# ENVIRONMENTAL MIGRATION OF CATTLE: AN INEVITABLE WAY OF SURVIVAL FOR SOME OF COMMUNITIES OF WESTERN RAJASTHAN-A STUDY WITH SPECIAL REFERENCE TO HARYANA

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Environmental migration of cattle is one of pressing problems of western Rajasthan. Owing to frequent drought-like conditions, various streams of cattle, often the groups of cows, camels and sheep usually migrate from western Rajasthan to some of districts of Punjab, Haryana, Gujarat, Madhya Pradesh and Uttar Pradesh. Various empirical studies show that the environmental migration in western Rajasthan usually takes place from Barmer, Bikaner, Jaisalmer, Jodhpur and Pali districts of Rajasthan. In order to survive themselves, some of communities such as Rebaris, Gujjars, and Raikas have been migrating from western Rajasthan to neibouring states. This paper examines the 'pull' and 'push' factors of the 'environmental migration' phenomenon of the state. It also touches some of socio-economic issues of the migrants, caused by adverse environment within western Rajasthan state. This paper also suggests some of remedies to overcome these problems, so that the Rebaris and other nomadic communities may lead a normal life at their native places.

#### Introduction

The notion of "Environmental Refugees," pioneered by El-Hinnawi and extended by many others, has been particularly important to new environmental approaches to compelled to leave their traditional habitat, temporary or permanently, because of environmental disruption that threaten their existent and seriously affects their life. This perspective focuses on the environmental changes has been unevenly experienced since last many years. As a result, a considerable change in land-use, particularly reverse among pastoral communities which are totally depend upon the natural cycle of a region. In this context, some of micro-studies of some of specific regions of India may help us for understanding the nature of 'cause-effect relationship' this nomadic pastoral herds worldwide over the past several decades, long distant migration has become an accepted and annual reality in western Rajasthan. On the other hand, growing economic prosperity in the region has not been accompanied by decreased in migration but rather the opposite, as long-distance pastoral migration has tremendously increased during the recent years.

According to Mandal (1981) who suggests that environmental migration in western Rajasthan, once viewed as repose to drought and famine, has also developed in to planned livelihood strategy. On the basis of an empirical study in the villages

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of the districts such as Barmer, Bikaner, Jaisalmer, Jodhpur and Pali, it has been observed a large-scale movement of Rebaris pastoralist and their animals to places outside Rajasthan. It has been observed that the prime-factors, behind long-distance migration (stretch for months, even more) has been the long dry season led to severe shortage of fodder.

Historic past of the region has been discussed by N.Singh Bhatti (1968), who has elaborated with some of empirical studies, carried out for this region. Bhatti has tried to establish a 'cause-effect relationship' of the cattle migration, caused by adverse environmental conditions. Similarly, C.Henderson (1994) has reviewed the cattle migration phenomenon, in relation to famine and droughts in western Rajasthan. Henderson has examined the agricultural practices in relation to periodic resources in some of pockets of western Rajasthan. Salzman, P.C. (1986) has focused on shrinking pastures for Rajasthan pastoralists in the nomadic people of western Rajasthan which has given rise to 'cattle-migration' towards neibouring states of Rajasthan. Similarly, Bhadani, B.L. (1999) has reviewed the economy of, during the seventeenth century. He has also reviewed rise and fall of artisans and entrepreneurs and deteriorating conditions of peasants in the 17<sup>th</sup> century. Historically, 'pastoralism' has a vital importance for survival for the people of this semi-arid region. Documents from the 17th century talk about the thriving pastoral economy. According to administrative report of 1883-84, a segment of stress population, used to depend upon the livestock reflected in large number of cattle, camels, sheep, and goat, Gazing taxes, such as the 'ghasmani (tax on such animals who used to feed on leaves) were important source of revenue for pre-modern state. The pastoral levies in the states like Jodhpur were as high as seven percent in the normal years. In facts, pre-monsoon states maintain a large portion of pasture within 'khalisa' (crown) land for increasing the king's revenue. In the times of drought and scarcity, the states often used to open forest and other reserve areas for grazing.

One of the earliest historical references to Rebaris and other nomadic communities comes from *Ain-i-Akbari*, which indicate the movement of these nomadic communities during Mughal period. Hence, we observe that the scholars and authors, belong to different streams have tried to establish a 'cause-effect relationships' between the environmental hazards and its impacts on cattle-migration, led by Rebaris and other nomadic groups from western Rajasthan to neibouring states of India. Historic past of arid zone of Rajasthan revels that a major part of a village-lands used to left open for grazing after the harvest. Since at least the seventeenth century, sheep, goat and other livestock have grazed on uncultivated lands during the monsoon season. At time, the state used to appoint someone to ensure that the animals may not enter in the cultivated fields. Drawing inferences from the data on turn of this century, Bhadani, B.L (2003) has estimated that nearly one fifth of the total land was available for cattle grazing. Even today,

after the harvest of the 'Kharif' crops the animals are allowed to graze on crop stumble. It has been observed that since October, most of the village's non-migratory flocks of the villages grazes on these non-migratory flocks feed on the harvested fields and governmental lands in their migratory tracks.

Hence, it is obvious that the historic past of the migratory nature of Rebaris and other nomadic communities have been suffering from the centuries. Till now, no permanent solution or the strategy has been chalked out, so that these nomadic communities may lead a sedentary life at their respective native places. It is a big challenge for the regional planners, economic planners, leaders, government and non-government organizations and the policy-makers for understanding the problems of this segment of the society. Apart from the techno-economic survey, it also requires a 'diagnostic survey' so that these 'Environment refugee' may lead their life in accordance with their own choice with fulfilling the basic needs for them as well for their cattle too.

Keeping in view some of pressing problems of Rebaris and other nomadic communities, the present study throws an adequate light on identifying the problems of migratory community in accordance with their regional perspectives and find out the right strategy to overcome this problem. The study also throw an adequate light to review the historic past of nature, magnitude and directions of the people, belong to Rebari community with their cattle in different parts of country, particularly in some of districts of Haryana. The study is an attempt for accomplishing the multiple objectives, as follows:

### **Objectives of the Study**

- The study is aimed at establishing a 'cause effect relationship' of 'Environment Migration' of Rebaris and other Nomadic communities of western Rajasthan;
- Study is aimed at review the migrated cattle and associated community in view of problems faced by them;
- To review the seasonal fluctuation of incoming cattle during different successive months in some of selected districts of Haryana.
- To suggest some of combating measure for checking 'Environmental Migration' from western Rajasthan.

#### The Study Areas

In order to know originate and destination of the migrants, some districts of Rajasthan and Haryana have been taken into consideration. In this context, the districts such as Jaisalmer, (villages *Banda, Bhairwa, Suro-Ki-Dhani, Simpala* and *Birma. For Pali district, Bania* was, *Budhwara* and *Tewalikala*. There were villages such as *Bara Kala, Bhundana* and *Changawara Kala* from Jodhpur and Barmer

have been taken for the study. In order to analysis the 'pull factors' the destination points of the migrants have been taken into consideration. However, the study is related with special reference to Haryana, it is, therefore, some of selected districts such as Rohtak, Jhajar, Jind, Kaithal, Sonepat, Panipat and Karnal have been taken into consideration.

## Physiography Western of Rajasthan

Western Rajasthan is a semi-arid region, which covers almost one third area of Rajasthan state. This region has very little vegetation and sparsely populated. The livestock rearing and substantive cultivation, in the major part, is a main areal character of this region. It is because of harsh environmental conditions, which have been proved a 'wet blanket' to meet the both ends for the cattle owners throughout the year. Drought and crop failure have been a regular feature of this region. The historic past indicate that the mass-migration to vicinal regions such as Ajmer, Malwa and Gujarat. The water table in the western Rajasthan are low, ranging from 60 to 100 meters, and ground water tends to be saline, brackish and not suits for drinking or irrigation. The soil is predominantly by the desert soil which does not suit to the agricultural practices. As a result, it tends to be alkaline, saline and vulnerable to the wind erosion. One of few forms of vegetation, which grow throughout the year, is a 'Khezri'. The 'Luni' is the only semi-permanent major river in this area and even it flows in rainy season.

In case of Haryana, the assured irrigated districts have ensured to become the major destination points of the migrants with their cattle. The selected districts, for the study such as *Rohtak, Jhajjar, Jind, Kaithal, Sonepat, Panipat and Karnal* have paved the way to provide a shelter for months for the migrants. The 'carrying capacity' of the whole this region is very good and the land is in a position to supports the migrants with their cattle for long period. In addition, a philanthropic attitude and hospitality of the people of Haryana always provide a good platform, especially for the cows which usually migrate with migrants, belong to *Rebari* community of Rajasthan. Apart from these factors, the factors such as good rural infrastructure, supporting farmer community, and support from the local self governments like Gram *Panchayats* have been proved conducive to support to the migrants with their cattle in Haryana

#### **Methods and Material**

The present study is aimed at review the historic past of 'environmental migration' and establishing a 'cause-effect relationship' in relation to present scenario. It also includes the magnitude and composition of cattle, led by *Rebaris*, *Raikas* and other nomadic communities of western Rajasthan. The study is also aimed to analysis the 'pull' and 'push' factors for cattle migration, caused by the adverse

environmental conditions. Lastly, the study is also aimed at to review the socio-economic implications of migrants.

In order to review the 'cause-effect relationships' of the 'environmental migrants', various records, gazetteers and other literature have been reviewed and drawn some of inferences from the historic past of western Rajasthan, passed through different successive periods. In order to review the present scenario, a systematic study has been carried out on *Rebaris* and their migrating tendency; open ended questions were asked on the periphery of the towns such as Rohtak, Jhajjar, Jind, Sonepat, Karnal and Panipat. The respondents were the migrants, belonged to Rebari and other nomadic communities. These migrants brought the cattle, mostly the cows in vicinal areas of these districts of Haryana.

Apart from the primary information, given by the respondents, the secondary source of information has been collected from Rajasthan state Archives, located at Bikaner. In addition, the district gazetteers, and published literature on Rajasthan have been used for review of historic past. An informal discussion with some of respondents, taken at random have been given an insights into the routine life of the *Rebaris*, their migration experiences context, some of respondents, belonged to *Rebari* community who had migrated for more than six months.

#### **Results and Discussion**

In order to know the results of the ration between 'cause-effect relationship' it become essential to review the 'pull' and 'push' factors, which have been affecting the 'environmental migration scenario.' This type of study is expected to throw an adequate light on the root-causes of the problematic areas of this burning issue of 'environmental migration' of cattle from western Rajasthan to some of pockets of Haryana and other vicinal states. On the bases of some of empirical study some of vital inferences have been drawn. The study also touches some of problems faced by the people; belong to Rebari and other nomadic communies of western Rajasthan.

#### Views on 'Pull' and 'Push' Factors of Present Scenario

Keeping in view the severity of drought the *Rebaris* and other non-migratory flocks of villages graze on the harvested fields and *Pachayatl* government lands in their migratory tracts. In order to overcome the severity of the climate, the state has been playing a significant role in regulating the migration of the *Rebaris* and other nomadic communities. In the medieval period, the states used to render their services for grazing their animals. Despite the help for expanding the areas of grazing their animals, the *Rebaris* and other nomadic communities were often forced by climate conditions to migrate to *Malwa*, Sind, and Uttar Pradesh in search of greener

pastures. Recently, according to some of studies, the state has favoured cultivation over pasturage, providing incentives and resources to the farmers belonged to Rebari community of western Rajasthan while ignoring the pastoral needs. This trend has given rise to splits within the villages, as non-pastoralist villagers have "used environmental conservation as excuse to close off traditional grazing land to grazing" Despite the efforts made by the scholars, belonged to different streams have been failed to identify the major differences between the "voluntary migrants" and "environmental refugee." For both migrants and refugees, environmental degradation remains main deriving factors. What about those who, responding to prevailing local conditions, leave their respective native places temporary? Can we consider them as "environmental migrants"? Indeed not at all. They are more akin to nomadic pastoralist. It is therefore, become imperative to carry out the micro-studies for the particular regions of India which may be proved conducive to understand thoroughly the mechanism of mobility of nomadic 'pastoralism' turns into migration. On the contrary, the sedentarization of pastoral herds worldwide over the past several decades, long distance migration has become an accepted and annual reality in western Rajasthan. It has been observed that the phenomenon go beyond to expectation, growing economic prosperity in the region has not been accompanied by decrease in migration but rather the opposite, as long-distance pastoral migration has sharply increased during recent years.

Haryana is perhaps the nearest state, where all favourable conditions have proved conducive to the migrated cattle with owners of cattle herds. There are some of other institutional factors which have given rise to attract the 'Rebaris' to segregate in the territories of some of districts of Haryana. These districts are characterized with vast 'follow lands' left by the farmers of different categories. All these districts are having high 'cropping intensity' with multiple cropping, mostly devoted to paddy, wheat, sugar cane, sun-flower, mustard and other fodder crops. In the villages and vicinal areas, there are vast 'shamlat' and other 'Panchayat lands' provide an adequate scope of 'grazing' for the immigrated cattle, brought by the Rebaris and other nomadic communities of western Rajasthan. In order to support the immigrated cattle, caused by frequent 'drought like' condition of western Rajasthan, other institutional factors like social customaries, rituals, sacraments, festivals and the way of life of the farmers have cumulatively developed the 'spirits' to welcome the cattle, particularly the cows in different parts of Haryana.

In order to analysis the seasonal migration of the cattle in various districts, the primary information have been gathered from the herd leaders, came from different districts of western Rajasthan, provide a considerable seasonal variability in different districts of Haryana. This variability has been tabulated worked out by the coefficient of variability formula as follows:

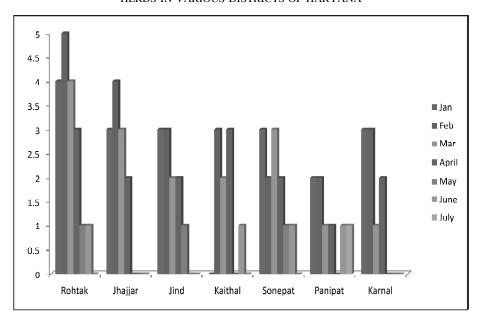


TABLE 2: MONTH-WISE DISTRIBUTION OF MIGRANTS OF CATTLE HERDS IN VARIOUS DISTRICTS OF HARYANA

Sr. No	Name of the District	January	February	March	April	May	June	July	Total		
1	Rohtak	4	5	4	3	1	1	-	18		
2	Jhajjar	3	4	3	2	-	-	-	13		
3	Jind	3	3	2	2	1	-	-	11		
4	Kaithal	-	3	2	3	-	1	-	9		
5	Sonepat	3	2	3	2	1	1	-	12		
6	Panipat	2	2	1	1	-	1	1	8		
7	Karnal	3	3	1	2	-	-	-	9		
8	Total	18	22	16	15	3	4	1	80		

Source: Cattle Herd Leaders

# GRAPH SHOWING MONTH-WISE DISTRIBUTION OF MIGRANTS OF CATTLE HERDS IN VARIOUS DISTRICTS OF HARYANA



Keeping in view the tabulated figures various cattle herds arrived in various district's territories, it is obvious that maximum numbers of cattle herds arrive in the month of February, followed by January, March, April, May and July. The district-wise figures show that the maximum herds arrived in Rohtak Keeping in view the tabulated figures various cattle herds arrived in various district's territories, it is obvious that maximum numbers of cattle herds arrive in the month of February, followed by January, March, April, May and July. The district-wise figures show that the maximum herds arrived in Rohtak during last seven successive months. This frequency indicate more less declining trends in Jhajjar, Jind, Kaithal, Sonepat, Panipat and Karnal district. Keeping in view this trend of migrants of Rebaris with their, Cattle, we can work out the co-efficient of variability of the migrants of Rebaris with their cattle herds, came in the various districts of Haryana, during different successive months.

Coefficient of Variability = 
$$100 \times S.D / Mean S.D. = 9.39$$
  
=  $100 \times 9.39 = 390$   
=  $390/11.3 = 34.51$ 

Hence, the co-efficient of variability is 34.51; it means that there is considerable variability in incoming herds of cattle during different successive months i.e. January, February, March, April, May, June and

July. It has been observed that most of the cattle-herds come during the months of February; it is followed by January, March, April, May, June and July. It means the frequency rates of incoming cattle-herds, maximum within three months January, February, March and April months. It is because of beginning of arid and semi-arid climatic conditions of western Rajasthan region. In the recent years, Rebari -migration has extended to more distant regions, such as Punjab, even travelling as far as Andhra Pradesh, more than 1600 Kilometers from their native places. Rebari- migrations are largely determined by such as the reduction of common property resources and steadily environmental degradation. It has been observed that the peasants used to cultivate their lands with double cropping with assured irrigation and fertilizer assistance, given by the state, and the lands remains under cultivation for most of the time throughout the year. The lands, once grazed by Rebaris are now off limits, forcing this pastoral community to migrate farther and for more duration of time. The earlier research on migration indicates that such mobility allows more efficient use of pastoral resources. The argument is based on the presumption that the pastoral movement takes place in two extreme ecological zones. During a poor monsoon year in one of the zone and sustain the sum of total animals. So when there are more "different ecological zones." In the drought years, Rebaris have taken care of the cattle of others high caste villagers. Those who sent their cattle with them believed that they were as good as lost since not all would be returned to them and some might be sold by the Rebaris on the way.

In order to analysis of 'pull' and 'push' factors, it has been observed that the environmental degradation, increasing undue population pressure on land, changing pattern of resources use, and climatic extremes have been proved as 'push' factors from the western Rajasthan. Hence, Rebari-migration tends to appear to be considerably determined by 'push factors' operative at the place of origin, such as the reduction of common property resource and environmental degradation. For 'pull' factors, the neighboring states like Haryana and Punjab states have been proved conducive to support the cattle population and the migrants' communities, sufficiently for a long time. That the Rebaris have turned towards long term migration as a kind of planned livelihood strategy in inevitable adverse environmental conditions of scarcity and encroaching development is reflected in their herd sizes. Despite steadily fodder resources, we may observe that would discourage livestock breeding and therefore pastoral migration, sheep and goat in western Rajasthan have increased considerably since 1950s. Presently, nearly a third of the total sheep population of the country and 45 percent of the total goat population is concentrated in western Rajasthan. The following table indicates the trends of cattle, sheep, goat and camels during different successive periods.

MAN IN INDIA

# DISTRIBUTION OF LIVESTOCK POPULATION OF RAJASTHAN (1951-2011)

Type of animal	1951-2011								
	1951	1977	2003	2007	2011				
Cattle	107.82	128.96	108.54	121.20	134.50				
Sheep	53.87	99.38	100.54	111.90	122.44				
Goat	55.62	123.07	168.09	215.50	262.91				
Camel	3.41	7.52	4.98	4.21	3.99				

Source: 19th Livestock Census, Department of Animal Husbandry, Govt. of Rajasthan, 2011.

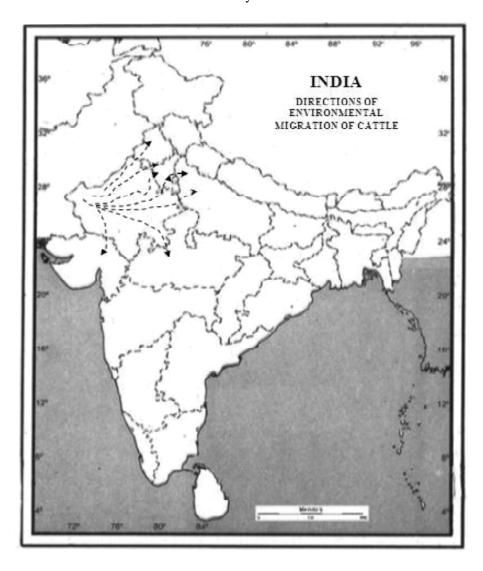
The distribution of species has also changed, as goats and especially sheep are favoured over cattle, which are considered to be less sturdy and therefore less suited for migration. In comparison to eastern Rajasthan, which enjoy relatively milder climate and more feed and fodder, has not been with been experienced same trend of growth of sheep and goat population. Comparing the livestock population of eastern and western Rajasthan, indicate a contradictory trend which shows that the harsher the region, the more it appears to favour the sheep and goat herds which indicate that the fodder might have not only the single factor to determine for long-distance migration. Sheep -breeding normally take place twice a year: in March and April, when stubble grazing is available to the animals, and again in July and August, after the onset of monsoon. As a result, it has been observed that the profitability by breeding of sheep twice a year tend to keep sheep in a considerable number within this region is one of 'pulling factor' for this region. It is estimated that sheep from western Rajasthan produce more than two third of the total wool produced in the country. It is an obvious impact that the migrating Rebaris tend to increase not only the reproductive potential of sheep, but also pave the way for good return on their investment by selling wool and meat.

In order to review the 'cause-effect relationship' of changing land use pattern and the land reforms which have taken place from time to time indicate on the magnitude of cattle migration from Rajasthan state. Livestock production in Rajasthan is solo depending upon the crop of fodder. Change in land use, particularly the conversion of fallow land into arable land which has given rise to produce a considerable gap, if we compare the estimate of fodder, both current and future potential of live stock production in western Rajasthan. Change in land-use has given rise to change the trend of cattle-migration from this region. The wheat, which is one of dominant crops of Marwar region in the seventeenth century, had been now assured irrigated areas with different modes of irrigation.

The present study is aimed at establishing a 'cause-effect relationship' between the environment hazards and probability to migrate the cattle, led by *Rebaris*, *Raikass* and other nomadic communities of western Rajasthan. The study is also aimed at to review the 'pull' and 'push' factors for cattle migration. Lastly, the study also reviews the socio-economic problems of the migrants and

some of suggestions and recommendations for ameliorating the conditions of migrants.

In order to carry out the study of Rebaris and other nomadic communities, open ended questions were asked from the respondents, belonged to the migrants segregated on the periphery of the district towns of Haryana. These districts were Rohtak, Jind, Jhajjar, Kaithal, Sonepat, Karnal and Panipat. The respondents were the migrants, who have brought the cattle which include cows and sheep, segregated in the vicinal areas of these towns of Haryana



In case of Haryana, most of environment-migrants segregate on the peripheries of different district towns. They have told their sufferings which they usually face during their long distance travel and their segregated places. All these districts are blessed with assured irrigation and practiced with multiple cropping. Secondly, there are adequate pieces of fallow lands which provide vast lands for roaming of cattle, sheep and camels segregated within these pieces of fallow lands. A comprehensive discussion with some of migrants such as Bhikhu, Mansa Ram, Gainda Mal, Giyan chand, Ghasi Ram, Ganeshi belong to Rebari community have highlighted some of problems, faced by them. The challenges faced by the *Rebaris* during their travelling and reaching at their destinations are numerous which has been threat to a considerable extent. Most of the time, the Rebaris migrate collectively since they have to travel through densely settled and often hostile environments, with the potential for repeated alternations between herders and cultivators. They are more likely to be seen as a burden in the accommodating areas of Haryana. Since environmental refugees are wanders-new to the areas and in numbers-they would normally hardly be a cause of conflict in the receiving areas, as told by some of above mentioned migrants. Today, with annual multiple cropping, the villagers do not want any such movement of cattle that might damage their fields. The migrants such as *Rebaris* are often sources of concern and tension among the villagers and settled population in Haryana and other vicinal states like UP, Gujarat etc. It has been often observed that the Rebaris have been attacked when their herds entered in to cropped areas. Police and 'Nyava *Panchayats*' have brought numerous of cases of trespassing against the Rebaris. In this context, fees and bribes account for roughly three percent of their total income during their migration cycle. Sexual harassment against Rebari women and theft of animals has also become sources of tension when they have migrated in some of pockets of MP and UP. In this context, they have experienced almost nil such type of incidents in Haryana during last few years. The changing agricultural, ecological and industrial settings have been a considerable impact on Rebaris, since they need cash to fulfill their daily needs. Their sale of 'Ghee' and milk relatively at a cheaper rate often fails to meet the daily expenses. That is why; they often sell their sheep and goat to meet the daily expenses.

On the basis of informal talk with *Rebaris* and the migrants belonged to other nomadic community of western Rajasthan shows their grievances which they have experienced throughout their journey from their native places to Haryana. *Dilip* of *Barmer* district told that the hospitality of the people belonged to Haryana is far better than that of other neighboring states. An NGO, based at Rohtak has extending a helping hand for curing their diseased cows. They have lifted the cows by their owned van and reached at veterinary hospital. And after some days the cows were completely recovered. Same experiences have been told by the some of *Rebaris*, segregated at the vicinal area of Karnal and Panipat districts. In the areas of *Sonepat* 

district, Shankar (from Pali) has told that the cows have been fed well, because of the people, belonged to local community used to supply the green fodder for the cows, gathered in their vicinal areas.





In *Kaithal* district, the district administration has helped the migrants by providing fix areas for grazing the land for their cattle. They have also provided the health services for them and their cattle within the territory of the district *Kaithal*. In the *Jind* district, there is vast arable and fallow land the whole region is known as the land of '*Dev Bhumi*'. In this region, the people belonged to this area usually pay their homage by feeding 'green fodder' to the cows. Then, it was a blessing in disguised for the migrant *Rebaris*, who has segregated here in the villages, belonged to *Jind* district. In addition, the local '*Gau-shalas*' the cow-shelters, always get ready to render any type of services for the cows which have brought by the *Rebaris*.

In the *Jhajjar* district, this is known as a land of 'Gurkul' the land of Aryan schools and having full faith in cow rather than any kind of God for them. The 'Gurukul's Authority 'has extended helping hand for the cows, segregated within territory of *Jhajjar* district. As a result, there have been many instances when the 'Gurukul Authority' has managed to provide health services for the segregated cows within *Jhajjar* district. With help of local state owned veterinary hospitals in rural areas, some of noted NGOs have also helped the migrated cattle in district *Jhajjar*. The district *Jhajjar*, which is main way to interior Haryana, the 'Gurkul' and some of working NGOs have been proved conducive to the migrants.

Hence, it is obvious that the *Rebaris*, who often migrate to this state get full co-operation by the government and non-government organizations. The Haryana state had multiple locational advantages over other neighboring states. The migrants often feel easy than that of other states. It is because of traditional '*Arya Smaji*' culture, having a devotional ties with sacred cow, provide a 'centripetal force' to develop the services sprit for the cows. Secondly, the core areas of Haryana is considered as '*Dev Bhumi*' as a result the services of cows are closely associated

with the sacraments of the people, belong to his region have been proved conducive to provide all round services, specially the herds of cows, immigrated within this 'Dev Bhumi' of Haryana. Apart from above mentioned factors, the Institutional support like 'Gram Panchayats' have been helping these 'environmental refugees'.

However, as the *Rebari's* use of migration as livelihood strategy increases, resistance to them from settled population has turned even more violent. In order to avoid attack of incidents, migration routes are chosen after careful consultation and deliberation among the experienced members by the 'numberdar' (group leader). Now they formulate rough plan of their rout for their halt during migration. *Ghasi* Ram (from Banda), *Ganeshi Lal* (from *Simpla*), *Bhikhu* (from *Baansi*) and *Champak* (from Budhwara) and a sizeable numerical strength of Rebaris from western Rajasthan have told that they have been deviating from their traditional routs. It is because of the confrontation developed by the settled population. The Centre for Arid Zone Research Institute (CAZRI) has identified five routs in Madhya Pradesh, three routes in Haryana, two routs in U.P, and one route in Delhi.

Despite all these challenges, the *Rebaris* have proven to be remarkably resilient. It is generally believed that if individuals constantly meet the new people, customary rules and understanding about ethnicity and community are disturbed. In this context, Rebaris and other nomadic communities have enabled themselves to maintain their family bonds, despite their constant movement, and resistance from the local people. Keeping in view the constraints and the problems, faced by *Rebaris* and other nomadic communities, it becomes imperative to Government and Non-Government Organizations to take initiatives for reducing the migration of cattle. In this context, the state efforts may meet the demand of additional fodder by establishing 'Fodder Banks'. The corporate houses could be proved conducive to the *Rebaris* and other nomadic communities, for considering as 'Corporate Social Responsibility' for helping them to settle them in their respective villages. In addition to above mentioned combative measures, the international organizations like UNDP, UNEP and DFID may take resettlement projects on 'Resettlement policy' for the Rebaris and other nomadic communities, so that the cattle migration, may be checked in a systematic way.

#### Conclusion

Environmental migration of cattle from western Rajasthan to some of neighboring states of India has become a regular feature. 'Environmental migration' has a long historic past, as evident indicate that the nomadic communities have been roaming since 'Mughal period'. Among the Rebaris, traditional nomadic pastoralism has evolved in to a long distance migration. It is an inevitable way to survive them. Migration for them is rationally planned action. Despite facing acute shortages of fodder, Rebaris have preferred to breed sheep in large number. Meaning thereby, the availability of food is not only deciding factor for long distance migration.

Despite a great challenge faced by *Rabaris*, they keep on migrate, so that they may find their livelihood in the adverse environmental conditions. The state like Haryana, has a vital significant for supporting the migrants. The cattle-migrants are seasonal and mostly confined to first four months. There are some of government nongovernment organizations, help the migrated cattle in a systematic ways. In order to reduce the cattle migration, caused by adverse environmental conditions, it comes imperative to take some of preventive measures, such as establishing the '*Fodder Banks*' by the Government and Non-government organizations, taking resettlement projects by the corporate houses are some of combative measure for curbing environmental cattle migration. In addition, the international organizations like **UNDP**, **UNEP** and **DFID** can take the projects on 'settlement policy' for *Rebaris* and other nomadic communities so that they may lead a sedentary life within their respective villages.

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