

Simaltrees, vultures, *Rajis* and honey bees

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The days are not far off when the grandparents of lowland terai would tell their grandchildren how intimate was the association between the simal trees, vultures and *Rajis* over a decade ago. All these species described above were so over abundant in the lowland terai that they are now becoming a story of the past for no fault of theirs but because of ignorance and insatiable needs of ours. Simal (*Bombax ceiba*), a fast growing fire resistant native species is vanishing at a very fast rate. These trees have been cut and cleared for two reasons. The first one is that farmers have been cutting down these trees from their private lands to supply as raw materials for veneer and match factory, which fetches a good price. Secondly, the presence of big and matured trees in the private land would indicate that the land was a recently cleared one for cultivation. Therefore, farmers who had encroached and occupied forest land for cultivation had no other choice but to get rid of the big, tall standing trees to avoid prosecution. These trees in the lowland terai have now been confined to National Parks, Reserves and nearby Buffer Zones only.

Tragedy

Now let us discuss what has been the result and impact of large scale felling of simal trees from the farmland. Did people ever know of the overarching importance of a single tree species and its associated benefits. Local farmers for that reason may not be aware of the importance and the role of this tree species in the local environment. Farmers very often tend to believe that tree harbors pest and predators and provide shade for the growing crops. Big trees are very often the cause of low crop yield. Therefore, big trees are not very farmer friendly. But let us see how simal trees are worth their presence.

Let us dwell from a farmer's perspective and see the long-term sustainable benefit. The local people and farmers now agree that the vulture's numbers have gone down compared to a decade ago. The sightings of vultures have become less frequent than before. The carcasses are not being attended as robustly as in the earlier days. The ground scavengers play a major role than their avian counterparts. The reason is simple; the vultures have lost their former habitats and nesting sites. For we know vulture's major choice for nesting is simal tree and their nesting in other trees is very seldom.

Impact

The farmers of terai have witnessed a significant loss in mustard yield over the years. Because of the absence of simal trees, bee colonies have also lost their primary niche and become less in numbers. The bees play a crucial role in pollination of crops, particularly mustard thereby enhancing mustard yield. A mature simal tree can harbor as many as forty beehives. Since private land and farms are now devoid of big trees like simal, figs, and sami which are a good repository for birds and insects. The birds on the other hand do a world of good to farmers by preying upon the crop pest. This biological predation of pests would save farmers money spent on insecticides. Therefore big trees provide good cover, shade, forage and habitat for a number of species.

Rajis are ethnic minority communities that are found in the western terai areas particularly in Bardia, Kailali and Kanchanpur Districts. It is estimated that their population is less than five thousand for whole Nepal. *Rajis* are the only ethnic community that are totally dependent on honey collection and fishing and other forest minor products for their subsistence living. Their existence is very much linked to conservation of biodiversity. With simal tree vanishing, *Rajis* are now caught in a dilemma and fear of losing their traditional occupation of collecting honey from simal

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trees. *Rajis* are avid climbers. Their affinity to honey bees and fishes is beyond our imagination. The sustainable livelihood of a community is in peril. When enquired about their future options, they responded by saying that they have no choice except to enter forest and clear land for cultivation. When a sustainable life sustenance system is altered, the ultimate pressure would fall on the existing forest resources.

Conclusion

Therefore, simal will not just have to be valued as trees; the ramification of ecological function they

perform in the system is immeasurable. Therefore, these important tree species function as keystone species or focal species in an ecosystem whose absence also impacts the very existence of other associated species. With simal trees gone, there will be fewer beehives in the vicinity, which would mean less opportunities for honey collection for *Rajis*, low mustard yield, and a decline in vulture population. This would mean a significant loss of biodiversity at the local level an overall decline in the ecological health of a productive ecosystem. Therefore, efforts have to be made to sensitize local people of the benefits of such trees to humans and local environment.