

## How the Migrant Sheep and Goat Rearers of Maharashtra Manage the Water Requirement of their Herds

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### ABSTRACT

*Migrant herds of small ruminants are a common sight in rural Maharashtra. These are tended by several communities such as dhangar, unjari, gumati and some dalits. Collectively called "dhangar" in this paper, the community numbers about nine million people living in about a dozen districts. Their highest concentration occurs in regions falling in the rain-shadow belt of the Western Ghats.*

*Since dhangars together look after a large herd and constitute a sizeable proportion of the State population, the problems faced by them in accessing water for their livestock have indicate the level of equity in access to water. This paper is based on a field survey of 169 group leaders of small groups of dhangars and describes the pattern of migration and the problems experienced by them. The dhangars live in fairly conditions, typically migrating for nine months in the post-monsoon periods and traveling about 350 km each year. They live symbiotically with the farmers, their herds enriching the farm lands in exchange for the farmers providing them food and cash. The field work indicates that the dhangars use water from common pool water sources such as rivers, ponds and public water sources. However, they need to negotiate with individual farmers in times of scarcity for both fodder and water. There is no formal policy or programme for the benefit of the migrant dhangars in the State. They do use the water sources created and maintained by charitable institutions such as temples and mosques and at times created by pandharyats etc. However, they have to constantly engage in a struggle for managing the water requirement of their herds. The paper suggests that there is a need for the State to create and maintain water sources to be used by the herdsmen for their animals, if necessary by charging them small fees to be used for the purpose of maintenance of these structures.*

*Key words: migrant livestock, water requirements, Maharashtra, small ruminants*

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## 1.0 INTRODUCTION

Migrant sheep and goat rearers are seen in rural areas of Maharashtra through out the year. Many of them come from Gujarat and Rajasthan, but there is a sizeable population of migrant goat and sheep rearers in Maharashtra itself. While many of them migrate Eastward towards Vidarbha, quite a few of them go Southward to Karnataka and Andhra Pradesh and some move North to Madhya Pradesh. These herdsmen are called Dhangars<sup>2</sup> in Marathi and will be so referred henceforth. Dhangars live in their native village for a short period, usually during monsoons and migrate rest of the year grazing their herd on common lands, forests, wastelands and farmers' fallow fields after the crops are harvested. The herds are watered from sources which obviously do not belong to the dhangars. While they were never considered untouchables, theirs has been an unattended community, currently given the status VJNT (vimukta jati and nomadic tribes) along with other castes such as gurmati or banjara.

### 1.1 Why this Study

Dhangars are the main groups tending to huge population of sheep and goat in Maharashtra. Meat, wool and hides of the animals are the main economic outputs. These small ruminants are considered quite important to the farm economy of the region in view of their contribution in farm manures. While the unattended dhangar community, with a population estimated to be around 90 lac in Maharashtra (2001 Census), is significantly dependent upon this occupation, it has little control over the water resources which it uses for sustaining its herds. The way they manage the water needs for their herds is a matter of interests to academia, development practitioners and policy planners alike since it involves a major issue of social equity.

### 1.2 Background Information

The nine million dhangars are distributed all over the State, concentrated mainly in Osmanabad, Beed and Latur in Western parts of Marathwada and adjoining districts of Ahmednagar, Pune, Solapur, Dhule, Jalgaon, Parbhani and Nanded. Their largest concentration is in Osmanabad and Beed districts. These two districts and the locales inhabited by dhangars largely fall in rain-shadow belt of Western Ghats, with a low to medium rainfall ranging between 400 and 700 mm. Rain occurs mainly during July-September. Large tracts of land are rain-fed. Huge expanse of wastelands can be seen during even in a cursory tour of this region. Rain fed crops such as bajra (pearl millets), jowar (sorghum), tuar (pigeon pea) are largely grown by the people. In the few tracts of good trap black cotton soil, rabi jowar, cotton and gram are taken with the advantage of limited rains occurring during the return phase of the monsoon. Crop yields are low: bajra yields are lower than 2 quintals per acre. Recently, cotton has become popular thus contributing to cash income on one hand, while reducing the availability of residues for animals on the other. Crop income is way short of the subsistence needs and even those people who do not tend

<sup>2</sup> This word literally means shepherds. However, there is also a clan by this name sub-divided in 22 sub-castes. People from some other castes such as vanjari, gurmati and some dalits also keep sheep and goat. For convenience, we use dhangar as a collective (not caste specific) noun to cover all migrant herdsmen irrespective of their caste.

sheep and goat migrate for seasonal work such as sugarcane harvesting and construction labour. So pathetic are the living conditions in this region that according to a local NGO, Janvikas, of Kej in Beed, a large number of women from this region had joined flesh trade<sup>1</sup>.

### 1.3 Scope of Field Work

This study was done by conducting interviews and detailed discussions with 169 dhangars acting as the leaders of their respective small groups. A total of 363 dhangars are represented in the sample. Interviews were conducted in over 60 villages from 28 talukas of eight districts of Maharashtra using a schedule that was translated in Marathi for local use. The data gathered in the field work is summed up in Annex 1.

### 1.4 Arrangement of this Paper

The next section gives a brief summary of the social evolution of dhangars. Section III presents a schematic picture of the life-pattern of dhangars. Section IV gives brief information about the migration routes chosen by the respondents. Section V presents information about how the dhangars make arrangement for food, fodder and water during their migration. Section VI lists the issues regarding arrangement of water for the herds. The last section presents a summary and highlights issues of policy concerns.

## 2.0 DHANGARS THROUGH HISTORY

Dhangars have occupied important place in evolution of society. They trace their lineage to the Emperor Chandragupta Maurya. The famed martial family of Holkars who came from the village Hol in Beed district, fought in the army of the Peshwas. They later ruled from Indore. They belonged to the Dhangar community. Ahilyabai Holkar was the most illustrious ruler of the family and continues to be revered in this part. The deity of dhangars is called "Khandoba". Said to be deification of the clan leaders who collected revenue for the Kings from their fiefs (locally called "ijars"), the deity is cherished for its honesty and virtues of loyalty. The most famous temples of Khandoba are in Jejuri in Pune district and Malegaon in Nanded districts and the annual fair draws lakhs of people from this community. Turmeric powder (haladi) is regarded as the sacred sign by the dhangars, regarded as essential for all auspicious occasions. A blanket made of the rough sheep wool of their herds is used to collect contributions of those who can not attend the annual fair. "Yelkot yelkot, jay Malhar" is both the unifying slogan of the whole dhangar clan as well as the war cry of the three sub-castes<sup>4</sup> who have been reputed for their valour. The Indian Army has a Hetkari Regiment named after the community. A folklore with some historical basis states that Shingroji dhangar is said to have shown the pass now known as the Kasara Ghat in the Sahyadri mountains to the British but was rewarded with death by the British so that the path would remain a secret. However, throughout the known history, right from the times of Chandragupta Maurya, the dhangar community has been known for its occupation of tending sheep and goat.

<sup>3</sup> Discussions with Shri Ramesh Bhise, Janvikas, also refer to the study undertaken by Manavi Hakka Abhiyan, a network of local NGOs.

<sup>4</sup> These three are hatkar, haatkar and hetkar; see the Gazzete of Yeotmal, 1908, p. 201

## 2.1 Life Pattern of Dhangars

Usually a dhangar stays in his own village during monsoon months from June to September. During this time, they till their own land. Most of the shepherds have some land. Land ownership is considered very important for their social standing (status?). "A dhangar boy who owns no land finds it difficult to get a bride. So each dhangar family insists on buying some land"<sup>5</sup> In the sample of 169 dhangars interviewed there was not a single dhangar who was landless. Fifty two of them had bought some piece of land during the last five years. At the end of the rainy season, adult males migrate with their flock of sheep and goat. Elderly persons and one working male, one of the brothers, are left behind. The working adult takes care of the farm operations such as harvesting. The dhangars migrate taking with them their ponies, "ghongdi" (a blanket woven from coarse wool of their sheep), household utensils, bamboo for making make shift huts, plastic sheets for covering their makeshift huts, grain, a few sacks of "tukda"<sup>6</sup> and invariably a watch dog and clubs of wood as weapons. "My long and luxuriant moustache, my dog and my club are the surest protection against any unruly citizen we may come across", noted one respondent. Not all dhangars carry their own stock of goat and sheep. Some of them take the herd of the employer. Such employee dhangars get paid around Rs. 1200 per month, ration for himself and his wife and a few extra items such as clothes and shoes. Dhangars never migrate alone, but always in a small group, ranging between 2 and 12. There are different patterns of migration.

- a. A small proportion of dhangars migrate through out the year, not returning even during monsoon. They carry sacks of tukda and these stocks are replenished from their families on demand. These are exclusively male groups of six or seven.
- b. Another pattern is migration with the whole family for the entire post monsoon period, leaving only the elderly. This is a group of both owner-herdsmen and employees. Womenfolk in this group take care of cooking for the group and tend to lambs and kids as well as the ponies. Womenfolk get only food, no wage.
- c. In a third type, a group stays in the village and walk short distances each day surrounding the village, the herd sitting in their courtyard, their farm or the abundant wastelands near their homes. This happens in places like Gangakhed which are surrounded by rich shrub forests and hence have good biomass for their animals. Also their herds are small, not exceeding forty animals.
- d. In Parbhani, the employees of the herd-owners are not paid cash wages but share the progeny and other economic products such as wool. This is called "batai" meaning share-tending. The employees migrate in the dry season following the first pattern.

Most often a group (called "gat") has seven or eight members and tend to five hundred animals. One member goes on "home leave" by turn, while the remaining men tend the animals. This way they manage to have a reasonably stable family life and have their

<sup>5</sup> Interview with Ambu Jadhav of Dhangarwadi.

<sup>6</sup> "Tukda" refers to crushed pieces of dried bread made of a mixture of pearl millets, sorghum and some lentils. This is their staple particularly during days when a hearth can not be lit near their huts because of rain. This is taken with goat milk or garnished with chutneys made of pea-nut powder and chilly.

children educated etc. The man going on home leave carries cash from group members to their families and brings back tukda for the group. The following box depicts a village inhabited by dhangars.

### Box 1 Dhangarwadi: How the dhangars live in their village

Dhangarwadi is a small village in Kalamb taluka of Yeotmal district. It is entirely habited by dhangars. These dhangars came from Khandesh area and settled in the jungle here in 1965. It has a population of 527 persons living in 1092 Ha geographic area of which degraded forest land accounts for 900 Ha. Sixty five dhangar families tend to a total of 16000 animals, including about 11000 adult females, 450 rams and rest young ones. Of these sixty five families, twelve families have special rights legitimized by the village over the nearby forest land and these twelve families do not migrate at all but graze some 3000 sheep in the forest lands. The remaining families are of migrant dhangars, who migrate for nine months. Sixteen of these families do not come back to stay at all but are on the move the entire year.

The annual mortality of the herd is about 20%. The usual causes of mortality include viral infections, foot and mouth disease and infections of the intestines. The animals which die of these diseases give no economic value. Sheep has a reproductive cycle of a little over six months, and barely 10% give birth to more than one lamb in one delivery. Goat on the other hand tends to have three cycles in two years and about half of the females yield 2 kids in one delivery. Sheep is more commonly owned here and is considered more sturdy. Vijapuri breed of sheep dominates in the herd here.

On an average, the dhangars travel on a 250 km-long route every year. Dhangars from this village travel in Yeotmal, Wardha, Nnaded, Buldana and Amrawati districts. Some migrate Southwards into Adilabad as well. Migrant dhangars leave home after Deepavali, but those who leave earlier celebrate their festival wherever they are.

Mahadev Jaidas, a dhangar of this village has built a small rustic dam on a local stream here. The stored water is used mainly for watering the animals but is also partially used for irrigating his cotton field. The earthen dam is washed away each monsoon and is rebuilt after the monsoon for the purpose. The storage lasts till February and suffices for the population of 3000 sheep that live in the village. After the backwater dries up, they take the animals to a nearby village and water them there from a medium dam there. While the reservoir dries up, it recharges a largish well some 800 m downstream. This well is the water source for the village. The villagers practice traditional medicine to cure animals. Some of them resort to use of local herbs and shrubs while others burn out the affected tissues with a red hot iron rod.

An average family in this family earns about Rs. 500 per live female head. A herd of 160 females yields 80 kids. A mortality of about 20% leaves some 60-70 saleable. Each kid is sold for an average of Rs. 1200/-. They also fatten the kids for "qurbani" a practice followed by Muslims locally for each Eid ul Zua. Such fattened kids fetch much larger price. Thus on an average, the gross village income each year is nearly Rs. 6 million from animal herd, averaging about Rs. 85000/- per family. Net of mortality and expenses the average family earns in excess of Rs. 5000 per month. This village has seen a lot of dhangar families buying

land from the incomes they earn.

### 3.0 MIGRATION ROUTES

All dhangars do not follow a common route. Routes are chosen on the basis of information regarding the availability of biomass and water as well as the existing networks built by a dhangar group with the farmers en-route. Thus in effect, each dhangar group follows its own route. Typically, each group may travel nearly 300 km over a year, passing close to or through 15-20 villages on the way. A sample of routes followed by some dhangars is given in Table 1. Two patterns are observed. When a group comprises of 7-12 dhangars, one of them goes ahead and identifies a place where they can go. He negotiates with farmers in whose farms the herds will sit for the night, finds out watering sources and takes a stock of biomass availability. The group follows the next day after he reports. They leave early in the morning with their herd so that they reach the destination by evening. Their womenfolk wrap up their makeshift arrangements, load them on the ponies and move an hour later. The second pattern is followed by smaller groups. When a group has two or three dhangars, they enquire about these matters with the villagers themselves and with their introduction move to the next halt. Their daily movements are naturally shorter, usually to the next village. Another pattern that is observed involves shuffling of routes in consecutive years. Thus a group from Beed may go to Eastern side in one year, take the herd Northward the next year and go to Karnataka in the third year.

### 4.0 ARRANGEMENT FOR FOOD, FEED AND WATER DURING MIGRATION

As noted earlier, the group finalizes the route after assessing the availability of biomass and water availability on the probable routes. While grazing in forest lands, degraded, forest lands, wastelands and common lands along streets and canals is common, groups also depend to a significant extent on biomass that is available in privately owned farms from which crops have been harvested. Similarly while public sources of water are normally used by the Dhangars, there are numerous occasions on which they must depend on water sources owned by individual farmers and village panchayats.

On reaching the destination where they propose to halt for a few days, dhangars usually make their animals sit for the night on private farm lands. This is done after negotiations with the owner of the land. Usually, the animals stay on the farm for the night. The farm gets enriched with the excreta and urine of the animals. In return, the farmer pays them either in cash or kind or both. For example a group of five dhangars with a herd of 500-600 sheep are paid between Rs. 200 and 300 per night for making their animals stay in a farm, or are given 1 quintal jowar (sorghum) every second day. A combination of a smaller cash amount with some grain is also observed. The consideration varies across districts and even within districts, generally depending upon scarcity of biomass and water. The consideration reported by a sample of dhangars is shown in Table 2 for illustration.

These arrangements prevail in those years which are considered "normal". In years of drought or scarcity, the consideration dips significantly as there is very little biomass in farms or very little grain available with the farmers. In such years, the farmers struggle to

meet their own needs and as such are not much concerned with enrichment of their farms. There are occasions on which the dhangars have to forgo both cash receipts for making the animals sit in the farms and rights to draw water from wells themselves for the animals. Instead, when the scarcity is acute, they themselves have to pay varying amounts to farmers. It is observed that these contracts are negotiated on the basis of mutual need and availability of materials.

For instance a dhangar Rajendra Shilke reported that in Parbhani he had to make his herd to sit in a farm in exchange for allowing his herd to browse in the farmers fields and he had to make arrangement for water from some other source. Sakharam Jadhav of Yeotmal had to pay sums between Rs. 300 and 800 for allowing some 600 of his animals graze in vacant cotton farms in summer of 2004, a drought year. He also reports having paid Rs. 3000 for allowing these animals to browse in a 12-acre farm. Sambhaji Hubale of Solapur paid Rs. 100 for taking the pods from 12 babhul (*Arabia acacica*) trees for feeding his herd. Nagu Mane of the same area reports that he had to give one large male sheep worth Rs. 1200 for being allowed to graze his animals on 12 acres of land and using the babhul pods from the trees in the fence. This land belonged to five farmers, and he had to ensure that his animals sit in the plot of each farmer for a night.

## 5.0 WATER FOR THE HERDS

Water for the herds is possibly the most critical resource for the trade of the dhangars. While there is a strong social norm that drinking water must be given to human beings in rural Maharashtra, such a norm does not necessarily apply to the animals of the dhangars. Dhangars use water from streams (rivers, rivulets, nallahs), canals, ponds, reservoirs, backwater of K T weirs, bore-wells, "budki", dug wells, hand-pumps and drinking water sources created by local self-governments. They also buy water in tankers when they must. From the field work, we have attempted to infer about the normally used sources in various districts and the inferences are presented in Table 3. This pattern is clearly determined by supply. For instance, Western Maharashtra is better endowed with dams and canals and as a consequence, dhangars migrating to Western Maharashtra depend, to a much larger extent, on them. Vidarbha area has better rainfall and forest cover resulting in streams that remain live much longer and dhangars migrating into Vidarbha depend to a great extent on them. Marathwada has neither of these two conditions and hence dependence of dhangars is more on ground water sources, unlike in other regions.

The box below shows a randomly chosen case of a dhangar depicting his water use.

### **Box 2: How Natthu Zite manages water for his herd**

Natthu Kisna Zite is a gat leader of a group of 13 dhangars with a herd size of 1100 animals. He belongs to Parwa in Yeotmal. His group moves with these 1100 animals, 38 ponies, 125 goat, 110 poultry birds and a group of 59 persons belonging to the families of these 13 dhangars. He starts from Parwa, goes to Kurli, Wagara, Wadona, Kinhi, Mezda, Mahur, Adilabad, Korapana Vani and returns, thus traversing Yeotmal, Nanded, Adilabad and Chandrapur districts. The group must protect themselves and their herd from wild animals

<sup>7</sup> Budki is the term used for temporary shallow dug wells dug in river beds and reinforced with wooden poles for stability. These are prevalent mostly in summer months.

during the transit through forest patches. Wolves are aplenty and he reports losing about 30 animals each year. The group members keep weapons such as clubs and knives for the purpose.

The entire belt has running streams through out the migration period and he travels along the river Painganga. In some patches, there are minor or medium reservoirs and he uses the water of them. He locates their makeshift huts about 200 m from the water source in the river bed. In peak summer, he lives close to Kalamb-Deoli area close to Wardha river. In Korapana area he has often used water from wells. Wherever he goes through a forest patch, he has to pay Rs. 200-400 to the local forest guard for a four-five day transit. This is not an official fee but just plain bribe to avoid harassment. In return, he is allowed to graze the animals and take water for them from the ponds/rivers flowing through the patch. Whenever he goes close to a village and must use some village source of water, he must propitiate the Sarpanch with a poultry bird. Not only do his animals drink from the streams, his group members also fill water from the mid-stream and filter with cloth. In the month of May, he digs budkis in river beds and uses that water both for his animals and members of this group. He uses a traditional technology of inserting "nivla", a worm that cleans the water of budkis and shallow pits.

The box below describes the situation faced by a dhangar group in Marathwada.

### **Box 3. How Kausalya Mane manages her herd**

Ambadas Mane is the gat pramukh of a group of five members and they together have 550 sheep. He belongs to Solewadi in Solapur district. We interviewed his wife Kausalyabai. She said they start migration after deepawali. They go into Marathwada, entering via Umaraga in Osmanabad district, Killari, Nilanga, Latur, Dhoki, Kalamb, Isufwadgaon, Pol, Ambejogai, Parali, Telgaon and then return. Thus they cover basically Osmanabad, Beed, Parbhani and Latur district. The whole route is generally devoid of any running stream and everywhere she has to manage water from private wells and other sources. At some places, she uses canals, budkils and running streams when such sources are available.

She reported that every where they have to negotiate hard for the permission to stay, put the herd in farms and get water for them. For instance in Nagapur near Parali, she and her group stayed in the farm of Nivrutti Munde, a farmer. Their group had to pay the farmer Rs. 250 for a night for allowing the herd to sit in the farm and use the water. Kausalya and her group had to routinely fight with wild animals en route whenever they had to pass through forest or wasteland patches. She reported that in September 2003, once when she went to fetch water for the group members, she found on her return that a wolf had attacked and killed her two year old son. She also reported that when they were fetching water from the well of a well-off farmer and a money lender, the servants of the farmer physically assaulted them. In Isufwadgaon, a farmer refused to give them water though he had an electric motor fitted on his well. He forced them to draw water with buckets to water their 550 sheep and 14 ponies. She rued that she herself has seen conditions worsening for migrant herdsmen in her lifetime. The family has been working hard and has actually put their son through college. They hope that he would get a proper employment and that would reduce the need to migrate.



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## 6.0 PROBLEMS NARRATED BY DHANGARS

- a. Harassment by State officers: Every dhangar has reported that he/she has to bribe the forest guard whenever the community traverses through forest patches. These bribes vary in amount but they must pay in order to continue with their occupation. Each group of 5-7 dhangars on an average would spend up to Rs. 10000 per year on these bribes alone.
- b. State veterinary doctors are reported to be charging fees from dhangars for treating their animals and of course make them buy the medicines. Most payments go without being formally receipted.
- c. Dhangars also face a problem of harassment from farmers who own wells. For instance, a farmer in Venikota locked the hand pump in his farm. The hand pump is in a fenced compound and dhangar women fetch water from that source by going through the barbed wire fence, some times causing physical injury. The farmer complains that herds follow each other in endless succession and they leave the whole area bereft of any vegetation. In each case, the herdsmen want water for their herds and family members and this too is a problem when there is insufficient water. Some other farmers remove the piston rods of the hand pumps. Farmers complain that herdsmen do not watch their sheep straying in their farms and these animals damage the crops.
- d. Dhangars also must face occasional threats of having their animals confiscated and shut in a closed enclosure ("kondwada") by panchayats or forest people. As usual bribes have to exchange hands.
- e. A few dhangars reported that the forest guards have at times auctioned their animals when the neighbouring farmers complain about damage to their fields.
- f. Particularly at times of crisis they have to water their stock using whatever water is available. For instance Bimrao Gore of Deoli and Jagannath Namdas of Mendla reported that they had to water their stock using the greenish water of gutters from the adjoining towns as they were not allowed to use any public water source by the authorities. Many dhangars reported to have used polluted nallah water for their own consumption. Dhangars passing through Wardha district have reported that they had to water their stock using effluent water from a stone query. Suresh Sonare of Bhum narrated that in peak summer, only a few stagnant pools of water remain in rivulets. Farmers clean and even shave their animals there and they must survive using such polluted water.

## 7.0 HOW DO PUBLIC INSTITUTIONS TREAT THE DHANGARS

Not a single dhangar narrated any experience of there being a specific provision such as a water source being created and maintained by a public agency for use by them for their herds. Dhangars use common pool sources such as streams and ponds, but it is not as if they

are formally authorized to do so. It is just that they are not stopped from using these resources. But no State agency (departments such as irrigation, revenue, animal husbandry) or Panchayat has made any specific water supply arrangement for the herds. In several locations, gram panchayats do make arrangement for drinking water for animals belonging to that village. This is done by building a pucca tank from which cattle and buffaloes directly drink. However, the access of dhangars to such tanks is often a matter of question. Their animals cannot directly drink from these tanks as they are too short, and dhangars have to draw water using buckets etc. Precisely for being allowed to do this, they must propitiate the village authorities such as the Sarpanch.

Charitable institutions such as local temples and mosques usually install a hand-pump or a well for the devotees coming to the shrines. Dhangars use these water sources and are not very often prevented from using them. These institutions thus are a source of major relief to the dhangars. Dhangars usually do not have to pay any money for being allowed to use them. Hence dhangars note the locations of these places and invariably halt close to them for the benefit of accessing the water source. Dhangars also use hand-pumps and water sources located in or near schools or near market places. These are usually unguarded and maintained by the appropriate authorities.

Interestingly, one can notice a lot of herds halting near private cotton ginning mills, oil mills, dal mills etc. usually owned by marwari community. These factories invariably have a hand pump or some other water source for the use of visitors and the dhangaras are allowed to take water from these sources.

## **8.0 HOW CAN PUBLIC AGENCIES HELP THE DHANGARS IN MEETING THE WATER NEEDS?**

We believe that public agencies would do well to ensure that there is some free space near each village available for the herds to come and stay. Dhangars have reported that there used to be pasture lands, but in many places they have been encroached upon by farmers of the respective village. We believe that the animal husbandry departments should stock necessary medicines in veterinary care units along known migration routes to minimize the mortality of the herds due to diseases. We also believe that there is a need to create water sources in much larger number for use by migrant herdsmen. We understand that there is an issue of proper maintenance of these structures. If necessary, dhangars may be required to pay necessary fees for use of these water sources to the local body such as the Panchayat, which in turn can be used for maintaining the source. There is also a need for creating a formal mechanism of granting license to graze the animals in forest areas so that these huge bribe amounts can be reduced. Dhangars also wanted a special ration card, which would entitle them buy their food from PDS outlets from villages en route.

**Table 1: Sample Migration Routes**

SN	Native village	Name of the Dhangar	Villages covered en-route <sup>8</sup>	Approximate total distance (Km)
1	Dhangarwadi	Ambu Jadhav	Mendla (Yeotmal)-Kolura (Adilabad)-Korapana (Chandrapur)-Hinganghat (Wardha)-Butibori (Nagpur)-back	300
2	Jintur (Parbhani)	Rajendra Shelke	Aundha (Hingoli)-Mahur (Nanded)-Parbhani-Ambejogai (Beed)-back	250
3	Bhilwadi (Yeotmal)	Gokul Jadhav	Mahur (Nanded)-Parbhani-Aundha-Washim-Karanja (Akola)-back	300

Source: Field work done during 2005

**Table 2: Consideration Reported by Dhangars**

SN	District	Group size	Number of animals	Consideration per night
1	Yeotmal	5	About 500	Rs 100 + 50 kg jowar Or Rs. 250 per night Or crop stubs from 5 acres
2	Beed	4	450	Food for five people, water for animals Or Rs. 200 per night Or Rs. 50 kg jowar
3	Solapur	3	250	Rs. 200 per night + 25 kg jowar Or food for the group and water for animals
4	Parbhani	4	400	50 kg jowar + Rs. 100 or Rs. 150 per night
5	Latur	4	240	Water and fodder for animals from crop residue and 25 kg jowar Or Rs. 200 per night
6	Osmanabad	4	800	Rs. 200 per night and water for animals Or 50 kg jowar per night Or water and fodder for animals and 25 kg jowar
7	Hingoli	4	450	50 kg jowar Or 25 kg jowar + water and fodder Or Rs. 250
8	Amrawati	4	275	50 kg jowar Or Rs. 200 per night Or free browsing on 2.5 acres of cotton

Source: Field work done in 2005

<sup>8</sup> Only a few villages are listed, usually the dhangar moves from one village to next in less than ten days.

**Table 3: Patterns of dependence on water source (figures show percent of dhangars reporting dependence on the source)**

SN	Source	Marathwada	Vidarbha	Western Maharashtra
1	River/streams	40	76	50
2	Ponds/tanks	20	10	5
3	Canal	5	2	30
4	Private Dug wells	20	5	6
5	Backwater of KP weir	2	1	5
6	Budki	2	2	1
7	Private Bore-well	4	1	3
8	Hand-pump	5	2	0
9	Tankers and others	2	1	0
<b>Total</b>		100	100	100

Source: Field work done during 2005

**ANNEX 1**  
**Summary of data gathered**

S.No	P a r t i c u l a r s	Numbers
1.	Number of group leaders	169
2.	Number of heads in 169 groups	363
3.	Number of Tehsils covered	28
4.	Number of Districts covered	8
5.	Total population covered	719
6.	Population of children (out of total)	219

S.No	P a r t i c u l a r s	Percentage
7.	<b>Self occupation</b>	
	Sheep rearing	92.5
	Goat rearing	6.
	Cow rearing	1.5
8.	<b>Distance covered from their native village</b>	
	100-150 Km.	40
	150-250 Km.	30
	250-325 Km.	20
9.	<b>Do they have traditional occupation?</b>	
	Traditional	96
	Accepted newly	4
10.	<b>How do you search for water places?</b>	
	By sending men	42
	By asking the people	32
	Considering the situation	26
11.	<b>Whether water is important or fodder?</b>	
	Water	64
	Fodder	22
	Water and fodder both	14

S.No	P a r t i c u l a r s	As. per God Mahadeo's 5 years conjuncture.
12.	<b>How do you guess yearly rain fall?</b>	
	Heavy	
	Medium	
	Less	

S.No	P a r t i c u l a r s	Group leader
13.	<b>How do you collect the information of rivers, reservoirs, dams or tanks?</b>	
	By asking the people	90
	By sending the men	79
14.	<b>How do you change the place in the situation of water shrinkage?</b>	
	By sending one man ahead	79
	By asking the people	90
15.	<b>Do you dig water pit or Budki?</b>	

	Yes	130
	No	39

S.No	P a r t i c u l a r s	Average
16.	<b>How deep the well do you dig?</b>	
	Depth of well	3-8 feet

S.No	P a r t i c u l a r s	Group leader
17.	<b>How do you keep clean the water pit?</b>	
	By adding bleaching in to it	46
	By emptying it	123
18.	<b>Do you prepare the cavity of soil?</b>	
	Yes	87
	No	82

S.No	P a r t i c u l a r s	
19.	<b>Which water places did you utilized during last 5 years?</b>	
	River	
	Dam	
	Well	
	Reservoir (DOHA)	
	Hand pump	
	Bore well	

S.No	P a r t i c u l a r s	
20.	<b>What facilities do you receive from the owner for staying with herds?</b>	
	Jowar	59
	Money	25
	Water	6
	Fodder	6
	Jowar or wheat bread	4

S.No	P a r t i c u l a r s	
21.	<b>How long the water source generally falls from your staying place?</b>	
	100-500 meters.	

S.No	P a r t i c u l a r s	Group leader
22.	<b>Do you take sheep/ goat to the watering place?</b>	
	Yes	169
	Some times give it to drink at sheep pen.	

S.No	P a r t i c u l a r s	Percentage
23.	<b>Which source do you use for fetching water?</b>	
	Water pots	127

	A bamboo lath	32
	Tin boxes	10

S.No	P a r t i c u l a r s	Group leader
24.	<b>How do you fight against thieves or wild animals?</b>	
	Wooden sticks / Axe	122
	Wooden sticks / A sling	34
	Bullet / Sling /	13

S.No	P a r t i c u l a r s	
25.	<b>How do you arrange for sale of milk?</b>	
	At Pusad Market.	

S.No	P a r t i c u l a r s	Percentage
26.	<b>How much do you get against sale of single sheep/goat?</b>	
	500-1000	8
	1000-1500	88
	1500-1800	4

S.No	P a r t i c u l a r s	Group leader
27.	<b>Relations with Forest, Police Departments?</b>	
	Pay money for grazing	109
	Do not pay money for grazing	60
28.	<b>Which do you feel the fresh water for drinking purpose?</b>	
	Water pit in stream	128
	Well	31
	Hand pump	5
	Flowing water of river	5
29.	<b>Which do you feel the fresh water for drinking purpose of your cattle?</b>	
	River	128
	Well	31
	Reservoir or other	10

S.No	P a r t i c u l a r s	Number
30.	<b>No. of domestic animals.</b>	
	Sheep	18749
	Goats	902
	Horses	240
	Local poultry birds	1587
31.	<b>Loss occurred in last rainy season.</b>	
	No of sheep / goat died out of 19651	2644

S.No	P a r t i c u l a r s	Group leader
32.	<b>Treatment arrangement.</b>	
	In Government clinics	29
	Herbal medicine treatment	16
	Without treatment	50
	Scaring	74
33.	<b>How do you arrange for education of your children?</b>	
	By keeping at home	89
	Do not send in school	80

S.No	P a r t i c u l a r s	
34.	<b>Diet</b>	
	Bread and Milk	
	Bread, milk and vegetables	

S.No	P a r t i c u l a r s	Group leaders
35.	<b>Are you satisfied with your occupation?</b>	
	Yes	153
	No	16
36.	<b>How do you over come the quarrels?</b>	
	By mediation & mutual understanding	
37.	<b>How do you keep your drinking water clean?</b>	
	By straining	123
	By adding bleaching	46

S.No	P a r t i c u l a r s	
38.	<b>Yearly income of one family?</b>	
	Average	15000 to 60000

S.No	P a r t i c u l a r s	Group leader
39.	<b>Do you have purchased any property?</b>	
	Gold / Land	7
	Land	52
	Nothing	92
	Gold	18
40.	<b>How do you arrange protection from storm or heavy rains?</b>	
	Use of plastic	146
	Cope ( temporary hut)	23