Degeneration of Resources - Impact on Baigas

Pradeep Bose*

Background

Baigas belong to one of the particularly vulnerable tribal Groups (PVTGs) of Madhya Pradesh and Chhattisgarh states. Besides, a few thousand Baigas live in Mirzapur-Sonbhadra belt of Uttar Pradesh and a few hundreds of them are in Bangladesh, as well. There are presumably about five lakh Baigas in India, nearly 75 percent of them live in Dindori, Mandla, Balaghat, Umaria, Shahdol, Anuppur, Sidhi and Singroli districts of Madhya Pradesh. Kabirdham and Bilaspur have been two Baiga majority districts in Chhattisgarh.

Baiga literally means axe and 'Bewar' means slash and burn based shifting agriculture that this tribal community practiced for thousands of years before the British Raj in India

* Dr. Pradeep Bose, Independent Researcher based in Udaipur, Rajasthan

compelled them to restrict Bewar in Baiga Chak belt (100 sq. km.) of Dindori district in 1890s. Baigas however continued their nomadic-roving style of living and slash and burn type cultivation in a few small raja ruled kingdoms of Ghughri, Kawardha, Bodla, Pandaria, Pendra and other regimes, despite British restrictions. Baigas resisted settled cultivation because as per their faith they could not plow the Dharti Mata. It was only by 1955 that the Baigas became sedentary agriculturists and gave up Bewar. The contemporary Baigas are the fourth generation of settled Baigas who are engaged in agriculture but have not yet become efficient farmers.

Baigas are highly dependent on natural resources for their lives and livelihood. However, from 1890s onward they were forced to change the they were living for generations inside forest. Both changes in policies and degradation of natural resources around Baiga habitat in the central part of India affected them badly. To understand the degradation of natural resources and their impact on communities like Baiga, the RGICS commissioned a short study in few Baiga villages of Sahdol and Anup Pur districts in Madhya Pradesh. Using combination of random and snow ball sampling the researcher identified 14 villages and interviewed 88 villagers and number of block and district level officials to understand state of natural resources and socio-economic conditions of Baigas. This study was conducted in baiga majority Sohaagpur, Gohaparu and Pushaprajgarh block of above mentioned two districts.

Socio-Economic Profile of Baigas in Sahdol and Anuppur

There are three kinds of Baigas in Shahdol and Anuppur districts. They are Bhumia Baigas, Bharia Baigas and Dhanuhar Baigas. Bhumia-Baigas are the authentic Baigas. Most of them live in Pushaprajgarh block of Anuppur district. Bhumia-Baigas are also sprinkled around the Shahdol district. Bhumia Baigas make about 80 percent of the total population of Baigas in these two districts. Bharias is another PVTG of MP and Chhattisgarh which is probably said to have started itself calling Baigas since 1996, when the Baiga Development Authority was formed and special programs of Baigas were framed and run. Bharia Baigas are in largest numbers in Shahdol district and they make about 10-15 percent of Baigas in these two districts. Dhanudhar Baigas, who have tattoos of unique kind but unlike those of Baigas, show archery-based hunting characteristics of Baigas, Kamars and Hill Korwas and they predominantly inhabit Anuppur block.

There are nine community development blocks in Shahdol and Anuppur districts. And there are 1436 inhabited villages in two districts. Baigas live in all these blocks. As per Umesh Tiwari of Baiga Development Authority of Shahdol Baigas might be residing in about 500 villages of these two districts. As per the detailed household survey conducted by Baiga Development Authority in the year 2001, there are about 16,000 Baiga households in these blocks. The average family size of Baigas in these districts is 4.87. Hence there are, in all, about 78,000 Baigas in these two districts. However, Sohagpur and Gohparu blocks of Shahdol and Pushaprajgarh (Rajendra Gram) blocks of Anuppur together have about 56 percent of total Baigas or 9000 Baiga households with about 43700 Baigas in 238 villages. Owing to large concentration of Baiga households in these 238 villages of three blocks, these blocks have been notified as Baigamajority blocks.

Baigas of Pushapraj Garh

Pushaprajgarh or Rajendra Nagar block is adjoining Baiga-chak belt of Dindori district, the most hard-core Baiga area of the tribe. Baigas of Rajendra Gram block tend to live in remote and exclusive hamlets of their own that are located close to some thick patches of forests. Almost all women have tattoos on their foreheads and limbs and there are still some men who keep long hair. Each Baiga household has about 0.2 to 0.5 acre of land adjacent to its home where they grow crops of maize, pigeon pea and rape seed. Most of Baiga households also have encroached forest land on which they grow paddy and small millets, i.e. kodo and kutki. None of the four villages visited had beneficiaries of Forest Rights Act, 2006. They still broad-spread paddy seeds and have not learnt transplantation.

Baigas in Shahdol District

Almost all the 104 Baiga inhabited villages of Sohagpur are located within 20-25 km. radius of Shahdol town (population of about 2.5 lakhs), further 69 Baiga-inhabited villages of Gohparu block also fall within 25 to 40 Km. from Shahdol town. Most of the Baigas from these Baiga villages are educated, celebrate all the Hindu festivals and wear modern dresses. The young generation is oblivious of the old Baiga legacies and beliefs. There is hardly any man with long Baiga-style hair or a woman with tattoos. Their dependence on forest produce is minimal and they are either engaged in farm or construction labor or are in the service sector. Baiga women have picked up Purdah system from high caste Hindus and many of them use Bindi which was an anathema to Baigas about 20 years ago. There are very few Karma dancers and Dadaria singers left in these villages. Most of them have adopted transplantation of paddy.

Except for a few households of teachers and other govt. servants, all the Baiga households are holders of yellow ration cards that enable them to get 21 kg wheat and 14 kg rice per month @ Rs. 1 per kg. Besides, these households get one kg of sugar, one kg of common salt and two kg of gram per month at the subsidized rates. Owing to this regular PDS supply of cereals the Baigas' intake of traditional porridge (pej) made from kodo, kutki and maize has been reduced over the last few years.

State of Natural Resources and Baiga's Livelihood

Based on the interaction with the Baigas in 14 locations the researcher has arrived at six top-most livelihoods of Baigas, in descending order. The first primary livelihood of Baigas is agriculture and agriculture labor. The second primary livelihood is non-farm labor, what Baigas' call 'inta-gara' and migration-based labor. The third primary livelihood of Baigas in Shahdol and Anuppur districts is collection and sale of NTFP. Their fourth primary livelihood is to work as blue-collar workers, viz. as drivers, masons, auto owners cum drivers, tailors and shopkeepers. Fifth livelihood of the Baigas in the descending order would be livestock production and the sixth livelihood of the Baigas will be as illicit mahua liquor brewer and seller. As we seen from this list that most of their occupations have direct relation with local natural resources such as agriculture, livestock, mahua, NTPF collection etc. Therefore, to understand their lives and livelihood, it is necessary to understand the state of natural resources around them.

State of Surface Water

Three perennial rivers originate from Amarkantak, located in Anuppur district. These are Narmada, Son and Johilla. Johilla finally meets Son and Son meets the Ganga near Patna.

Besides, there is another perennial nala called Ghorari that meets the Son near Anuppur town. There is only one perennial river that is tributary of the Son in Shahdol district, called Banas. Hence, in all, five perennial rivers flowed through Anuppur and Shahdol districts. These five perennial rivers hardly have any substantial impact on the livelihoods of the Baigas.

As depicted in images below, it is the small nalas like the Bahgarh of Garhi Dadar village that either originates from a pond or ends as a pond with spill way and the number of ponds in a village like Devhara that provide succor to the Baiga households. However, these nalas and ponds are useful only for about two to four months, i.e. for the supplementary irrigation of kharif crops, for the water levels in the ponds and downstream wells fall drastically by November end. Therefore, there is hardly any water left for rabi irrigation and for drinking after mid-December.

Bahgarh Nala in Garhi Dadar

Barrage on Son River in Anuppur

Devraha has a series of 5 ponds

The villagers particularly pointed out that about 20 years ago the nalas of Salaia, Behrulia, Pachedi, Parsaun and Bardhauan ran live for seven months, from July to January, but these dried up by October-end these days.

Twelve of the fourteen villages visited had ponds. Most of these ponds were built through MNREGA funds. However, all the 14 Baiga villages had seasonal nalas. Only four nalas ran till mid-November and all other nalas dried by the end of September. Ubiquitous plantation of eucalyptus trees in the area must have eroded the surface water availability. Villagers interviewed said that about 20-25 years ago there used to be enough surface water in these nalas till March to grow rabi crops like peas, gram and even some wheat. Besides, Baigas used to catch tiny fish from these seven months running streams.

Researcher believes that there were still about half a dozen nalas in the target villages that have yet not been linked to ponds. If these new ponds were built, there will be augmented availability of surface water in the area, plus Baigas should be taught pisciculture for improving their protein diet.

State of Ground Water

There were about 25 dug wells in the 14 villages studied that had water at 20-25 feet. During the rainy season these effective dug wells had water at just 10 ft. These dug wells were located downstream or were adjacent the ponds and nalas. All others dug wells had dried up. But each of these effective dug wells could irrigate merely half an acre or an acre of rabi crop or vegetables. In order to irrigate more than one acre of crops, a villager must sink a borewell. It is generally the non-Baigas like Gonds, Patels and Yadavs

who live near Baigas that have borewells. Only three Baigas households in the 14 villages studied had borewells.

Shahdol district historically gets annual rainfall of above 1100 mm and Anuppur district gets above 1200 mm per year. Till last fifteen years the ground water level was at about 15 to 20 feet and in some areas up to 30 feet in these two districts. But due to excessive utilization of dug wells and lack of their adequate recharging have made these wells irrelevant.

Most Baiga villages/hamlets had two hand pumps each. One of these worked, whereas the second one was generally out of order. 12 villages hamlets/villages visited had adequate additional drinking water available through dug wells and bore wells. However, two of the 14 Baiga habitations visited did not have enough safe drinking water. These two villages that did not have all-weather working hand pumps were: Garjan Tola and Darra Pani. Meanwhile, Phanki Bija hamlet had tapped/piped water made available to 15 Baiga households.

State of Forests

Umaria was carved out of Shahdol district in 1998. While Umaria district has about 36 percent of its area covered under very dense and moderately dense forest and also a relatively bigger number of Baigas, the remaining district of Shahdol had just 16 percent of very dense and moderately dense forests in the year 2000. Shahdol district was further partitioned in 2003 and only about 3700 sq. km. of area was taken out to make Anuppur district. As per the State of Forest Report, 2017 Shahdol has about 14 percent very dense and moderately dense forests. Anuppur has about 12 percent very dense and moderately dense forests. Pushaprajgarh block of Anuppur happens to have almost the whole of dense and moderately dense blocks of forests; whereas Shahdol had very dense and moderately dense forests spread all over the district.

The density of forests studied in the fourteen villages has reduced in the last twenty years, as the villagers pointed out to researcher. The so-called very dense and moderately dense forests in these two districts have huge patches of Lantana camara (called Baramasi in Shahdol) and Parthenium hysterophorus (gajjar ghas). Almost all dense forests have been fringed by large number of Butea monosperma (palash) trees and there are many eucalyptus trees that have invaded these forests. A breakup of Shahdol-Anuppur forests into trees is as follows: Sal Trees = 40%; Eucalyptus Trees = 15%; Tendu Trees = 10%; Sagwan Trees = 10%; Achar Trees = 10%; Harra, Beheda and Aonla Trees = 5%; Palash Trees = 5%; Other Trees = 5% (Some forests have Mehul vines, Bamboo, Mahua, Dumar or Gular, Kachnar, Sajha and Mango trees)

There is Orient Paper Mill in the area. Everybody, whether forest department or the private farmers, are keen to sell eucalyptus trees to this paper mill. Owing to such large number of eucalyptus trees, surface water and ground water get adversely affected in both the districts. Besides, the barrage on Son river has been built in Anuppur district for supplying water to Northern Power company which produces about 1200 megawatts of power per day and supplies it to central grid. There is a small Bauxite mine owned by a Mittal family of Katni, in Gadhi Dadar village of Pushaprajgarh block. This Bauxite company plants eucalyptus plants in mined and spent pits. 35 Baiga households of Chachan Dih Baiga Tola in Garhi Dadar village got displaced owing to the Mittal company's bauxite mining. Researcher noted that the forests of Pushaprajgarh, near Baigas' villages do not have eucalyptus trees.

Lantana and Parthenium weeds in the forests have inhibited the growth of some of the NTFPs like charota, van tulsi and van jeera. Besides, the growth of Mehul leaves has also dwindled in the forests; hence the finest quality of dona-pattals made by these leaves is not visible in the study-area.

With the dilution of forests' density almost all the game birds and animals have disappeared from the forests. Hence Baigas are not able to have animal proteins that they historically replenished from hunting.

State of Income from Non-Timber Forest Produces

The income of Baiga households from various non-timber forest produces (NTFPs) have fallen significantly in last 20 years. With the distinct fall in trees' numbers vis-à-vis Achar, Aonla, Harra, Behda, Mehul leaves and drop in number of herbs of charota, van jeera and van tulsi; the income-kitty from NTFPs has got constricted. Now Baigas have just nine NTFP based sources of income, whereas they had about 20 NTFP items to exchange in the market. The extant NTFPs that they have are: mahua, tendu leaves, achar, firewood, sal leaves, sal seeds, chhindi-brooms, bamboo baskets and charota.

Baigas' top source of NTFP based income is sale of head-loads of fire-wood. Tendu leaves are distant second NTFP. The reason for dwindling of tendu leaves based source of income is: govt. has progressively reduced days of collection and number of collection centers has also gone down. Mahua, sal seeds plus its leaves and achar are third, fourth and fifth NTFP sources respectively. Remaining NTFPs offer very limited opportunities and to very few Baiga households.

State of Land and its Productivity

Soil type in Shahdol and Anuppur is either lateritic or red and yellow. The soil is generally deficient in nitrogen. The texture of soil is sandy loam, loam to clayey loam. 70 percent or 62 Baiga households studied were of marginal farmers and 30 percent or 26 households were of small farmers. Most of the marginal farmers grow primarily kharif crops plus some rape seeds in rabi, whereas small farmers tend to grow dual crops, including grams, peas and wheat. The kharif crops that the Baigas grow are: maize, paddy, black gram, pigeon peas, sesamum, kodo and kutki. Some small farmers grow vegetables also. As has been stated earlier, most of the Baigas from Pushaprajgarh, in Anuppur district do not transplant paddy seedlings; they rather broad-spread the paddy seeds. However, all paddy-growing Baigas of Shahdol district had been engaged in transplantation.

Shahdol and Anuppur generally have clayey loam soils that have low humus and alkaline pH. Baigas also do not get their soil tested for its organic content, pH, major and minor nutrients. Most of the Baigas are very backward farmers who neither know how to use cattle dung (bio-fertilizers) in their fields nor they use proper doses of chemical fertilizers.

Owing to limited sources and area of irrigation in these two districts, the productivity of crops is low. As per 2011 Census Book of Shahdol, the district had 14.4 percent irrigated area of the net sown area. It does not seem that the percentage of irrigated area of the net sown area would have gone up in last eight year in Shahdol district. Anuppur district, as per its census book, 2011 has only 2.26 % irrigated area to the net sown area and Baigas of the district also reflect the similar irrigated area to their net sown area.

Baigas can grow about three quintals of maize per acre, eight quintals of transplanted paddy per acre, three quintals of broad-cast paddy, two quintals of kodo or kutki per acre.

State of Livestock

As the following photo set -15 suggests about 90 percent or 79 Baiga households studied had cows and bullocks. Average cattle size per household is four. Meanwhile, about 60 percent or 52 households reared goats. Average size of goat per household was 1.5. Further, 30 of 88 or 34 percent households had poultry birds. 14 of the 17 households studied in Pushaprajgarh block kept pigs. Pig-rearing household kept just one to two pigs each.

It seems several Baiga households in Gohparu block of Shahdol district adopted small holders' intensive broiler farming under the influence of NRLM in 2014-15. However, many of them suffered losses and gave up poultry rearing. Researcher found three such poultry farmers who still carried on with broiler farming, with a couple of months gaps during the rainy season. Meanwhile, NPC promoted kuroiler farming with about 20 Baiga households.

Even though there are many Baiga households that have goats, poultry and pigs; their food contains very little share of proteins. It was owing to very poor nutritional status and high degree of protein deficiency among Baigas that government started giving 1000 rupees per month to each woman head in Baiga household. But owing to low awareness Baigas still eat too little animal proteins than what is needed for their healthy living.

Baigas rear cattle not for producing milk but for producing bullocks that they require for plowing, dung for making cakes and as bio-fertilizer (but they do not engage in composting the dung manure). The quality of Baigas' cattle production and management allow a cow to yield about a quarter of liter per day. Hence one may not expect Baigas becoming efficient milk producers and meeting their protein requirement through milk. They can become good meat producers of bucks and desi chicken and even piggery farmers. Each Baiga household needs to keep the flock size of eight goats and two bucks and15 desi poultry birds with at least four eggs produced daily. With these many birds and goats, they may not only meet their protein requirement but earn some disposable income as well. Cross-breeding desi goats with Sirohi bucks and introduction of Kuroilers may augment Baigas' income.

Conclusion

This study of Baiga villages in Sahdol and Anuppur district in Madhya Pradesh indicate that the entire Baiga community in the state have lost their traditional lifestyle due changes in state policies related to natural resources over last more than 100 years. Moreover, the degradation of natural resources due to various regions has also adversely affected their lives and livelihoods. From the findings of the research, we can conclusively state that heavy dependence on natural resources makes the Baigas highly vulnerable and sensitive to natural resource degradation and climate change. While climate change can only be combatted on a global scale, degeneration of certain local resources such as forests can be done by empowering the local community to do so.