF 1992; see also SRO 17 of 1999 amending the Rules of 1992.

⁴⁶ See the J&K Government Forest Department, Handbook of Forest Statistics 2000, Divisional Forest Officer, Statistical Division Srinagar at p.p. 27-28,as many as 325 such committees had been formed till 2000 A.D., covering an area of 9288 hectares, likewise the Social Forestry Department had formed 1426 such committees covering 58000 hectares in area while as IWDP Hills Wing had formed 48 such committees covering an area of 11985 hectares of land.

⁴⁷ Supra note 34 at p.55.

and other social sciences⁴⁸. Green approaches to property law reform seek to address the sometimes apparent disjunction between property rules and common sense by adding consideration of the full range of interests of biological communities and their component parts to the balancing function of property law, and by viewing individual interests from a more realistic perspective that recognizes individual resource owners as members of biological communities⁴⁹. If and when we recognize all the interests of the biological communities, while still recognizing interests that promote individual liberty and more traditional community interests, in the balancing function of property law, we will be able to create, interpret, and apply property rules that better harmonize enjoyment of our resources today and preservation of resources for our future enjoyment and for the enjoyment of our descendents⁵⁰. Host of the property laws and land laws of the state speak in terms of private property values and are devoid of biodiversity conservation values and need a fresh look to inject modern conservation doses in them.

The Transfer of Property Act, 1882 recognizes that things attached to earth constitute immovable property. It also recognizes that 'benefits arising from land' is an interest in the land and, therefore, immovable property. But would benefits arising from land include benefits arising from use of genetic material components in the biological resources found in the land? This question is yet to be answered⁵¹. Similarly the Act does not give any significance to 'growing crops and grass' and excludes them from the definition of immovable property in its section 3.

Thus a valuable resource in the field of biodiversity is pushed into the domain of contract law and is not considered precious as other immovable property but simply like chattels to be dealt by means of private agreements. The acquisition or requisition of land for different public purposes should be proceeded with only after a thorough and comprehensive environmental impact assessment so that the biodiversity conservation goals and developmental needs are fully considered objectively. The prominent laws that need a review in the sphere of property and land laws include the Transfer of Property Act, 1882, the State Land Acquisition Act, the Land Revenue Act, Alienation of Land Act, 1938, the Requisitioning and Acquisition of Immovable Property Act, 1968, and The Land Grants Act. Though the state Government has recently undertaken review of some land laws of the state, the purpose of such review is limited to ensure that prime agricultural land is not utilized in an unbridled manner to meet the housing requirements in the state. The purpose of such review need to be broad based so as to safeguard unique biodiversity of the state, whether associated with prime agricultural land or other land.

4. Review of Agro- Biodiversity related Laws

It has been observed that in Asia the greatest threat to biodiversity is not destruction of plants and animals per se, but rather the destruction of their habitat⁵². Modernization of agriculture threatens potentially valuable local crops⁵³. Many local varieties are disappearing as farmers plant a single, improved variety. Additionally population growth leads to expansion in human settlements and

⁴⁸ Frazier, Terry W., "Protecting Ecological Integrity within the Balancing Function of Property Law"; *Environmental Law* {Vol.28:15: 1998} p.p.53- 112.

⁴⁹ Id.

⁵⁰ Id.

⁵¹ Supra note 45 at p.33.

⁵² United Nations, 2001, *State of the environment in Asia and the Pacific: 2000*, New York: United Nations Economic and Social Commission for Asia and the Pacific and Asian Development Bank .

⁵³ Id.

increasing demand for food, fuel and building materials⁵⁴. Unless significant measure are taken in Jammu and Kashmir also to incorporate environmental concern into agricultural development and land resource management, the situation is likely to worsen. It is equally important to evolve newer policies for conservation of domesticated biodiversity and the indigenous community practices relating to it. Therefore, the legislations regulating land as a resource and various aspects of agro — biodiversity need a fresh analysis in tune with the conservation objectives. Some of these enactments are:

- a. Agrarian Reforms Act, 1976;
- b. Agricultural Produce Marketing (Regulation) Act, 1977 and the Rules of 2003 framed there under;
- c. Aid to Agriculturalists & Land Improvement Act, 1936 and Aid to Agriculturalists (Fertilizers Loan) Rules, 1965; Agriculturalist Relief Act, 1926;
- d. J&K Utilization of Lands Act, 1953 and the J&K Land Improvement Schemes Act, 1972;
- e. The Jammu & Kashmir Prohibition on Conversion of Land and Alienation of Orchards Act, 1975, and
- f. The Jammu and Kashmir Vegetable Seeds Act, 1952 A.D.

5. Review of Laws regulating preservation of specified trees and their derivatives

Some species of tree growing in the state have been the main source of raw material for the specialized industry of Kashmir Art or have otherwise been of vital importance for the economy, prosperity and welfare of a large section of citizens of the state. The Jammu and Kashmir Preservation of Specified Trees Act, 1969 A.D. and the Jammu and Kashmir Mulberry Protection Act, 1949 (along with the J&K Mulberry Protection (Amendment) Act, 1987) make provision for the growth, preservation and protection of various species of trees. Similarly the purpose of the J&K Fruit Nurseries (Licensing) Act, 1987 is to provide for the licensing and regulation of fruit nurseries in the private sector in the state. The Act also empowers the state Government to prohibit the import or export or transport within the state of any fruit plant of unknown pedigree or such plants as are affected by any infectious or contagious pests or diseases⁵⁵. The objective of these legislations matches the modern concepts of conservation of biological resources, however, the implementation mechanism needs to be updated and, therefore, a review of these laws should aim at consolidation of the laws, industrial⁵⁶ and export policy relating to the derived material, flow of information to the public to create awareness about the advantages of conservation and sustainable use of the trees and improvements in the prosecution and penalty mechanism to achieve the conservation goals.

6. Strengthen the implementation mechanism under the laws and provide redressal mechanism at the grass root level

The provisions under the Biological Diversity Act, 2002, the Forest Act, 1930, the Wildlife (Protection) Act, 1978 and the centrally enacted laws relating to environmental protection speak

⁵⁴ Id.

⁵⁵ Section 7 of the J&K Fruit Nurseries (Licensing) Act, 1987, section 2 (c) of the Act defines fruit plant as any plant which can produce edible fruits or nut, and include bud wood, seedlings, grafts, layers, seed, bulbs, suckers, rhizomes and cuttings of any such plant.

⁵⁶ See for instance the J&K Silk (Development and Protection) Act, 1988 providing for proper and smooth growth of the silk industry and preservation of cultural heritage in the art of silk in the state prohibits private persons to directly or indirectly engage in production of Hybrid Silk Worm or any of its parental breeds or sale, transfer and movement of silk cocoons except in accordance with permissions granted under the Act. Similarly the J&K Extraction of Resin Act, 1988 confers monopoly upon the state to extract resin from chir /chil or kail trees, whether such trees belong to the state or not, and imposes a complete ban on such extraction by private persons.

about volumes of clashes and conflicts relating to legal action, locus standi and the period of notice to governmental authorities before citizens can approach the courts to reform the violators of these laws. Uniformity in the above legal areas would ensure equality and fairness which in turn would strengthen the implementation mechanism.

There is need to integrate the right to information related to biodiversity into all relevant laws including especially the Biological Diversity Act, 2002. The recently enacted National Green Tribunal Act, 2010⁵⁷ is a welcome legislation that puts an end to the otherwise cumbersome redressal mechanism enshrined in the laws that will stand repealed once the Act is put to implementation⁵⁸. However, keeping in view the range of jurisdiction vested with the Tribunal in respect of various environmental legislations and matters⁵⁹, it is submitted that in due course of time need would arise for a permanent bench of the Green Tribunal to be located in or, in proximity to, the state of Jammu and Kashmir. Besides, minor disputes between the local communities, benefit claimers and the Biodiversity Management Committees are bound to occur which demand summary type of inexpensive disposal through techniques of ADR like arbitration, mediation and settlement through Lok Adalats without involving long drawn procedural intricacies of an adversarial system of justice.

7. Strengthen the EIA

Agro- biodiversity, aquatic biodiversity and ecosystem services need to be strongly represented in the central MOEF's EIA Notification⁶⁰ of September 2006. Extending the procedure to all projects with a likely adverse impact on biodiversity, increasing public participation, involving experts to aid the public in fully understanding the long term impacts and making the informed and free consent of local affected communities mandatory, penalizing fraudulent practices in Ms, ensuring independent funding not linked to project proponents and other such measures are aspects of vital importance to strengthen the EIA. Ignorant and socio-economically weak and underprivileged communities can hardly understand the prospective value of their resources, which the project proponents, too often excessively intoxicated with commercialism, can easily grab from them. It is therefore highly desirable to launch programmes of education and awareness and extend support services to the communities in all EIA procedures.

8. Reconcile state and central laws and policies

⁵⁷ The Act received the assent of the President of India on 2nd June, 2010 and was published in the Gazette of India, Extraordinary, Part II-Section I, dated June 2, 2010.

⁵⁸ On the enforcement of the National Green Tribunal Act, 2010, the National Environment Tribunal Act, 1995 and the National Environment Appellate Authority Act, 1997 shall stand repealed under section 38 of the new Act.

⁵⁹ Id. Sections 14 and 15 confer jurisdiction upon the Green Tribunal to decide all civil cases involving substantial questions relating to environment (including enforcement of legal rights relating to environment) arising out of the implementation of the Acts specified in the Schedule appended to the Act viz., the Water(Prevention and Control of Pollution)Act, 1974, the Water(Prevention and Control of Pollution) Cess Act,1977, the Forest(Conservation)Act,1980, the Air (Prevention and Control of Pollution)Act,1981,the Environment Protection) Act, 1986, the Public Liability Insurance Act,1991 and the Biological Diversity Act,2002 including appeals arising from the orders, directions and decisions made under these Acts (see also section 36 and Schedule 111 of the Act amending all the⁶⁰ above Acts in respect of appellate powers of different courts. Compensation, relief and restitution matters arising as a result of pollution are also to be settled by the Tribunal. An appeal against the decision of the Tribunal is to lie in the Supreme Court under section 22 of the Act.

⁶⁰ Published in the Gazette of India, Extraordinary, Part-11, and section 3, sub-section (ii), Ministry of Environment and Forests, New Delhi, 14th September 2006.

To achieve the goal of biodiversity conservation it is important to reconcile state and central laws and policies that are incompatible with or contradictory to conservation laws and policies. In order to meet the biodiversity conservation goals at the state level, the State Pollution Control Board need to adopt its own standards in respect of air pollution which have to be stringent than the centrally set standards given under the Environment (Protection) Rules, 1986 presently adopted by the SPCB. Again, some of the laws that aim at decentralization and social justice programmes e.g. the Panchayati Raj Act, 1989 have certain contradictions with the conservation laws which also need to be reconciled. In fact Panchayati Raj Act, 1989 has more significance from biodiversity and biodiversity based livelihood point of view and more powers need to be conferred upon PRIs to actively involve them in the implementation of biodiversity legislation⁶¹.

In Ladakh the Ladakh Autonomous Hill Development Council Act, 1997 provides for the constitution of Autonomous Hill Development Council for the districts of Leh and Kargil⁶². These Councils are to be deemed to be the District Planning and Development Boards for the Districts and exercise all the powers vested under the Panchayati Raj Act, 1989 with district Planning and Development Boards⁶³. Each Council is vested with powers of allotment, use and occupation of land⁶⁴ transferred to it under the Act. Amongst the other district developmental powers the Council is to exercise powers of formulating district development programmes, management of un-demarcated forests, use of canal and water courses for the purpose of agriculture, desert development, preservation, protection and improvement of livestock, fisheries and preservation of the environment and ecology of the area⁶⁵. The powers under the Act have to be exercised subject to the provisions of the Act and other law for the time being in force in the state and any general or special direction of the Government⁶⁶. Under this controlling provision there is no doubt that the Council has to exercise its developmental powers in tune with the conservation laws in force in the state but the developmental policy initiatives under the Act need to be planned in tandem with the conservation principles of the Biological Diversity Act, 2002. One way to achieve it is to give representation to conservation experts by way of nomination in the Councils as well as Inter-District Advisory Council⁶⁷.

⁶¹ Section 12 of the J&K Panchayati Raj Act, 1989 imposes a duty on Halqa Panchayats to specifically deal with the problems of soil erosion, water management, social forestry, rural industrialization, agriculture, sheep and animal husbandry, sanitation, health and other welfare programmes, besides regulating sale and preservation of fish and vegetables. Under section 13 property, movable and immovable, which has been transferred to the Halqa Panchayat by the Government, any public body or an individual constitute the property of the Halqa Panchayat, similarly trees and grass growing on property belonging to the Halqa Panchayat, fruit and other produce thereof and windfalls thereon are also the property of the Halqa Panchayat.

⁶² The Ladakh Autonomous Hill Development Council Act, 1997, section 3.

⁶³ Id. section 49.

⁶⁴ Id. Section 42 provides that all land within the district, on the constitution of the first Council, shall stand transferred to the Council. However, land in section 2(n) has been defined to mean the Khalsa Sarkar land as recorded in the Record of Rights and includes the land falling within the meaning of section 39 of the Jammu and Kashmir Land Revenue Act, Samvat 1996 but does not include the demarcated forests, land which have vested or escheated, or may vest or escheat to the State under the provisions of the Big Landed Estates Abolition Act, Samvat 2007, or the Jammu and Kashmir Agrarian Reforms Act, 1976.

⁶⁵ Id. section 24.

⁶⁶ Id.

⁶⁷ Id., for the composition of Councils and Inter-District Advisory Council see sections 4(2) and 50 of the Act.

9. Lake Biodiversity: the Administrative jungle and the mechanism of protective (mis) management

Besides the high mountains the lakes of the state especially the Dal Lake has remained a viable ecological resource providing fodder, fish and wildlife, green manure, medicinal plants, timber, firewood, vegetables and other valuable products to the people⁶⁸. Despite the establishment of a separate regulatory body in the name of Lakes and Waterways Development Authority [LAWDA] under the State Development Act, 1970 numerous other state Departments and authorities continue to operate with respect to lakes of the state especially the Dal in their own spheres, exercising different powers under numerous legislations. These departments and authorities include the following:

1. Tourism Department;
2. Forest Department;
3. Soil Conservation Department;
4. Wildlife Department;
5. Department of Fisheries;
6. Department of Environment and Remote sensing;
7. Department of Irrigation;
8. Urban Environmental Engineering Department;
9. Public Health Engineering Department;
10. Department of Parks and Gardens;
11. Municipal Corporation, Srinagar;
12. State Pollution Control Board and prospectively the State Biodiversity Board.

A wide variety of legislations have a direct or indirect bearing upon the lakes and waterways in the state, though powers there-under remain scattered in the hands of different authorities and departments other than the LAWDA. The state Departments and the authorities created under the laws exercise different types of powers and in respect of the lakes and waterways these powers are conferred inter alia for the purpose of:

- i. Conservation or prevention and control of pollution or polluting activities, or
- ii. Regulation of trade, tourist and economic activities, or
- iii. Prevention of encroachments and/or regulation of construction activities.

A. The laws for Conservation/Prevention and control of pollution And Polluting activities are:

- i. The Canal and Drainage Act;
- ii. The Easements Act;
- iii. The Irrigation Act, 1978;
- iv. The Jammu and Kashmir Water Supply Act, 1963;
- v. The Jammu and Kashmir Non-Biodegradable Material (Management, Handling and Disposal) Act 2007;

⁶⁸ Supra note 40 at 344-345.

- vi. The Water (Prevention and Control of Pollution) Act, 1974 and the Environment (Protection) Act, 1986;
- vii. Animal Contagious Diseases (Control) Act, 2006 (1949 AD);
- viii. The Cattle Trespass Act, 1920;
- ix. The Wildlife (Protection) Act, 1978
- x. The Municipal Act, 2000 (A.D.) and prospectively
- xi. The Biological Diversity Act, 2002, and

B. The laws for the Regulation of tourist, trade and other economic activities by different Departments are:

- i. The Jammu and Kashmir Registration of Tourist Trade Act, 1978;
- ii. The J&K Hotel (Amenities and services) tariff taxation Act, 1980;
- iii. The Jammu and Kashmir Professions Trades, Callings and Employments Tax Act, 1981;
- iv. Camping and Mooring Sites Act, 2004 (1947 A.D.);
- v. Ferry Boats Control Act, 1971;
- vi. The J&K State Fisheries Act, 1960 (1903A.D.), and
- vii. The J&K Water- Nuts (Singhara) Rules, 2007 (1950A.D.).

C. The following laws apply for exercising control over constructions and encroachments:

- i. The Land Revenue Act, Samvat 1996(1939A).
- ii. The J&K Public Premises (Eviction of Unauthorized Occupants) Act, 1988;
- iii. The J&K Control of Building Operations Act 1988 as amended by the J&K Control of Building Operations Act 1997, and
- iv. The Land Acquisition Act, Samvat 1990.

i. Lack of coordination and need for integrated approach in regulation

A plethora of laws, with multiple enforcement agencies there- under create a complicated web of fragmented control. Besides the jungle of administrative bodies, each body is invested with vast number of powers and procedures. There is possibility of overlapping controls where a single process or incident could be regulated by more than one body, using different enforcement powers. In many cases there could be situations of 'too many cooks spoiling the broth'.

ii. Failure to view the lake environment as a whole

When each Department controls separate sector, there can be a reluctance to deal with a problem on a unified basis. Administratively the existence of multiple bodies with overlapping responsibilities creates tremendous logistical difficulties, misunderstandings creep up, and interdepartmental communication has its own problems which all lead to inefficient control ultimately undermining the authority of the law.

This is one of the main reasons why the State High Court has been constrained to assume the responsibilities of looking after the Dal Lake vide its Division Bench order dated 24th of March 2009. The need for an integrated and coordinated approach to address the desired physical, biological, ecological and engineering measures, both in the catchment as well as within the lake basin itself has been felt by several experts in the past⁶⁹. Dal Lake is simply an instance to project the deplorable condition of the lake resources in the state, the satellite imagery of other lakes like

⁶⁹ See M.R.D Kundangar [et.al.](#) Dal Lake —Kashmir' Urban Environmental Engineering Department, Jammu and Kashmir (1997) at p. 29.

Wullar reveal disturbing statistics, more than 70% of the lake has been severely affected by siltation, reducing its water carrying capacity and in turn posing flood threat to the Kashmir valley⁷⁰. It has been observed that as a result of Climate change the impacts of regional climate variation challenges for the state of Jammu and Kashmir would include decreasing volume of glaciers, short term increase in run —off but overall long-term declining stream and river runoff, reduced spring discharge, reducing lake volume in Dal, Wular and Manasbal lakes and wetlands⁷¹. To overcome the new challenges it has, therefore, been recommended that the existing policies should be reviewed with particular attention to the consequences of climate change. Policy and adaptive response should take account of vulnerabilities to environmental change within the natural and social systems of J&K and other hazards to which the region is exposed⁷². In order to reverse environmental degradation especially in respect of water pollution, closer coordination among government agencies and active community involvement has been suggested as a road plan for action. In tune with the recommendation submitted in respect of lakes and waterways, the climate experts have recommended the creation of a dedicated institution in the state mandated to coordinate actions of all organizations, with powers and mandate to address adaptation to and mitigation of climate change⁷³.

Conclusion

The state has the sovereign power to use its natural resources in the way it likes but the power has to be used to serve the common good. Enough of our biodiversity especially in the forests and close to boarder areas continues to be destroyed because of defence activities and this process has never ended since 1947. Additionally, inappropriate, inflexible, weak and contradictory nature of various laws will continue to weaken the cause of conservation of biodiversity. Contradictions between environmental laws and policies on the one hand, and the laws in respect of industrial development, commerce, and welfare on the other have already raised their ugly heads. Even the environmental laws can be accused of showing less concern for biodiversity. Some of these laws show a centralizing tendency and provide inadequate mechanism for empowerment of citizens especially biodiversity- dependent communities who could otherwise use the existing laws and policies or challenge them when inimical to biodiversity conservation. Judge -made laws have always played unique role in the legal circles which also need a thorough analysis at the local level from the biodiversity point of view so as to maximize their use in achieving conservation, sustainable use and equity.

⁷⁰ See the daily Greater Kashmir, dated 3 -2-2010 at p.1.Wular Lake in North Kashmir, Surinsar- Mansar in Jammu, Sumorari in Ladhak and Hokersar in Kashmir have been declared as as Ramsar sights for conservation and restoration under the Ramsar (Wetlands)Convention,1971,the Central Government is about to approve Rs.350 crore project for the protection of Wular Lake and is also considering a comprehensive plan of Rs.1000 crore for the Dal Lake, see the daily at p.10.

⁷¹ Recommendations of the International Workshop on Climate Change, Glacial Retreat and Livelihoods: Assess Regionally, Act Locally, 12-14 October, 2009, Srinagar J&K, India.

⁷² . Id.

⁷³ Id. See also the Draft Regulatory Framework for Conservation of Wetlands placed for public comments on the Website of Central Ministry of Environment and Forests on 24th May 2010, the proposed draft provides for the constitution of Central and State and District Wetlands Regulatory Authorities composed of official and non —official members, representing diverse fields of expertise to ensure wetland conservation through co- ordination and integrated approach to all developmental activities relating to the wetlands.

There is absence of a holistic land use plan and policy that can specify fragile areas as off-limits to development activities including mining. There is no law for protection of wetlands nor can the state, in the presence of existing private property law regime, exercise control over the diversity of non —living elements e.g., soil, its uniqueness, fertility etc to act as the natural habitat for diverse types or varieties of plants. A thorough review of the existing state laws relating to flora and fauna and their habitat has to be undertaken to reap the benefits of conservation of resources to the optimum. The conservation objectives demand collaborative decision making and integrated approach as against legally sponsored traditional individual and isolated process of implementation of laws.

A consistent effort to identify holders of traditional and existing knowledge relating to biological resources is required to be made and people are to be made aware about the benefits of conservation of resources and the need for a consistent hunt to discover their potential use and market. The message of conservation of resources, need for discoveries relating to knowledge, traditional/existing as well as prospective and associated benefits, the scheme of fair and equitable benefit sharing can reach the stakeholders at the grass root level when the state takes effective steps in giving representation to effective persons in the Biodiversity Management Committees. Once they adopt a consistent approach in creating mass awareness by establishing linkages with educational institutions and the mass media at the local level, the Biodiversity Management Committees in due course would turn as respectable institutions amongst the local people.