

Impact of development projects on grazing resources of Odisha

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Introduction

Odisha, a state of modern India lies in the sub-tropical belt in eastern part of the country. It is the 10th largest state of India in terms of geographical area (15.57 million hectares). Out of the total geographical area, 37.33% constitute forest land and 39.69% cultivated land. These 6.180 million hectares of cultivated land is the source of food of almost 41.9 million human beings (Census, 2011) and 20.72 million livestock (Livestock Census 2012) of the state. Thus there is scarcity of land in the state. Majority of the farmers in the state are marginal and small (86.16%) owning less than 2 ha of land. Due to increasing population pressure, the average size of land holding had decreased from 1.89 ha in 1970-71 to 1.15 ha in 2010-11. Only 24.74% of cultivated area has access to irrigation during dry season. Hence, cultivation is mainly rainfed and food production is a priority than fodder crops. The fodder availability in Orissa state is ill matched to the livestock population. It is estimated that there is a deficit of 62.8% in green fodder. Out of the total green fodder availability, contribution of cultivated green fodder is only 2.83% and majority (97.17%) are available through grazing in permanent pasture, forest, cultivable waste land and other fallow land. Forest area (5.813 million ha) and permanent pasture or grazing land (0.49 million ha) popularly termed as "Gochar Land", even in revenue records are the major feeding source of livestock population of the state.

Results and Discussion

Sample survey estimates conducted by Directorate of Animal Husbandry & Veterinary Services, Government of Odisha indicate that only 1.73% of the total livestock populations are stall fed and rest 98.27% are either grazed or both grazed and stall fed. This is mainly due to ownership of livestock mainly by small and marginal farmers, whose land resources are limited to spare for cultivation of forage crops and stall fed the animals. In rural Odisha, majority of the households rear indigenous cows and maintain a large herd in order to compensate the deficit in productivity. Landless, marginal and small farmers own more than 67% of the milch animals. These categories of holdings account for almost 80% of all land holdings, own and operate only 47% of the land, 67% of all milch animals, 49% of the draught animals and almost the entire sheep, goat and pig population. For these categories of holdings and livestock, to add to this scenario, Orissa is one of the country's richest states in mineral resources. The mineral reserve of the state is estimated to be 54600 million tonnes spread over in an area of more than 6000 sq. km. State has nearly 20% of India's total mineral resources, which includes 98% Chromites, 70% of Bauxite, 38% of Graphite, 26% of Iron Ore and 24% of Coal (Government of Orissa, 1998-99). Because of such huge deposit of mineral resources, 603 mining leases have been granted for excavation of different ores in the state. In mining areas, due to acquisition of land for mining operations, the grazing sources of cattle get squeezed. The situation further aggravates when irregular practice of dumping top soil/overburdens is done which cause lot of air and water pollution affecting crop field and vegetation. Poor management of dumps leads to sliding down/erosion of soil and affects the surrounding vegetation a lot. This is a serious problem in almost all the mining areas of the state unless other wise managed scientifically in some selected mining companies.

Conclusion

Because of huge mineral resource, about 340 major and medium mineral based industries have come up in the state. Along with these 7 defence establishments/weapon factories, 87 dam/Irrigation Projects, 17 major linear projects (Road/Rail network) have come up in the state in recent years. Acquisition of forest and Government/CPR land for these units accounts for 68297.9271ha and 116791.635 ha respectively. These lands were mainly used for grazing of livestock. Because of acquisition of these lands, grazing sources has been squeezed a lot and needs alternative strategies to meet grazing requirements of livestock of the state.