



COMMON PROPERTY RESOURCES OF JAMMU AND KASHMIR AND THEIR MANAGEMENT

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ABSTRACT

Livestock continues to be an important sector which contributes 11% to GSDP of state. Livestock sector has important place in our state especially Kashmir as it's having a hilly terrain and arable agriculture is not lucrative and farmers rear sheep and goats. Despite growth of livestock sector our state is short in animal protein requirement with availability of 256 lakh kg against requirement of 1200 lakh kg as per minimum requirements of MCI (Mir *et al.*, 2016). There are many reasons for this deficit but one of the main reason being that only 4% arable land is under fodder cultivation in J&K, and total fodder production is 86.5 lakh tones, with greens accounting to 61.44 lakh tones, dry being 25.1 lakh tones. With respect to deficiency it's observed that greens are 67% & dry 27.31% respectively (Ahmed *et al.*, 2016). To counter this deficiency feeding resources available include CPR's viz. pastures, highland pastures, pastures under forest etc, crop residues, cultivated fodder and non conventional fodder resources. Amongst them forages are the major source of feed for livestock in the region, which are produced on pastures, meadows and a very little portion on cultivable land.

Common property resources

CPR is natural resources in which a group of people have equal rights to use. It is characterized by free access to all individuals of the locality and lies outside the market framework. CPR includes; Community pastures, Community forests, Wastelands, Wetlands Common dumping, Threshing grounds, Watershed drainages, Village ponds, rivers, rivulets and their banks (Jodha, 1990).

Livestock and CPR's in Jammu and Kashmir

Pastures form vital part of livestock rearing in Kashmir. Livestock rearing is directly dependent on availability of common lands viz. village pastures, community forest, etc than on the import of feed & fodder from outside and Cost on feeding makes this sector economically unviable. With decrease in commons, prospect of feed & fodder scarcity for poor households increases. Sheep industry in our state is dependent on CPR's viz. Permanent pastures, pastures under forest, high land pastures for 9 months. People associated with sheep rearing have no land or have small land holdings. About 34 lakhs of Gujjars, Bakerwals rearing livestock live in our State are dependent on CPRs (Anonymous, 2016). In case of large animals high yielding cattle are stall fed. Low yielding cattle graze near hill slopes or grazing land around human habitation. Apart from contributing

to livestock sector CPR's generates different products fodder, timber, fuel, grasses, leaves, oils, seeds, bamboos, charcoal, honey, herbals, lac, fruits and vegetables, birds and animals for meat, fishes, minerals etc (Dasgupta, 2005). 2/3rd income is generated by CPR's & land less households are highly dependent on CPR's (Menon & Vadivalu, 2006). On the other hand lakes contribute to groundwater recharge and support a rich and diverse variety of aquatic flora and fauna & also promote recreational, tourism, fisheries, irrigation and domestic water supply services (Jain *et al.*, 2007). It's also observed that many wetland plants e.g. *Typha*, *Phragmites*, *Azolla* & *Lemna* help in purification by removing heavy metals (Rai, 2008). Other important role is that flood control is also achieved with wetlands they help in holding of water & also reduce speed of moving water which lessens the impact of destruction. Lastly CPR's are also biodiversity hotspots they support wildlife, migratory birds, wide variety of flora.

Important CPR in Jammu & Kashmir Pastures/Khaicharia

Pasturelands are enclosed tracts of farmland, grazed by domesticated livestock, such as horses, cattle, sheep, or swine. Some of the important pastures in Kashmir region are: Sonamarg, Gulmarg, Tosamaidan, Dodhpathri,

Daichigam, Harwan-Dhara belt, Dignibal, Gulabbagh, Zakura, Shalteng, Humhama, and Chaterhama etc.

Wetlands

A wetland is a place where the land is covered by water, either salt, fresh or somewhere in between. There are about 1230 lakes/wetlands in our state 415 lie in Kashmir, 150 in Jammu and 665 in Ladakh (Anonymous 2016). Among them four are of international importance listed under Ramsar convention i.e Surinsar-Mansar in Jammu, Hokersar and Wular in Kashmir, & Tsomoriri in Ladakh. Some of the other important wetlands in Kashmir are: Hokersar, Narkara, Manibug, Hygam, Chatlam, Mirgund, Shallbugh, Maigam etc.

Waste lands

It is an unused area of land that has become barren or overgrown. Our state J&K ranks 2nd with 75,436 sq km. (TOI, 2013). It has been seen that most of the wetlands have turned into waste lands, disturbing the ecology. One such example is that of Achan, it is a 616 kanal site which was once a wetland.

Degradation of CPR's

About 32.7% of the total geographical area of the country is affected by various forms and degree of degradation (Kar, 2012). Permanent damage is due to excessive grazing in the absence of timely and effective control measures. Deforestation has been a leading cause owing to different agricultural activities, poor forest management, infrastructure projects (roads, dams, schools). One such example which can be cited is that of Construction of Mughal road in our state of Jammu and Kashmir which has resulted in major environmental impacts viz. deforestation, soil erosion, biodiversity loss & water pollution (Fayaz *et al.*, 2017). Apart from this deliberate forest fires & shifting cultivation & conversion of flood plain areas, primary forests, grasslands & associated freshwater ecosystems to meet demands of growing population has created a havoc. tremendous pressure is on ecosystem due to dependence on water bodies. (Zhao *et al.*, 2006). It has been observed that wetland dependent 21% of bird species, 37% mammal species, 20% fresh water fish are also on verge of extinction (MEA, 2005).

Armed conflict in Jammu and Kashmir

Many army camps are established in meadows of Sonamarg, Gulmarg, Tosamaidan, Badamibagh, Dodi Pathri, Bhangas valley. Anti militancy operations in forest areas which often result in degradation of forest areas.

Amaranth Yatra

Yatra has affected glaciers, high altitude flora and fauna. Plastic bags, bottles and other waste gets washed into rivers & streams like Lidder, Sind and Sheshnag Nallah. Thus clogging the delicate ecosystem (Anonymous, 2017).

Encroachment

In Kashmir region 28,311 Kanals of kahcharai land encroached in Srinagar alone, major chunk is located in Malroo, Shalteng and Lawaypora (Anonymous, 2018). Apart from land grabbing concrete infrastructure at tourist destinations is at cost of our pasture land. Now coming to wetlands from 1911 -2011, more than 50% of wetlands areas have vanished. Wetlands around Dal lake, Babademb, Anchar, Shalbug, Hokarsar and Narkara have been transformed into residential colonies (Kuchay and Bhat, 2014).

Conservation measures

Some of the conservation measures which can be adopted include

Stiff legislation and legal provision, user participation & awareness, application of good grazing practices, determination of carrying capacity of pastures, application of soil & water conservation techniques, development of wastelands, demarcation and strict vigilance, tank bed cultivation, silvipasture (fuel and fodder), need for forage based development research Involving village communities in planning, regeneration and management including distribution of benefits among locals.

CONCLUSION

CPR's represent an important resource base of fodder for livestock in J&K, which are otherwise not sustainable owing to the marginal land holding among the farming communities. Degradation of CPR's continues unabated as a result of various anthropogenic activities like tourism, forest fires, illegal construction etc. Conservation and revival of CPR's needs immediate attention so as to sustain livestock sector and address environmental concerns which may arise as a consequence of degradation.

Suggestions

1. Reducing pressure on CPR's by controlled grazing system and use of unconventional fodders as feed.
2. Proper enforcement of existing legislations to prevent degradation of CPR's.
3. Revival by rejuvenation & re-seeding of degraded pastures.
4. Policy implications by survey of existing pastures to determine carrying capacity, stocking density & nature of commonly growing fodders.

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