

Common Property Resources in Different Agro-Climatic Landscapes in India

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It is well established that Common Property Resources (CPRs) are important sources of livelihood to rural households. Pioneering work by Jodha in the mid-1980s resulted in a spate of literature that has since highlighted the significance of CPRs not only as regular sources of income and employment, but also as safety nets in periods of scarcity, such as drought. Nonetheless, it is necessary to examine (a) the disaggregated use of CPRs across different agro-climatic zones, (b) the differential dependence on CPRs, by farmers with differential land holding, and (c) the legal access to CPRs.

We analyse the National Sample Survey Organisation's (NSSO) 54th round data on CPRs based on a survey of 78,900 households from 5242 villages across the country. The insights that have emerged from the analysis are that CPR dependence is linked to the type of agro-climatic zone (whether hilly forested tracts, semi-arid/arid pastoral economies, or intensive agriculture areas). The type of agro-climatic zone determines the nature of the dependence on CPRs: in very broad terms, while the hilly forested tracts show the greatest dependence on CPRs for products collected, the semi-arid and arid pastoral communities show the greatest dependence on CPRs as a source of fodder for grazing

livestock. Moreover, while in the arid and hilly forested tracts people depend on de jure CPRs, in the case of the intensive agricultural areas (e.g., Punjab and Haryana), people depend on de facto CPRs such as private lands.

The disaggregated analysis across land holding categories (in terms of operational holdings) shows that the landless are by and large more dependant on CPRs than the landed, across all agro-climatic zones, and that this dependence is primarily for fuelwood. While non-timber forest products (NTFPs) are important to all households, in the Upper Gangetic belt, the landless are more dependent on CPRs for NTFP than are others. In terms of the monetary value of CPR collections, while the average value of CPR collections at the all-India level is Rs.693 annually, there are significant variations across agro-climatic zones. The annual gains from CPR collection are highest in the Western Himalayas (Rs.1939), followed by the Eastern Himalayas (Rs.1219). It is surprising that the value of CPR collection is also high in the intensively cultivated Upper Gangetic plains (Rs.1070), but with the important distinction that here only 30% of households collect CPR products. The data from the 54th round reinforces our understanding that CPRs are important and the study highlights certain concerns in

each of the landscapes. For example, in the forested tracts, the key issue is access to forest produce and the evidence suggests that even in co-management schemes, the benefits to rural communities vis-à-vis the State are relatively insignificant. In the semi-arid areas, issues related to legal access to forest and pasture for fuelwood and grazing, and privatisation, remain central concerns even two decades after Jodha first discussed them.

There are certain limitations of the NSSO dataset on CPRs and we outline measures through which these limitations could be overcome in future rounds of data collection. The use of CPRs is often a struggle and contestation over access to resources that cannot be easily captured by numbers. There is need for more case study-based research to explore certain tentative hypotheses that emerge from the analysis of the NSSO data. A more nuanced understanding should lead to more informed policy that could explicitly address CPR-based livelihood strategies and could implicitly address conservation as well.

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The Use and Knowledge of Herpetofauna on Little Nicobar Island, India

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The Andaman and Nicobar group of islands is situated in the Bay of Bengal. The Ten Degree Channel separates the Andaman Islands from the Nicobar archipelago 160 km further to the south. The term 'Payuh' meaning 'native person' refers to inhabitants of the southern Nicobars, mainly Little Nicobar Island, Kondul and Pulomilo. The Payuh live along the coast by tending plantations and fishing from the sea. Forays into the forest are occasional, and only by men, to hunt or collect timber and other building materials when necessary. Large reptiles that the Payuh frequently come into contact with are the saltwater crocodile, the four species of marine turtles, the water monitor lizard, and the reticulated python. Other herpetofauna found on the island are known only to those who make infrequent visits into the forest.

The indigenous islanders of the Andaman and Nicobar Islands are exempt from the schedules of the Indian Wild Life (Protection) Act, 1972, and are allowed to use wildlife for sustenance but not as articles for sale. Amongst the Nicobar herpetofauna, apart from the Malaysian box turtle, frogs, agamids, skinks and snakes, the other large reptiles are all sources of protein and part of the Payuh diet.

The Malaysian box turtle or 'Etaing' in the Payuh dialect, is commonly kept as a pet since they are harmless and easy to look after. This species occurs only on the two large islands, Great Nicobar and Little Nicobar.

The reticulated python, the largest snake found in the archipelago, is known as 'Yammai' or 'Yammai kamai' (literally, 'eater of our chicken'). Apart from the python, other snakes that are seen are the 'Biyohé' the 'Kaonl' and the 'Hiya paloah' all of which are common but rarely seen. The Biyohé is often seen atop coconut trees searching for geckoes or small skinks. The sea snake, the 'Gok layuh' comes ashore at a few places on the main island but is seen more commonly on the smaller islands such as at Kabra.

Sea turtles, 'Ka owis' are a common source of meat. They are hunted while nesting, and are also harpooned from canoes. Four species are known to nest in and around the archipelago: green sea turtle 'Kao ka', the hawksbill turtle 'Kao kayil' the leatherback turtle 'Hikunth' and the olive ridley turtle 'Kao reyeh'. Eggs of all but the leatherback are collected and eaten during the nesting season. Only a few elderly people consume the eggs of the leatherback turtle,



Photo: Manish Chandi

undeterred by its smell and a local belief that it has energy draining properties. The arrival of the sea turtles is associated with the monsoon winds. It is known that the hawksbill and the green sea turtles arrive to nest after the leatherback and olive ridley sea turtles. The leatherback is the only species that is not caught for its meat and all hunted hawksbill turtles are checked for the presence of fat around the neck, which is an indicator that the turtle has been feeding on algae or a species of seagrass that makes the meat poisonous.

The monitor lizard is the only reptile that has different names within Payuh ethno-herpetology. The names distinguish individuals by size and taste: the larger, more commonly seen lizard is called 'harouin', whereas its juvenile counterpart is called 'ukoungeh,' and hatchling monitors are called 'tamau heeauwegh'. Monitors are acknowledged to be clever animals, mainly because they get to Abbott's scrub fowl eggs before humans and are also able to steal crocodile eggs with ease. Also, the monitor lays its eggs in mounds of the scrub fowl, or of the sunbeam snake, after consuming the host's eggs. The cleverness and agility of the monitor lizard has earned it the status of the crocodile's elder brother, among the Payuh.

Of all the reptiles that the Payuh come in contact with, the saltwater crocodile, 'Kohnghueveh', is most respected for its strength. Only a few Payuh hunters are both brave and knowledgeable enough to hunt this species. The knowledge of the terrain where crocodiles inhabit

poools, and the ability to 'study the water' for crocodile trails requires an experienced hunter. This experience is scarce among the Payuh, thus crocodile hunts are rare and the meat is regarded as a delicacy. The crocodile also features in shamanistic ritual on the island, in the form of effigies that Shamans use to both exorcise illnesses and cast spells. The only other herp to figure in such effigies is a toad, 'pindram,' after the belief of a gargantuan 'pindram', which is said to live deep in the forest and has been seen only by a few ancestral Shamans.

With such close proximity to the native herpetofauna, the Payuh have, until now, been successful in integrating their traditional livelihood patterns with modern conservation. The use of herpetofauna is restricted to knowledgeable hunters, and to certain seasons, and is supplemented with catching fish and growing horticultural crops. Fortunately, there has so far been no commercial trade in these species, and the Payuh exhibit a tendency, often encountered among indigenous people, to take only what is needed, secure in the knowledge of its availability in future.

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