

Religion and Sustainable Conservation of Nature: A Case of Bishnois in Rajasthan

**A DISSERTATION SUBMITTED TO THE UNIVERSITY OF HYDERABAD IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE**

**OF
DOCTOR OF PHILOSOPHY**

**IN
ANTHROPOLOGY**

**By
BIKKU
10SAPH05**



**Department of Anthropology
School of Social Sciences
University of Hyderabad
Hyderabad-500 046
February 2017**



DEPARTMENT OF ANTHROPOLOGY
UNIVERSITY OF HYDERABAD

DECLARATION

I hereby declare that the research embodied in this dissertation entitled *“Religion and Sustainable Conservation of Nature: A Case of Bishnois in Rajasthan”* is carried out by me under the supervisions of **Dr. M. Romesh Singh** (Supervisor) and **Prof. K. K. Misra** (Co-Supervisor), Department of Anthropology, University of Hyderabad, Hyderabad, and has not been submitted for any degree in part or in full to this university or any other University.

Hyderabad

Date: 9/02/2017


Bikku

(10SAPH05)

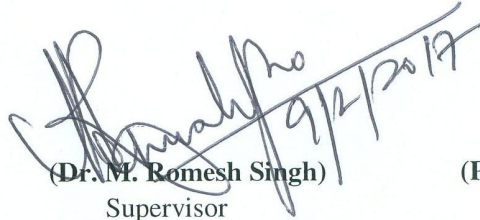



**Department of Anthropology
University of Hyderabad**

CERTIFICATE

This is to certify that **Mr. Bikku** (Reg. No. **10SAPH05**) has carried out the work embodied in the present dissertation entitled "**Religion and Sustainable Conservation of Nature: A Case of Bishnois in Rajasthan**" under the supervisions of **Dr. M. Romesh Singh** (Supervisor) and **Prof. K. K. Misra** (Co-Supervisor), Department of Anthropology, University of Hyderabad, Hyderabad, India. The dissertation represents his independent work and has not been submitted for any research degree of this University or any other University.

(**Prof. B.V. Sharma**)
Head
Department of Anthropology


(**Dr. M. Romesh Singh**)
Supervisor
Department of Anthropology


(**Prof. K. K. Misra**)
Co-Supervisor
Department of Anthropology

(**Prof. P. Venkata Rao**)
Dean
School of Social Sciences
University of Hyderabad
Hyderabad-500 046
Telangana, India.



CERTIFICATE

This is to certify that the thesis entitled “*Religion and Sustainable Conservation of Nature: A Case of Bishnois in Rajasthan*” submitted by **Bikku** bearing registration number **10SAPH05** in partial fulfillment of the requirements for award of Doctor of Philosophy in the School of Social Sciences is a bonafide work carried out by him under my supervision and guidance.

This thesis is free from plagiarism and has not been submitted previously in part or in full to this or any other University or Institution for award of any degree or diploma.

Parts of the Thesis have been

A. Published in the following publications:

1. *Climate Change: Combating Through Science and Technology (Edited by Kinhal, G. A, et. al.) (ISBN Number: 978-81-211-0949-9), Chapter-6. Climate Change and Culture of Conservation among the Bishnois of Rajasthan (pp-47-62).*

2. _____, Chapter _____
and

B. Presented in the following conferences:

1. _____, (National/ International)
2. _____, (National/ International)

Further, the student has passed the following courses towards the fulfillment of coursework requirement for PhD/was exempted from doing coursework (recommended by Doctoral Committee) on the basis of the following courses passed during his M. Phil program and the M. Phil was awarded.

Course Code	Name of the Course	Credits	Pass/Fail
1. SA 600	Advanced Anthropological Theories	4.00	Pass
2. SA 601	Advanced Research Methods	4.00	Pass
3. SA 680	Modernization, Cultural Persistence and Cultural Change	4.00	Pass


Supervisor
(Dr. M. Romesh Singh)


Co-Supervisor
(Prof. K.K. Misra)

Head of the Department
(Prof. B. V. Sharma)

Dean of the School
(Prof. P. Venkata Rao)

Acknowledgment

This research work has been one of the most important academic experiences of my life. However, without the support, guidance and patience of the following people, this study would not be possible and I indebted my deepest gratitude.

My first words of gratitude must go to Dr. M. Romesh Singh and Prof. K. K. Misra who kindly accepted to be my research supervisors despite their many academic and professional commitments. Their wisdom, knowledge, dedication and diligence have always been a source of inspiration for me. They constant support and guidance right from the initial to the final stage of the thesis has immensely helped me in this endeavor.

I thank my doctoral committee members Dr. George Tharakan and Dr. Ramdas Rupavath for their valuable guidance, suggestions and constructive discussions.

I express my sincere thanks to the faculty members of the department of anthropology Prof. P. Venkata Rao, Dean of School of Social Sciences, Prof. B. V Sharma, Head, Department of Anthropology, Prof. N. Sudhakar Rao, Prof. R. Siva Prasad, Dr. George Tharakan and Sir Shaik Abdul Munaf for their suggestions at different stages of my research which were quite enriching.

I am grateful to the office staff of the department of anthropology Ashok, Jangaiah, Kankaya and Kankaya for their help and assistance in completing the official requirements.

I like to acknowledge the UGC for financial assistance in the form of Rajiv Gandhi Nation Fellowship during the course of my M. Phil and Doctoral thesis.

I thank Prof Vinay K. Srivastava (DU), Dr. Krishanram Bishnois (Hisar), Dr. Surender (Hisar), R. K Bishnoi (Delhi) for their valuable priceless suggestion for my research work.

I thank my parents and family members, my back bone, who always stood by my side in everything I do and encourages me, without you this work is not possible.

It is always a delight to have colleagues and friends for instilled their confidence in me. Here my buddies, Bheem, Lateef, Raghav, Pratap, Ashok, Ambedkar, Bilal, Rayees, Mithun, Esunath,

Parsuram, Arif, Shybu, Sachin, Chandan, Amlok, Atung, Babu, Vidhya, Ramshina, JP, and Devender for their help in different capacity.

I thank the Khejarli Kallan Villagers for their hospitality and willingly hosted me and providing me a good food during the course of my fieldwork. In addition, the outcome of this thesis is impossible without the following people's help and I thank especially Kaluram, Bhagirath, Ashok, Ashokanand, Ramesh, Raju, Rajesh, Magilalji, Ramanadji, Jagdish, Jaswant, Dolaram, Khamuram, and Mokhram for helping me in getting information from the field as well as for providing me various important information. I wanted to thank each and everyone by mentioning their names in this page, however, with limited space I missed out your names. With utmost love and respect, even if I do not mentioned here, I will forever remain indebted to you and for your unending encouragement and firm support in whatever I pursue.

Bikku

Contents

	Page No.
Contents -----	<i>i</i>
<i>List of Tables</i> -----	<i>ii</i>
<i>List of Charts</i> -----	<i>iii</i>
<i>List of Maps</i> -----	<i>iii</i>
<i>List of Photos</i> -----	<i>iv</i>
Chapter-1 Introduction	1-22
Chapter-2 Ethnographic Profile of the Study village and Communities	23-71
Chapter-3 History and Contemporary Significance of the Religion of the Bishnois, as Propounded by Guru Jambheswar	72-124
Chapter-4 Sustainable Conservation of the Environment, and the Comparison of the Bishnois and Others	125-184
Chapter-5 Summary and Conclusion	185-198
Appendix -A -----	199-201
Appendix-B -----	202- 213
<i>Bibliography</i> -----	214-229

List of Tables

Sl. No	Table No.	Items	Page No.
1	2.1	Habitation-wise Households in Khejarli Kalan village	32
2	2.2	Habitation-wise population distribution of the Castes and Communities	34
3	2.3	Habitation-wise Gender distribution in Khejarli Kalan village	36
4	2.4	Occupation-wise Gender Distribution in Khejarli Kalan village	37
5	2.5	Castes and Community-wise occupational distribution in Khejarli Kalan village	39-40
6	2.6	Total land Holding	41
7	2.7	Castes and Community-wise Agricultural Landholding in Khejarli Kalan village	42
8	2.8	Habitation-wise Landholding Pattern in the study village	43
9	2.9	Castes and Communities-wise Landholding Pattern in the study village	44
10	2.10	Caste and Community-wise educational status in Khejarli Kalan village.	45
	2.11	Caste and Community-wise Amenities-I in Khejarli Kalan village	46
	2.12	Caste and Community-wise Amenities-II in Khejarli Kalan village:	47
	2.13	Caste and Community-wise Amenities-III in Khejarli Kalan village:	48
11	2.14	Occupation-wise Distribution of Bishnois in Khejarli Kalan village	50
12	2.15	Traditional Occupational Castes and Communities: its distribution among households in Khejarli Kalan village	58
13	2.16	Temples in the Khejarli Kalan village	70
14	4.1	Institutional Types of Governance for Communal Land in Marwar, India	143
15	4.2	Plants and their specific parts used in Ethno-Medicine purpose by the Bishnois	146-46
16	4.3	Material and dry fruits /seeds used for ethno-medicines for various diseases:	159
17	4.4	Tradition Rain-water Harvesting Mechanisms in the Thar Desert	162

List of Charts:

Sl. No.	Chart No.	Items	Page No.
1	2.1	Habitation-wise Households in Khejarli Kalan village (Graph)	31-32
2	2.2	Habitation-wise population distribution of the various Castes and Communities	35
3	2.3	Habitation-wise Gender Distribution in Khejarli Kalan village	36
4	2.4	Habitation -wise population distribution of the Communities	38
5	2.5	Castes and Community-wise Agricultural Landholding in Khejarli Kalan village	42
6	2.6	Occupation-wise Distribution of Bishnois in Khejarli Kalan village	51
7	3.1	Marriage Avoidance among the Bishnois	107

List of Maps:

Sl. No.	Map No.	Items	Page No.
1	2.1	Distribution of World's Desert Areas	24
2	2.2	Location of the Thar Desert	25
3	2.3	Map of the State of Rajasthan	28
4	2.4	Map of Jodhpur district	28
5	2.5	Map of Khejarli Kalan village and Location of the Habitations	30
6	2.6	Map of the study village	31

List of Photos:

Sl. No.	Photo	Items	Page No.
1	3.1	<i>Chugga</i> providing by the Bishnois at the temple	116
2	4.1	Providing water to wild animals and birds, as well as domesticated animals.	133
3	4.2	<i>Khejri</i> and other trees growing in their agriculture field	148
4	4.3	<i>Khejri</i> tree and its pods	149
5	4.4	<i>Hari Kankedi</i> tree	151
6	4.5	Water Tank, called <i>Nadi</i>	164
7	4.6	<i>Tanka</i> , Rain water harvesting from the house roof	164
8	4.7	Bishnois and Non-Bishnois protection of trees in their agricultural field	167

Chapter-1

Introduction

One common feature of the most indigenous/tribal communities, across the globe, is their communion with nature. Until more organised religions came into existence, human communities tended to be more utilitarian. Thereafter, the earliest religions like animism believed that every living organism and non-living objects had a spirit. In the process, these religions created a web of relationship between human beings and nature. To make this relationship enduring and sustainable, the *Vedic* religion created a formal way of worshipping of nature and protecting it (Dwivedi, 1993). It has been mentioned in the *Atharva Veda* that, “the earth is not for the races of men alone, but for other creatures as well”¹. This provided the broader idea of understanding and respecting other living beings on the earth. The *Upanishads* speak of “God as the efficient cause, and *prakrti* (nature) as the material cause of the universe”². During the pre-historic period, human beings believed that the universe was created by the Supreme God and he only had the power to abolish it. On the other hand, human beings were considered as a part of nature, having no domination over their own as well as on other living beings in their surroundings. Subsequently, in the *Vedic* religion and non-*Vedic* religions (Buddhism and Jainism and others), the five elements: space (*akasa*), water (*jal*), air (*vayu*), fire (*agni*), and the earth (*prithvi*) were considered as sacred and were therefore worshiped (Chapple, 2001, pp. 61-62), since these were considered to be important for the survival of the human race. Even the archaeological evidence from Harappa and Mohenjo-Daro tells that many animals and trees may have been worshiped in India. Also, many animals, for example, the Humped Bull, were represented on the seals (Upshur, Terry, Holoka, Cassar, & Goff, 2012, p. 62). The other eastern religions, like Buddhism, Jainism, Confucianism, Taoism (Daoism) and Shinto are, in fact, ecological religions, which have been repeatedly reminding us of the interdependence between the world and nature. The doctrines of these religions explicitly prescribe conservation of nature for human survival (Anderson, 1996).

Despite the recent global trend of environmental degradation, still, there are some communities, groups and cultures in India and elsewhere, which largely follow their

¹ *Ibid*, 2004, p. 148.

² *Ibid*, 2004, p. 148.

religious beliefs and customary laws for protecting the surrounding environment. One such example is that of the Bishnois of Rajasthan, who have been following the principle of ‘live and let live’, driven by compassion towards all living beings and as followers of their religion preached by Guru Jambheswar in the 15th Century. In 1730, the Bishnois made headlines when 363 members of their community, including men, women, and children, were killed by the army of the king of Jodhpur, while protecting the *Khejri* (*Prosopis cineraria*) trees in their village Maheshwari, 1970; Bishnoi, 2002; Srivastava, 2001; Jain, 2011; Chapple, 2011). Even today, a common Bishnoi is expected to follow the 29 sacred teachings of Guru Jambheswar, most importantly, by not harming any life in his/her local environment. It may be recalled that when the infamous ‘Black Buck’ case, involving Bollywood movie star Salman Khan came to the limelight, it was the Bishnois who were the most articulate in expressing their outrage at this act of cold-blooded murder of innocent animals.

Against this backdrop, this study will examine the role of the 29 principles in addressing the issues of nature (ecological issues) by the Bishnoi community. The researcher would also seek to understand the sustainable practices of the environment. In the following chapters, the researcher would endeavour to understand how and why the Bishnois still do not even think of cutting the common *Khejri* tree, in particular, and various other trees, in general and killing of any bird or animal in their desert environment.

Sustainability:

The term ‘sustainability’ is frequently used in the various development programmes and social science literature. The literature largely focuses on issues such as the rapidly increasing population, environmental degradation, pollution (air and water), etc., and also suggests ‘feasible’ solutions for the present, as well as for the future, environmental problems (Wikan, 1995 as cited in Kattel, 2005, p. 258) Awareness about ‘sustainability’ can help human beings manage and arrive at an optimal balance between the population and the available natural resources for the betterment of the environment, economy, and health, etc., so that a better quality of life can be ensured through sustainable practices³. The concept of sustainability has increasingly received great importance in the academia and is used in various development programmes after the United Nations Report of the World Commission on Environment and Development (also known as Brundtland

³ *Ibid* 2005, p. 258.

Commission) in 1987. The report stated that “sustainable development can help in meeting the needs of the present generation, without compromising the ability of future generations to meet their needs” (cf. Sach, 1997 as cited in Kattel, 2005, p. 259). Sustainability shows a path for the systematic use and balance of limited natural resources in their given environment, so that all the living beings continue to survive on this planet. According to Lele and Norgaard (1996), “Sustainability is simply the ability to maintain something undiminished over some time period” (as cited in Callicott & Mumford, 1998, p. 33). However, here arises the question as to about how to study the impact of socio-cultural and religious beliefs and practices, including the protection of the natural resources, of a community, in ensuring the sustainable development of that community. Here, the ecological anthropology approach provides inputs for understanding the relationship between the population and the natural resources and how they balance the natural resources for their survival and protecting the same for the future generations as well. In this context, the present study attempts to understand how the conservation practices of the Bishnois in the desert region have been ecologically sustainable.

REVIEW OF LITERATURE

The dominant discourse in ecological anthropology has been the relationship between culture and the environment. This discourse has helped us in understanding human adaptability in different eco-systems (Moran, 2008). The early theories of environmental determinism, possibilism and cultural ecology also attempted to view this relationship from different dimensions. While determinism was more environmental as the prime mover, possibilism highlighted both the restrictive and permissive roles of the environment in human activities. Cultural ecology was different from both the deterministic and possibilistic approaches since it emphasised on how selected aspects of human activities and cultures interact with the environment (Steward, 1955; Netting, 1977). In all these approaches, the relation between religion and environment has been only marginally addressed.

Anthropology of Religion:

Right from the origin of the discipline of anthropology, different anthropological studies have focused on the religious aspects among the small-scale societies (Taylor, 2005).

These include: ethnological (Tylor, 1871⁴; Frazer, 1910⁵, 1922; Durkheim, 1915⁶), ethnographic (Malinowski, 1926⁷, 1948; Brown, 1922⁸; Prichard, 1940⁹; Turner, 1967¹⁰), and ecological (Rappaport, 1967 & 1984; Harris 1968, 1974, 1977, 1979 & 1985; Dolmatoff, 1971; Meyerhoff, 1974; Nelson, 1983; Lansing, 1991; Grim, 2001; Posey, 1999 as cited by Taylor, 2005, p. 94). Even though the earlier studies based on the ethnological and ethnographic approaches spoke about the religious relation with nature, this issue was not addressed properly. Even later, the ecological anthropologists did not focus much on the religious and ecological aspects until Rappaport (1968 & 1979) and Harris (1968) developed the “ecological approach to the study of religion” (Taylor, 2005, p. 94)

Rappaport’s (1968) study focused on the Tsembaga Maring-speakers of Papua New Guinea and the inter-relationship between ritual cycle, warfare, and ecology. For him, these relationships are reflected as a ‘working system’ (Little, 2007, p. 27). His study emphasised on the ‘pig festival’, locally called *Kaiko*, which is the traditional form of ritual being celebrated to prevent the Tsembagas from over-exploitation of their natural resources (Rappaport, 1968 & 1984). Rappaport regarded that these kinds of practices help in maintaining equilibrium in the ecosystem (Little, 2007, p. 27). The ‘pig festival’ is organised when the number of pigs exceeds the rearing capacity of the Tsembagas as well as the local environment sustaining the pig population. During this festival, pigs are slaughtered and offered to their ancestors and the meat is distributed among their groups. Foin and Davis posit, “The religious rituals among the Tsembagas do not merely serve to social relationships, but rather operate to adjust the interactions between the Tsembagas and their environment” (Foin & Davis, 1987, pp. 385-6). The reasoning given is that if the population of pigs is more, it would be difficult to manage these, because pigs consume almost equal quantities of food as human beings. An over-population of pigs could lead to

⁴ He said the earliest form of religion was animism in the cultural evolution which was defined as beliefs in spiritual beings (Taylor, 2005, p. 94).

⁵ Frazer (1910) emphasized on totemism, where individuals and groups have both religious and kinship relationship with it. They identify descended mythological relation with species of animal or plant (Taylor, 2005, p. 95).

⁶ Durkheim (1915) considered religion as a “reflection of society” which has control over individuals (Taylor, 2005, p. 95).

⁷ Malinowski’s (1926) emphasis on function of cultural aspects in order to fulfill the social and psychological needs.

⁸ Brown (1922) focused on the Andamanese beliefs in spirit in the sky, forest, sea, etc.

⁹ He was focused on religious relations of the Nuer with their herding economy and society.

¹⁰ His work focused on Ndembu of Zambia relationship with the tree and considering it as sacred.

damage of crops in their gardens, and would lay more burdens on both the owners of the pigs and the gardeners (Rappaport, 1979, p. 33). Rappaport's emphasis on the pig festival provides not only an understanding about the social harmony among the Tsembagas, but also helps to look at their survival mechanisms (Taylor, 2005, p. 548), through the complex relationship in the given environment.

Cultural Materialism:

Marvin Harris (1968) developed a new approach called 'cultural materialism,' to provide a logical explanation for the socio-cultural systems in society. He was critical of the strategy adopted by the earlier anthropologists and sociologists in analysing and explaining the social-cultural systems in various societies¹¹. He was influenced by Marx's materialism. He rejected the dialectical idea of Hegel from the 'dialectical materialism' (Harris, 1978; Murphy, 2009¹²). He used the term 'cultural' in cultural materialism because it is a distinct product and a core concept in the discipline of anthropology (Harris, 1979, p. xii). Harris considered cultural materialism as a meta-theory which can be universally applicable as a "scientific research strategy" (Taylor, 2005, p. 96), to explain "cultural similarities and differences" among various societies such as; hunting-gathering, horticulture and pastoral, agricultural, industrial and post-industrial societies (Harris, 1979, p. ix). Harris goes on to state: "cultural materialism seeks to create a pan-human science of society whose findings can be accepted on evidently ground by pan-human community"¹³.

In order to explain various social and cultural systems through cultural materialism, Harris used the three cultural components: (i) infrastructure, (ii) structure, and (iii) superstructure (Harris, 1968 & 1979). These components are interrelated to each other; if changes take place in one component; these automatically affect the other components. For Harris, infrastructure influences the structure, and structure influences the superstructure. The infrastructure consists of a mode of production (technology, practices) and mode of reproduction (demography). Thus broadly, infrastructure includes technology, ecology, economy and, reproduction (demography). The structure consists of

¹¹ Elwell, W. Frank. "The Cultural Materialist Research Strategy". Accessed [June 9, 2016]. <http://www.faculty.rsu.edu/users/f/felwell/www/Theorists/Harris/harrism.htm>.

¹² Buzney, Catherine; Marcoux, Jon. 2009. *The University of Alabama* website. Accessed [June 9, 2016]. <http://anthropology.ua.edu/cultures/cultures.php?culture=Cultural%20Materialism>.

¹³ *Ibid* 1979, p. XII.

political economy (political organisation, military, labour organisation, service, and welfare, etc.) and domestic economy (family, kinship, gender or social structure), which results in production, consumption and exchange within the group or with others. The superstructure consists of both the behaviour and mental superstructure like: sports, folklore, rituals, ideas, religious beliefs, magic, symbols, arts, values, and emotions (Harris, 1979); it broadly consists of symbolic and ideological aspects of societies such as religion (Buzney & Marcoux, 2009). Harris emphasised on infrastructure component of culture and said that humans use various technologies and practices to obtain energy from the environment for their survival (Harris, 1979). Thus, infrastructure determines social structure, the family organisation, as well as religious beliefs and ideas in every society. In order to support cultural materialism, Harris provided some examples which have a contemporary relationship and also historical reasons, such as the Aztec rituals sacrifice, worshipping of the sacred cow in India and the 'ban' of eating pork imposed by the Jewish and Islam religions (Harris, 1979).

Harris used the ecological perspective to understand the sacred cattle relationships of the Hindus and their ecology (Pitale & Balkansky, 2011). He explained that the taboos, customs and rituals and the relationship between the sacred cow and Hindus in India is not because of Hindu theological reasons, but since it has 'positive functional' values which resulted in adaptation and balancing of India's ecological system (Harris, 1966, 1978 & 1979). He provided some historical explanations to prove beliefs and taboo on cows in India. These include: mismanagement of agriculture (Harris, 1966, p. 51)¹⁴ around in the 6th century B.C. (Harris, 1977, pp. 157-8) because during those days, cattle used to be sacrificed¹⁵ in huge numbers, which sacrificed resulted in scarcity of animals for ploughing of agriculture lands (Harris, 1966 & 1978). The common peasants in India started preserving their own domestic stock for traction, milk production and dung

¹⁴ The protection of cow was result of mismanagement of India's doctrine of *ahimsa* (Dove & Carpenter 2008, p. 138).

¹⁵ "The *sutras* indicate that animals should not be killed except as offerings to the gods and in extending 'hospitality to guests' and that 'making gifts and receiving gifts' which were the special duties of Brahmans. These prescriptions precisely duplicate the regulatory provisions for the consumption of meat, characteristic of societies in which feasting and animal sacrifice is one and the same activities. The 'guests' honoured by early Vedic hospitality were not a handful of friends dropping by for dinner but whole villages and districts. What the *sutras* are telling us, in other words, is that the Brahmans were originally a caste of priests who presided over the ritual aspects of redistributive feasts sponsored by 'open-handed' Aryan chiefs and war lords" (Harris, 1978, p. 157).

production for their survival (Harris, 1977, p. 158). It is also mentioned that in the 6th Century the new religions like Jainism and Buddhism challenged the legitimacy of cattle sacrifice. Further he argued that the cow provides milk, dung (used as a cooking fuel), manure for agricultural fields and helps in ploughing the land (Harris, 1966). Therefore, India's cattle and ecology have had a symbiotic relationship with each other. Here, Harris justified his concept of cultural materialism, by providing historical evidence, with contemporary beliefs and practices. He showed religious beliefs in the sacred cow as a symbolic representation which has been influenced or determined by the infrastructure.

Critics of Cultural Materialism:

The critics of Marvin Harris's cultural materialism can be broadly categorised into two groups. The first group consists of those who are outside of cultural materialistic framework, such as Marxists, structuralists, and post-modernists. The second group comprises those who have worked within the broad framework of cultural materialism, whose works have enriched cultural materialism.

J. Friedman, the first category of critics of cultural materialism, called 'cultural materialism' as 'vulgar materialism' (Friedman, 1974). He says that cultural materialism is too 'crude, simplistic' and insufficient to offer an explanation of ideological aspects in society (Friedman 1974 as cited by Barnard, 1996, p. 134). Marxists criticised cultural materialism because Marvin Harris ignored the influence of structural aspects on the infrastructure¹⁶. Cultural materialism is contradicting the structuralists' ideas that cultural change depends on human's thought and behaviour (Harris, 1979 & 176 as cited by Buzney & Marcoux, 2009). Further, they argue that, there is no need of distinguishing between etic and emic perspectives¹⁷. Postmodernists also criticised Harris's cultural materialism for its use of 'strict scientific method'. For them, science itself is culturally determining phenomena, and therefore, "use of any science is useless in studying culture"¹⁸.

Following Marvin Harris, different anthropologists such as: R. B. Ferguson, Martin F. Murphy, Maxine L. Margolis, Allan Johnson and others have worked on cultural materialism.

¹⁶ Cultural materialism (2012). Accessed [December 9, 2016]. <http://www.allaboutphilosophy.org/cultural-materialism.htm>.

¹⁷ *Ibid* 2009.

¹⁸ *Ibid* 2009.

Brian Ferguson's (1984, 1995) research work added to cultural materialism where he says that each component (infrastructure, structure and superstructure) of societal framework is responsible for cultural change (Buzney & Marcoux, 2009). He gave the example of Puerto Rico sugar plantations, where the influence of structural factors allowed economic insufficiency. The laws of the U.S. Congress allowed economic insufficiency in sugar industries which badly affected the citizens of Puerto Rico due to decline in sugar plantations (Ferguson, 1996, p. 33 as cited by Buzney & Marcoux, 2009). Martin F. Murphy's (1991 & 1995) study focused on "political organisation in the Caribbean"¹⁹ including foreign labours employed in sugar production in the Dominican Republic. He says that employing foreign labours in sugar production has led to unemployment of its own citizen²⁰. He identified capital mode of production²¹ in the sugar industries (Murphy & Margolis, 1995) evident in over-exploitation of labour by keeping labour costs at a base minimum (Murphy, 1991 as cited by Martínez, 1993, p. 96). Margolis (1973 & 1984) showed as to "how infrastructure determined superstructure as ideology changed to suit new infrastructural innovations" (Buzney & Marcoux, 2009). She provided examples from both the United States and Brazil to show that feminist movement has not directly led to creation of employment for women; however, feminist movement enabled more women to join the workforce (Margolis, 1973 & 1984). Another cultural materialist Allan Johnson (1987 & 1995) applied cultural materialism model to economic anthropology, where he argued that culture change occurred due to the increase in population. For him, the new 'adaptive mode' was due to increase in population because it led to competition for resources (Johnson & Earle 1987 as cited by Buzney & Marcoux, 2009). He says that infrastructure related factors lead to social evolution; his idea is similar to that of Marvin Harris²².

This literature review on cultural materialism of various scholars including Marvin Harris attempts to prove that their emphasis was more on infrastructure factors except Ferguson, whose work showed structural factors influence on infrastructure aspects. For example, Marvin Harris explained only about the origin and historical explanation of 'sacred cow' in India, but he failed to explain why these practices are still in continuation. Marvin Harris and his followers ignored the superstructure (religious) aspects.

¹⁹ *Ibid*, 2009.

²⁰ *Ibid*, 2009.

²¹ The sugar cane labours migrations were from Haiti working with lower wages and other side own citizens were living poverty (Murphy, 1991 as cited by Martnez, 1993, pp. 95-96).

²² *Ibid*, 2009.

Religion and Ecology:

The study of ‘religion and ecology’ focuses on how human beings interact with their natural environment through their religious cosmologies, beliefs, and practices. According to Tucker and Grim is that, “religious ecology provides base for exploring diverse cultural responses to the varied earth processes of transformation” (Tucker & Grim 2001, p. 15). For centuries, human beings developed cosmological knowledge of their natural environment through interaction in their day-to-day life activities. The cosmological knowledge was passed down the generations along with the adaptation and alteration, owing to new knowledge and experiences to adjust to their environmental conditions. Human beings narrate various stories with the help of their cosmological knowledge through their understanding of nature (Grim & Tucker, 2014).

For the past two decades, the field of religion and ecology has put its footprint on the academic circles (Jenkins & Chapple, 2011), after the article *The Historical Roots of Our Ecologic Crisis* was published by Lynn White in 1967. In this article, he stated that present environmental problems were the result of medieval Christianity's worldviews (inherited from Judaism)²³ and misuse of the environment (Jenkins, 2009, p. 190). White suggested that, since the present environmental issues were result of religious views and practices, the solutions also should come from religions (White, 1967, p. 1207). At the same time, the contemporary environmental concerns are at the peak in discussions among the academician and non-academician groups.

After that, the major world religious leaders and scholars have started looking back into the religious texts to find out positive views on the environment. The major contributions in the area of religion and ecology include: John Grim and Mary Evelyn Tucker²⁴ and others on Buddhism and Ecology (Tucker & Williams, 1998), Confucianism and Ecology (Tucker & Berthrong, 1998), Hinduism and Ecology (Chapple & Tucker, 2000), Christianity and Ecology (Hessel & Ruether, 2000), and Islam and Ecology (Foltz, et al., 2003). Tucker and Grim have focused on the responses of the religious leaders of the

²³He said that all powerful God had created light and darkness, the heavenly bodies, the earth and all its plants, animals, birds, and fishes. Finally, God had created Adam and the man named all the animals, thus establishing dominance over them. He also mentioned that by destroying pagan animalism, Christianity made it possible to exploit nature in a mood of indifference to the feeling of natural objects (White, 1967, p. 1205).

²⁴Who organised the series of conferences on “World Religion and Ecology”, and published books in volumes on the world major religions’ relation to the ecology (Jenkins & Chapple, 2011).

world to the contemporary environmental crises (Jenkins & Chapple, 2011). On the other hand, Gottlieb's (2006), book *The Oxford Handbook of Religion and Ecology* focused on 'religious environmentalism', which arose due to political commitments (Jenkins & Chapple, 2011, p. 443). Taylor (2005) focused on 'religion and nature,' instead of religion and ecology to understand the religious phenomena in the environment from the social scientist's point of view.²⁵ He was a critical of those scholars who over-emphasised or determined religiosity. For him, it was 'normative politics' which side-lined the ecological aspects in religion and ecology (Chapple, 2011, p. 444). Taylor and his students criticised scholars of the world's religions and ecology who focused on mainstream religious ideas which ignored and excluded marginal spiritual ties. Therefore, Taylor's emphasis in his *Encyclopaedia of Religion and Nature* (2005) was on 'nature-based religions' and their ideas, including animism, wicca, pantheism, neo-paganism, etc. Taylor was interested in "how natural history shapes the religious communities." He perceived of "religious communities as a kind of ecology— a system of embodied interaction with a particular environment" (Chapple, 2011, p. 449).

Over a period of time, various studies and discussions on religion and ecology have expanded its scope. Leslie Sponsel (2007) focused on spiritual ecology "as a complex, diverse arena of intellectual and practical activities at the interface of religions and spirituality, on the one hand, and, the other, ecologies, environments and environmentalism" (Sponsel, 2007, p. 340 as cited in Sponsel, 2011, p. 37). Spiritual ecology also called as "religion and ecology" or "religion and nature", includes individuals who are not associated with religions or religious organisations (Sponsel, 2011, p. 37). Spiritual ecology has three components: (i) intellectual (academician and other scholars), (ii) spiritual (individuals and religious organisations), and (iii) practical (action, religious environmentalism) (Basset, et al., 2000; Palmer & Finlay, 2003; Dudley, et al., 2005; Gardner, 2006; Gottlieb, 2006a, b; Sponsel, 2007 b, c; Taylor, 2005 & 2010; Alliance for Religion and Conservation, 2010 as cited by Sponsel, 2011, p. 38). The concept of spiritual ecology of Leslie Sponsel also helps one to understand the relationship between the Bishnois and nature in the Thar Desert of Rajasthan.

This review of literature reveals that cultural ecologists like Julian Steward have undermined the religious aspects in their studies. Earlier, ethnologists and ethnographers focused on the relations between religious aspects and nature, but not that extensively. In

²⁵ *Ibid*, 2011, p. 445.

the last two decades, scholars of religion and ecology have focused on the world's religions and ecology. The researcher is convinced that the world's religions could help in spreading awareness about the contemporary environmental crisis, which is impacting the globe. The world's religions and ecology have developed a theoretical approach. Unfortunately, this has failed at the practical level; because one's religious world view cannot be imposed on different ecological regions. Therefore, this has led to the imbalance between theory and practice. They use the 'top-down approach,' and ignore importance of ecological area, in other words, culture, religion and ecology of the particular region because each ecological area has its own uniqueness and importance. Hence, it requires an understanding of the relationship between a community's unique culture and its local environment. Thus, there is a need to understand the religion and ecology through the window of cultural uniqueness of a given community.

Review of Literature on Bishnoi Community:

The history of the Bishnoi community and tradition is available in the oral form as well as in a scanty amount of handwritten documents (compiled by Maheshwari, 1970, 1976, 1981 & 2011; Krishnanand, 2013b), which make a mention of the community and the life history of their spiritual Guru Jambheswar. Scholars have also documented the origin of the Bishnoi community (Crooke, 1896; Tod, 1829; Russell & Lal, 1916; Maheshwari, 1970) and their relationship with the environment (Tobias, 1996; Chandla, 1998 & 2001; Srivastava, 2001; Ahmed, 2002 & Jain 2011) at different points of time. Guru Jambheswar (1451–1536) was the founder of the Bishnoi religion and community in the 15th century (Maheshwari, 1970; Krishnanand, 2013b) He laid down 29 principles for them to follow in a systematic manner in their day-to-day life. Thus, the literal meaning of the term, Bishnoi, denoted *Bish* means twenty (20) and *Noi* means nine (9) in their local language (Chandla, 1998 & 2001; Srivastava, 2001; Ahmed, 2002; Kapur, 2008; Jain, 2011). Therefore, those who follow the 29 religious principles are considered as Bishnois. *Nagaur District Gazetteer* (1975) also made a mention of the relationship between the 29 rules and the term 'Bishnoi' (Landry, 1990; Ahmed, 2002; Srivastava, 2001; Jain, 2011). The 29 principles are explicitly concerned about the environment and prohibit eating non-vegetarian diet by its followers (Srivastava, 2001). Six out of 29 principles of the religion encourage its followers to protect and sustain the environment. Hence, the Bishnois have been promoting eco-friendly principles and necessities of sustainable development for centuries.

Crooke (1896)²⁶ has mentioned about Jambheswar's life history, the origin of the Bishnoi religion, social life and various ceremonies. He has also mentioned the different ways in which the Bishnois²⁷ of Bijnor (presently in Uttar Pradesh) and Punjab region greet each other. The Bishnois of Bijnor prefer to use the Muhammadan form *Salam alaikum* and the title of *Shaikhji* (Russell & Lal, 1916). Similarly, Khan (1997) states that Bishnois are called *Prahlad Panthis* because of their relationship with the fifteenth-century Muslim saint Prahlada-Tajuddin (Jain, 2011). However, nowadays the Bishnois deny their historical relationship and any cultural practices of Islam as part of their culture.

Hiralal Maheshwari (1970, 1976, 1981 & 2011) compiled *hasta likhit* (handwritten) documents of the Bishnoi community and came up with books (in Hindi) titled *Vishnoi Sampradāya Aura Sāhitya: Jambhavāni ke Pātha-Sampādana Sahita* (1970), *Jambheśvara kī Sabadavāñī: Mula Aur Tīkā* (1976) and *Jambheśvara* (1981), in which he has described the community's origin, rituals, and traditions. Michael Tobias (1996) discussed about the Bishnoi community (one million) along with Jains (eight million) and Toda tribe (1200) who have been practicing vegetarianism for centuries. He said that vegetarian religious communities are rare in the world. However, in India and elsewhere, there are communities that have been following vegetarianism despite their being surrounded by non-vegetarian communities and the contemporary environmental crisis (Tobias, 1996).

Social scientists have documented the people's response to the environment, by using different approaches. Fisher (1991 & 1997) applied possibilistic approach in his study among people of 'Higaniya village' in Jodhpur district of Western Rajasthan. In his study, Fisher stated that the environmental conditions restrict their social behaviours. Moreover, he noted that the Bishnoi's protection of trees, animals and birds is prompted by the motive of political benefit²⁸. Jain (2011) used the concept of *dharma* in his study among the Bishnois, Jains and Bhils. For him, "the concept of *dharma* can be successfully applied as an overarching term for the sustainability of the ecology, environmental ethics, and the religious lives of Indian villagers" (Jain, 2011, p. 3). In his study about the

²⁶He also mentioned people from nine different caste and communities and formed a group or Bishnoi community in Northern India were included, Brahman, Bania, Jats, Sunar, and Ahir. In Punjab, majority of the Bishnois were from Jats and Banias.

²⁷ Bishnoi is a community, religion, and philosophy. The Bishnoi as a "eco-religion" community with a unique philosophy of life.

²⁸ *Ibid*, 1991 & 1996.

protectiveness of the Bishnois towards animals and trees in Rajasthan, Jain pointed out that the *Swadhyayis* built *Vriksha mandiras* (Tree temples) and Bhils practice of rituals in sacred groves. At the same time, the protection and maintenance of natural resources is prompted more by *Dharmic*²⁹ considerations than economic in contrast to Harris's idea of cultural materialism.

The above review of the literature on the Bishnoi community focused on the origin of the religion and Guru Jambheswar's history and have emphasised less on the protection of nature. The above studies have undermined the sustainable practices and process of conservation of nature. Therefore, there is a need to look at how the Bishnoi practices are sustainable. Also, what are the reasons behinds these sustainable practices? To fill the above gaps, the study will be focusing on sustainable practices of the Bishnoi religion as practiced by its followers in the Thar Desert region of Rajasthan and their contribution to the conservation of nature for centuries. Hence, there is a need to examine how it becomes a matter of belief or religion. Apart from the above aspects, the study will also focus on the activities of other caste groups and tribes living largely in Bishnoi populated villages, with regard to ecological restoration and conservation. These aspects are important to this study because these have been largely neglected by most of the earlier scholars. The reason to focus on religion is to look into the religious values and principles involved in their moral and customs and the manner in which these are motivating people to follow conservation practices for their survival. It would also be of interest to see the impact of contemporary global concerns like environmental degradation impacting the perceptions of the Bishnoi community on the environmental issues.

Theoretical Framework:

This study uses cultural materialism framework to understand the Bishnoi religion of Rajasthan and its relationship with their local environment.

Marvin Harris explained the social-cultural systems logically and scientifically by using three components; infrastructure, structure and superstructure. But Marvin Harris used infrastructural determinism on structure and superstructure. However, the present study

²⁹He used the term '*Dharma*' framework instead of religion in his study, which is combination of ethics (in the human world), ecology (in Natural World) and theology (in the spiritual world). He suggested that holistic attitudes of Indian based on '*Dharma*' can be used for wider environmental awareness (Jain, 2011).

will focus not only on the influence of infrastructure on other two components, but also studies the influence of super-structural aspects on structure and infrastructural aspects among the Bishnoi community in Rajasthan. In other words, the study will also explain the Bishnois religious beliefs, ideas, worldviews, and values (superstructure) influencing on both the structure and the infrastructure.

In addition, the concept of 'spiritual ecology' of Leslie Sponsel also helps one to understand the relationship between the Bishnois and nature in the Thar Desert of Rajasthan.

In the Bishnois, the infrastructure aspects are including demography, economy, ecology, technology and practices. The Structural aspects include social structure and their political organisation (both traditional and modern), political economy. The super-structural aspects include religious, beliefs, religious institution, folklore, morals, ethics, symbols, cosmologies, knowledge etc.

Significance of the Study:

The increasing awareness about conservation of trees, animals and birds (Environment) at the global level and protests against the over exploitation and mismanagement of natural resources through anthropogenic activities and other factors is significant. Continuous efforts have been made by the governments, Non-Governmental Organisations (NGOs), and individuals for conservation of natural resources. However, all these efforts are still unable to reach the expectations. On the other side, there are indigenous/ tribals/ eco-religious communities in the world who show material, moral and emotional relationship with their surrounding environment (Misra, 1998).

To overcome the present environmental crises, there is a need for understanding and documenting the conservation practices of the indigenous/tribals/eco-religious communities and groups including individuals. The Bishnoi community's principles contributed to the conservation of nature in the Thar Desert of Rajasthan in a sustainable manner. Thus, the understanding of ecological, economic and religious aspects of conservation of environment by Bishnois would contribute further in preserving and conserving the environment.

The life style of the Bishnois also provides us with a significant example in questioning the dominant discourse of the current environmental problems. In spite of the harsh and

hostile conditions faced in the desert, the Bishnois³⁰ take every measure to ensure the enrichment of the area they live in. For more than 500 years, the Bishnois have not only conserved trees, animals and birds, but have also protected these from others. The Bishnois do not bother about their life when it comes to the protection of the trees and animals in the territory in which they reside.

This is not a study to recount the history of sacrificing lives for the protection of trees as a religious prescription, but culturally acceptable practices of following the path of non-violence. The study explores the question of continuing the practice of conservation of nature for centuries, in the face of resource crunch, consumerism and materialism all around the Bishnoi inhabited regions. The Bishnoi religion and its doctrines relate to the spontaneous conservation of nature by the Bishnois as a religious obligation.

Objectives:

The study has been undertaken with the following objectives:

1. To critically examine the religious doctrine preached by Guru Jambheswar in the 15th Century and its impact on the Bishnoi culture in general;
2. To examine the reasons for sustainable practice of Bishnoi religion for the protection of nature and wildlife along with maintaining social solidarity and harmony; and
3. To compare the practices between the Bishnois and the neighbouring castes and communities (for example, the Meghwal, Jats, Rajputs, Bhils, Muslims, etc.) with regard to the protection and conservation of nature.

³⁰The Bishnois are distributed in several North Indian states including Punjab, Haryana, Madhya Pradesh, Uttar Pradesh, but they are largely concentrated in Western Rajasthan. Different writers have given different explanations about the origin of this community.

Methodology:

The study focuses on a location in Rajasthan, area of 342,239 square km and population of 68, 548, 437 (Census, 2011), the largest state in India, which is situated on the North-Western side of country. The majority of the Thar Desert (Great Indian Desert) area comes under the western part of Rajasthan. The Thar Desert has high temperature in the summer which goes up to 51° and low temperature in the winter. This region receives the amount of annual rainfall which is generally low and ranges from about 4 inches to (100mm)³¹. The region has less species both animals and plants which have the survival capacity in the desert region. The human beings and other living beings have difficulties to survive in their lives in the desert region because of the general scarcity of water, food, fodder, etc. In spite of all these adverse and hostile conditions, the Thar Desert is the highest human populated desert in the world and second highest in the animal husbandry in India. Against this background, the study focuses on the inhabitants' relationship with their environment. The study has been carried out among the Bishnoi community of Khejarli Kalan village in Jodhpur district of western Rajasthan. The study is based on intensive fieldwork. The study is a micro-level one and it has adopted both the qualitative and quantitative techniques for data collection.

Initially, a pilot survey was carried out over three months in three phases; January-March 2012, December 2012 to January 2013 and December 2013 to January 2014. The researcher visited and stayed in several Bishnoi populated villages in the districts of Jodhpur (Khejarli, Guda Bishnoiyan, Ekhal Khori, Jambholav); Bikaner (Santsar, J. D. Mangra, Mukam, Burasar, Godu, Bhajju), Jaisalmer (Dolia, Khetulai, Loharki); Nagaur (Rotu, Pipasar), and Ganganagar. After a critical evaluation, finally the Khejarli Kalan village in Jodhpur district was selected for the field study. Intensive fieldwork was carried out for about 10 months in three phases (First phase was May 2014 to August 2014; second phase was October 2014 to February 2015; and the third phase was April to June 2015). This village is located at a distance of about 30 km from the Luni Tehsil Headquarters and about 25 km from Jodhpur city (the District Headquarters). The village consists of both the Bishnois and Non-Bishnois which comprise different castes and tribe, as well as religious communities.

³¹ Thar Desert: Desert Asia,. Accessed [January 7, 2017]. <https://www.britannica.com/place/Thar-Desert>

The main reason for selecting Khejarli Kalan village was that this village is historically very well-known for the Bishnoi community, where 363 people have sacrificed their lives, while protecting trees in the 1730 A.D. (Maheshwari, 1976; Chandla, 1998 & 2001; Srivastava, 2001; Ahmed, 2002; Jain, 2011). Also, it has been the main village for 84 other neighbouring predominantly Bishnoi inhabited villages for discussions and decision-making regarding social, political, economic and religious aspects of the community.

Study Area:

The fieldwork was carried out among the Bishnois and non-Bishnois of Khejarli Kalan village in Luni Tehsil of Jodhpur district in Rajasthan. Rajasthan is a landlocked state, which has about two third arid or semi-arid areas with characteristics of low rainfall and extreme climate. The state has experienced drought and famines many times, with the associated scarcity of food and water for the people and livestock. Frequent droughts in Rajasthan have forced the people, mostly from the pastoral communities, to migrate to other regions, either seasonally or permanently. During the British period, the princely states, with very few exceptions, did not make any systematic efforts to improve agriculture, commerce or industries in their respective territories (Vyas, 2007). The animals, birds and trees found around the villages are: Blackbucks, Great Indian Bustards, Indian gazelles, peacocks, bulbuls, sparrows, crows, vultures, *Chinkaras*, *Neelgais*, wild boars, wolves, jackals and desert foxes; trees are *Khejri*, *Jal/Pillu* (*Salvadora oleiodes*) *Pipal* (*Ficus religiosa*) *Kair* (*Acacia chundra*), *Rohira* (*Tecomella undulata*), *Bamboliya* or *Babul* (*Vachellia nilotica*), *Neem* (*Azadirachta indica*), etc.

In order to undertake the ethnographic study, anthropological techniques were used for the collection of data from the selected village. This village is about 25 km away from the city of Jodhpur in Rajasthan. Khejarli Kalan village is located in Luni Tehsil of Jodhpur district in Rajasthan. The primary data have been collected from 554 households of six habitats in Khejarli Kalan village.

Khejarli Kalan Village:³²

Khejarli Kalan village area is divided into six habitations, which include:

1. Khejarli Kalan village (main village);
2. Lions Nagar colony;
3. 363 Shahid Nagar-Ki-Dhani and Bishnoi-Ki-Dhani;
4. 363 Shahid Nagar;
5. Kumaro-Ki-Dhani and Bhangi or Valmik-Ki-Dhani; and
6. Khejarli Board (Circle).

The inhabitants living in this village comprises of several castes and communities. The Khejarli Kalan village has a total number of 554 households with a population of about 3471 including 1820 (52.43%) of male and 1651 (47.57%) of female. The village is dominated by the Bishnoi community which has 213 households out of 554. Further details about the village, the castes and communities will be given in the next chapter.

The Bishnoi Community

The Bishnoi community was founded in the 15th Century by ecologist Guru Jambheswar in the western Rajasthan (Maheshwar, 1970 & 1976, Krishnanad, 2003b). Guru Jambheswar directed 29 principles which are essential to become a Bishnoi. The Bishnois say that the word 'Bishnoi' means *Bish* (in local language 20) and *Noi* (mean 9) that means *Bish* plus *Noi* equal Bishnoi. The community's majority population is concentrated in Western Rajasthan followed by the states of Haryana, Madhya Pradesh, Punjab, Uttar Pradesh and Delhi. The Bishnoi population is estimated to be around 10 lakh in India (Menon, 2012).

The village is dominated by the Bishnois and nearly half of the householders are living in the *Dhanis* and the rest of them in the main village and colonies. The total Bishnoi population in the village is 1356 (39% of total population) out of 3471 including 687 (50.66%) of male and 669 (49.33%) of female. In the next chapter, researcher provided detailed account of the Bishnoi community.

³² According to villagers, the Khejarli Kalan Village origin from '*Khejri*' the name of a tree, because the village is surrounded by huge numbers of *Khejri* trees. Kalan means big, that is Khejarli Kallan (big) village.

Tools and Techniques of Data Collection:

Schedule: Household schedules were used for collection of demographic data such as: family pattern, number of children, male and female, economic assets, educational status of male, female and children, family size, various castes groups, communities, and religious groups. Collected household data have helped the researcher to establish a good rapport with the Bishnois, in particular, and the non-Bishnois in general, in the village. In addition, this process has also helped the researcher to introduce himself to the villagers and explain the purpose of the study. In addition, the key-informants were also chosen for collecting in-depth information about the conservation of nature and how the residents have been using the limited natural resources in a sustainable manner.

Interview: Semi-structured interviews were conducted to collect data related to religious doctrines, folk stories of community origin, and how and why they have been conserving the environment for centuries. Interviews were conducted to understand how the social, political and economic institutions among the Bishnois are playing an important role in the process of conservation of trees, animals, and birds for their survival and sustainability. The researcher also has collected data from the non-Bishnois (various castes, tribe, and other religious communities) with regard to conservation of trees, animals, and birds in their surroundings. Unstructured interviews were conducted with the Bishnoi religious priests, (Sanths, Thapan, and Guyana) and individuals and various other Bishnoi environmental protection organisations, which are active in the area of conservation of trees, animals, and birds. The endeavour was to know their views regarding the protection of various wild animals, trees and other species, their perceptions about the environment and their process of teaching their ideas on nature conservation to the future generations. It was also conducted among the elderly persons, both male and female, as well as the children of the Bishnois, non-Bishnois with relation to wild animals and trees, birds and other natural resources conservation and protection in their surroundings. Besides, interviews were also conducted with the few officials like the District Forest Officer (DFO), Assistant DFO, forest guards, and police constables about their perceptions of the Bishnois' and non-Bishnois practices of conservation of the environment, as well as the process of cases with regard to poaching etc.

Observation (Participant and Non-participant Observations): Participant observation was employed for collecting data that are related to the life cycle rituals, fairs (*melas*) and

festivals. The observation method was used for the collection of data about various festivals, agricultural cultivation, and conservation of *Khejri* plants and trees, and as well as other plants and trees in their field. The observation method was also employed to understand the traditional Panchayat of the Bishnoi with regard to the conservation of trees, animals, and birds as well as other natural resources. The researcher endeavoured to understand the daily way of life and behaviour of the Bishnois towards the trees, animals, and birds, for example, providing *chugga* (grains) and water for birds and wild animals, as well as protecting various plants. In addition, the researcher has also observed that the traditional form of rainwater harvesting among the villagers, in general, and the Bishnois, in particular. Researcher has also sometimes participated in and observed the various ceremonies and rituals such as; birth, marriage and death ceremonies, *havan*, *amavasya puja melas* etc., which helped to understand the social, religious relationship between the Bishnois and their environment.

Case Study: Case studies were collected based on the individuals, groups and at the organisation level efforts were being made for the conservation of trees, animals and birds in the study area.

Group Discussion: This technique was used to collect data from various groups of people in the village, for example, women's groups, elderly groups, children's groups, at various social gathering places like Thakur palace, tea stalls, various feasts gatherings, temples etc. Questions were asked regarding protection of the environment and how they were coordinating with each other with regard to conservation of various animal and plant species. An attempt was also made to know about different plants, animals, and birds that they are protecting, as well as the usefulness of various trees in their surroundings.

Use of Visual and Audio Aids: Technical aids such as camera, voice recorders, etc., helped the researcher in documenting the events, conversations, narrations, etc., of the Bishnois. Various environmental protection movements, launched by the Bishnois at different periods of time were recorded by using voice recorders. The camera was used to capture various Bishnoi pilgrim places, wild animals, birds, trees, dress patterns, festivals, life cycle rituals, traditional Panchayat, etc. The camera was also used to capture various images of Bishnois while providing *chugga* to the birds and animals, tree hugging and fairs and festivals, etc.

The Secondary Data: Published materials and e-journals, sources available in the form of books, pamphlets, journals, historical documents, and other records. Also collected from different libraries, University of Delhi Library (Delhi), Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS) Library Bhopal (M. P.), Jodhpur University Library (Rajasthan), University of Hyderabad (Telangana), Anthropological Survey of India -Udaipur (Rajasthan Regional Centre), Bishnoi's *Dharmasalas* at Bikaner (Rajasthan) and Hisar (Haryana), Jambhani Sahitya Academy-Bikaner (Rajasthan) and various other libraries.

Limitation of the Study:

Although the researcher had planned to conduct fieldwork extensively among two Bishnoi villages in Bikaner and Jodhpur district in Rajasthan, due to insufficient time and limited resources the fieldwork was conducted only in one village in Jodhpur district namely Khejarli Kalan village. Yet another constraint was the language. Hindi may be the official language of Rajasthan, but many people in the study area are conversant with the local dialects like Marwari and broken Hindi. Thus, the researcher had to take the help of an interpreter sometimes, and in course of time he would learn the basic local language and comfortably communicated with them.

Chapterisation:

The thesis is organised into five chapters.

Chapter one deals with the introduction and background of the study, including the review of literature, both the conceptual framework of the study, objectives, theoretical framework, methodology, limitations of the study and organization of chapters.

Chapter two deals the profile of the study village namely, Khejarli Kalan. This village consists of different castes, tribe, and communities, as well as religious groups. This chapter broadly provides the historical background of the area, village, and social, economic, political and religious relationships. This chapter also discusses the social structure of the village. Furthermore, this chapter outlines the village population, caste, tribal composition, household members (including males, females), age, education, occupation, Bishnoi social institutions, livestock, etc.

Chapter three provides the history and contemporary significance of the religion of the Bishnois, preached by Guru Jambheswar. This includes: the social, political, religious (including the *Bhakti* movements) and ecological conditions in the medieval western

Rajasthan. The details of the origin and history of the Bishnoi community and importance of 29 principles have been discussed. More emphasis was made on six principles which are related to conservation of nature. Researcher also focused on other teachings (apart from 29 principles), such as *Sabadvanis*, *Sakhis* which focus on the environment. The emphasis was also made on the different disciples (priests and poets) of Guru Jambheswar who focused on the protection the environment. This chapter also explains the relationship between the Bishnois and their religious specialists. It also explains the importance of various life cycle rituals, festivals, and *sanskaras* as well as significance of the different Bishnoi pilgrim places with regard to the conservation of nature.

Chapter four discusses in detail the Bishnoi religion and other conservation theories and practices among the Bishnoi community, which includes how and why the Bishnois are still following sustainable conservation of trees, animals, and birds as well as other natural resources in the desert region (sustainability and adaptability to desert ecology). Researcher tried further to understand the interaction between the Bishnois and their environment in their day to day life. This chapter explains the relationship between the Bishnoi community and animals, birds, and trees (including bushes, plants, etc). It also compares the Bishnoi community and non-Bishnoi communities (neighbouring castes, tribe, and communities) as well as between Bishnoi community and the forest department with regard to the conservation of the environment.

Chapter five provides a summary of the chapters and the conclusions reached in the course of the study.

Chapter - 2

Ethnographic Profile of the Study village and Communities

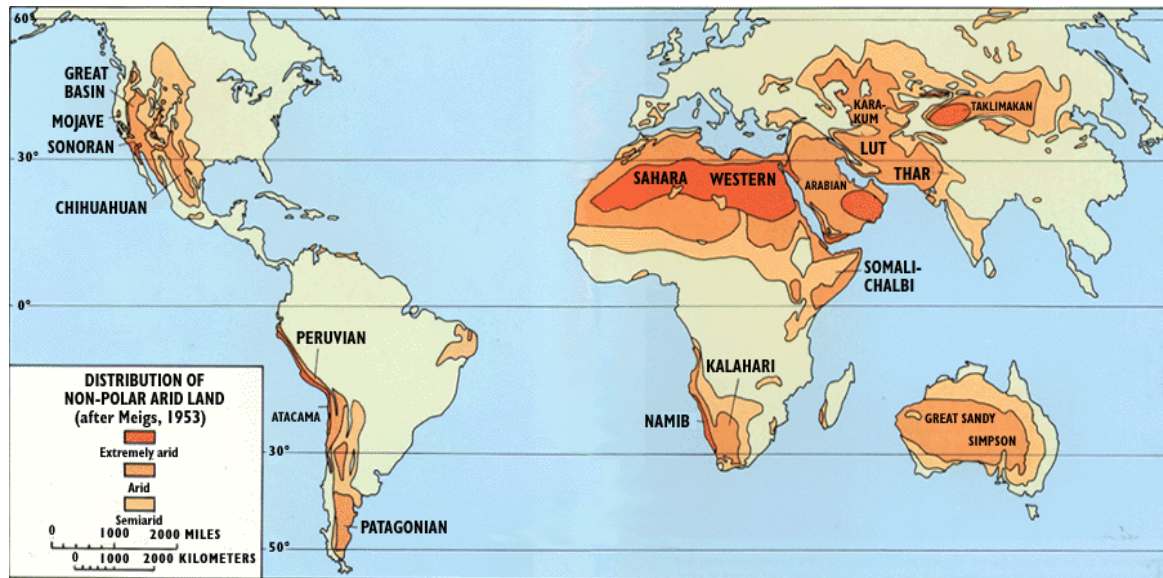
The present chapter discusses about the socio-economic, political and cultural aspects of the Bishnoi community, in particular, and the non-Bishnois in the study village, in general. This chapter also focuses on the social structure of the village and relationship between the various castes, tribes and other religious communities in the village.

Rajasthan:

Rajasthan is one of the 29 states of India. It is situated in the North-Western part of the country and lies between 23° 30' to 30° 12' North longitude and 69° 30' to 78° 17' East latitude. Rajasthan is geographically the largest state in India, which occupies 34, 42, 239 sq. km land area, which is about 10.40% of the total land area of the India (Arora, Goyal, & Ramawat, 2010, p. 4). The state has 33 districts and the Census 2011 put its total population at 6, 85, 48, 437. North-Western Rajasthan shares an international boundary with Pakistan, and is bordered by Punjab and Haryana in the North, Uttar Pradesh in the East, Madhya Pradesh in the South-east and Gujarat in the South.

The deserts all over the world cover around 25,500,000 km, i.e., around 20% of the land area on the earth (UNEP 1997, as cited by Arora, Goyal, & Ramawat, 2010, p. 4). One-third area of the Asian continent is dry and the major deserts in the continent are: Arabian, Gobi, Karakum, Kyzylkum, Takla Makan and Thar. These deserts include extremely arid, arid and semi-arid areas (see Map 2.1).

Map 2.1: Distribution of World's Desert Areas:



Source: Google.com¹

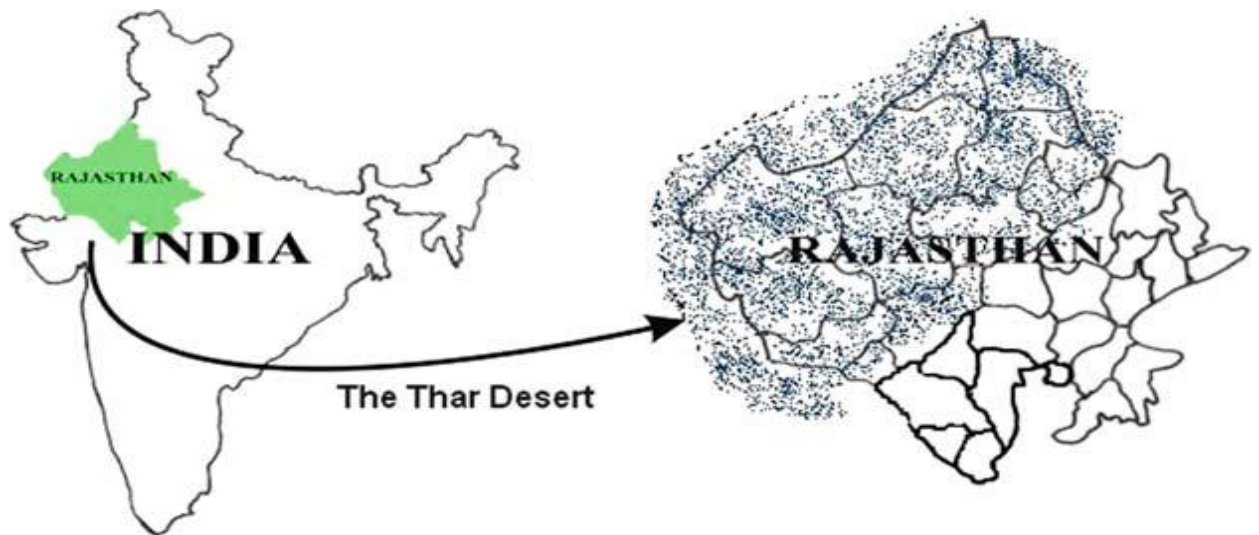
The Thar Desert (Great Indian Desert) in Rajasthan:

The Great Indian Desert (Thar) occupies an area of about 2.34 million sq. km (see Map 1.2) in the western part of Rajasthan, which covers about 62% of the area of the state (Sharma & Mahra, 2009, p. 2). It is spread across 12 districts of the state. The desert accommodates about 38% of the state's population, with a density of 84 persons per sq km, as compared to 0.4 persons per sq km in the Sahara desert (Arora, Goyal, & Ramawat, 2010). The Thar Desert is one of the most populated deserts in the world. It geographically spreads almost till Delhi towards the East, Rann of Kutch in the Southern side (Gujarat), Baluchistan (Pakistan) in the West and the Punjab state in the North. The formation of desert took place for thousands of years due to fluctuations in the geotectonic sphere and climate change (Sinha & Sinha, 1999). The desert region of Rajasthan is locally called *Marwar* or *Marwad*, which means *Marusthal* (death land) in the local language (Poonia & Rao, 2013; Pant & Maliekkel, 1987). The desert people have a unique and symbiotic relationship with their environment. Though, the Thar Desert is spread over vast areas of Rajasthan, the state has a lot of flora and about 911 species of wild life (Shetty & Singh, 1987, 1993; Bhandari, 1999, as cited by Arora, et al., 2010, 4). The state of Rajasthan has the highest livestock population in the country because, historically, pastoralism and trade have been among the major sources of income for the

¹ Map of World deserts. Accessed (November 18, 2016). <https://in.pinterest.com/pin/348817933620663269/>.

people. The recurrent droughts and famines in the region (Tod, 1829) have led the people to adapt to additional sources of income for their survival.

Map 2.2: Location of the Thar Desert



(Source: Arora, et. al., 2010.)

The Thar Desert is marked by sand dunes with inter-dunal plains and it receives very low rainfall, which led to scarcity of water in the region (Sinha & Navada, 2008, p. 121). Jaisalmer district receives around 15 to 18 cm of rainfall (average 159 mm) and is considered the lowest rain receiving area in India (Kachhawaha, 1985, p. 5). The other districts in the Thar Desert receive an average of 100 to 300 mm per year (Sinha & Navada, 2008). The average annual temperature is 45°C (maximum) and 8°C (minimum) in Rajasthan². However, in 2016, the summer temperature had gone up to 51°C, in Phalodi (Jodhpur district), which recorded the highest temperature ever experienced in India.³

Soil:

The desert soils are in the sand-dunal form, mixed with clay. The soil types vary from district to district and region to region. The soil in some areas is very fertile and is suitable for certain kinds of crops, but most of the desert areas contain soluble salts and low

² *Ibid* 2008, p. 121.

³ Chariyan, Done. 2016. "5 Cities to Have their Hottest Temperature Records Broken". *Gulf News Website*, May 24. Accessed [July 30, 2016]. <http://gulfnews.com/guides/life/community/5-cities-to-have-their-hottest-temperature-records-broken-1.1832886>.

nutrients. Jodha (1970, p. 81) mentioned that low plants and other vegetation lead to soil erosion (Bharara, 1999, p. 44). Since the ground water is saline, it would be difficult to conduct agricultural operations through irrigation by ground-water. According to a CAZRI⁴ (1977, p. 15) report, most of the Thar Desert area is covered with blow sand and sand dunes which keep shifting from one place to other places in the course of time (Malhotra, 1976, p. 9).

Irrigation:

In the Thar Desert, there are few seasonal rivers which flow only during the rainy season. This is also one of the reasons for the dependency on the rain-fed agriculture. However, some of the areas in the western districts of Rajasthan, like Ganganagar, Bikaner and some portion of Jaisalmer and Barmer have irrigation based on the Indira Gandhi Canal. The inhabitants of Jodhpur district depend on monsoon for agriculture, except for a few limited areas, which can be irrigated through groundwater; some places near Phalodi Tehsil and Kakani village (20 km from Jodhpur city) in Jodhpur could find ground water. Similarly, in Khejarli Kalan villagers are also depending on monsoon for their agriculture. However, there is an exceptional case where it has been found that one family in the village has been irrigating its agricultural lands by lifting water from the Luni River for the past five years or so. A dalit farmer, named Chenaram, got support from the local Non-Governmental Organisation (NGO) and has also received subsidies from the government for the digging of the well in the Luni River and other equipment for lifting the water from the well.

Forest Lands:

Since most part of Rajasthan is covered with sand and sand-dunes in the Northeast, the forest area is very less. However, Jodhpur district has about 20,137.70 hectares forest land, including reserve forest of about 467.60 hectares, protected area of about 18,377.6 hectares and the unclassified forest of about 1292.47 hectares (Jodhpur District Forest Report, 2014–15). Administratively, Jodhpur district forest area has been divided into 9 ranges—Mandor, Luni, Bilada, Bhopalgarh, Osion, Shergarh, Balesar, Phalodi and Baap. Khejarli Kalan comes under the Luni forest range. In the year 2010–11, this forest area was declared as an eco-conservation reserve for better management of wildlife. The forest

⁴ Central Arid Zone Research Institute

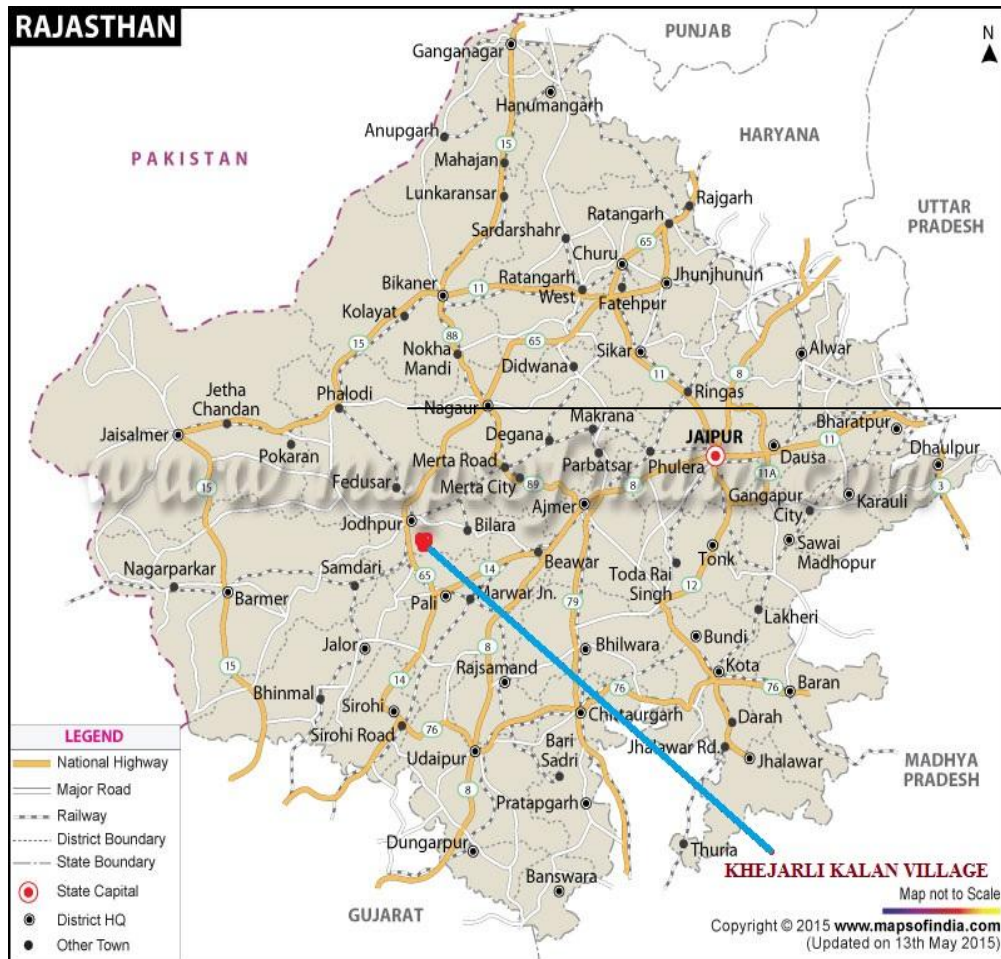
department has constructed a few hutments to attract tourists towards the large wildlife population there.

Flora and Fauna:

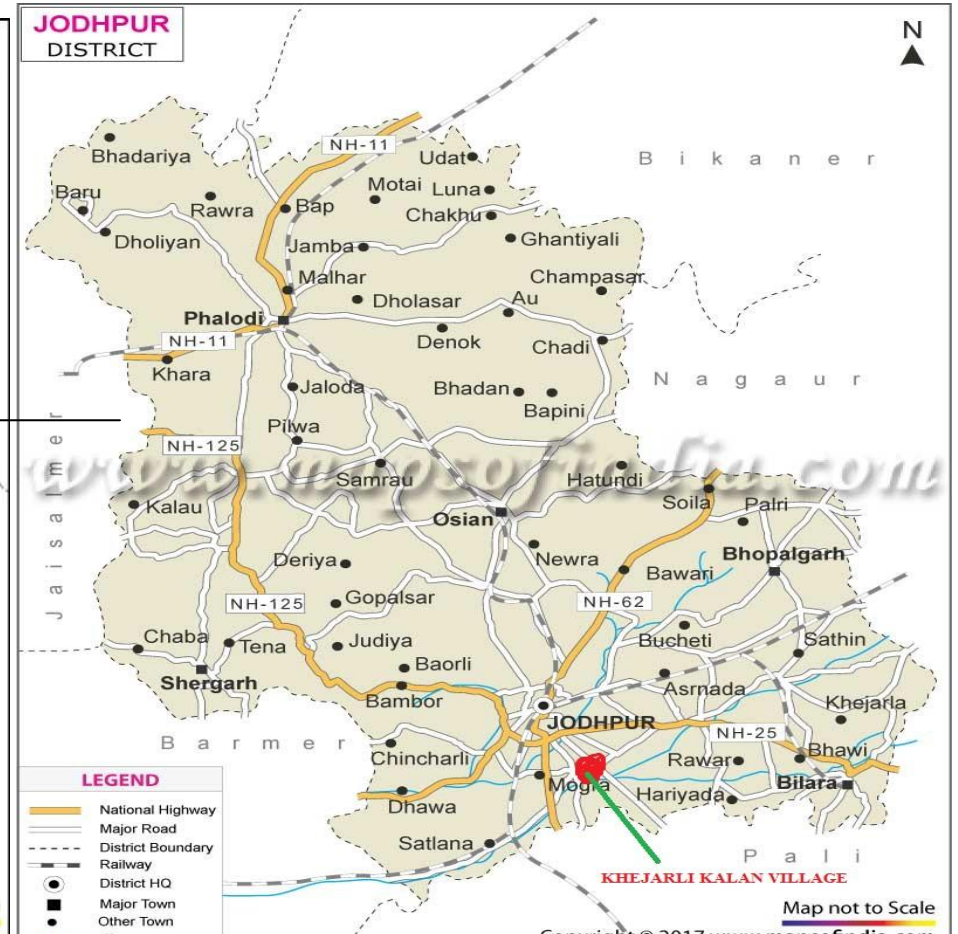
The Thar Desert has enough fauna as compared to other deserts in the world. Jodhpur district area has rich variety of wild species. Wild species like animals and birds can be found not only in forest areas, but also in the agricultural fields, revenue areas and the wastelands. In the study area, various wild animals and birds can be seen. These include: *Hiran* (Chinkaras), *Kala Hiran* (Blackbucks), *Roz* (antelopes), Wolves, Hyena, Wildcat, esert fox, wild Boar, Newala, Langoor and Jackals. The birds include: *Koyal* (*Eudynamis scolopace*), *Tota* (Parrot) *Psittula krameri*, *Baaj* (Vulture), *Pseudogyps beugalesis*, Jungle Crow (*Corvus inacrorhynchos*), *Bulbul* (*Molpastes onfer*), House Sparrow (*Passe domestic*), Owl (*Bubo bnbo*), Kite (*Millvus migrans*), *Hara kabutara* (*Kabu*)- Green Pigeon, (*Crocopus phoenicopetrus*), *Kabutar*- Pigeon (*Colunba livia*), *kawa*, *chalkodi*, *badi chalkodi*, *titodi* and Common Sand pipar (*Actitis hypolancos*) Several Siberian birds (*Kuraja/Videsi pakshi*) can also be seen around the village. Details about these birds will be given in the fourth chapter. Since it is desert region, we find fewer forests. However, a great variety of vegetation like shrubs and thorny bushes and big trees (*Khejri* (*Prosopis cineraria*), *Jaal* (*Salvadora oleiodes*), *Kankedi*, *Neem*, *Babul*, *Imili* [tamarind] etc.) can also be found.

The Jodhpur is one of the districts which come under the Thar Desert (Census, 2011). Jodhpur was given its name by Rao Jodhaji on 12th May 1459, A.D. and at present it has been divided into five sub-divisions, namely, Jodhpur, Shergarh, Pipar City, Osian and Phalodi and comprises of seven Tehsils (Jodhpur, Luni, Shergarh, Bilara, Bhopalgarh, Osian and Phalodi) and nine blocks (Panchayat *Samities*). The total number of villages in the district is 1,157 (Jodhpur District Forest Report, 2014).

Map 2. 3: Map of the State of Rajasthan



Map 2. 4: Map of Jodhpur district



Red mark is Location of the study village

(Source: Map of India)¹

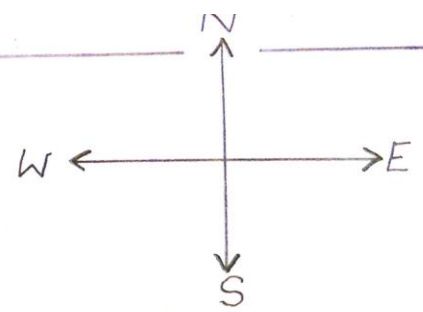
1.(Map of Rajasthan and Jodhpur (accessed on 20.12.2016). <http://www.mapsofindia.com/maps/rajasthan/>

Khejarli Kalan Village:






Khejarli Kalan village is a Panchayat consisting of four different villages namely: Khejarli Kalan village, Bhaktashani, Shanganshani and Khejarli Khurd. Khejarli Kalan village consists of six habitations which are: Khejarli Kalan village (main village), Lions Nagar colony, 363 Sahid Nagar, 363 Sahid Nagar-Ki-Dhani and Bishnoi-Ki-Dhani, Kumaro-Ki-Dhani and Bhangi or Valmik-Ki-Dhani, and Khejarli Board (Circle). Persons belonging to various castes and religions reside in this village. Khejarli Kalan Village has a total of 554 households, out of which 239 households have resided in the main habitat (Khejarli Klan village). It has the highest number of households as compared to other habitations. The Lions Nagar¹ has the second highest number of households. This colony was established after flood that affected the Khejarli Kalan Village in 1979 (CAZRI, 1982). The village is dominated by the Bishnoi community which has 213 households out of total 554 households. The following table shows the distribution of communities habitations-wise.

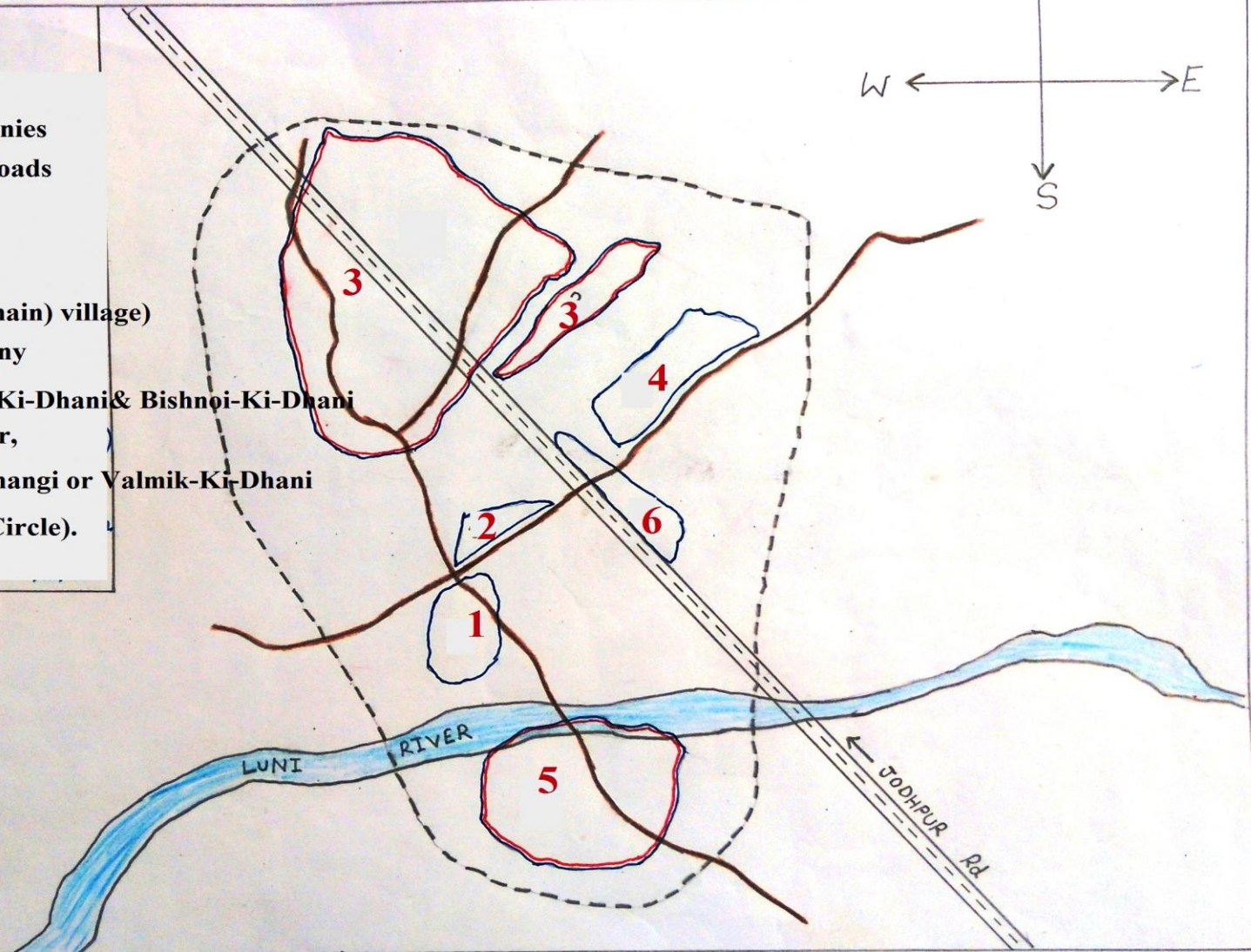
¹ The Lions Nagar colony was formed after the flood in Luni river in the year of 1979 (CAZRI Report, 1982). In that flood nearly 1/4 of Khejarli Kalan village was destroyed. As per the villagers, the Lions Club donated some funds for the construction of the houses for the flood affected families. For this reason the colony was named as Lions Nagar Colony.

STUDIED VILLAGE MAP



LEGENDS

-  Dhani
-  Hamlets and Colonies
-  Village line and Roads
-  Village Boundry
-  Highway
- 1 Khejarli Kalan (main) village)
- 2 Lions Nagar colony
- 3 363 Shahid Nagar-Ki-Dhani & Bishnoi-Ki-Dhani
- 4 363 Shahid Nagar,
- 5 Kumaro-Ki- & Bhangi or Valmik-Ki-Dhani
- 6 Khejarli Board (Circle).



MAP NOT TO SCALE

Table 2.1: Habitation-wise Households in Khejarli Kalan village:

Habitations				
S. No.	Habitations	Frequency	Percentage	Cumulative Percent
1	363 Shahid Nagar	22	4.0	4.0
2	363 Shahid Nagar Ki Dhani & Bishnoi Ki Dhani	111	20.0	24.0
3	Kumaron Ki Dhani & Bhangi or Valmik-ki- Dhani	19	3.4	27.4
4	Khejarli Board (Circle)	8	1.4	28.9
5	Khejarli Kalan Village (main village)	239	43.1	72.0
6	Lions Nagar Colony	155	28.0	100.0
	Total	554	100.0	

Source: Fieldwork data carried out from Khejarli Kalan village in the months of May and June 2014.

Graph 2.1: Habitation-wise Households in Khejarli Kalan village:

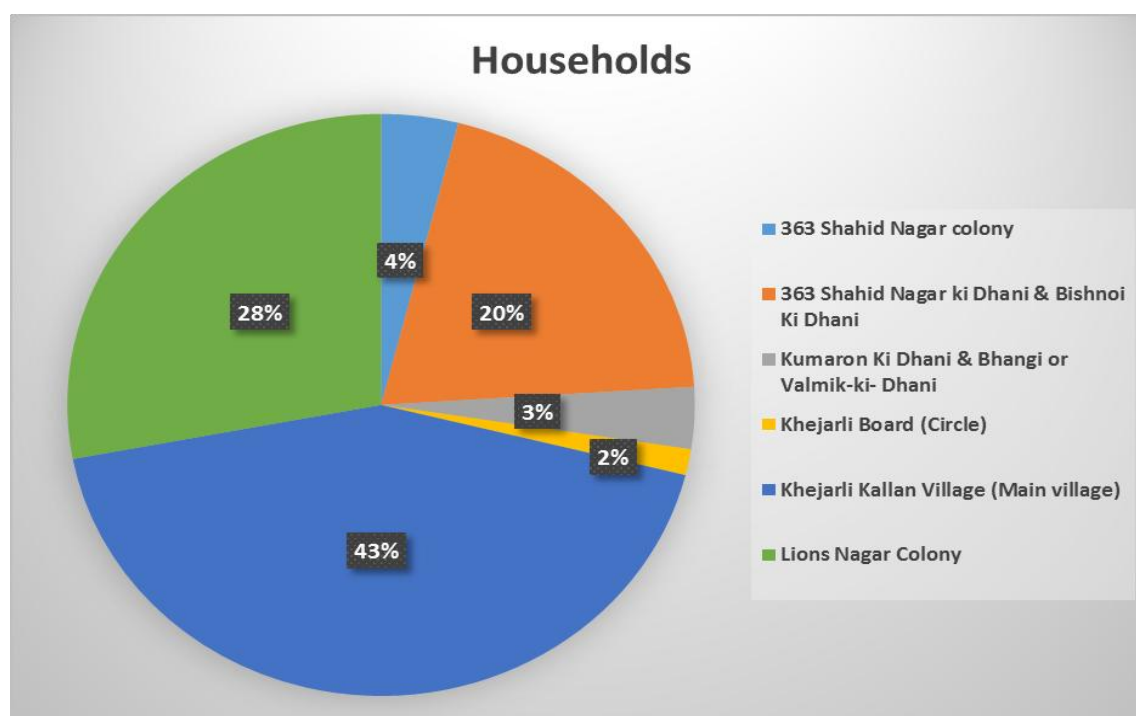
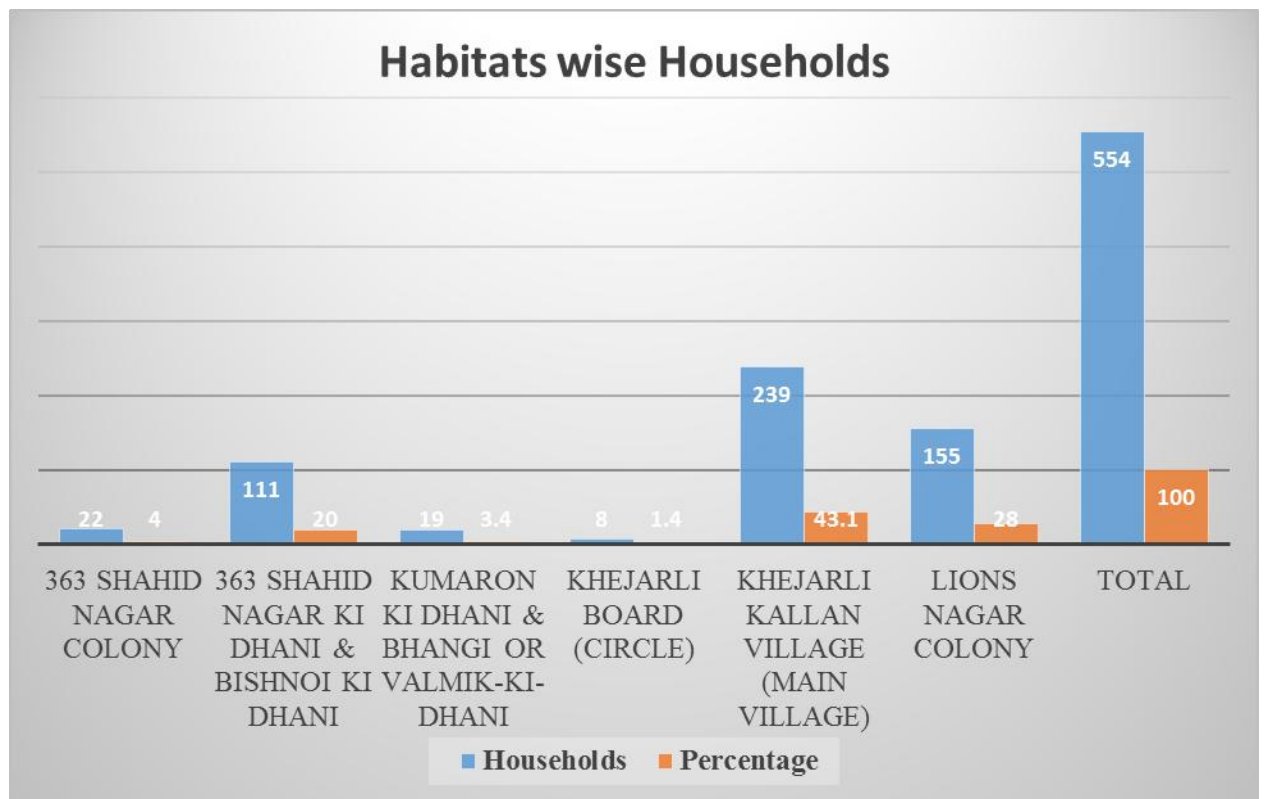


Chart 2.1: Habitation-wise Households in Khejarli Kalan village:



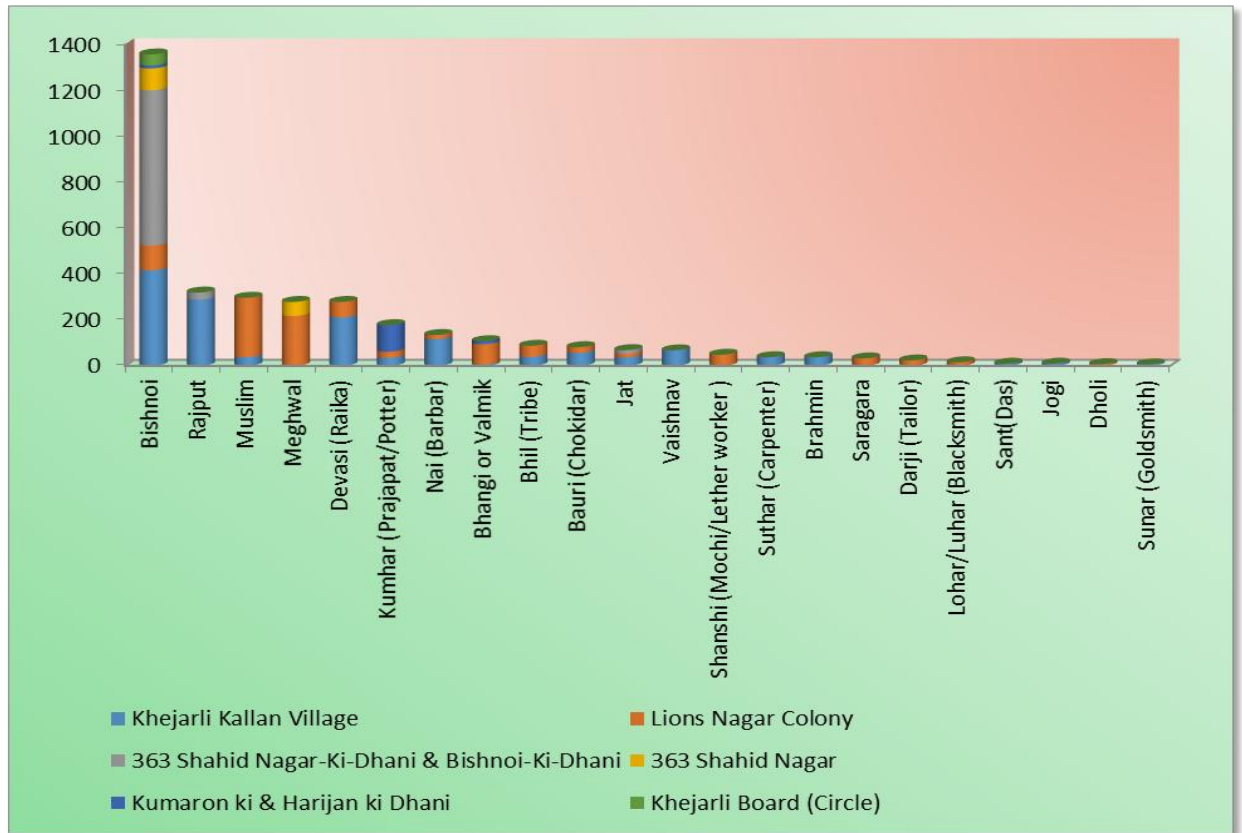
According to the villagers, Khejarli Kalan Village was the main village. Later, various colonies and *Dhanis* came into existence. Khejarli Kalan Village has a history of more than 300 years. It has the highest population among the habitations. However, about 140 (23.4%) of the households reside in the *Dhanis* (settlements in the agricultural fields). Among them, the majority of the households belong to the Bishnoi community. These habitations are scattered around a radius of about half km to 5 km distance from the Khejarli Kalan Village.

Table 2.2: Habitation-wise population distribution of the Castes and Communities:

Habitations								
S. No.	Caste and Community	Khejarli Kalan Village (main village)	Lions Nagar Colony	363 Shahid Nagar-Ki-Dhani & Bishnoi-Ki-Dhani	363 Shahid Nagar	Kumaron ki & Bhangi or Valmik -ki-Dhani	Khejarli Board (Circle)	Total
1	Bishnoi	416	107	677	95	13	48	1356
2	Rajput	288	0	31	0	0	0	319
3	Muslim(Moila (Potter)/ Dhobi/ Teli	38	258	0	0	0	0	296
4	Meghwal	0	217	0	61	0	0	278
5	Devasi (Raika)	211	67	0	0	0	0	278
6	Kumhar (Prajapat/Potter)	35	26	0	0	116	0	177
7	Nais (Barber)	116	18	0	0	0	0	134
8	Bhangi/ Valmik (Sweepers)	5	89	0	0	13	0	107
9	Bhil (Tribe)	39	48	0	0	0	0	87
10	Bauri (Chokidar)	56	25	0	0	0	0	81
11	Jat	37	15	16	0	0	0	68
12	Vaishnav	67	0	0	0	0	0	67
13	Shanshi (Mochi/Leather worker)	0	48	0	0	0	0	48
16	Suthar (Carpenter)	37	0	0	0	0	0	37
17	Brahmin	37	0	0	0	0	0	37
18	Saragara	0	32	0	0	0	0	32
19	Darji (Tailor)	0	23	0	0	0	0	23
20	Lohar/Luhar (Blacksmith)	0	15	0	0	0	0	15
21	Sant(Das)	9	0	0	0	0	0	9
22	Jogi	9	0	0	0	0	0	9
23	Dholi	0	7	0	0	0	0	7
24	Sunar (Goldsmith)	6	0	0	0	0	0	6
Total		1406	995	724	156	142	48	3471

Source: Fieldwork data carried out from Khejarli Kalan village in month of May and June 2014.

Chart 2.2: Habitation-wise population distribution of the various Castes and Communities:



Source: Fieldwork data undertaken in Khejarli Kalan village in the months of May and June 2014.

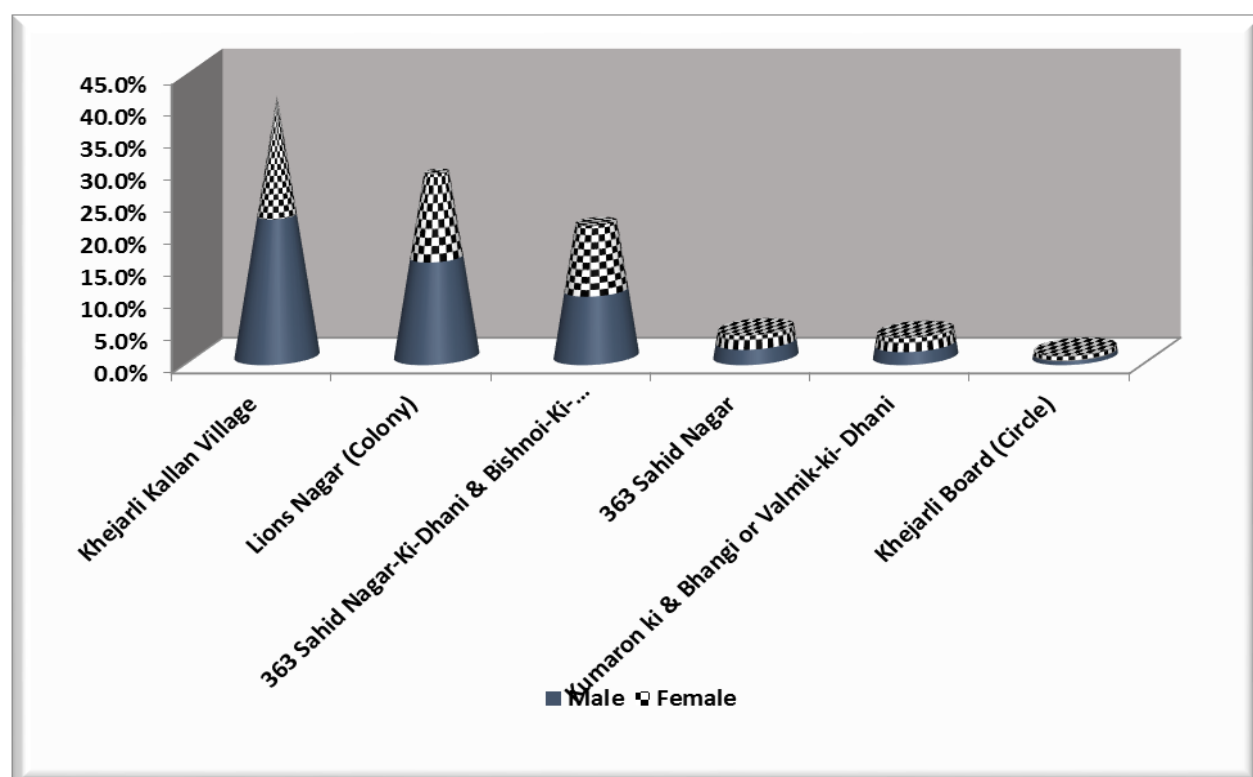
It can be seen that, except for Lions Nagar and Kumaron ki and Bhangi or Valmik -ki-Dhani, the Bishnois have the most dominant presence in the habitations. While the main village and Lions Nagar Colony generally have residents hailing from the various castes and communities, Khejarli Board (Circle) has only Bishnois.

Table: 2.3. Habitation-wise Gender distribution in Khejarli Kalan village:

S. No.	Habitations	Gender				Total
		Male		Female		
		No.	Percentage	No.	Percentage	
1	Khejarli Kalan village	759	54%	647	46%	1406
2	Lions Nagar Colony	535	53%	460	47%	995
3	363 Shahid Nagar-Ki-Dhani & Bishnoi-Ki-Dhani	357	49%	367	51%	724
4	363 Shahid Nagar	80	51%	76	49%	156
5	Kumaron-ki-Dhani & Bhangi or Valmik-ki-Dhani	68	48%	74	52%	142
6	Khejarli Board (Circle)	21	44%	27	56%	48
Total		1820	52.50%	1651	47.50%	3471

Source: Fieldwork data undertaken in Khejarli Kalan village in the months of May and June 2014.

Chart 2.3: Habitation-wise Gender Distribution in Khejarli Kalan village:



Source: Fieldwork data undertaken in Khejarli Kalan village in the months of May and June 2014.

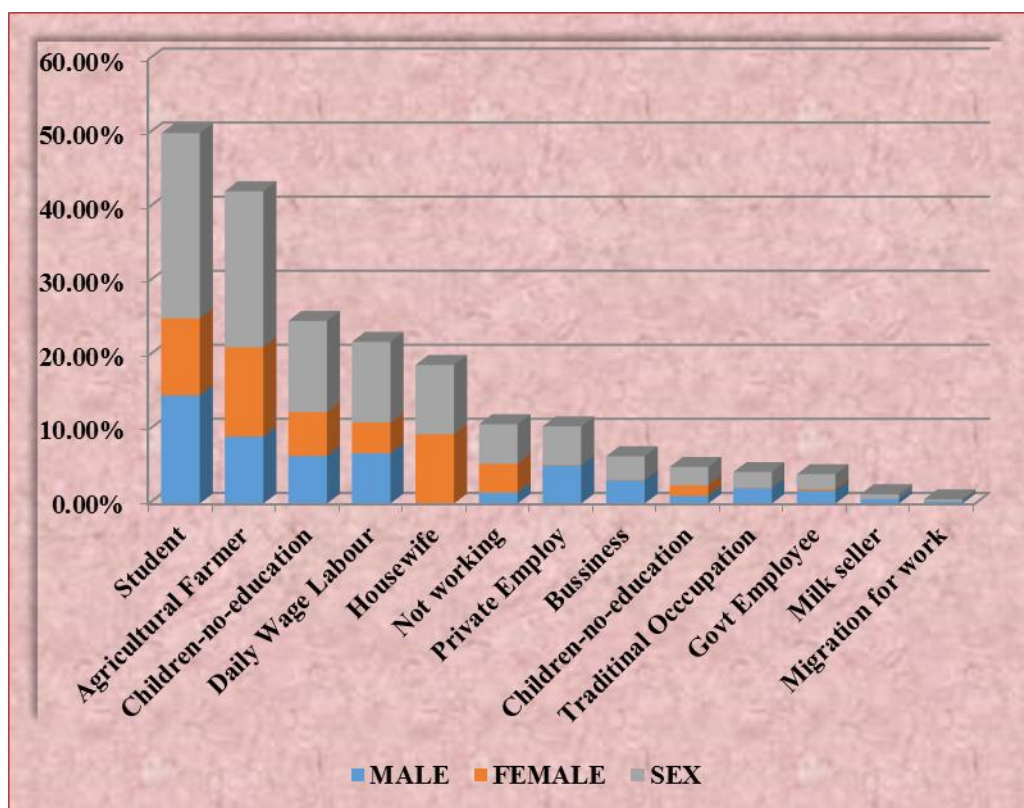
Though from an overall perspective, the number of male is slightly higher than that of female, 363 Shahid Nagar-Ki-Dhani & Bishnoi-Ki-Dhani, Kumaron-ki-Dhani & Bhangi or Valmik-ki-Dhani and Khejarli Board (Circle), have more female member than male. The majority of these habitations are inhabited by the Bishnois. The message that emerges is that the Bishnois give equal importance to female and male children. There is no dowry system among the Bishnois and marriages take place within the community itself.

Table 2.4: Occupation-wise Gender distribution in Khejarli Kalan village:

Occupation	Gender					
	Male		Female		Total	
	Total male	% of male among the Total Population	Total female	% of total female among total Population	Total Male and Female	% of Male and Female among total Population
Student	507	14.61%	361	10.40%	868	25.01%
Agricultural Work	314	9.05%	418	12.04%	732	21.09%
Children	223	6.42%	205	5.91%	428	12.33%
Daily Wage Labour	236	6.80%	143	4.12%	379	10.92%
Housewife	0	0.00%	325	9.36%	325	9.36%
(Un Employe es(Not working)	51	1.47%	135	3.89%	186	5.36%
Private Employment	179	5.16%	2	0.06%	181	5.21%
Business	109	3.14%	2	0.06%	111	3.20%
Children not studying (Un unemployed)	36	1.04%	50	1.44%	86	2.48%
Traditional Occupation	72	2.07%	2	0.06%	74	2.13%
Govt. Employee	61	1.76%	8	0.23%	69	1.99%
Milk seller	22	0.63%	0	0.00%	22	0.63%
Migration for work	10	0.29%	0	0.00%	10	0.29%
Total	1820	52.43%	1651	47.57%	3471	100.00%

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

Chart 2.4: Occupation-wise Gender distribution in Khejarli Kalan village:



Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

When the overall figures are examined, it can be seen that the two most popular occupations are ‘Student’ and ‘Agricultural Work’. If one ignores the categories of ‘Housewife’ and ‘Not Working’, females outnumbered males only in the agriculture-related occupation. It was rather discouraging to note that while a total of 36 boys were not studying, the corresponding figure in respect of girls was as high as 50.

Table 2.5: Caste and Community-wise occupational distribution in Khejarli Kalan Village

Caste and Community	Occupation													Total
	Agricultural Work	Traditional Occupation	Milk seller	Govt. Employee	Private Employee	Business	Daily Wage Labor	Migration for work	Housewife	Student	Children not studying	Not working	Children	
Bishnoi	431	0	18	40	105	40	11	1	84	446	5	50	125	1356
Rajput	65	1	4	10	19	12	13	0	63	84	1	17	30	319
Muslim	7	5	0	1	5	32	80	1	27	37	28	27	46	296
Meghwal	37	0	0	0	4	2	93	0	17	54	8	16	47	278
Devasi (Raika)	46	31	0	0	19	7	10	4	41	53	6	29	32	278
Kumhar (Prajapat/Potter)	54	3	0	0	1	3	22	0	16	29	0	9	40	177
Nais (Barbar)	22	11	0	3	5	7	3	0	21	42	1	5	14	134
Bhangi or Valmik	5	1	0	0	3	0	46	0	3	12	14	5	18	107
Bhil (Tribe)	7	0	0	0	3	0	31	0	0	13	11	7	15	87
Bauri (Chokidar)	3	1	0	0	4	1	38	0	4	8	5	4	13	81
Jat	17	0	0	3	1	3	6	1	3	22	1	4	7	68
Vaishnav	12	1	0	5	7	1	6	3	9	11	0	3	9	67

Shanshi (Mochi/Leather worker)	0	5	0	0	0	0	7	0	9	12	4	2	9	48
Suthar (Carpenter)	7	10	0	0	0	0	0	0	4	8	0	1	7	37
Brahmins	2	1	0	4	5	0	0	0	13	11	0	1	0	37
Saragara	13	1	0	1	0	0	3	0	0	8	0	1	5	32
Darji (Tailor)	0	2	0	1	0	3	0	0	5	12	0	0	0	23
Lohar/Luhar (Blacksmith)	0	2	0	0	0	0	6	0	0	1	0	0	6	15
Sant(Das)	1	0	0	0	0	0	0	0	1	0	2	1	4	9
Jogi	3	0	0	0	0	0	2	0	1	2	0	0	1	9
Dholi	0	0	0	1	0	0	2	0	0	0	0	4	0	7
Sunar (Goldsmith)	0	1	0	0	0	0	0	0	2	3	0	0	0	6
Total	732	76	22	69	181	111	379	10	323	868	86	186	428	3471

Source : Fieldwork data carried out from Khejarli Kalan Village in months of May and June 2014.

If one ignores the number of students and housewives, one could find that, across most communities, agriculture is the most common occupation. However, a highly noticeable number of Muslims (80 out of 296); Meghwals (93 out of 298); Bhangis or Valmiks (46 out of 107); Bhils (31 out of 87); Bauris (38 out of 81); and Lohars (6 out of 15) can be observed working as daily wage labourers. Traditional occupations appear to be largely confined to Devasi (31 out of 278); Nais (11 out of 134); Suthars (10 out of 37); and Sonars (1 out of 6). It is also significant that there is an almost negligible presence of Rajputs, Bishnois and Brahmins in the category of daily wage labourers.

Land Holding:

Table 2.6: Total land Holding:

Cultivation Land		
Land	No. of Households	In Percentage
Own land	457	82.5
Landless	97	17.5
Total	554	100.0

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

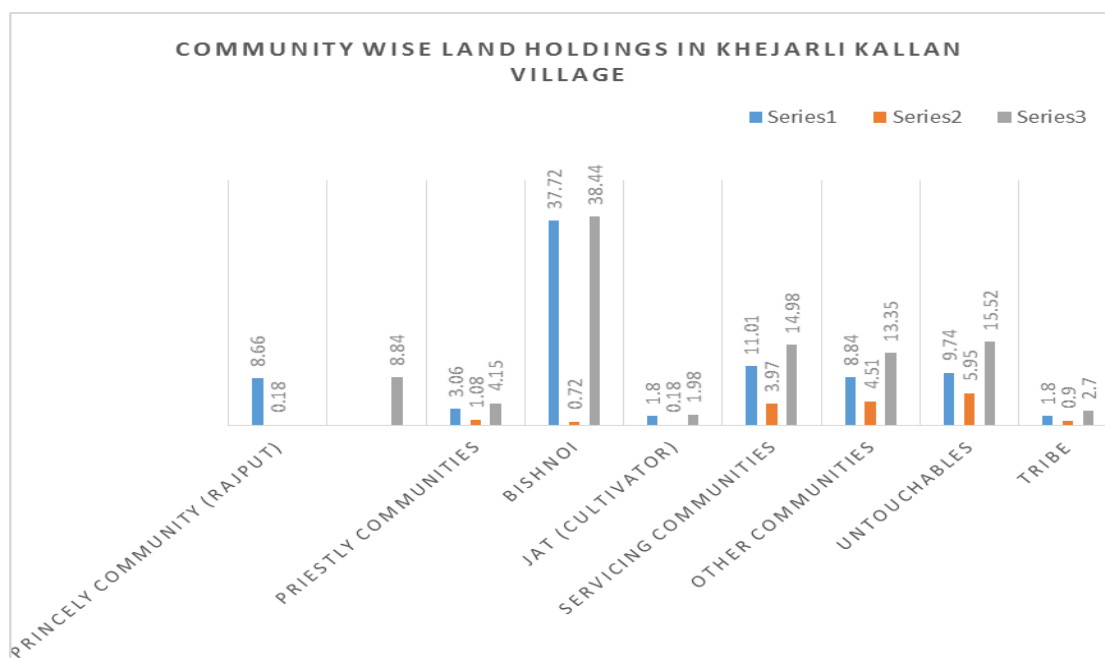
In a rural situation, land is one asset which, besides providing a source of income, imparts a degree of social status to the owner. It can also allow the concerned person to produce the land documents as collateral seniority while approaching financial institutions for loans. It is important to note that the larger proportions (82.5%) of the households in the study village have their own land.

Table 2.7: Castes and Community-wise Agricultural Landholding in Khejarli Kalan village:

S. No.	Caste and Community	Cultivation Land					
		Own Land	%	landless	%	Total	Total Percentage
1	Princely Community (Rajput)	48	8.66	1	0.18	49	8.84
2	Jat (Cultivator)	10	1.80	1	0.18	11	1.98
3	Bishnoi	209	37.72	4	0.72	213	38.44
4	Priestly Community	17	3.06	6	1.08	23	4.15
5	Service providing Community	61	11.01	22	3.97	83	14.98
6	Other Communities	49	8.84	25	4.51	74	13.35
7	Dalits (Traditional Untouchables castes)	53	9.74	33	5.95	86	15.52
8	Tribe	10	1.80	5	0.90	15	2.70
	Total	457	82.49	97	17.50	554	100.00%

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

Chart 2.5: Castes and Community-wise Agricultural Landholding in Khejarli Kalan village:



Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

It is evident from the diagram that the proportion of landowners is much higher than that of the landless. It should also be noted that in the Khejarli Kalan Village most of the land is possessed by the members of Rajputs, Jats, Bishnois and the priestly communities. However, a total of 2.16% households of these communities are landless. Of the total of 17.50% landless householders are about 15.34% belongs to other communities. It is not surprising to note the relatively low level of land possession by persons belonging to castes that traditionally serve other castes and communities. It is so because they have been traditionally dependent on other castes and communities for their livelihood.

Table: 2. 8. Habitation-wise Landholding Pattern in the study village:

Habitation	Farmer type					Total
	Marginal Farmer (Below 1 hectare of land)	Small Farmer (1 to 2hectares of land)	Semi medium Farmer (2 to 4 hectares of land)	Medium Farmer (4 to 10 hectares of land)	Large Farmer (10 hectares of land and Above)	
363 Shahid Nagar	8	5	5	3	0	21
363 Shahid Nagar Ki Dhani & Bishnoi Ki Dhani	13	19	39	30	7	108
Kumaron Ki Dhani & Bhangi or Valmik-ki- Dhani	2	8	4	4	1	19
Khejarli Board (Circle)	0	0	6	2	0	8
Khejarli Kalan Village (main Village)	47	45	67	44	10	213
Lions Nagar Colony	32	30	17	9	0	88
Total	102	107	138	92	18	457

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

If one sees the overall figures, one would find that most of the landholders in the study area possess up to 4 hectares of land (347 out of 457 households). Landholding above 4 hectares is found to be noticeable only in 363 Shahid Nagar Ki Dhani & Bishnoi Ki Dhani

(37 out of 108 households) and Khejarli Kalan Village (main village) (54 out of 213 households).

Table 2. 9: Castes and Communities- wise Landholding Pattern in the study village:

Castes and Community	Farmer type					Total	Landless Households
	Marginal Farmer (Below 1hectares of land)	Small Farmer (1to 2hectares of land)	Semi medium Farmer (2 to 4 hectares of land)	Medium Farmer (4 to 10 hectares of land)	Large Farmer (10 hectares of land and above)		
Princely Community (Rajput)	6	7	17	15	3	48	1
Priestly Communities	5	5	6	0	1	17	6
Bishnoi	15	40	75	66	13	209	4
Jat (Cultivator)	0	2	6	2	0	10	1
Service Communities	21	21	13	5	1	61	22
Other Communities	18	15	13	3	0	49	25
Dalits (Traditional Untouchables castes)	32	12	8	1	0	53	33
Tribe	5	5	0	0	0	10	5
Total	102	107	138	92	18	457	97

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

In table 2.8 landholding above 4 hectares found to be noticeable only in the case of Princely Community (Rajputs) and Bishnois (18 and 79 households respectively). The reasons for this lesser possession of land by other community households can be associated with their dependence on persons of the higher communities for the livelihood.

Education:

Table 2.10: Caste and Community-wise Educational status in Khejarli Kalan village:

Caste and Community	Education							Children yet to be attend school	Total
	Upper School	Middle School	High School	Higher Secondary (Intermediate)	Under Graduation	Post-Graduation	Illite rate		
Bishnoi	297	79	288	93	99	12	364	124	1356
Rajput	60	19	96	18	27	5	64	30	319
Muslim	53	13	33	2	5	0	142	48	296
Meghwal	51	21	42	5	3	0	110	46	278
Devasi (Raika)	61	13	25	3	2	0	143	31	278
Kumhar (Prajapat/Potter)	48	14	22	0	1	0	52	40	177
Nais (Barber)	40	8	32	2	6	0	32	14	134
Harijan	14	4	2	1	0	0	68	18	107
Bhil (Tribe)	11	4	6	1	0	0	46	19	87
Bauri (Chokidar)	17	5	6	0	0	0	37	16	81
Jat	16	4	9	4	3	0	24	8	68
Vaishnav	10	3	22	2	2	1	18	9	67
Shanshi (Mochi/Lether worker)	10	2	6	1	2	0	17	10	48
Suthar (Carpenter)	9	3	7	0	0	0	11	7	37
Brahmin	5	1	11	3	6	0	11	0	37
Saragara	13	2	2	0	0	0	10	5	32
Darji (Tailar)	6	3	3	3	1	0	7	0	23
Lohar/Luhar (Blacksmith)	3	0	0	0	0	0	7	5	15
Sant(Das)	1	0	0	0	0	0	4	4	9
Jogi	0	0	1	0	1	1	5	1	9
Dholi	0	0	0	0	0	0	7	0	7
Total	725	198	613	138	158	19	1,179	435	3471

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

It is understood that a remarkably high degree of literacy can be observed in the case of Rajputs (79.0%), Nais (73.0%), Bishnois and Brahmins (70.0% each) and Vaishnavs (69.0%). On the other end of the spectrum are: Dholis (0.0%), Bhangi (24.0%), Lohars

(30.0%) and Bhils (32.0%). One cannot ignore the fact that only the Rajputs and Bishnois seem to be more inclined towards pursuing education i.e., intermediate and higher education. Most of the other categories appear to be content with acquiring a degree of functional literacy (upper primary school level of education).

Table 2.11: Caste and Community-wise Amenities-I in Khejarli Kalan village:

Caste and Community	Chair		Table		LPG-Connection		Television (TV)	
	Household having No Chairs	Household Owning Chairs	Household having No Tables	Household Owning Table(s)	Household having No LPG Connection	Household Own LPG Connection	Household having No TV	Household Own a TV
Princely Community (Rajputs)	15	34	17	32	18	31	13	36
Priestly Communities	15	8	15	8	13	10	5	18
Bishnois (Peasants)	159	54	163	50	82	131	72	141
Jats (Cultivator)	7	4	7	4	7	4	3	8
Servicing Communities	39	44	43	40	34	49	24	59
Other Communities	64	10	64	10	65	9	59	15
Dalits (traditional Untouchables castes)	84	2	84	2	76	10	42	44
Tribe	14	1	15	0	15	0	12	3
Total	397	157	408	146	310	244	230	324

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

In the study village, most of the householders having with no chair but they use more *char pois*, (bed which made up of iron). They use these *char pois* as a sleeping bed purposes and it also used for seating purposes. More than 50 % householders in the village people

are have LPG (Liquefied petroleum Gas) connection. Among them are the Bishnois are the majority one. They uses the LPG mostly emergence time. They also use firewood, *thepdi* as a cooking fuel in the village. Nearly half of the villagers are having their own Television (TV) and these days due to technological boom, majority of the rural people accessing the TVs. Similarly in the study village, the people says the TV is necessary for them to know about the nation and also say that their children would watch different program and it provides some time pass at home.

Table 2.12: Caste and Community-wise Amenities-II in Khejarli Kalan village:

Caste and Community	Rooms		Electricity		Water_		Sanitation		Kitchen Garden	
	No Rooms in House	House With Rooms	Not Electrified	Electrified	No Water Supply	Own a Water Connection	No sanitation	House with Sanitation	No Kitchen Garden	Have Kitchen garden
Princely Community (Rajputs)	0	49	1	48	1	48	30	19	49	0
Priestly Communities	0	23	0	23	0	23	23	0	23	0
Bishnoi	0	213	6	207	41	172	152	61	209	4
Jat (Cultivator)	0	11	4	7	5	6	10	1	11	0
Servicing Communities	0	83	4	79	30	53	65	18	81	2
Other Communities	0	74	13	61	19	55	70	4	74	0
Dalits (traditional Untouchables)	0	86	8	78	59	27	82	4	86	0
Tribe	0	15	2	13	9	6	15	0	15	0
Total	0	554	38	516	164	390	447	107	548	6

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

Table 2.13: Caste and Community-wise Amenities-III in Khejarli Kalan village:

Caste and Community	Bicycle		Motorcycle		Car_		Tractor_	
	H.H No By Cycle	H.H. Ownin g Bicycle (S)	H.H No Motor Cycle	H.H Owning Motor Cycle (S)	H.H No Car	H.H Owning Car(S)	H.H. No Tractor	H.H. Owni ng Tract or(S)
Princely Community (Rajputs)	47	2	14	35	45	4	42	7
Priestly Communities	23	0	7	16	23	0	23	0
Bishnoi	201	12	37	176	172	41	161	52
Jat (Cultivator)	10	1	2	9	11	0	7	4
Servicing Communities	77	6	28	55	78	5	77	6
Other Communities	69	5	52	22	73	1	73	1
Dalits (Traditional Untouchables castes)	75	11	53	33	83	3	85	1
Tribe	14	1	10	5	15	0	15	0
Total	516	38	196	358	500	54	483	71

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

The village having more motorcycle than the cycles and most of vehicles are belongs to the Bishnois in the village. The reason is that, half of the Bishnois population resides in the *Dhanis*, where transportation is necessary for them. The Bishnois also holding more tractors for the agricultural cultivation and other transportation work purposes. The Bishnois enjoys the agricultural occupations and it considered important occupation for them. The lower castes people have very less vehicles as compared to Bishnois and Rajputs.

THE BISHNOI COMMUNITY

The term Bishnoi is derived from the conjugation of the terms *Bish* (i.e., twenty) and *noi* (i.e., nine), together read as twenty nine, which is the number of religious doctrines proposed by Guru Jambheswar at Samrathal Dhora in Marwar, Bikaner District of Rajasthan in 1485 A.D (Maheshwari, 1976; Ahmed, 2002; Brockmann & Pichler, 2004;

Jain, 2011). Guru Jambheswar was a Panwar Rajput, who was born in the village of Pipasar in Nagaur district of western Rajasthan (Crooke, 1896; (Russell and Lal 1916; Maheshwari 1970, 1976 and 1981; Ramanand 1983; Khan 1997; Jain 2011). He led the life of an ascetic and many miracles are attributed to him. The folk narration regarding the origin of the Bishnoi community¹ records that; during the year (1485 A.D.) severe famine. A number of Jats and other caste and community's people arrived at the Sand hill which was the abode of Guru Jambheswar. He said that he would provide them with food and accommodate them if they would pledge to follow his 29 principles. They agreed and accepted the name Bishnoi. The details about the origin of the Bishnoi community and Guru Jambheswar's contributions have been provided in chapter three).

The Bishnoi population is spread across the states of Rajasthan, Haryana, Punjab, Uttar Pradesh and Madhya Pradesh. The majority of the Bishnois can be found in the western part of Rajasthan.

The most Bishnoi populated districts are, Bikaner, Jodhpur, Nagour, Pali, Ganganagar, Barmer, Jalore and Jaisalmer. Historically, the Bishnois have been depending on agriculture. Nearly half of the Bishnoi population is living in *Dhanis*.

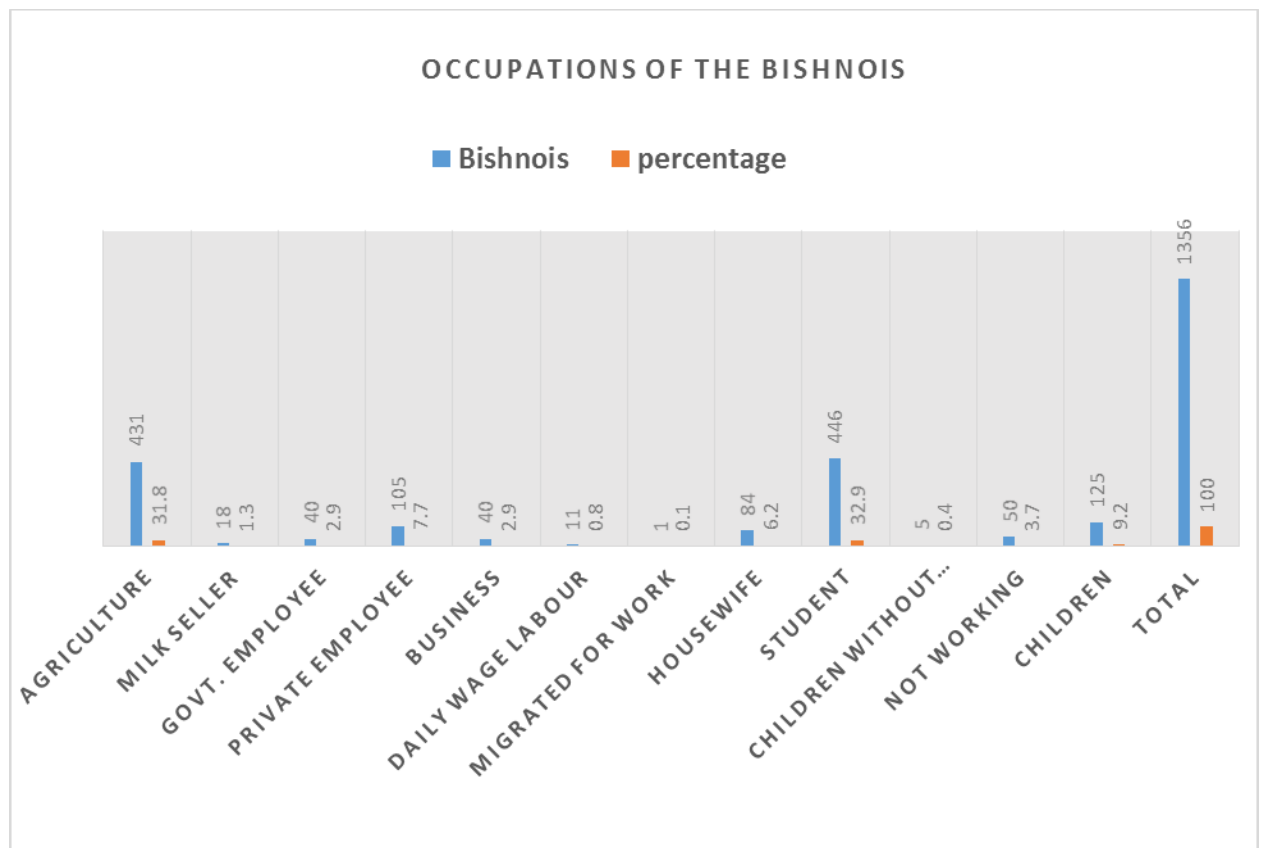
¹ The People, who have accepted the Bishnois doctrines, hailed from different castes, as well as religions. They were predominately Jats and the rest were Brahmins, Rajputs, Banias, Kurmis, Sunars, Suthars, Guyanas, Kasbis, Beyhars, Nais, Meghwals, etc., (Crooke, 1896). In Punjab and Haryana, Bishnois were mainly Jats and Banias and in Uttar Pradesh, they were mainly from Jats and Agrawal community. According to Harbajan Bhat, a traditional storyteller of Bishnois, people hailing from 36 (*koms*) castes (including 360 *gothra*), had accepted the Bishnoi doctrines. A number of Muslims also accepted the doctrines.

Table 2. 14. Occupation-wise Distribution of Bishnois in Khejarli Kalan village:

S. No	Occupation	Bishnois	Percentage	Cumulative Percentage
1	Agriculture	431	31.8	31.8
2	Milk Seller	18	1.3	33.1
3	Govt. Employee	40	2.9	36.1
4	Private Employee	105	7.7	43.8
5	Business	40	2.9	46.8
6	Daily Wage Labour	11	0.8	47.6
7	Migrated for Work	1	0.1	47.6
8	Housewife	84	6.2	53.8
9	Student	446	32.9	86.7
10	Unemployed (Children without Education)	5	0.4	87.1
11	Unemployed(Not Working)	50	3.7	90.8
12	Children	125	9.2	100
Total		1356	100	

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014

Chart 2. 6: Occupation-wise Distribution of Bishnois in Khejarli Kalan village:



Source: Fieldwork data carried out from Khejarli Kalan village in month of May and June 2014.

The Bishnois of Khejarli Kalan Village are mostly dependant on agriculture and other occupations like milk-selling, business as well as government and private jobs. Most of the private job holders, as well as the government job holders, who are living in the village, also look after the agricultural activities. The employees' family members help them in the agriculture activities. Since nearly half of the population of the Bishnois is settled in the *Dhanis* and holding agricultural lands, it is necessary for them to do farming during the monsoon season.

Economic Organisation:

The Khejarli Kalan Village is home to various castes and tribes, as well as other religious communities. Although there is impact of modernity and globalisation on the villagers, which has led to a shift in their hereditary occupations, still many households are

following their traditional occupations like barber, drum beater, tailor, carpenter, shoemaker, priest, *teli* (oil extractor), potters, cultivators etc. However, these caste and communities have also adopted agriculture and other occupations like small business and performs various government jobs, driving trucks etc.

The residents of Khejarli Kalan Village, who subsist on agriculture and agriculture-based occupations and production, are dependent on the monsoon, which is very weak compared to other states in India. In this region, agricultural products are mostly food grains, like *Bajra*-Pearl millet (*Pennisetum glaucum*) *Jawar* (sorghum), *Teel*-Sesame (*Sesamum indicum*) *Moong*-Green gram (*Vigna radiata*), *Urad*-Black gram (*Vigna mungo*), *Moth* Bean (*Vigna aconitifolia*) etc. In the desert region, majority of the Bishnois reside in the *Dhanis* (hamlets in the agricultural field). They do not use any fertilizers in the agricultural fields. Instead, they use cow/buffalos' dung in their agricultural fields as manure. *Bajra* is the staple food for the Bishnois.

Apart from agriculture, most of the Bishnois in the village are engaged in dairy farming. Most of the Bishnoi households in the study village sell at least 5 to 20 liters of milk per day. Apart from selling milk, the Bishnois also use it for the domestic purposes. They have domesticated animals like cows and buffalos. Their agricultural activities and domestication of cattle are inter-dependent. The villagers mentioned that their areas have more rainfall as compared to other parts of the district. The intensity of the rainfall is little higher in the Jodhpur region as compared to Jaisalmer and Barmer districts because the residents of this area grow more trees and very systematically protect them.

Political Organisation:

The head of the community is known as the “*Chaudhary*”. Earlier, the *Chaudhary* used to make deals regarding the land tenants with the village *Thakar/Thakur*.² Still, the village *Thakar* is considered to be important in resolving some of the issues in the village between two castes or tribes, or other communities. The village *Thakar* also resolves some of the issues between the Bishnois and non-Bishnois in the village or between the villages (See more details in the later part of this chapter). Apart from the *Chaudhary*, a few elderly persons, who could communicate well and resolve the problems, are also

² The Thakar or Thakur title is used by the Rajputs who were rulers in the Rajasthan. In the study village, the title Thakar or Thakur is used by the Rajputs community, who were rulers of the village. They used to collect taxes for the king of Jodhpur *darbar*.

invited to the traditional Panchayat to resolve the issues. When disputes come up in Bishnoi community, elders from each clan (of the Bishnoi community) are invited to the village Panchayat.

Various disputes related to land, family and any other issues within the Bishnois are resolved by the community Panchayat. If the disputes are not resolved, or if the aggrieved wants to invite a few more village elders from the community, he/she can approach the members of Bishnoi community residing at other villages. Mostly *nava kheda* (from the nine Bishnoi villages) are invited. If the dispute appears difficult to be resolved even by the invitees of nine villages, the aggrieved person can approach the *Chaurashi Kheda* (84 villagers). The *nivta* (invitation) is given to all the members of Bishnoi community residing in these 84 villages and anybody can come and speak in the Panchayat. The Bishnoi community Panchayat has given liberty to the entire community members to voice their opinion on the respective issues. Whatever the Panchayat decides as the *Dand* (fine) (it may be in the form of money or grain), the person has to pay. The fine amount is used for the temple and community development purposes. The *Dand* is also used for buying grains for the wild animals and birds; construction of water tanks for wild animals and birds. Most of the issues are resolved by the Bishnois' Panchayat itself. However in some cases, people also approach the police and other modern legal institutions. Whatever problems and issues arise among the Bishnois, they resolve them within the community itself because their traditional Panchayat is strong enough and there is a strong unity within the community.

Various community developments related matters are discussed and implemented by the Panchayat. About ten years back, the residents of Khejarli Kalan Village and Guda Bishnoiyan and a few other neighbouring villagers decided that there should not be any *Mrutyu Bhoj* (death ritual feast), because the Bishnois were spending large amounts of money on such occasions. This was forcing the families of the deceased into a debt-trap, since the number of people attending the ritual was normally very high (from the 84 surrounding villages). Now, any family found indulging in this elaborate ritual is fined by the community Panchayat. At times, the punishment may include social boycott of the family.

Food Habits:

The Bishnois are pure vegetarians ever since their community came into existence. They prefer *Roti*, *Bati*, vegetables, milk products, as well as various items like *Moong-ki-Dal* and *Chana-ki-Dal* in their diet. *Bajra* is the staple food for them. At times, they use wheat flour for the preparation of *Chapatti (roti)* and *Bati*. When enquired further, the Bishnois said that *Bajra Sogra* or *roti* (bread made up of Millet flour) is very good for health in all the seasons. *Bajra* is regarded as a suitable food in the desert climate. A person suffering from cough or fever is fed *Bajra Khichdo* as it produces heat in the body. Various dry fruits and other local items are used as vegetables. These include: *Khejri* trees' *Sangri*, *Khoka*, *Jal* trees, *Pillu*, and various local herbs like *Kakadi*, *Kaddu* and *Turain*. The Bishnois also grow few vegetables in their agricultural fields during the monsoon season. They also buy different vegetables from the town market. Every season they use different types of foods. In summer, they mostly prefer *Bajra Roti (sogra)* and *Sagri-ki- Sabji* (curry made up with *Sangri* pods) and milk products like curd, *ghee* and butter milk. During the winter season, they prefer to have *Bajra ka Khichado*, *Bajra Roti* and wheat *Roti* and *Bati* also with different kinds of vegetable curries. In the Marwar region, *Haldi* (turmeric) *Saji*, with *Bati*, is very popular during the winter season. The Bishnois believe that this kind of food would protect them from the cold during the winter season.

The *Dal Bati Churma* is one of the well-known dishes made during festivals or for life cycle rituals. Different kinds of sweets are prepared on various occasions. *Halwa* is frequently prepared by the Bishnois. *Lapsi* is the traditional sweet dish which is well-known among the Bishnois and others. It is prepared frequently, particularly in the monsoon and in winter seasons. The Bishnois consume a lot of milk products. Many of them are very healthy because they eat organic food like *Bajra Sogra /hogra* and *Khichdo* with *ghee*, curd, milk and buttermilk. The Bishnois avoid using chemical fertilizers or pesticides for their agricultural crops. They only use manure in their agricultural fields.

MATERIAL CULTURE:

Dress Pattern:

In Rajasthan, there are different kinds of dress patterns. No wonder, the state is known as one of the most colourful states in India. Each caste, tribe and religious community has its own form of dress pattern for men, women and children. Similarly, the Bishnoi

community has its own dress pattern. By the dressing pattern, one can find out the caste of the person. Most of the Bishnoi men wear a white coloured *dhoti*, or trousers, and a white shirt. Even the *Safa* (turban) is white in colour. The justification for white coloured clothes is that this colour reflects the heat. The social dimension for this choice of colour is that it promotes unity and imparts a community feeling. There may be some relaxations when it comes to the use of other colours but blue is considered strictly as a taboo. 29th religious principles of the Bishnois say: *Lil na lava ang, dekhtadur hi tyage.* (*लील न लावें अंग. देखते दूर ही त्यागें ।*) which means do not use blue coloured clothes.

The Bishnoi women prefer wearing red coloured dresses. Their dressing pattern is also different from that of other communities. Their preferred dresses are *Ghagra* or *Lehanga* (long skirt) and *Sada* and *Khanchali*.

Ornaments:

The Bishnoi women wear jewellery items which are quite different from those worn by their counterparts from other castes and tribes. A married woman wears a *Bhavariya* (nose ring), which is round in shape and big in size. The *Chipaka Thusi* is worn round the neck. The other ornaments are: *Kanti*, *Aad*, *Tegad* (a big ornament worn round the neck), *Sohan Kanti Mangal Sutra*, *Kandora* (worn on the hip), *Angoti* (finger ring), *Baju* (a type of bracelet), *Hathola*, *Kadi*, *Rakhdi Tilak* (worn on the forehead), *Panjeb* (a type of anklet), *Nathali* (nose ring), *Jhumaria*, *Pathakanothi* and *Bali* (varieties of earrings). Men too wear ear ornaments. Elderly men wear *Kundan* on their ears and children, adolescents, youth and middle aged men wear different types of ear rings.

SOCIAL STRUCTURE IN KHEJARLI KALAN VILLAGE

Khejarli Kalan Village consists of multi-castes and multi-religious communities. The village is historically well-known in the Jodhpur region (Srivastava, 2001; Brockmann & Pichler, 2004; Jain, 2011). This village is a central place for the Bishnoi community because issues concerning them (social, political and religious) are discussed and resolved. This village is historically well-known for the Bishnoi community where 363 Bishnois have sacrificed their lives for the sake of trees (Chandla, 1998; Srivastava, 2001; Ahmed, 2002; Brockmann & Pichler 2004; Jain, 2011). The details regarding these sacrifices will be discussed in chapters three and four.

Majority of the householders in Khejarli Kalan Village are dependent on agricultural activities. The artisans and labourers also possess their own agricultural lands. The agricultural labourers in the village are depending on the landowners, and vice-versa. Most of the lower caste households like Meghwals, Bhangis or Valmiks (sweepers) and other marginalised people work as agricultural labourers during the agricultural season. During the non-agricultural season, they work as labourers in the *Kamtas* (local stone mines) and others work at various places like private companies and constructions sites. Most of the artisans and labourers earned their livelihood from the dominant land holders such as Rajputs, Bishnois and Jats in the monsoon season. The blacksmiths provide their services to the castes and communities engaged in agricultural activities by preparing agricultural tools and other equipment (which are used for house construction and other purposes too). The carpenters prepare different tools for the houses through which they earn their livelihood. The Barber community is still practicing *jajamani* system and providing service to the Rajputs, Jats and Bishnoi community in the village.

Relationship between Castes, Tribe and other Religious Communities in the village:

The agricultural activities and various festivals provide space for interaction and socio-economic relationship between different castes and tribes and other religious communities in the village. For example the *Holi* festival brings different castes and communities together. The traditional occupational skills and knowledge have had its own respect and value in the society at different point of time but this is not applicable for few traditional occupations like, scavenging and other so-called polluted works that are generally performed by the people of lower castes. Some of the traditional artisan castes and communities were proud of their occupations but nowadays most of these castes have given up their age-old occupations and adopted alternative livelihoods. The elderly people in the village say that earlier each caste's occupation was pre-decided and they used to follow it. However, these days, people are more flexible and have greater freedom to choose any occupation. Despite this, the social hierarchy among different castes, tribes and other religious communities is being maintained in the study village. The lower caste people told that caste hierarchy is still continuing in the village but not to the same extent as in the earlier days. As M. N. Srinivas (1976) has mentioned in his book *The Remembered Village*: "the maintenance of separateness of castes and of the structural distance between them was achieved through the ideas of purity and pollution" (Srinivas,

1976, p. 185). The same idea and structure is still applicable to the caste system in Rajasthan where most of the higher caste people do not accept food from those belonging to the ‘untouchable’ castes. Sukaam Dada (aged 70 years) and Gobarji Pawar (aged 60 years) from Meghwal caste and hailing from the study village informed that “now a days discrimination is less as compared to a few decades back. They recall their youth days when upper caste people used to give *Beedis* or *Hukka* and other items from a distance - without touching them”³.

I. Social Structure:

Structurally, the village is big in size and the habitations are located at some distance from each other. The village is housing nearly 24 different castes associated with the Hindu religion, including one tribal community as well as the four different groups belonging to the Muslim community.

Castes, Communities and their Occupations:

Each caste or group in Khejarli Kalan Village is traditionally associated with its particular traditional occupation. The names are associated with their vernacular occupational names. For example, Devender Devasi (aged 36 years), a resident of Lions Nagar Colony, is associated with their traditional occupation as herders of camels, sheep and goats (even though he is not pursuing their traditional occupation any more). Similarly, other persons belonging to different castes can also be identified through their traditional occupations.

³ Interview done with Sukaam Dada at his residence in the Khejarli Kalan village. Interview date on January 03, 2015, (English translation by Researcher].

Table2. 15. Traditional Occupations of the Castes and Communities: their distribution among households in Khejarli Kalan Village:

Traditional Castes and Communities	No. of Households	% of Households	Cumulative Percentage of Households
1. Princely Caste (Rajput)	49	8.8	8.8
2. Priestly Castes (Brahmin, Vishhnov and Santh Das)	23	4.2	13.0
3. Bishnoi (Peasant)	213	38.4	51.4
<i>Jat</i> (Peasant)	11	2.0	53.4
4. Service oriented Castes and Communities: (Potters, Prajapats and Moilas; Nais, Dhobis (Washermen), Lohars (Blacksmiths) Sunars (Goldsmiths); and Sutars (Carpenters)	83	15.0	68.4
5. Others Bawri, Raika, Dholi, Teli, Mirasi	74	13.4	81.8
6. 'Dalits (traditional untouchable castes)' (Bhangi or Valmik (Sweepers), Meghwal, Jogi, Saragara)	86	15.5	97.3
7. Tribe (Adivasi) Bhil	15	2.70	100.00
Total	554	100.0	

Source: Fieldwork data carried out from Khejarli Kalan village in months of May and June 2014.

1. Princely Caste:

Traditionally the princely caste in Rajasthan comprised Rajputs, who ruled Rajputana (presently Rajasthan) for centuries. They used to collect tax from the cultivators, traders and other communities in the region. Khejarli Kalan Village was under the Jodhpur state and the village's Rajput head is locally called *Thakar*. He used to collect taxes from the surrounding villages for the Jodhpur Darbar. The Rajputs hold more land in Khejarli Kalan village. Although, after independence, the Rajput dynasties collapsed and land was distributed among the people; Rajput (*Thakar*) families still continue to hold more land in the village. Even today, the Rajputs in this village are engaged in farming and a few family members have taken up various kinds of employment and businesses in Jodhpur. The Rajputs continue to dominate the village Panchayat and other village festivals and ceremonies. The *Thakar* plays an important role in resolving various issues in the village and also between neighbouring villages. The lower castes and Muslim community in the village have functional relationship with the Rajputs. Rajputs also have similar relationship with various castes, tribe and communities in the village, as well as in the surrounding villages. Gabru Mirasi (aged 76 years), a Mirasi Muslim⁴, said that “most of people from his community have got some portion of land from the village *Thakar*”⁵.

2. Priestly Castes:

The Brahman, Vishnav and Santh-Das (Goswami) belong to the priestly castes in Rajasthan. Their traditional occupation is to perform *pujas* in the temples and look after various temple affairs. Many of them have now given up their traditional occupations. Similarly, in the study village, out of ten Brahman households' only one family is following the traditional occupation of *Pujari* (priest) in Lord Hanuman and Lord Mahadev temples. The remaining householders are engaged in various other occupations in the village and the neighbouring cities. Likewise, in the Vishnav caste, only two

⁴In the Khejarli Kalan village, Muslims can be divided into four groups (*Mirasi* Muslim, *Moila* Muslim, *Dhobi* Muslim and *Teli* Muslim) as per their traditional occupations. The traditional occupation of the *Mirasi* Muslim was that of a story teller of Raika community but now they gave up their traditional occupation and adapted the new occupation of making plastic flowers and garlands for the trucks. Traditional occupation of the *Moila* Muslim is pottery making which they are still following in the study village. *Dhobi* Muslim's traditional occupation was washing clothes but now they have given up their traditional occupation and are depending on daily wage labour and truck driving. The *Teli* Muslim's traditional occupation is extracting oil from seeds and they are still following their traditional occupation in the village.

⁵ Interview done with Gabru Mirasi at his residence, Lions Nagar Colony in the study village on January 4, 2015, [Translated into English from the local language by the researcher].

households (out of 12 households) are following the traditional occupation as priests. In fact, within this particular caste, every two years, two families have to provide services in the temple in the village in a rotational manner. The Vaishnav families are also depending on agriculture and other occupations. Only the family of Santh-Das (Goswami) is still following its traditional occupation as priest in Lord Krishna temple in Khejarli Kalan village. This temple belongs to the Rajputs. The village *Thakar* has provided residential and agricultural lands to families of priests in the village. On various occasions, the priests receive gifts from the villagers and the *Thakar*.

3. Agricultural (Peasants) Castes and Communities:

Traditionally, the Bishnoi and Jat communities are mainly associated with agriculture and to some extent the Rajputs families too in the study village. The other castes groups are also engaged in agricultural activities but they are less in number when compared to the Bishnois and Jats. After the independence of India, the new government abolished the *Zamindari* system thus providing an opportunity to different castes, tribes and religious groups to engage in the cultivation of land. In this process, some of the families in the traditional occupational castes and groups are still continuing their age-old occupation, either fully or partially. However, some castes are following both the traditional occupations and engaged in agriculture in the village.

4. Service oriented Castes and Communities:

Traditionally, there had been six castes and other religious communities in the village, who used to provide regular services to the cultivators which were: *Kumhars* (Potters) who hailed from either the Hindu (*Prajapat*) or the Muslim (*Moila*); Muslim Dhobis (Washerman); *Nais* (Barber); *Lohars* (blacksmiths); *Darjis* (tailors) and *Sutar* (carpenters). The services were provided to their *Jajmans* on an annual basis and they used to be paid in the form of grains during harvesting time and sometimes in the form of money. But now a days, the *Jajmani* system is not much in practice. However, barbers and blacksmiths are paid both in the form of cash and grains for their services.

The *Nais* (barbers)⁶ provide regular service to the cultivators (Rajputs, Jats and Bishnois). In return, they get paid both in the form of cash and grains. They also provide services to all other castes and communities except the traditional ‘untouchable’ castes in the village such as Bhangi or Valmik, Meghwals, etc. There are about 22 *Nai* households in the village. Among these, nearly 30% households are dependent on the traditional occupation such as barbers. The rest are engaged in occupations like farming, working in private factories, small business, etc. During the life cycle rituals, the *Nais* play an important role for many castes and communities in the village. The *Nais* have a good relationship with the villagers. Most of their *Jajman* families are the Bishnois and Rajputs in the village. The *Nais* provide their services in the life cycle rituals like marriage and death as well as festivals for the Bishnois. The *Jajman* (patron) families are distributed among themselves. Most of the barbers have their own hair cutting salons in the village and elsewhere (other villages or towns). The other artisan groups get paid in the form of money. The other service oriented castes/communities like Dholis, who provide services on the different occasion as drum beaters and entertain the people in the village through their music. For their services, they get paid in the form of money and also grains during the harvesting time. The traditional occupation of the *Kumhars* (*Prajapats/Prajapatis/Kumbhars*)^{7, 8, 9} is pottery making¹⁰. Earlier, the *Kumhars*¹¹ used to supply all the household earthenware vessels within the village and the surrounding villages. In the study village, there are two types of potters namely Hindu potters (called *Prajapats*) and Muslim potters (called *Moilas*). The *Prajapats* can make different varieties of vessels, but the *Moilas* make only certain types of earthen vessels. There are 22¹² Prajapat households in the village. Of these, only two families are following their traditional occupation and

⁶ The *Nais* (barber) also called, *Nao Mhali, Hajam* (Russel & Hiralal, 1916), but in western Rajasthan, the *Nais* prefer to call themselves as Sen because they are followers of *Sen Bhagata* and they use their title as *Sen*. The name is derived from the Sanskrit word *Napita* (Ibid, 1916, p. 262).

⁷ Ibid 1901, p. 154.

⁸ In Rajasthan, the position of the *Kumhars* is superior to that of their counterparts in other states. In Marwar, there are seven large endogamous divisions namely, *Khater, Banda, Maru, Jatia, Pubia, Mewara, Moilal*, (Ibid, p. 154).

⁹ They have various creeds. All of these worship Vishnu, Shiva, and Shakti, (Census, 1901, p. 154.)

¹⁰ The name being derived from the Sanskrit word *kumbh*, which means a water-pot (Russel & Hiralal, 1916, p.3).

¹¹ In *Marwar Darbar census 1901* mention that people considered themselves lucky if they happen to meet a potter on the way.

¹² *Kumhars*, (Kusuvulisa and Kachautiya clans), including seven households, are residing in Khejarli Kalan Village and Lions Nagar Colony. The rest are staying in the *Dhanis* (Kumharon-ki-Dhani), two km away from Khejarli Kalan Village.

rest of the householders have taken up agriculture as well as other occupations. There are five *Moila* households in the village. Of these, three households are still following their traditional occupation and the remaining families depend on daily labour. The importance and use of traditional form of pottery has declined over a period of time. The reason is the emergence of substitute items in the market and, therefore, less demand for their products. They also said that it needs more manual work and requires time for the preparation of the earthen vessels. However, some of the families still prefer to cook and store water in earthen vessels, because the taste of the water in these vessels is better than that in metal vessels. The earthen vessels are used in summer season for storing water.

Dhobis (washermen) have given up their traditional occupation as washer men and are now engaged in various other occupations. Another service caste in Khejarli Kalan village is that of *Lohars* (blacksmiths). There are two *Lohar* households in the village and both have been continuing their traditional occupation. They prepare various agricultural equipments and tools for the households. Their women folk go for labour work in the village. Since, they do not have any agricultural land; they are depending on their traditional occupation and labour. They feel that the modern cultivation machines like tractors in the agricultural fields have affected their occupation. Mongilal Chauhan (aged 68 years) narrated his olden days, where he used to get good business. The blacksmith of this village maintains good relationship with the other villagers.

Another traditional occupational caste is the *Sutar* (carpentry). In the village, there are five households that belong to the *Sutar* caste. They still continue to be engaged in this traditional occupation of preparing different kinds of tools for the agricultural operations and furniture for household purposes. Earlier, they used to get paid for their services in the form of grains but nowadays they are getting paid through money also. They have a good relationship with all the castes and communities in the village, since their economic activities have a direct link to various cultivation activities.

Darji (tailor) caste provides tailoring services to different castes, tribes and religious groups in the village. There are three households belonging to this caste in the village and their women folk are still continuing this traditional occupation. The men have taken up businesses like *kirana* shop, tea shop and vegetable shop in the village. Earlier stitching occupation was restricted to their caste only but nowadays non-*Darji* caste people have

also started tailoring, which also directly affected their traditional occupation. In order to sustain themselves, they have adopted various other occupations.

While potters, blacksmiths, goldsmiths, tailors and carpenters provide services to members of all castes and religious groups, the barbers do not provide any services to 'untouchable' castes like Meghwals, Bhangis or Valmiks (sweepers), Dholis and Mochis. In Khejarli Kalan village, the upper castes people do not allow the dalits (traditional untouchable castes) to cut their hairs and shave their beards. Ashok Sen (aged 35 years), a barber, says that if they provide services to the untouchable castes, the upper caste persons in the village oppose them and would not come to their shops. He also said that "if any barber provides services to the untouchables, he would not be invited to any ceremony"¹³. The Dalit men in the village go to the neighbouring cities, towns or other villages for haircuts or getting their beards shaved. The untouchables cannot set up any tea-shops, hotels, sweet shops or *kirana*-shops in the village because the non-Dalit/upper caste people will not come to their shops.

5. Other Castes and Communities:

There are few other castes and communities in the village who are engaged in both traditional and modern occupations. These are: *Raika, Bawri, Dholi, Teli* and *Mirasi*, who provide various services to the villagers and a few of them occasionally get grain and most of the time cash for their services.

There are 53 Raika households in the village. Of these, 27 are still following their traditional occupation of herding goats, sheep and camels. Only one family is herding camels in the village. The main sources of income for the Raikas¹⁴ are herding and agriculture. They are also strict vegetarians and they do not have any institution of *Bali* (sacrificing of animals). As Srivastava (1997, pp. 126-30) mentioned in his book, the Raikas have been influenced by Jainism and the Bishnoi practices of vegetarianism in the desert region. Due to shortage of fodder to feed the sheep and goats in Khejarli Kalan Village in particular and in the desert region in general, the people of Raika caste seasonally (summer and winter) migrate to far off places in search of fodder for their

¹³ Interview done with Ashok at his residence, Lions Nagar Colony in the village, interview was conducted on April 29, 2014, [Translated into English from the local language by the researcher].

¹⁴ Their normal food is wheat, millets and vegetables as well as milk products. However, traditionally their economy is dependent on the selling of goats and sheep to others.

livestock. The Raikas usually go in a group that could consist of 5 to 10 persons to the states of Haryana and Punjab to herd their goats and sheep. Their survival depends on the traditional occupation and they are very proud of it. The remaining Raikas are engaged in agriculture and other occupations. They usually maintain very good relationship with the other castes, tribes and other religious groups in the village, especially with the Rajputs, Jats and the Bishnois because these castes have more land and are into agricultural farming in the village and its surroundings. Since their traditional occupation of herding goats, sheep and camels requires grazing land and agricultural fields (after harvesting), they need to be in good terms with the farming castes people in the village. They enjoy a very good relationship with the Rajputs and both communities and have a common temple called Pabuji Maharaj temple in the Khejarli Kalan (main) village where Raika's *Pujari* (priest) performs the *puja*.

There are two *Teli* households in the village. Their traditional occupation is to extract oil from seeds and they belong to the Muslim community. They are still continuing their traditional occupation and providing services to all, irrespective of caste, tribe and religious affiliation in the village. Their services are rewarded in the form of cash and sometimes in the form of grain during the harvesting time. Since the village agriculture is dependent on the rain, they are mostly following the traditional form of crops like *Moth*, *Jawar*, *Bajra*, *Ragi* (Finger millet), etc. The *Telis* extract oil from *Mot*, mustard and *Till* (sesame) through the help of modern machines. Earlier, they used to take the help of oxen for extracting oil.

The Dholi caste comes under the lower category in existing social hierarchy. Their traditional occupation is playing music on various occasions in the village. Their *Jajaman* (clients) are from the various castes, tribe and other religious communities, except some of the lower castes such as Valimik and Bhangi. For marriage ceremonies and other life cycle rituals, the Bishnois and non-Bishnois invite the Dholi¹⁵ musicians to perform, and in return offer money and goods for the services rendered. The Dholis also collect grains from the farmers during harvesting time. They also give performance in the Bishnoi marriages and get paid. On the occasion of *Holi* and other festivals, they receive gifts

¹⁵ The name *Dholi* has been given to this community as the members beat the *Dhol* (drum) also called *Nagarchi*. (Singh, 1998, p. 343). They trace their origin from Rajputs; as mentioned in Singh, K.S. (1998), *People of India: Rajasthan*, Part-1, Vol.38, New Delhi: Popular Prakashan, p. 343. There are three *Dholi* households in the village. In ancient days, the Rajputs were their main *Jajman* (patrons).

from the villagers. The Dholis maintain good relationship with each caste in the village, particularly with the Rajputs, Jats and Bishnois because these communities can afford to give more grains and cash as compared to the others castes.

The *Bauri* caste calls themselves as *Chokidars*. Earlier they were involved in hunting and gathering and were a semi-nomadic caste. Later they started being engaged in the job of guarding the village. Most of them have given up their traditional occupation and now a days they are surviving by offering daily wage labour.

The *Mirasi* are traditionally associated with folk songs and music during different ceremonies. They were associated with story tellers of the Raikas. Though they belong to the Muslim community, they trace their descent to the Rajputs. An elderly person from the *Mirasi* community- Harya Mirasi (aged 90 years) resident of Lions Nagar Colony he informed that some of his community people used to maintain genealogical records of Raika community in the village”¹⁶. In fact, one family is still continuing to prepare genealogical records of Raika families in the village. There are nine households belonging to the *Mirasi* community. Nowadays, they are mostly depending on the trade of plastic flowers and making garland in the village. They seasonally migrate to south Indian states to sell their products. They have been maintaining a very good relationship with the Raika community because the Raikas were *jajamans* (clients) for them for generations. The *Mirasi* community also maintains a good relationship with the Rajputs and sometimes, they approach the Rajput *Darbar* to get their disputes resolved.

6. Dalits (traditionally untouchable castes):

There are about 21 different caste groups and four groups of the Muslim community in the village. Initially four castes were regarded as ‘dalits’ which are traditional untouchable castes. There are five other castes groups like Dholi, Mochi, and Lohar, including two Muslim groups like Teli and Moila (potter), who are, to some extent, following their traditional occupations. Except for a few households majority of Dalits (traditionally untouchable castes left their traditional occupations and they are now engaged as daily wage labourers. Some of them are depending on agricultural work. The other castes in the village do not accept food from the *Dalits*. Though, the government enacted a number

¹⁶ Interview done with Hariya Mirasi at his residence, Lions Nagar Colony in the village on December 8, 2014,[Translated into English from the local language by the researcher].

of laws and Acts, the traditional caste system and ill treatment of ‘untouchables’ is still continuing in the study village.

7. Tribe:

The Bhil tribe is the only tribe in the study village. Traditionally, their occupation was hunting and gathering. However people of this tribe are now mostly depending on daily wage labour or pursuing agriculture on their land (minimal) in the village. There are about 15 such households in the village who are maintaining a good relationship with the non-tribals as the non-tribal communities offer those jobs of daily wage labourers.

II. Village Economy:

In earlier days, the economic transaction was in the form of exchange of goods. . This type of barter system was more prominent because the monetary transactions were less and elderly inhabitants of Khejarli Kalan village told that they used to exchange their agricultural products with other items but now a days they can buy many things with money. However some forms of exchange like barter is still taking place among the villagers; like for instance one quintal of *Bajra* is exchanged for one quintal of *Jawar*. Similarly, one kg of ghee is exchanged for 20 kg of *Bajra*.

Some of the service castes like barbers, carpenters, and others artisan are being paid both in cash as well as in grains. Most of the agricultural labourers from the lower castes prefer to receive grains for their work instead of cash. However sometimes they choose to take cash for their agricultural work. The barbers are being paid in fixed quantities of grain (*Bajra*, *Jawar*, millet, etc.) and cash. It depends on the patron’s capacity and the agricultural production because the desert region is drought prone. For other service providing castes, the payment of grain and cash varies from caste to caste and family to family. Providing grains to service based castes is considered to be very prestigious act. Various kinds of payments (grain, gifts and land) may be arranged in a hierarchical order with compensation in the form of land being at the top. The farming castes and communities and landlords provide gifts and grains to other castes in the village on specific occasions like *Holi* and life cycle rituals. The gifts are provided to the service castes and other castes in the village. The *Thakar* of the village has given lands to the priestly castes, i.e., Vaishnavs, Brahmins and Sanths for their services to the temples. The Sanths and Vaishnavs have got house sites from the grants provided by the *Thakar* of the

village. The Santh caste people have been providing services as priest to Krishna temple in the village, which was constructed by the village *Thakar*. The *Santh* family got about 14 *beegas* of land from the *Thakar* for their sustenance. Apart from that, on every occasion gifts are given to the family. The *Thakar* of the village has also provided lands for house construction and cultivation to the members of the lower castes, tribes, and Muslim groups in the village.

III. Sources of Flexibility:

Earlier the peasant communities were only engaged in agricultural activities. Now, most of the traditional non-peasant castes and communities are also cultivating land. The services providing castes in the village not only have a near monopoly on their traditional occupation but can also choose other occupations. In Khejarli village, a few *Mochi* families have not only monopolised their traditional occupation but also started small businesses like money- lending. Similarly, the *Teli* community families have also monopolised their traditional occupation and one person of this community is employed in a government office. In Khejarli village, most of the male members of the barber family have been continuing their traditional occupation. However, one or two members have taken up other occupations too.

IV. Traditional Political Organisation and the Dominant Castes:

According to M. N. Srinivas (1955):“the existence of caste courts has been interpreted as proof of the strength, if not the autonomy, of a caste but the separate political strength of the castes, like their occupational specialization is only part of the story” (Srinivas, 1955, p. 17). For centuries Rajputs exercised their political dominance in Rajasthan. After the independence of India, the modern political system has changed the political structure in India. However, the Rajputs, more or less, hold the traditional political power in Khejarli village in particular and in Rajasthan in general. The Panchayat of Khejarli village has been dominated by the Rajputs.

The Panchayat members act as leaders and resolve disputes arising in the village. If any opinions are required, the help of other communities like Bishnois and Jats, is taken. Although modern political systems have been established at the Panchayat level, the villagers still prefer the traditional political system. In the initial stages of any issues, attempts are made to resolve the disputes at the family or caste or community level but if

these are not resolved then village, the individuals/family can request the village *Thakar* to resolve the issue. According to rules of the traditional Panchayat system in the village, the *Thakar* would try to resolve different disputes. Nowadays, most of the disputes are being addressed by the caste Panchayat. However, the disputes between castes and tribes are brought before the village Panchayat. The ‘warring parties’ may even approach the modern courts or police stations.

Although, the Rajput households constitute only 8.8% of the total population of the village (Bishnois 38.4% and Raikas 10.2%), they still hold political power in the village because they have a strong hold on the lower castes and also higher castes. Though the modern judiciary system is strong in providing justice to the villagers, most of the disputes are being still resolved by the traditional village Panchayat itself.

The village follows the modern political system where the *Sarpanch* and other members are elected as heads of the village statutory institution for local self-governance. In the Panchayat elections the dominant caste plays a very important role. Similarly, in Khejarli Kalan village, the Rajputs are dominant and they play a major role in the elections. In the 2015 Panchayat election, the village *Thakar* contested for the post of *Sarpanch* and he defeated the Bishnoi community candidate. Although, the Bishnois voters constitute nearly 35% and Rajputs are around 9%, the Rajputs got elected because they have more influence on the lower castes and other communities in the village.

V. Caste Hierarchy:

Even though, the Indian Constitution offers equality for all Indian citizens and opposes all forms of discrimination on the basis of caste, race, and religion, the caste hierarchy is still prevalent in the Indian society. Which is deeply rooted in the Indian society and culture; it is strongly embedded through the socialisation process. In Rajasthan, the hierarchy in the caste structure is still strong. Similarly, in the study village, caste hierarchy is being practiced. The Brahmin still enjoy the higher social status in the study village. The Rajputs maintain caste hierarchies. In the *Darbars* convened by the *Thakar*, the Rajputs sit in the highest position followed by the Brahmins, Vishnavs, Sanths. Jats, Bishnois, service providing castes, and dalits. The dalits (traditional untouchable) castes like Meghawals, Jogis and Saragaras are accorded a very low status as far as seating arrangements for such sessions is concerned. The Bhil tribe in the village is also treated as dalits. The Bishnoi community maintains a good relationship with other castes but

when it comes to eating food at any function, they prefer to have a separate *dera* (tent) or place to eat. If Rajputs invite them for any feast then also there will be a separate eating place for the Bishnoi men and women.

The men from castes of almost equal status can eat food together but the women are more particular about commensal restriction and they mostly would not like to eat together with other castes, especially the lower and 'untouchable' castes. However in the village sweet shop, owned by a person from the *Prajapat* caste, the patrons are from all castes, including the Bishnois, Rajputs, Jats and priestly castes in the village, even when the items are prepared by the *Prajapat* family. The *Prajapats* also cook in the functions of different castes. Similarly, the tailor caste families have tea shops in the village which are patronised by people belonging to all castes. Still the 'untouchables', in the study village, hesitate to visit such shops. Interestingly, some of the Bishnois allow the Meghwals (who belong to a 'lower caste') to cook food on special occasions as some of the Meghwals are expert cooks. It was noticed during fieldwork that the Meghwal which not cooking food on the occasion of *Chulu Paal* (Birth ceremony) in one of the Bishnoi houses in Kakani Village, which is about 8 km from the study village.

VII. Structural Unity in the village:

Although there are differences among the various castes and term caste hierarchy in the study village, they maintain a reasonably good relationship among themselves as all castes and communities are in some way or the other dependent on each other. The service castes provide services to the other castes on various occasions. The barbers help in the marriage and other social and religious functions of the other castes. Since it is a small village, almost everyone knows each other. For the agricultural activities, more persons are required to clear the land, sow seeds, weed; and harvest crops etc. For such tasks, one has to take the help of persons belonging to the other castes.

Also, for construction of houses, one has to depend on daily wage labourers most of whom belong to the so-called 'lower' castes. Therefore, each caste is directly or indirectly, helping the other caste. Though, there is untouchability and caste hierarchy among various castes and religions, the Hindu festivals like *Holi* and agricultural festivals are celebrated by all the villagers irrespective of their castes. The unity of the village can be seen during various rituals in the village. The temple rituals help to bring the people of various castes together. However, a very disquieting feature is that the members of some

castes are still not being allowed to enter inside the temples which are patronised by people belonging to upper castes. For instance, the ‘untouchables’ in the study village are not permitted to enter the temples of Lord Shiva and Lord Hanuman. They can only see the rituals from a distance.

RELIGIOUS BELIEFS OF DIFFERENT CASTES AND COMMUNITIES IN THE KHEJARLI KALAN VILLAGE

Table: 2. 16. Temples in the Khejarli Kalan Village:

Sl. No .	Temple	Caste of the Priests	Character of the Temple	Castes visiting temples
1	363 <i>Shahid Sthal</i>	Bishnoi (sadhu)	Community Specific (Bishnois)	The Bishnois only but other castes and community people also allowed on the special occasion.
2	Hanumanji	Brahmin	Hindus	All castes, except Dalits (Traditional untouchables castes) but they can do pooja from distance.
3	Ramdevji	Meghwal	Caste Specific (Meghwal)	All castes
4	Krishna Mandir	Santh	Caste Specific (Rajputs)	Theoretically all castes, except Meghwals and other dalits (Traditional untouchables castes)
5	Pabu-ji	Devasi	Caste Specific (Devasi and Rajputs)	All castes, except Dalits
6	Darga	Muslim	Muslim	All castes, but mostly Muslims
7	Masjid	Muslim	Muslim	Only Muslims
8	Mahadev Mandir	Brahmin	Caste-free	All castes and community, except Dalits
9	Gogaji	...	Caste Specific (Jats)	All castes, except Dalits
10	Ratan Singh Maharaj (Bhomiyaaji Maharaj)	Devasi	Caste Specific (Rajputs)	Devasi and Rajput
11	Hanuman Temple (Specific name)	Mochi	(Mochi)	Mochi

Source: Data from fieldwork undertaken in Khejarli Kalan village in the months of May and June 2014.

There are some temples built by the specific caste and community near their homes. For instance, the members of the *Mochi* community, Bhil tribe and *Dholi* are not allowed to enter the temples of other castes and communities. Therefore, some 'untouchable' communities have built their own temples near their homes. Sometimes when they go to worship Hanuman, Mahadev or other deities, they stand outside the temple at some distance. Even today the 'untouchables' are being denied entry into the Hindu temples in the villages.

Chapter- 3

History and Contemporary Significance of the Religion of the Bishnois, as Propounded by Guru Jambheswar

This chapter focuses on the medieval *Bhakti* movements in Rajasthan, Guru Jambheswar's preaching and the origin of the Bishnoi community. It critically examines the 29 principles of the Bishnoi community; particularly the six principles which are related to the environment protection. It also looks into their relevance to the conservation of nature. Further, an attempt has been made to study the *Sabad Vanis* (Preaching), *Sakhis* (folk stories) and other folklores related to the conservation of the environment. The chapter also discusses the various views on the conservation of nature by the disciples/followers of the Guru Jambheswar. In addition, this chapter also focuses on the various religious specialists of the Bishnois and their contribution to the efforts that are aimed at the conservation of nature. It also looks at different pilgrimage places of the Bishnois and their significance to the community.

Socio-Economic, Political, Religious and Ecological History of Western Rajasthan before 15th Century:

Rajasthan region is known for its rich culture and political history. Various invaders (Aryans, Mughals, Britishers, and so on) have made their impact on the inhabitants of Rajasthan during different times. Archaeological evidence reveals that there have been Aryan people's settlements before 1000. B. C. at different parts of Rajasthan (Panagariya & Pahariya, 1993, p. 20). It is believed that in epics like the Ramayana and the Mahabharat, the various places in Rajasthan such as Jangal Desh (Bikaner) and Pushkar (near Ajmer) have been referred¹.

Different invaders have influenced the social, economic, political and cultural aspects of the local people. Both the *Vedic* and non-*Vedic* religions (Jainism and Buddhism) have influenced the people of Rajasthan. It is mentioned in the Jain literature that Jainism influenced the king Raja Jaisen of Shrimal town in 497 B.C. and converted nearly 90,000

¹ *Ibid* 1993, pp. 18-21.

people into Jainism². The main area of influence of Buddhism is found in the Puskar area of Rajasthan³.

During the 5th century B. C. to 5th century A.D., different rulers had influenced the local people in terms of social, political and religious aspects. In this process, many tribal republics of Rajasthan have lost their cultural and political identities and became the part of the socio-political system of the Gupta Empire.⁴ After the fifth century, the Gupta empire was slowly crumbling and many *Kshatriya* kingdoms (later known as Rajputs) established their dynasties such as the Pratihars (Bhinmal), the Sakumbhari Chauhans (Ajmer), the Guhils (Mewar), the Bhatias (Jaisalmer), the Yadavas (Mathura), the Kachhavas (Jaipur), and the other rulers were Bhils and Meenas (Hadoti region). Meanwhile, the different religions worked simultaneously from 6th to 12th centuries A.D.⁵ to influence the local population. The feudal system, known as *jagirdars*⁶ and *maufidars*⁷, was very prominent during this period. The land revenue was collected from tenants on the production of grains and other commercial crops. The *jagirdars* even used to charge dozens of bags of food grains on the celebrations of rituals like births, marriages, and deaths⁸.

Almost all the living beings in Rajasthan region have been frequently affected by several droughts and famines. In spite of severe environmental conditions, the inhabitants were able to cope up with it. Tod (1829) has mentioned about the severe famines in the 11th century for twelve years (Kachhawaha, 1985, p. 24). During the years from 1309 A.D. to 1313 A.D., the Marwar region faced severe famines⁹. During these periods the inhabitants faced scarcity of food, water and fodder. These kinds of famines were locally called as *thrikaal*. During this period, the economy of Rajasthan was mainly based on agriculture, animal husbandry and trading. The commonly known industries were copper mining, zinc, silver mining, etc. Due to the influence of Jainism, trade expanded into the different parts of cities, resulting in strong town connections. The traders, merchants and caravan

² *Ibid* 1993, p. 25.

³ *Ibid* 1993, p. 23.

⁴ *Ibid* 1993, p. 34.

⁵ *Ibid* 1993, pp. 34-52.

⁶ This system is form of land tenancy developed in India during medieval period. *Jagirdaris* were the land tenancy collectors.

⁷ *Maufi* is "released, exempted, exempt from the payment of rent or tax, rent free"

⁸ *Ibid* 1993, p. 51.

⁹ *Ibid* 1985, p. 24.

traders created a chain of urban markets (*mandis*), *bazaars* in Rajasthan (Bhadani, 2002, pp. 64–65)¹⁰.

Rajasthan in the Medieval Period:

The political situation took a new shape in the north and north-western India (Rajasthan and Delhi region) after Chauhan's dynasty was captured by Sultan Ghori in 1192–93 A.D. by defeating Prithviraj Chauhan (Panagariya & Pahariya, 1993). The Rathor kingdom in Kannauj region lost in the war between Rathor and Ghori in 1194, and eventually, Sahaboddin Ghori occupied the region. Rao Sheoji (Rathor king) moved to Pali in Marwar region and settled there. Later the Rathor dynasty was established in Marwar between twelfth and thirteenth centuries. The foundation of Jodhpur city was laid down in 1459 A.D. by Rao Jodha, and Bikaner in 1488 A.D. by Rao Bika (Tod, 1829; Sharma, 1968; Panagariya & Pahariya, 1993). The Marwar region was ruled by the Rathor rulers in the fifteenth century. Several battles took place between the Delhi Sultans, Mughals and the Rajputs kings in the medieval time.

Agriculture was one of the major economic sources of the people in Rajasthan during the medieval period, although, agriculture had been affected by the political and social processes, the rural life's foundation was with land, soil, system of cultivation, manufacturing (such as cottage industries), etc., (Sharma, 1968). The agricultural products were mostly food grains such as, *Bajra*(pearl millet), *jawar* (sorghum), *mung* (*Phaseolus mungo*), grey-gram, oil-seed, *till* (sesame), etc. The commercial crops were cotton, indigo, etc. The peasants used to pay the taxes or rent of land in the form of share of agricultural products to the *Jagirdars*¹¹ who were appointee of the state. The farmers used to pay 1/3rd or 1/4th taxes of the gross product to the state authorities locally called *bhoga and hasil*¹². The rural Rajasthan people played an important role in providing raw materials for the industries located in towns to construct the palaces and houses. The textiles industries such as those manufacturing cloth etc. emerged in different towns and cities. The others small scale industries were metal-work, stonework, art and crafts were well-known in Rajasthan¹³.

¹⁰ Bhadani, 2002, pp. 64-72.

¹¹ *Ibid* 1968, p. 289.

¹² *Ibid* 1968, p. 297.

¹³ *Ibid*, 1968, pp. 296-312.

Trade and pastoralism also played a major role in generating the income in the medieval Rajasthan. In addition, animal husbandry played an important role in the development of state economy. A variety of breeds of cows such as, *Gir*, *Rathi*, *Thar parkar* and Bulls such as, *Nagauri* and *Malvi*¹⁴ were well-known in Marwar. The pastoral communities earned their livelihoods from *ghee* (butter), milk, cattle, etc¹⁵. The taxes on the goats, and sheep were collected by the state. The income was also generated by selling goat, milk, wool, manure, etc¹⁶. Camels were the other valuable animals in the desert region and were used for the transportation of agricultural products and other goods in the desert region¹⁷. Cattle were helped in providing manure, cultivation and transportation to continue the agricultural activities and trade in the region.

During the medieval period, Rajasthan made strong trade routes with major cities and towns such as Ayodhya, Delhi Agra to Multan and Sindh region via Ajmer, Nagaur, Pali or Bikaner, and Jaisalmer¹⁸. The major trade routes that ran from Rajasthan were to Afghanistan, Kashmir, Bengal, Deccan, Ahmadabad, Malwa etc., (Habib, 2011)¹⁹.

In the medieval period, western Rajasthan faced severe famines and droughts. It is mentioned that there had been severe famines in A.D. 1450, 1485, 1486²⁰ and 1490 (as cited by Kapur, 2008, p.160). James, the continuous twelve years of famines (Tod, 1829) mentioned in 11th century in Thar Desert region. The years of 1309, 1313, 1450, 1485, 1570, 1613, 1616, 1698, 1711–16, 1717, 1747, 1756, 1783, 1796, 1833, 1838–40, 1848–49, 1868–69, 1877–78, 1891–92, 1896–97, 1901–16, 1925–26, 1928–29, 1936–40... have historically recorded famines in the Marwar region. During these years, there was severe scarcity of water, food, and fodder for the inhabitants, and the cattle. It is believed that many people and cattle died and many families migrated to other places (Kachhawaha, 1985).²¹ According to the Meteorological Department data, droughts occurred thirty four times in western Rajasthan between the years 1875–2009 and out of it, 12 were severe droughts and had huge an impact on the survival of human beings and other species in Thar Desert (Kachhawaha, 1985).

¹⁴ *Ibid*, 1968, p. 143.

¹⁵ *Ibid*, 1968, p. 143.

¹⁶ *Ibid*, 1968, p. 143.

¹⁷ *Ibid*, 1968, p. 143.

¹⁸ *Ibid*, 1968, pp. 322-326

¹⁹ Habib, 2011.

²⁰ Naravane, 1999, p. 121.

²¹ Kachhawaha, 1985.

The folk stories reveal that during this time there was the famine of *trikaal*, with the shortage of three commodities in Rajasthan; *jal akaal* (water scarcity), *anna akaal* (food scarcity) and *trina* (or *chara*) *kaal* (fodder scarcity). *Trikaal* famines were disastrous and caused not only scarcity of food, fodder, and water but also led to the death of animals and human beings. *Trikaal* famine was very frightening to the inhabitants and had the power to make rapid changes in the social and economic structure of the rural community. Various medieval poets, saints, and reformers have mentioned about different famines and droughts which have been occurring in the western Rajasthan. Even saint Kabir, in the fourteenth century in his poem about the desert region warned in his *Raag Gaudi बागड़ देस लूचन का घर है, तहाँ जिनि जाइ दाज़न का डर है*²²... (*Baagad des loochan ka ghar hai, tahaan jini jai daajhan ka dar hai...*) that means do not go to a place with no water. The Saint Kabir's poem has mentioned that do not go to the dead land, he referred Thar Desert, the place no water.

Hiralal Maheshwari (1996, p. 224) has mentioned about the severe famine in the year Vikram *Samvat* 1542 (1485 A.D.) in Rajasthan which had affected the western part severely. Even in Rajasthani literature, the well-known poet Raja Muryamal Misran (1815–1868) in his *Vansh Bhaskar* also mentioned about the severe famine in the region (Maheshwari, 1996, p. 224).

According to Bishnois' literary texts, during the years 1476 and 1485, the Thar Desert of the western Rajasthan was reeling under sever famines²³. Vilhoji narrated about famine in 1485 A. D. in his writing *Katha Guggalai Ki*, where he mentioned that famine was so terrible that starved population began to migrate to other places in search of livelihood²⁴. Politics and religion were considered as two sides of the same coin in the medieval Rajasthan. During that time, dominant religious aspects influenced the political condition. The Delhi Sultans fought continuously fighting with the Rajput kingdoms in Rajasthan. In the fourteenth and fifteenth centuries, the tradition of worshipping of Shiva, Vishu and Brahma had been widely prevalent among the people of Rajasthan. The social structure of the Rajasthani society in the medieval period was one which followed the four *Varna*

²² Kabeer Granthali. Accessed [January 12, 2017]. <http://www.hindisamay.com/kabir-granthawali/pada.htm>,

²³ Maheshwari, 1975; Jain, 2011; Chapple, 2011.

²⁴ Kapur, 2008, p. 162.

systems. The highest social status was given to Brahmins followed by *Kshtriya* Rajputs, *Vaisya* and *Sudras*. In western Rajasthan, the social stratification among the different castes and communities was strictly followed. The caste structure and hierarchy were established, in which upper castes and communities were privileged. During that time, there were different *panths* (sect) and their tradition can be seen in the present day Rajasthan. In the medieval period, notable traditions included, *Nath*, Bishnoi *Sampradaya*, Niranjani *Sampradaya*, Nimbarg *Sampradaya*, Dadu *panth*, Laal *panth*, Sukh *Sampradaya*, Gudad *panth*, Ramshreni *Sampradaya*, Alkhiya *Sampradaya*, etc.(Sharma, 1968; Khan, 1997).

***Bhakti* Movements in the 15th Century Rajasthan:**

In the 14th and 15th Centuries, the *Bhakti* movements²⁵ in *Rajputana* (Rajasthan) produced both the *Nirguna* and *Saguna*²⁶ saints. They included: Ramdev, Jambha (Guru Jambheswar), Jasnath, Mallinath, and Ai-Matha, whose cults later spread to the neighbouring areas (Khan, 1997). Several studies (Burman, 1996; Das, 2003; Khan, 1997) reveal that followers of saints and deities imparted a 'dual,' i.e., both Hindu and Islamic personalities to these saints and deities. Khan (1997) also mentioned that some of the practices of the *Ismailis* have been incorporated into the customs and practices of some Hindu sects and castes in the Western part of Rajasthan. An instance of this can be seen in the Ramdev temple at Ramdeora-Runicha (Khan, 1997 p. 18). Even the colonial historians (Tod, 1829) and Census reports (Census, 1901) showed that Ramdev was also known as Ram Shah *Pir* and Jambha (Guru Jambheswar), as Jambh Shah. The thoughts of many medieval saints were beyond castes and sects (*Jat-Panth*) and they always conveyed their ideas to the local people through their preaching (Khan, 1997). Some of the saints and local deities are popular among the lower castes and some of the saints

²⁵ The *Bhakti* movement was a product of the society, and its ideology served a purpose. During the medieval period, spiritual awakening, in the wake of the *Bhakti* movement, occurred all over the India at different places at different times, as reactions to different social situations or deprivations. Most of the saints hailed from the lower and middle castes, tribe and communities. Various saints (Ramananda (1299-1356 A.D.), Kabir Das (1398-1518 A.D.), Ramdev (15th Century), Guru-Nanak (1467-1539 A.D.), Tukaram (16th Century), Surdas (1418-1583 A.D.) had inspired and allowed the common people to shape their spiritual and cultural life.

²⁶ The term *Saguna* means "with attributes". It implies that God has a name and form and other attributes. *Nirguna* means "without attributes". The term "*Nirguna* Brahman" implies that God as the Absolute Spirit and Pure Consciousness has no name and form or attributes. (Source: <https://luthar.com/2009/04/05/what-is-saguna-and-nirguna-brahman-by-dr-harsh-k-luthar>, accessed [October 28, 2016].

were considered to be the incarnations of Gods and Goddesses. Other saints were also popular in both the lower and higher castes and communities. Ramdev and Mallinath are considered as local deities (*Lok Devatas*); whereas Jambha (Guru Jambheswar) and Jasnath are treated as saints, who are known to be founders of specific religious traditions (*Sampraday*) in Western Rajasthan. Ai-Matha, Jin Matha and Karni Matha are regarded as local female deities (*Lok Devis*) in Rajasthan and irrespective of caste and community people worship them²⁷. According to B. N. Sarasvati as mentioned by Binford, 1977, p. 12, “the cult of Ramdev is different from the movements founded by poet-saints like Kabir or Dadu and reformers like Nanak”²⁸. The saint-based *Bhakti* cults are well organised institutions, with clearly defined objectives laid down by their respective founders and subsequently elaborated by the corps of ascetic specialists²⁹.

***Bhakti* Movements views on Desert Ecology:**

Before the ‘arrival’ of the *Bhakti* movement in the region, Jain and Buddhist philosophies had been present in Rajasthan. Jain and Buddhist religious philosophies’ relation with nature, the relationship with their environment etc., had influence in Western Rajasthan. As mentioned by Srivastava (1997), Jainism and Bishnois’ belief of vegetarianism influenced the pastoralist community, the Raikas. In Western Rajasthan, the medieval period saints, Pabuji, Ramdevji, Gogaji, Tejaji, Meeraji and Jamboji (Guru Jambheswar), were from both the *Nirguna* and *Saguna* schools of philosophy (Panigariya & Pahariya, 1993; Dube, 1996; Khan, 1997; Kapur, 2008). These saints influenced peasants, pastoralists and artists to bring in new (or syncretic) religious beliefs and practices in response to various socio-political, economic situations. But, Guru Jambheswar emphasized particularly on the environmental conditions in the desert region. He founded the Bishnoi community and his philosophical thoughts provided solutions to the environmental problems in the desert. He laid stress on conservation of nature in a sustainable manner which can improve life of the inhabitants, who have been facing severe famines and droughts. Guru Jambheswar preached his followers to have harmonious relationship with nature and not to cause any harm to the living beings. The *Bhakti* movements, directly or indirectly, had provided moral and spiritual support to the inhabitants to withstand the adverse climatic conditions in the Thar Desert.

²⁷ *Ibid* 1997, pp. 18-19.

²⁸ *Ibid* 1997, p. 19.

²⁹ *Ibid* 1997, pp. 19-20.

Guru Jambheswar's view on Desert Ecology and History of the Bishnois:

Guru Jambheswar (1451-1536) was born in a Parmar Rajput pastoralist family. As a cattle herder for 27 years (Maheshwari, 1970; Kapur, 2008; Krishnanand, 2013), he witnessed several droughts and famines in the region and observed the difficulties that the people, animals and birds were facing. He understood the climatic condition in the desert region and came up with viable solutions to manage and balance the ecological condition through sustainable practices by the inhabitants.

According to the literature of the Bishnois, between the years 1476 and 1485 A.D., the Thar Desert of the Western Rajasthan was reeling under severe famine (Maheshwari, 1976; Kachhawa, 1985; Ahmed, 2002; Kapur, 2008)³⁰. The Bishnois believed that for 12 continuation years of famines occurred in the region and resulted large scale death of animals (both domesticated and wild due to shortage of fodder and water. Also, many people died due to starvation. Continuity of famines resulted in unrest among the inhabitants in the region. People started destroying the environment by acts like killing animals and felling trees. The exploitations continued in the name of *Jadu, Tona* (magic and sorcery), which led to 'social disorder' in the society. Most of the pastoral families as well as peasant families migrated to other regions in search of livelihood and fodder for the cattle. It was at this time that Guru Jambheswar came to their rescue. He provided material help to them (inhabitants) and also enlightened them spiritually. He provided food grains and fodder at Samrathal Dhora³¹. According to the oral history narrated by his disciple Vilhoji in *Katha Guglai Ki* 'Guru Jambheswar used to provide about 1.25 *maunds* of grain to the people (Kapur, 2008, p. 146) and fodder for their domesticated animals on a daily basis'. This was on the condition that they have to follow three principles. Those were (i) they should take a bath daily, (ii) they should not eat the flesh of animals, not to kill any wild animal and not to cut trees; and (iii) they should not consume intoxicants³². He advised his followers that if they followed these principles, they could recover soon from the effect of the famine. He initiated the digging of several water ponds/tanks and planting of trees in the area, so as to protect the wildlife and domesticated cattle. The

³⁰Vilhoji narrated an account of the famine in 1542 in his book title *Katha Guglai Ki* where he mentioned that the famine was so terrible and the starved population began to migrate to another places in search of livelihood (Kapur, 2008, p. 162).

³¹ This is the place where he did *Tapasya* (meditation) under the *Hari Kankedi* at the Samrathal Dhora near Mukham Village in between Bikaner and Nagaur d districts of Rajasthan.

³² *Ibid* 2008.

numbers of followers were continuously increasing and the people slowly recovered from the famines. Later, Guru Jambheswar laid down 29 principles and said that those who followed these principles would become Bishnois. The process of becoming a Bishnoi will be discussed in detail in this chapter.

Vast groups of followers started protecting the doctrines as part of their culture. The essence of his religious principles (in the form of verses), which the Bishnois call as *Sabad Vani* and *Sakhi*, are considered to be their most sacred texts³³, ³⁴. For the next 51 years, he devoted himself to the propagation of his doctrines. His creed spread all over the Western part of Rajasthan, southern Punjab, and the western part of Moradabad, Meerut, Uttar Pradesh and southern Haryana. The folk stories and songs reveal that, Guru Jambheswar also visited Pakistan and Kabul in Afghanistan and spread his teachings.³⁵ The Bishnois believe that wherever Guru Jambheswar visited, he planted *Khejri* trees, formed groups of people who would become nature lovers and wildlife conservationists. There is a place called Rotu Village in Nagaur district of Rajasthan, where he planted nearly 3600 *Khejri* trees and called upon the inhabitants to protect trees. Even now, we can find plenty of *Khejri* trees and other trees in the region. He also planted *Khejri* trees at Lodhipur (in Moradabad district, Uttar Pradesh) and many other places. He preached to the people persuading them to treat other living beings as equal to human beings.

The Bishnois' Religious Philosophy:

Guru Jambheswar advised the peasants and pastoralists that, they need to do good *Karma* (action, work or deed) to continue their survival in their homeland. Only then, they could sustain for several generations. The compassion and kindness towards all life forms would help in sustenance in the desert region. According to the religious philosophy of the Bishnois, the Supreme Being resides in every living being, and harming them would amount to disrespect towards the Supreme Being. Therefore, to perform a good *karma*,

³³A vast volume of literature about Jambhoji and his followers' relations with the Bishnois religion is available in the form of composed and written documents in Rajasthani dated between the fifteenth to eighteenth centuries (a mixture of *Braj* and *Pingal* is sometimes noticed) (Kapur 2008, 157). After that, various scholars studied and documented accounts about the Bishnois' religion and its spirit of nature conservation at different point of time (Croke, 1896; Maheshwari, 1976; Tobias, 1996; Chandla, 1998; Ahmed, 2002; Srivastava, 2001; Jain, 2011). Apart from that, the history of the religion of the Bishnois and its genealogies has been documenting and recorded by the traditional genealogists, known as Bhats.

³⁴ Ahmed, 2002.

³⁵ Interview with Ramanand Acharya Mukham temple *peetadeesh* (head), Bikaner at Mukham. Interview date January 6th and 7th, 2015, [Translation to English from the local language done by the researcher].

one needs to be compassionate towards all living beings. In other words, the basic philosophy of the Bishnoi religion is to 'live and let live,' because all living beings have the right to live and share the natural resources. The Bishnois believe that compassion towards different species (plant, animal, and bird) helps in the ecological preservation in the desert region.

29 Religious Principles of the Bishnois:

The Bishnois believe that the 29 Principles laid down by their spiritual Guru Jambheswar in 1485 A.D. (Maheshwari, 1970 & 1976; Ahmed, 2002) are for the betterment of humanity. Human beings have to follow these principles and be compassionate towards all the living beings to attain *Moksha* (salvation). They say that those who follow these doctrines would manage natural resources in a sustainable manner and will face fewer problems in their life. The 29 religious principles of the Bishnois are;

29 Principles **उन्नतीस नियम**

“तीस दीन सूतक, पांच ऋतु वन्ति न्यारो।

Tees din sutak, Panch rutu vanti nyaaro.

सेरा करो स्नान, सील संतोष सूचिप्यारो।

Sera karo snan, Sheel santosh suchipyaroo.

द्विकाल संध्या करो, सांझ आरती गन गावो।

Dwikaal sandhya karo, Sanjh arti gun gaavo.

होम हित चित प्रीतसु होय, वास वैकुण्ठा।

Hom hit chit preethsu hoye, Vaas vakunta.

पाणी वाणी ईन्धणी, दूध इतना लीजियो छाण।

Pani vani indhani, Dukh itna lijio chaan.

क्षमा दया हिरदे धरो, गुरु बता ओजाण।

Chama daya hridaya dharo, Guru bata ojaan.

चोरी निंदा झूठ बरजियो, वातनाकरणुकोय।

Chori ninda jhut barjiyo, Vatna karnu koi.

अमावस्या को व्रत राखणो, भजन विष्णु बतायोजाये।

Amavasya ko vrat rakhnu, Bhajan Vishnu batayo jaaye.

जीव दया पालनी, रूख लीला नहीं धावे।

Jiv daya paalni, Runkh leela nahi dhaave

अजर जरे जीवत मरै, वैवासस्वहीं पावै।

Azar zare jivat marei, Vivasswahi paave

करे रसोई हाथ सूं, आनसूपलोन लावैं।

Kare rashoi hat su, aan sumpalona laave
अमर रखा वै ठाट, बैल बधिया नकरावै।
Amar rakhave that, Bail badiya na karave
अमल तम्बाखूं भांग, मध्माँ ससूं दूरहि भागे।
Ammal tambaku bhang, Madhya sansu durhi bhaage
लील नलावेअंग. देखते दूर ही त्यागै।“

(Krishnanand 2013, 161-162)

Leela nalave ang, Dekhte dur hi tyage.

उन्नतीस धर्मकी आंखड़ी, हिरदे धरियो जाये।

Unnatis dharm ki ankhadi, hridaye dhariyo jaye।

जाम्भोजी कृपाकरि, नाम बिशनोई होय।³⁶

Jambho-ji kripa kari, naam Bishnoi hoyi

These doctrines suggest that those who follow the 29 principles will be considered as Bishnois. They also suggest some of the duties and responsibilities to be followed by the Bishnois. Out of the 29 principles, six are prescribed for conservation of animals, birds and trees and being, in general to be compassionate towards all living beings as well as other natural resources. Seven principles provide directions relating to social behaviour. Twelve principles are directed towards maintaining personal hygiene and good health. The other remaining four principles provide guidelines on spiritual aspects.

The Bishnois say that the 29 principles are extremely rigorous to follow and it needs patience as well as dedication. In the beginning, many people abandoned the religion, because it was difficult for them to continue and the doctrines were found to be very strict. At the outset of the Bishnois *Panth*, individuals were sufficiently reliable and confident about their decision for believing in the religion. Individuals voluntarily accepted the Bishnois *Panth* and not with the force of any individual. These 29 principles are vital for the Bishnois in their customary laws which govern and regulate them. These doctrines also demonstrate the method and best practices to live in harmony with the neighbouring living beings includes neighbouring non-Bishnois in the given environment.

The emphasis in the following pages will be on the principles which are related to conservation and protection of nature (18th, 19th, 22nd, 23rd, 28th and 29th) among the Bishnois in the Thar Desert of Rajasthan.

³⁶ *Ibid* 2013, p. 972.

29 PRINCIPLES

1. *Tees Din Sutak* (Observe impurity (*Sutak*) for thirty days after child birth):

Before the *Sutak* (impurity) process, the Bishnois have to observe the *Godh Bharao*³⁷ (Baby Shower) ceremony on the seventh or ninth month of the pregnancy. According to this principle, “the Bishnoi women and the newborn child have to observe *Sutak* for the 30 days after childbirth”. In the process, woman and her infant are kept in a separate room. The Bishnois say that “due to 30 days *Sutak* process, they prevent infection to mother and child”³⁸. A mother is prohibited from performing family responsibilities, as well as any religious duties. During this period, the mother needs to take care of a child as well as herself and also needs to recover. On the 30th day, they observe the *Paal* ceremony. Until then, the newborn child is not considered a Bishnoi. The *Paal* is prepared by the Bishnoi priests and given to the child, and after that the child acquires the Bishnoi status in the community.

2. *Panch Rituvanti Nyaro* (Observe impurity (*Sutak*) for five days during menstruation period):

According to this principle, the Bishnois seclude their women during their menstruation period for five days. During this time also women are forbidden from participating in domestic activities like cooking food, washing clothes, etc. They are also excluded from performing and participating in any religious ceremonies or activities. The Bishnois explains that during this time, a woman becomes weak and faces mental depression and physical pain; therefore she needs rest to recover. Her physical and mental strength are very important for any activity as explained by the Bishnois.

3. *Sera (Subha) Karosnan* (Take a bath daily in the morning):

According to this principle, “the Bishnois have to take bath daily. In fact, the day of a Bishnois begins with a bath in early in the morning. The Bishnois believe that a daily bath cleanses the body and enables them to remain fresh and active. Guru Jambheswar suggested to the Bishnois to take bath early in the morning before sunrise. It is considered the *deva snan* (devotional bath) (Ahmed, 2002). Most of the Bishnois prefers to take bath

³⁷ *Godh Bharai* literally meaning in English is ‘Fill the lap’.

³⁸ The group discussion with the Bishnoi couples (two) at the 363 Shahid Nagar colony in the study village on December 2, 2014.

early in the morning before sunrise. They are not unduly bothered about the quantity of water used for bathing. In fact, they say, “*Bhige kaan, toh hogaya snan*”, which mean that if the ears are wet, that is enough for the bath, in other words even a *lota* (spherical water vessel) of water is enough for the bath. Bhagirath (aged 45 years) from the Bishnoi-ki-Dhani says that, “his wife would not provide food to him and his children in the morning until they take a bath. He will not go out without taking a bath, even in the cold winter. Even while on a journey, he tries to take a bath”³⁹. Mangilal Khilleri (aged 70 years) from Bishnoi-ki-Dhani says that, “earlier, the Bishnois used to call as ‘*Snani*’ by neighbouring non-Bishnois because they take a bath every day”⁴⁰.

4.5. 6. *Sheel, Santosh, Such Pyaro* (Maintain Chastity, Good character and Pure both Externally And Internally):

According to these principles, one has to be chaste, content and pure— both internally and externally. The Bishnois have to be uncorrupted, pleasing and unpolluted in their thoughts and their actions. These principles are focused on the individual's relationship, mostly social ones, with others. The *Sheel* refers to the relationship between man and woman, where they have to trust and have faith in each other. Both man and woman have to maintain the good relationship with the surrounding social groups and integrate with them. The Bishnois believe that if the both the man and woman have a good relationship between themselves and with the family; the community relationship would be strong.

Guru Jambheswar advised his followers to avoid greed because greedy people accumulate wealth by exploiting others, as well as the natural resources, which should be shared by the human beings and other living beings. The Bishnois are not harming the species in their surroundings. Instead, they are trying to maintain their natural resources in a sustainable manner.

Guru Jambheswar suggested to his followers to be pure—both internally and externally. External purity can come from taking a daily bath. Further, the person has to be happy and his/her behaviour with others should be proper. Internal purity can be ensured by respecting other living beings. According to the Bishnois, compassion has to be both internal and external. This is reflected in one’s thoughts and actions. Then only will one

³⁹ Interview with Bhagirath at Bishnoi-ki-Dhani of the study village on May 6, 2014, [Translation to English from the local language by the Researcher].

⁴⁰ Interviewed with Mangilal Khelleri at Khillerion-ki-Dhani of Bishnois-ki-Dhani in the study village on June 4, 2014, [Translation to English from the local language by the Researcher].

get a divine feeling and make human beings happy as well as connect emotionally with other living beings. The love for wildlife among the Bishnois starts at the early age, that is, during the socialisation process itself. The Bishnoi children acquire knowledge about nature at the early age. Chapter four will carry a detailed discussion about the socialisation process for the Bishnoi children. The emotional and logical attachment with nature helps them in sharing both human and wildlife in the same niche. These principles provide guidelines for safeguarding the social and natural environment.

The above principles are being spread and practiced by the Bishnois. This is reflected in their overall behaviour. According to a Bishnoi elderly man Birmaram Beniwal (aged 72 years), “Behaviour is very important to adjust in any environmental condition. Therefore, we have been surviving without fear and with sufficient food grains. All these have been acquired because of the good treatment and behaviour towards nature”⁴¹.

7. *Dwi kal Sandhya karo, aur sanjarti gun gao* (Prey twice a day and sing devotional song in the evening):

According to this principle, the Bishnois have to pray twice daily and sing devotional hymns in the evening. The Bishnois of Khejarli Kalan village try to pray at least once in the evening. On every *Amavasya* (new moon day), many of them visit their local *Shahid Sthal Mindar* (martyrs place) in the village, or other places of pilgrimage like Mukham temple (Bikaner district) or Jajuwal temple (Jodhpur district). The Bishnois told that prayers reduce anger and keep them happy.

8. *Hom Hit Chit Preet suhoye, Vas Vaikunthpavo* (Perform *Havan* (sacred fire) with love and devotion to attain *swarg* [heaven]):

This principle says that the Bishnois have to perform the ritual of *Havan* (sacred fire), with love and devotion, twice daily i. e., once in the morning and then in the evening. The Bishnois perform the *Havan* ritual during all life cycle ceremonies and in festivals, and religious fairs. On every new moon day, the Bishnois perform *Havan* at their temple, where all the members of this community from the village gather and participate. In every Bishnoi *Mindar* (temple), including the one in the study village, *Havan* is being performed twice a day (morning and evening) by their priests).

⁴¹Interviewed with Birmaram Beniwal at Khejarli Kalan village on December 12, 2014, [translated to English from the local language by the researcher].

9. 10. *Pani, Bani, Indhani and Dudh Lijeyo Chhan* (Filter water, speech, firewood and milk):

According to these principles, the Bishnoi should filter water, and milk and shake the fire wood sticks before use. Guru Jambheswar said that one should filter the water before drinking, or storing in pots as the water contains small *jeev* (lives) like small bacteria, and microbes. Even *Dudh* (milk) has to be filtered before consuming. Guru Jambheswar also said that one must filter one's *Baani* (words) before speaking. The Bishnois have to think twice before they utter words or speak, in other words they have to be careful in speech. Shake *indhani* (fire-fuels/woods) before using them in the fire. The Bishnois said that the firewood and other fuel sometimes contain small insects. These principles emphasise on the health related issues and the need to protect small insects and micro-organisms. The Bishnois of Khejarli Kalan village filter the milk and water, as well as shake the fire woods/sticks before cooking their food.

11. *Kshma, Daya Hirde Dharo, Guru Batayo Gyaan* (To be compassion and mercy from the heart, preached by Guru):

According to this principle, the Bishnois should have compassion and mercy in their hearts. Guru Jambheswar enjoined on his followers to show concern and mercy towards all living beings in nature. Human beings can attain salvation through good deeds and not by harming others. The Bishnois say that human beings should help those who are in an inferior position than them. The Bishnois provide excellent hospitality to wild animals and birds. This principle also suggests that one should be kind towards one's neighbours and forgive each other's mistakes. Since, both human beings and wildlife are sharing the same niche; both are interdependent on each other. The Bishnois provide water, buttermilk and food to even unknown people who visit their home or pass nearby their habitats.

12. 13. 14. 15 *Chori, Nindya, Jhoot Vajiyo. Vadhnakarno koi* (Do not steal, speak ill, lie, and unnecessary argue):

These principles speak against *Chori* (stealing), *Ninda* (speaking ill), *Jhoot* (lying) and *Vaadh* (involving in futile argument). These principles are related to moral and ethical values which govern not only human and social relationships, but also extend to the relationship with the environment. The Bishnois believe that over-exploitation of natural

resources create conflicts among people and creates imbalance in the relationship between people and wildlife, which is against the basic philosophy of the Bishnois.

The local term *Chori* is considered as a *Samajik Apradh* (social crime). In the Bishnoi populated region, since the village Panchayat is very strong, stealing activities are very few. The form of punishment and fine also act as deterrents. The village Panchayat may even order social boycott of the family of the wrong doer. Mangilal Babal (aged 37 years) a farmer and a resident of Khejarli Kalan village says that, “if anyone is found stealing, he would be beaten-up badly. Also, a hefty fine would be levied on him. At the same time, a person indulging in stealing is given a very low status in the study village, in particular, and the surrounding areas, in general”⁴².

16. Umavas (Amavasya) Vrat Rakhno (Observe a fast on Amavasya (new moon day):

According to this principle, the Bishnois have to observe a fast on the *Amavasya* day. The Bishnois believe that Guru Jambheswar advised them to follow this principle, because on this day, all living beings are deprived of the lunar rays. They also believe that on the *Amavasya* day, the entire universe including living beings were created by God. Therefore, for the Bishnois, *Amavasya* is considered the most sacred day of the month. To follow this principle, the Bishnois avoid all activities on this day, which may cause harm, including death, to living beings. For example, they avoid ploughing their agricultural fields. They do not sell milk or any milk product on *Amavasya* day. Instead, they allow the calves to drink enough milk. With the remaining milk, they prepare milk-*kheer* in the evening.

On the *Amavasya* day, the Bishnois from the village and *Dhanis* gather at the *Shahid Sthal* and participate in a *Homa* (fire worship). Everyone carries *chugga* (grain) for the animals and birds and deposits this at the temple place for feeding the wild animals and birds for the entire month. They also carry *Ghee* (clarified butter) for the temple lamp because the lamp should be lit whole day in the temple. The Bishnoi women sing folk songs on the *Amavasya* day at the temple and hug the *Khejri* trees. The Bishnoi priest would serve *Paal* to all worshipers on this occasion. At least one person from each Bishnois' family in the study village has to observe this fast on the *Amavasya* day. Sometimes, most of the family members observe fast.

⁴² Interview with Mangilal Babal at Khejarli Kalan village on December 17, 2014, [English translated by researcher].

17. Bhajan Vishnu batayo Joi (Recite the name of lord Vishnu)

This principle suggests that the Bishnois have to recite the name of Vishnu and His *mantra* (chanting) daily during the *Havan*, and during evening prayer. The Bishnois light earthen lamps with pure *Ghee* in their houses and recite *mantras* (chanting) as suggested by Guru Jambheswar. In the study village, almost all the households are lighting earthen lamp in the evening time and they participate in the *Havan* at the temple on the *Amavasya* day. The lighting lamp tradition is being followed by the Bishnois for centuries.

18. Jeev daya palani, (jeevu par dayakarna (To be compassionate and kindness for all beings):

According to the 18th principle, the Bishnois need “to be compassionate towards all living beings”, (Maheshwari, 1970; Krishnanand, 2013b; Ahmed, 2002; Brockmann & Pichler, 2004), which directly enjoy in on them to take steps regarding preservation of the eco-system; plant and animal life. This principle directs the Bishnois community to practice conservation of animals and birds (either wild or domesticated) in their surroundings. This principle has provided a non-violent path to the Bishnois who are required to be compassionate towards all living beings. The Bishnois try to ensure that wildlife (wild animals-*chinkara*, black buck, *neel gayi* (blue cow), *khargosh* (rabbit), wild boars, Indian bustard, partridge, tiger, lion, wild cats etc., birds such as; *mor* (peacock), parrot, etc.) and domesticated animals (camels, cows, buffalos, bulls, etc.) are protected, and water, fodder and *Chugga* (grain) are provided to them, even in harsh conditions (droughts and famines). Over a period of time, the Bishnois have developed a sustainable mechanism and, for centuries, the traditional water conservation system has helped them to provide water and fodder to the animals and *chugga* to the birds in the desert region.

The Bishnois are very compassionate towards the deer in their region. They say that the Indian gazelles and black bucks look very innocent and do not harm the agriculture products. Instead, these help in increasing productivity. Rajuram Bishnoi (aged 52 years) is a primary school teacher and also a farmer. He resides in Lions Nagar Colony of the study village. According to him, “Deer in the agriculture field is a good omen and the

field becomes more fertile when the deer roam in the field”⁴³. A detailed explanation about the care given to wild animals and birds will be in the chapter four.

All the birds are being protected by the community which ensures an ample supply of *Chugga* in the summer season. The researcher observed that the behaviour of the wild animals and birds towards the Bishnois and non-Bishnois has been different. The dress pattern of the Bishnois can be easily identified by the wild animals which eat the grass/leaves/grains brought by them. However, if they find a new person in the area, these wild animals and birds start moving to other place. The wild animals and birds roam without fear around the Bishnoi habitats in the *Dhanis* and their agriculture fields. Arjun Ram Budiya (aged 71 years) and Balamlal Budiya (aged 60 years), farmers from Bishnois-Ki-Dhani habitat, told that “wild animals and birds feel more secure in the areas surrounding the Bishnoi inhabitants than in other places. They also said that wild animals can sense the Bishnoi people and non-Bishnois when they are approaching from a distance”⁴⁴.

The Bishnoi movements for preservation of the ecosystem and the willingness of the Bishnois to sacrifice their own lives for this cause are unprecedented. This principle prohibits the Bishnois from consuming animal meat. Since they are living in a drought-prone area, they are more concerned toward wildlife protection to balance the natural ecosystem.

19. *Rukh Lila Nahin Ghave or Haare Vraksh Nahi Katna* (Do not fell (cut) the green trees and other green patches):

In keeping with the 19th principle, the Bishnois do not cut green patches, trees (Maheshwari, 1970; Krishnanand, 2013b; Ahmed, 2002). This principle calls upon the Bishnois to protect the green patches, plants and trees in the desert region. In other words, cutting of green trees is prohibited. There is enough evidence in history about the struggle of the Bishnois for protecting trees in their region. Guru Jambheswar advised the Bishnois to plant and protects trees in their region, since this would help human beings, as well as

⁴³ Interview with Rajuram Bishnoi at School in Lions Nagar Colony of the study village. Interview date on November 29, 2014. [English translated by researcher].

⁴⁴ Interview with Arjun Ram Budiya and Balamlal Budiya at Bishnoi-ki-Dhani of the village. Interview date on December 25, 2014, [Translated into English from the local language by the researcher].

other living beings, in the desert. The Bishnois believe that Guru Jambheswar had personally planted thousands of *Khejri* trees at various places.

Since the 15th Century, the Bishnois have been protecting the trees in their region. In the process, they did not even hesitate to sacrifice their lives. The most famous and frequently narrated incident of mass sacrifice of the Bishnois took place in the Khejarli Kalan village i.e., the researcher's study area, in 1730 A. D. where 363 Bishnois gave up their lives to save the *Khejri* trees. The details about the protection of the trees and plants by the Bishnois and their environmental movements will be discussed in chapter four.

The 18th and 19th religious principles of the Bishnois are important for this study. They have been following these principles very strictly, despite various difficulties in following the practices. The Bishnois do not cut trees and kill animals or birds; nor do they allow anyone to indulge in such activities in Khejarli Kalan village. Even the non-Bishnois cooperate in such conservation practices. In Khejarli Kalan village, nobody dares to cut trees and kill any wild animals or birds. If anyone does so, he or she is given severe punishment by the community or by the forest department. The Bishnois also try to protect small plants in their agriculture fields. The *Khejri*, *Jaal* (*Salvadora oleiodes*) and other few trees are considered good for agro-forestry. The Bishnois protect the trees and provide water to these. They also remove the waste grass surrounding the plants and trees in their agriculture fields, as well as other places. The Bishnois would not even chop the tree branches, since they believe that these provide shelter for the birds. The Bishnois also protect the vultures, most of which reside under the *Khejri* trees. The Bishnois try to connect their way of life with nature and try to protect the wildlife in their surroundings.

20. *Ajar Jare Jivat Mare vas Vaikuntha hi Pave* (Avoid lust, anger, greed, Jealousy, egoism, and illusion):

According to this principle, the Bishnois have to avoid *Kam* (lust), *Krodh* (anger), *Lobh* (greed), *Irsha* (jealousy), *Madha* (egoism), and *Moh* (illusion). Guru Jambheswar advised the Bishnois to avoid such kind of practices; because only then, one could attain salvation. He strictly advised them not to indulge in the above activities as lust, greed anger, illusion, etc., which would not only disturb the social relationship among themselves, but also lead to exploitation of the natural resources in their habitat.

21. *Kare Rasoi Hath Sun, Ansu Palona Lave* (Prepare your food by yourself or Eat home cooked food):

According to this principle, the Bishnoi has to prepare the food themselves, since they are vegetarians. In the various functions and ceremonies, people of the Bishnoi community try not to inter-dine with the non-Bishnois. The villagers say that now a days if they go outside the village, they have to take food from outside. Therefore, these days, this principle is not being rigidly followed, especially by the younger generation Bishnois. Many of the educated Bishnoi youth are now eating food with their non-Bishnoi friends. However, most Bishnoi women in Khejarli Kalan village strictly follow the injunction about not accepting food from non-Bishnois. In the Bishnoi marriages and other ceremonies, the non-Bishnois prepare food. The Bishnois do not consume non-vegetarian foods and they strictly follow vegetarianism. The Bishnoi respondents stated that they do not have any problem with other castes and religions, because the Bishnoi religion itself has followers from different castes and multi religious groups. Guru Jambheswar had himself served *Paal* to those who wanted to follow the 29 principles.

22. *Amar Rakhave That* (Provide shelters to abandoned animals and birds):

This principle guides the Bishnois to provide a common shelter to abandoned animals and birds. Guru Jambheswar's basic principle was based on non-violence towards all living beings. He advised his followers to consider all animals equal with human beings. He put onus on the human beings to protect all the living beings. His fundamental principles are based on compassion towards wildlife and the protection of nature. The Bishnois are not only compassionate towards the wild animals, but they are also very conscious about proper care the domesticated animal need. As part of their practice, the Bishnois provide fodder and water to the domesticated animals. Then only they eat food themselves. This is based on the assumption that domesticated animals, wild animals, and birds have an equal share in the agricultural production.

Srivastava (1997), who carried out his anthropological study among the Raikas, a pastoral community in Rajasthan, mentions that due to the campaign of the Bishnois and Jains against blood sacrifice in Rajasthan a number of communities in the state have now adopted vegetarianism. He also mentioned that animal sacrifices in the temples, especially

by the Rajputs and the lower castes have gradually decreased (Srivastava 1997). Any ecological condition allows the inhabitants to adapt to the environment on the basis of their beliefs and practices and other cultural elements. In other words, the inhabitants modify their culture to succeed in adapting to such environmental conditions. As a result, the Thar Desert is one of the most populated deserts in the world.

23. *Bail Badhiya na Karave* (Do not castrate bulls):

This principle says, “Do not castrate bulls.” It also stresses on the need to show compassion towards the livestock and protect the male livestock from injury. The Bishnois consider the bulls as important for continuing the lineage of the species further. The Bishnois have concern even towards the male-livestock and try to avoid such kind of practices prevalent in their surroundings. Krishnaram Berwal (aged 70 years), a farmer from Khejarli Kalan village, told the researcher, “We do not have any right to castrate any animal. You see, they also have a life and there should be healthy reproduction within themselves”⁴⁵.

Since most Bishnois are involved in farming, their religious principles have become even more important today. They have been practicing the religious codes, which, directly or indirectly, help them in protecting the animals (either wild or domesticated). Therefore, they consider that it is their responsibility to protect the living beings in the environment. They not only follow this principle, but they also try to prevent the non-Bishnois in their surroundings from castrating bulls. In this village non-Bishnois said that now a day’s majority of people are using tractors for the cultivation of their agricultural land. However, some of the households are still using bulls for the cultivation. They also said that they will not go for castrations of bulls in the village but they visit their neighbouring villages for castration of bull because the Bishnois are very strict and stop this process. The Bishnois said that if they see someone castrating a bull in the village they immediately rush to that place and stop the process. In the village, the Bishnois do not allow anyone to castrate their bulls. If they find any person engaged in this practice, their traditional Panchayat imposes a heavy fine on him/her.

⁴⁵Interview with Krishnaram Berwal at Khejarli Kalan Village on June 13, 2014, [Translation into English from the local language by the researcher].

24. 25. 26. 27. *Amal, Tamakhu, Bhang naa lena* (Do not consume opium, tobacco, cannabis and any other intoxicants items):

According to these principles the Bishnois should not consume intoxicants like *Amal* (opium), *Tamakhu* (tobacco) and *Bhang* (cannabis). Guru Jambheswar had asserted that consumption of such items could lead to unrest in the family and the society, since intoxicants numb the human senses and diminish the ability to distinguish between good and bad, as well as it may make a person vulnerable to vices like greed, lust, anger etc. They said that till recently, most Bishnois used to strictly follow these principles. However, now, some of them are consuming *ambal* (opium) during social functions and treating alcohol as a social drink to be consumed on special occasions and feel that it does not harm anyone. While most Bishnois keep away from tobacco products like *beedis* and cigarettes, some of them are now consuming tobacco products.

28. *Mahns Su Dur hi Bhage* (Do not consume meat):

According to this principle, the Bishnois should not eat non-vegetarian food. When Guru Jambheswar stopped people from migrating to other places and provided food and fodder to them and their livestock, he advised them not to consume non-vegetarian food. There are several reasons for the Bishnois not consuming the flesh of animals. One of the main reasons is to balance the ecosystem in the desert region. To continue their survival, even in the times of famines and droughts, they created their cultural system, which could adapt to the environment in which they have been living.

During fieldwork, it is observed that no Bishnoi was having non-vegetarian food. The Bishnois are very strict when it comes to non-vegetarian food and they say there can be no compromise on this issue. They take pure vegetarian food along with the more milk products. The other communities in the study area, who strictly follow vegetarianism, include: Raikas, Brahmins, Vishnavs, Goswamis, *Darjis* (tailors) and *Nais* (barbers). .

29. *Lil na Lava Ang, Dekhtadur hi Tyage* (Do not (never) use blue colour clothes):

According to this principle, the Bishnois should not wear blue coloured clothes. It is believed that blue colour is extracted from the indigo trees. In order to protect Indigo trees, Bishnois feel that avoiding blue coloured clothes will reduce demand for such clothes and help in protection of such trees. The Bishnoi men mostly prefer white colour.

The dressing pattern and colours have symbolic correlations with the emotional and mental condition of Bishnois and governs their actions. The Bishnois feel that blue colour represents anger, oppression, violence, and cruelty. The white colour is also considered as a symbol of peace, which helps in controlling the violence towards wildlife.

Although changes have taken place in agriculture, communication, technology, enhanced land prices and new policies due to modernisation and globalisation processes, the Bishnois have tried to maintain their principles regarding living in harmony with nature. Numerous accounts of the struggles and sacrifices of the Bishnois for protecting plants and wild animals have been recorded and orally passed a from generation to generation.

The religious philosophy of the Bishnois counters the ideas of deforestation and over-exploitation of natural resources by the Multi-National Companies (MNCs) and other corporate industries, which have been supported by the governments in many parts of the world. An increase in anthropogenic activities is leading to the shortage of natural resources in the respective areas. Hence, the philosophy and practices of the Bishnois are seeking to counter the rabid ‘development-induced displacement’, which is playing havoc with the lives of humans and other forms of life in these areas. The Bishnois are strongly suggesting sustainable management and utilisation optimal and wise of the rapidly diminishing natural resources.

During his life time, Guru Jambheswar devoted himself to propagating his beliefs to his followers. Very soon his creed spread all over the western part of Rajasthan, southern Punjab, Western part of Uttar Pradesh (Moradabad, Meerut) and other places. He was critical of those who exploit people in the name of religion and beliefs as well as the *Jadu-Tona* (magic and tantric). Apart from the 29 principles, the *Sabad Vanis* and *Sakhis* reveal that Guru Jambheswar planted several thousands of *Khejri* trees in various places. It has been also suggested by the Bishnois to follow conservation practices in their environment. There are 120 *sabads* by Guru Jambheswar and his disciples noted it the second *Sabada* warns against the people killing of animals. The seventh *Sabada* tells them not to cut trees and the tenth *Sabada* ten tells do not kill any animals in the name of gods and goddesses (Jain, 2011, p. 59-60).

Post Guru Jambheswar: Religious *Gurus* (teacher/saint) and Poets in the Bishnoi Community:

Disciples of Guru Jambheswar have only grown in members since his death. There is a custom of the Bishnois main temple: Mukam to have one *Peetadeesh*—head of the all priests/*sanths* at all times. He commands the highest position in the community. This culture has been continuing among the Bishnois since 15th century.

In addition, the study has also discussed the disciples especially saints and poets of Guru Jambheswar who also emphasised upon the conservation of trees, animals and birds and other natural resources in the Thar Desert of Rajasthan. There were several disciples of Guru Jambheswar who have been ensuring the Bishnois costumes and traditions are continued. Guru Jambheswar's well known disciple including: Redoji, Nathoji, Villoji, Surjanji, Kesoji, etc. (Bishnoi, 2012, p. 81). Some of the great poets who have left behind some literature on Guru Jambheswar and Bishnoi community were; Tejoji Charan (1423–1536), Samas Din (1433–93), Sivdas (1443–1513), Udoji Nain (1448–1536), Villoji (1532–1616), Kesodas Godhara (1573–1679), Surjandasji Puniaya (1583–1691), Harchandji Dukhiya (1718–1803), and Udoji Ading (1761–1816) in Rajasthan (Kapur, 2008, p. 158). It is mentioned in the *Jambhapuran* that there were nearly 150 poets and writers from among both the Bishnois and non-Bishnois who have contributed to written Bishnoi literature (Krishnanand, 2013). Surender Kumar (2011) has noted that, nearly 120 writers and poets at different periods of history wrote about culture, religious, social, political and ecological history of the Bishnoi community and Guru Jambheswar. The writings of Udoji Nain on the Bishnoi community and Guru Jambheswar in the form of *sakhi*, *harjas*, *kavittas* and *grab chatiwani* are considered very important sources on the community⁴⁶.

Villoji (1532–1616):

Villoji was the most important figure after Guru Jambheswar and he was the immediate disciple of Nathoji. He was from the *Sutar* (carpenter) community and the Bishnoi principles were also accepted from the *Sutar* caste. He played a very important role in strengthening the Bishnoi community in the half of the fifteenth century. After death of Guru Jambheswar, some of the Bishnoi community members have started going back to

⁴⁶ *Ibid*, 2008, p. 158.

their earlier *panth* or religion. He convinced them not to leave the community and made them to follow the Bishnois's principles which helped in strengthening the community. Villoji's accepted the Bishnoi religion. His writings reveal the importance of his contribution to the Bishnoi community. His seven *kathas* viz., *Dadabandh*, *Autarpat*, *Gangaliya Ki*, *Phulhoj Ki*, *Draunpur Ki*, *Jaisalmer Ki*, and *Jarden Ki* explain about Guru Jambheswar's contribution towards the Bishnoi community in the fifteenth century. His writing reveals that, he was one of the important saints who have made efforts for re-joining the people in the Bishnoi community. His efforts also helped non-Bishnois to convert towards Guru Jambheswar's preaching and be a part of the Bishnoi community. He re-opened the doors for the non-Bishnois to follow the culture and traditions of the Bishnois; those were from the artesian castes, like: *Sutar*, *Lohar* and *Sunar*. His vision was to increase the number of people in the community to continue their religious doctrines towards conservation of the environment. His spiritual knowledge and a concern for nature and animal life attracted local rulers in Marwar and they supported his mission (Krishnanand, 2013b, p. 485). Villoji had good relationship with the neighbouring kings (*Rajas*) and gained their support in reconverting the people to the Bishnoi religion. It is mentioned that Villoji met Jodhpur King Maharaj Sur Singh and impressed him with his *chamatkaras*. The King Maharaj Sur Singh permitted and provided full support to re-convert the Bishnois who left the *Panth*⁴⁷. Villoji has roamed from village to village, and made the Bishnois to re-join the Bishnoi community. He explained Guru Jambheswar's teachings and its relevance to the humanity in general. He re-organised the scattered Bishnois and exhorted to them to follow the 29 principles. He made strict rules for the *Sanths* to follow rituals and their conduct for the community. The places where Guru Jambheswar visited and stayed are locally called *sathris*; while travelling (*Brahman*), Villoji made those places into pilgrimage sites. He was the first *santh* of the Mukham temple which is called *Nij Mindir* (holy place/temple) for the Bishnoi community these days.

Villoji's Contribution towards Conservation of Environment:

The folk stories of the Bishnois reveal that, Villoji made the Bishnois to follow the conservation of nature practices in their region. He followed teachings of Guru Jambheswar and widened the scope for the conservation of trees, animals, birds and other

⁴⁷ *Ibid*, 2013, p.486.

natural resources. He showed both the environmental and economic importance of vegetation in the desert region (Kapur, 2008). He persuaded the Bishnois to follow the conservation practices. He told Bishnois to plant *Khejri* trees and protect them until they become full grown trees. Apart from *Khejri* trees, he asked that the Bishnois to plant trees which could sustain in the desert region. He mentioned in his *Katha Guglai Ki* that the Bishnois would go to hell if they are not compassionate (or protect) towards the trees⁴⁸. He warned the Bishnois that if trees, animals and birds as well as water are not protected then *Guru Dharama* (teachings of Guru Jambheswar) would be insulted⁴⁹. He mentioned in his *Sakhi Chandan Ki* about the sacrifice of Karmini in 1604 A.D. and later Khinvani, Neetu, Mota while protecting *Khejri* trees. He clearly gave indication to the Bishnois that the lifeline of the desert was the trees which can survive in the severe drought conditions⁵⁰.

He had also focused on resources of water and agriculture in the Thar Desert. Water is a very important source which not only meets the day to day life of the desert society but also helps in agricultural cultivation. He followed the sayings of Guru Jambheswar about the importance of water in the desert region and who made the Bishnois to dig several lakes and ponds. He suggested for harvesting rain water in as many places as possible, such as lakes, ponds, *tankas*⁵¹, *kunds*⁵², etc., for drinking purposes, pastoral activities and some also for farming. Villoji in his *Sakhi Umahan* explained the significance of water that, “it (water) can exist without fish but fish cannot exist without water, just like Guru Jambheswar does not need his disciples as much as his disciples need him.”⁵³ His concern was always on water and protecting various species (plants, animals, birds) which helps the inhabitants to pursue their agricultural and pastoral life in the desert region. He suggested to the disciples that they should fill the wells, tanks with water and irrigate plants and trees as they like and they should chant God’s name. He condemned various religious practices of sacrifices animals in name of Gods. Villoji’s contribution to the Bishnoi community was very essential to re-strengthen their traditions and helped them to continue their conservation of nature practices in their region. The religious philosophy

⁴⁸ *Ibid* 2008, pp. 161-62.

⁴⁹ *Ibid* 2008, p. 161.

⁵⁰ *Ibid* 2008, p.161

⁵¹ Traditional form device for water storage.

⁵² *Ibid*.

⁵³ *Ibid* 2008, p. 162.

of the Bishnois and conservation of natural resources of the desert region- (vegetations, trees), cattle-wealth and water help them to generate economic resources which supported the state formation in the Medieval Rajasthan (Kapur, 2008, pp. 159–60). His two famous *sisyas* (students) were Surjandas ji and Kesoji, who contributed to the Bishnois' literature.

Surjandasji Puniaya (1583-1691)

Surjanji was one of the great poets in the Bishnois literature. His writing *Harjas* and *Ram Rasav*, *Gajmokh*, *Katha Chetan*, *Usa Puran*, *Citawani*, *Ahramcari* and *Katha Harigun* are about Guru Jambheswar. He was a singer and used to conduct *jagarans* (late night music) at different places. He strictly followed the policy conservation of nature. He even influenced Jodhpur king and queen through his singing. He requested Jodhpur King Maharaj Naresh to make a law for the protection of animals and trees in the region (Krishnanand, 2013, p. 497).

Kesodas Godhara (1573-1679):

He was one of the great saints of Guru Jambheswar; whose writings are very popular in the Bishnois religious history. His writings include: “*Akyan Kavyas* and *Seven Kathas* (*Bal Lial*’, *’Udai Stle Ki*’, *’Sainsai Jakhani Ki*”, *Medta Ki*’, *’Iskandar Ki*’ *’Jati Talav Ki*’, *’Loha Parigal Ki*’)”(Kapur, 2008, p. 158) which are related to the life of Guru Jambheswar. He impressed the Jodhpur king and did *yagna* (sacred fire) for rain in the region. He influenced the Bishnois through his writings and melodious songs. He made the Bishnois to follow the 29 principles strictly. He used to travel different places and taught the ideas of Guru Jambheswar. He mentioned in different *sakhis* about the Bishnois sacrifices for the protection of trees and animals (Kumar, 2011, pp. 94–95).

There were several *Sanths* and poets who carried out the Bishnois tradition and their literature and added new knowledge to it. The great efforts of the *Sanths* and poets made the Bishnois people to continue their traditions and practice of conservation of animals, birds, trees and other natural resources which have given continued support to their survival in the Thar Desert.

Religious Specialists of the Bishnoi Community and their Duties:

The priests are of three types in the Bishnoi community. These are: *Sanths*, *Thapans* and *Gayanas*, who perform different rituals and ceremonies. Historically, the Bishnoi priests have played a significant part in uniting the community through different rituals and customs. They consider priests to be important members in the community, who teach religious values of the Bishnois and their importance. They have been protecting these traditions since the 15th Century.

The contribution of religious specialists in the Bishnois includes all aspects of life cycle (*Sanskaras*) and pilgrimage centres of the Bishnois. They preach conservation of animals, birds and trees and try to maintain social structure among the Bishnois. The Bishnois have different religious practices as compared to the Hindu religion that there is no idol worshipping and sacrificing of animals. The Bishnoi community follows only four *sanskaras* but in the Hindu religion there are 16 *Sanskaras*. The Bishnois do not believe in auspicious day, they considered every day as being auspicious for them.

1, *Sanths* (Priests):

The *Sanths* play a very important role within the Bishnoi community. They are highly regarded and respected by the Bishnois. They perform all ceremonies in the community except the death rituals. However, they perform *Havan (sacred flame)*⁵⁴ after the death ceremony. The *Sugra Sanskar* (Guru[teacher] choosing ceremony) ritual is being performed by the *Sanths* alone, on the ground that the Bishnoi children after attaining the age of 11-15 years choose particular *Sanths* as their Gurus (teachers). The Gurus impart both social and religious knowledge to their disciples. When the Bishnoi community was first formed, the *Sanths* were among the earliest disciples of Guru Jambheswar. The *Sanths* are regarded as priests among the community because they remained un-married (*brahmachary*) throughout their life. They take care of the temple (locally known as *Minder*) and they perform *Pujas* every day in the temple. They also preside over all the rituals and ceremonies among the Bishnois in the surrounding villages and *dhanis*. All the facilities like food grains, clothes, residence, etc., for the priests are being provided by the community.

⁵⁴ A ritual burning of offerings such as grains and ghee.

The *Gayanas* and *Thapans* do not have the right to perform the *Sugra Sanskar*, since this duty has to be performed only by the *Sanths*. The *Sanths* spread social and religious knowledge among the Bishnois through the ritual practices, devotion, *Jagaran* (night log vigil), *Bhajans*, *Sakhis* (stories), etc. Ramanandji Maharaj (aged 75 years), the *Pitadish* (head of the priests) at Munkam pilgrim place, said that, “there are nearly 400 Bishnoi *Sanths* all over India”⁵⁵.

2. Thapans:

The *Gayanas* and *Thapans* believe that earlier they were accorded a high status in the community, mainly because most of these groups were performing *pooja*, and all other rituals except *Sugra Sanskar*. It is believed that *Thapans* were the predominantly performing all the rituals and *poojas*. The *Thapans* were priests when the Bishnoi community was formed, singing songs in *Jagaran*. The Bishnois believe that the *Thapan* name has come because they were the first priests who helped Guru Jambheswar in forming the Bishnoi community. Now *Thapan* and *Gayanas* do not enjoy the same status as they had earlier. The *Thapans* mostly inhabit the Mukham region of Bikaner and Nagaur districts of Rajasthan. In the past, inter-marriages between the various social groups like *Thapans* and Bishnois were not encouraged. However, such marriages are taking place in some instances for the past 10 years. Mangilal *Thapan* (aged 40 years), a farmer belonging to Khilleri-ki-Dhani (in Bishnoi-ki-Dhani) said that, “nowadays most of the *Thapans* gave up their traditional occupation as priest and as a result marriages between these two groups are taking place”⁵⁶.

4. Gayanas:

The *Gayanas* are one of the sub-groups within the Bishnois, who had accepted the Bishnoi principles in the 15th Century. The Bishnoi folk stories reveal that the *Gayanas* were from the traditionally engaged as folk musicians, in the Jaisalmer kingdom of Western Rajputana. Guru Jambheswar had influenced the *Gayanas* and they were accepted into the Bishnoi communities. The *Gayanas* are predominantly found in the districts of Barmer, Sanchor and Jodhpur. Even though their traditional occupation was that of folk musicians, over a period of time, they started emerging as community priests

⁵⁵ Interview with Ramanandji Maharaj at Mukham temple, Mukham, Bikaner district on January 6, 2015, [Translation into English from local language by the researcher].

⁵⁶ Interview with Mangilal *Thapan* at Khilleri-ki-Dhani of Bishnoi-Ki-Dhani in the study village, on January 12, 2015, [Translation into English from the local language by the researcher].

for the Bishnois. They have been performing rituals and ceremonies in the region for a long time. Today, more and more Bishnois are recognising the important roles of the Gayanas in the marriage and death ceremonies in the community. Gayanas have their marriage institution and marriages are take place within the Gayanas.

Bai-Bhats:

The Bai-Bhats are the traditional genealogy writers and story tellers in the state of Rajasthan. Through rich oral and the written traditions, the Bhats maintain the record of their births, deaths and family history and community events. People belonging to this group have been maintaining the genealogies of the different communities in Rajasthan. The Bai-Bhats also maintain the genealogical records of the Bishnois from the 15th Century onwards. They are mostly found in Melana village, which is about 70 km from Jodhpur city.

Harbajan Bhat (aged 45 years) observed that the Bhats have been maintaining the Bishnoi genealogical records, even before the Bishnoi religion assumed a concrete shape. According to him, “most of the Bishnois accepted Bishnoi doctrines from members of the Jat community, who were predominately peasants”. He also said that in the Bishnoi community, there were nearly 360 *Gotras* and that the Bishnois had converted from almost 36 different communities. Harbajan Bhat had also mentioned that it was the Bhats who recorded the events of 1730, when 363 Bishnois sacrificed their lives while protecting trees in Khejarli village”⁵⁷.

The Bai-Bhats have divided their Bishnoi clients among themselves on the basis of *gotra*. Each family of Bai-Bhats has selected one *gotra* from the Bishnois and they maintain each *gotra* record in a systematic way. Whenever a baby is born in a Bishnoi family, the particular Bai-Bhat is called to prepare the relevant records. The Bai-Bhats are offered food, new clothes, cash, gold and sometimes camels and cattle for maintaining the records. The Bai-Bhats visit their clients once in four or five years. They also visit them on the special occasions to update the records.

In 1730 A.D. on the occasion of the *Holi* festival, the king of the Jodhpur announced that he would to build a palace. The king’s soldiers came to the Bishnoi fields at Khejarli

⁵⁷ Interview with Harbajan Bhat at Melana village of Jodhpur district dated December 12, 2014, [English translated by researcher].

village, in search of trees whose wood would be used for the palace. A local Bishnoi woman, Amrita Devi, saw the axes in the hands of soldiers and tree cutters and she ran to stop them from cutting the trees. The Bishnoi believe that in all 363 persons (men, women and children), some of whom were from the nearby 84 villages, had sacrificed their lives while protecting trees. The Bai-Bhats provided records of these sacrifices. They maintain such historical records of the Bishnoi community.

Vidhi (process) of Bishnois' Religion:

Havan:

The *Havan* (sacred flame) is considered very sacred for the Bishnois. This is performed in all life cycle ceremonies (*Chulu Paal*, *Sugra*, marriage, death), religious fairs (*Jathras* or *Melas*), festivals (*Holi*, *Diwali*, *Teej*, *Sankranti*, etc.), *Amavasya* day, moving into another house or a new house, starting new business, or beginning any new work, and to keep the house clean (*Sudhta*). Guru Jambheswar advised the Bishnois to perform *Havan*⁵⁸ twice a day, i.e., in the morning and evening. Therefore, most of the households light the lamps at their homes. Most of the Bishnois of the Khejarli Kalan village perform *Arti* and light lamps in their homes in the evening and morning.

*Havan*⁵⁹ is performed twice daily (morning and evening) by the Bishnoi priests. The priests include: Sanths, Gayanas and Thapans. They chant at least 20 *sabads* (from

⁵⁸The benefit of *Havan* is it is considered to be sacred by the Bishnois. This belief is related to purifying of the environment because, the ingredients used in this include: dry coconut, dry wood of *Khejri* or Mango tree, *gugal dhup*, *ghee*, etc. The Bishnois say these items are very good for health as well, as the environment, because these release *Sugandh* (good smell) and *Shudhi* (purity) which clean the atmosphere, and remove bad smell and harmful gases. Their Guru had indicated about global warming about 500 years before this issue snowballed into the present global problem. The Bishnoi says that, nowadays we are talking about air pollution which led to changes in weather conditions, low rainfall, low agricultural productivity, etc. They believe that *Havan* can help in getting rain. The religious and ecological values of the Bishnois are identified with *Havan*. They strongly believe that *Havan* offerings are made in the blessed fire specifically to God. This custom is helping them in continuing the relationship between individuals and nature. The *Havan* and *Paal* rituals are also helping in making the community strong and united.

⁵⁹ The place for the *Havan* should be a clean and open space. It should have proper ventilation and there should be space to comfortably accommodate all the attendees. The *Havan kund* (place for sacred fire) has to be prepared in a round, square or octagon shape. It all depends on the availability of time and other factors. The *Havan kund* may be big or small in size, but there should be a *Kalas* along with the *kund*. The *Havan kund* can be made up of copper, iron or clay.

sabadvanis), out of 120, during the *Havan*⁶⁰. It is one of the 29 principles. In fact, the Bishnois say: “*Hom hit chit prêt su hove, to bas bekun hi jave*”, which means if we perform *Havan* with our heart filled with sentiments of welfare, commitment and love, then only we would achieve *Swarg* (Heaven). In keeping with the suggestions made by Guru Jambheswar, the Bishnois have been following their tradition of performing *Havan* on almost all occasions and during religious ceremonies. In the study village, *Sanths* (*Sadhus*) perform *Havan* twice daily (in the morning and evening). In the process of performing *Havan*, by chanting the *Sabads* and the *Paal mantras*, priest also prepares the *Paal* (sacred water).

***Paal* (sacred water):**

This is considered very important and pure by the Bishnois. They believe that *Paal* purifies everything like *Ganga Jal* (water of the sacred Ganges River). A new earthen pot is used for preparing the *Paal*. The filtered *Paal* water is kept near *Havan kund* (the place where put sacred fire). The other ingredients for the *Paal* are *Bajra* or *Gehu* (wheat).

All the individuals who attend the rituals and take *Paal* are required to place at least Rs. 10 in the *Arti* plate. Though the amount is at the discretion, still each attendee offers at least Rs. 10. After this ceremony, the family offers 2 to 5 kg (much more) *Bajra* to the *Mindar sadhu* for the birds. The rest is distributed among those present for the ceremony.

The Bishnois believe that *Paal* helped them to establish equality in the community. Irrespective of the *Gotra*, any person in the Bishnois can take *Paal*. Guru Jambheswar tried to annihilate castes and made people united and good human beings. He also focused on the issue of gender discrimination and spoke about the need to give equal opportunities to women in the family.

⁶⁰ The five important elements (*Pancha Bhuta*) of the *Havan* include water, fire, air, earth and sky mixed with the *amruth tulya ghee*. The ingredients used for the *Havan* are; dry and clean firewood (*Khejri*) or cow dung cake (*thepadi*), ghee (clarified butter) to light the flame. The *Samgris* are: sesame, milk, curd, ghee, and sweet dishes. The ghee is poured into the *Havan kund*, amidst the chanting of mantras including *Sadvani* and *Paal* mantra.

LIFE CYCLE RITUALS AMONG THE BISHNOIS

Sanskaras:

The Bishnois follow only four *Sanskaras* and these are; *Janm Sanskar or Chulu Paal* (birth ceremony); *Sugra Sanskar, Biya Sanskar* (marriage) and, *Anthim Sanskar* (death ceremony). The Gayanas and Thapans have the right to perform only the *Sanskars*, other than the *Sugra Sanskar*.

1. *Janm Sanskar or Chulu Paal (Sutak Paal):*

This ceremony is performed 30 days after the birth of a child. As soon as a baby is born, *Snan* (bath) and *Ghee* (clarified butter), *Gud* (jaggery), *Mishri* (sugar crystals) and *Shahad* (honey) is given to the mother. This shows how the community is concerned about the mother, and follows the gender equality.

The *Havan* (sacred flame) is performed with the chanting of *Gothra Char* (clan *mantra*) and *Paal Mantras*. At least 20-25 *Sabdhas* of Guru Jambheswar are recited. If time is not an issue, the priest can chant even 120 *Sabdhas*. It takes no less than two hours to complete the function. All the members present also recite at least 20 *Sabdhas*, along with the priest. When the *Havan* is about to conclude, an elderly person, generally from the same family, is invited to participate. The *Paal* is first given to that elderly person. Next, the child is made to sip this three times. After that, the child is considered as a part of the Bishnois community. Thereafter, the *Paal* is offered to the mother and the other individuals present. The *Paal* has to be taken with both hands and each time, the person is required to wash his/her hands while taking it. The mother takes the *Paal* in a *Lota* (vessel) and she sprinkles the liquid in every room in the house to make the house *Sudh* (pure). After this ritual, the mother and her baby can move about in the house and also go outside. The ritual concludes with a feast to the relatives and other invitees.

2. *Sugra Sanskar:*

This *Sanskar* is performed when the child's age is between 11 to 15 years. In this ceremony, Bishnoi *Sadhus* impart *Guru Bodh* (teaching) to the Bishnoi children. This *Sanskar* can be performed only by *Sadhus* but not by the Gayanas or Thapans even though, they too are priests in the Bishnoi community. The *Sadhu* chants the *Guru Mantra* and the child has to repeat the same. The priest explains the importance of the *Mantras* and the Bishnoi religious philosophy. The *Paal* is prepared and given to the

child, and then he/she regarded as the *Shishya* (disciple) of priest. The *Sanths* teaches the Bishnois' children about the importance of the trees, animals, and birds as well as other natural resources in the region and teach them to conserve it.

In this ceremony, the child is imparted knowledge about the importance of Guru Jambheswar's sayings, which include the need to protect wildlife and living beings as a whole. Through the socialisation process, the Bishnoi children are taught how to protect wildlife in their surroundings. In the aftermath of this *Sanskar*, the particular child takes the responsibility for implementing the community's doctrines. After the *Sugra Sanskar*, the concerned boy or girl is deemed to be eligible for engagement. The Bishnois believed that one of the reasons for practices of *Sugra Sanskar* was to avoid child marriages, which were widely prevalent in the 15th Century. All the *Sanskars* are very important for the Bishnoi community to continue its traditions.

3. Marriage:

Marriage as a social ceremony is found in all societies in the world. However, marriage and family customs vary significantly across cultures (Birx, 2010)⁶¹. The Bishnois are polygamous and one man can marry more than one woman. Among the Bishnois, this kind of practice is less prevalent. The Bishnois are a patrilineal community, where the property is inherited through male.

Among the Bishnois, almost all the marriages are arranged by the parents. There are a few instances of love marriage, but these are generally within the community itself. Cases of marriage between the Bishnois and non-Bishnois are very rare. The engagement ceremony takes place at an early age in the Bishnoi community. It is not uncommon to find 'mass engagements'. The couples may range from two to hundred (some above hundred). A possible reason for such a practice may be to reduce the expenditure that individual ceremonies would entail. The engagement in the Bishnoi community may take place at an early age, but the actual marriage is performed only when the girl and boy have attained a degree of maturity. For girls, the 'permissible' age for marriage could be 16-18 years and for boys, it is 20-25 years. Unlike most 'mainstream' Hindus, the Bishnois are not unduly obsessed with auspicious day and time for the marriage, nor do they consult Brahmin priests. The Bishnois believe that every day and time is auspicious

⁶¹Birx, 2010, p. 162.

for them. The parents of the bride and the groom decide the date and time, as per their convenience.

The Bishnois are supposed to avoid six *gotras*, but generally they avoid only four *gotras* for the marriage relationship. These are from the *Nani* (maternal grandmother), *Dadi* (paternal grandmother), *Maa* (mother) and his/her father's *gotra* (see following the chart). Within the same *gotra*, there can be some sub-divisions, between which marriage is not permissible. For example, the Godhara *gotra* has two divisions: *Songara* and *Bannad*. Within the Bishnoi community, there are four groups: General Bishnois, Thapan Bishnois, Gayanas Bishnois and Sutar Bishnois (carpenters). However, Bishnoi (2013) mentioned in his article in *Amar Jyoti* one more group, Dhangar Purviya (Pur). Thus there are total of five groups of the Bishnois. The marriages between Bishnois (general), Gayana Bishnois are not permissible. The marriages between Bishnois and Thapan Bishnois are permissible.

Chart 3. 1: Marriage Avoidance among the Bishnois

The *Gotra* avoidance for Marriage among the Bishnois (Marriage Avoidance)

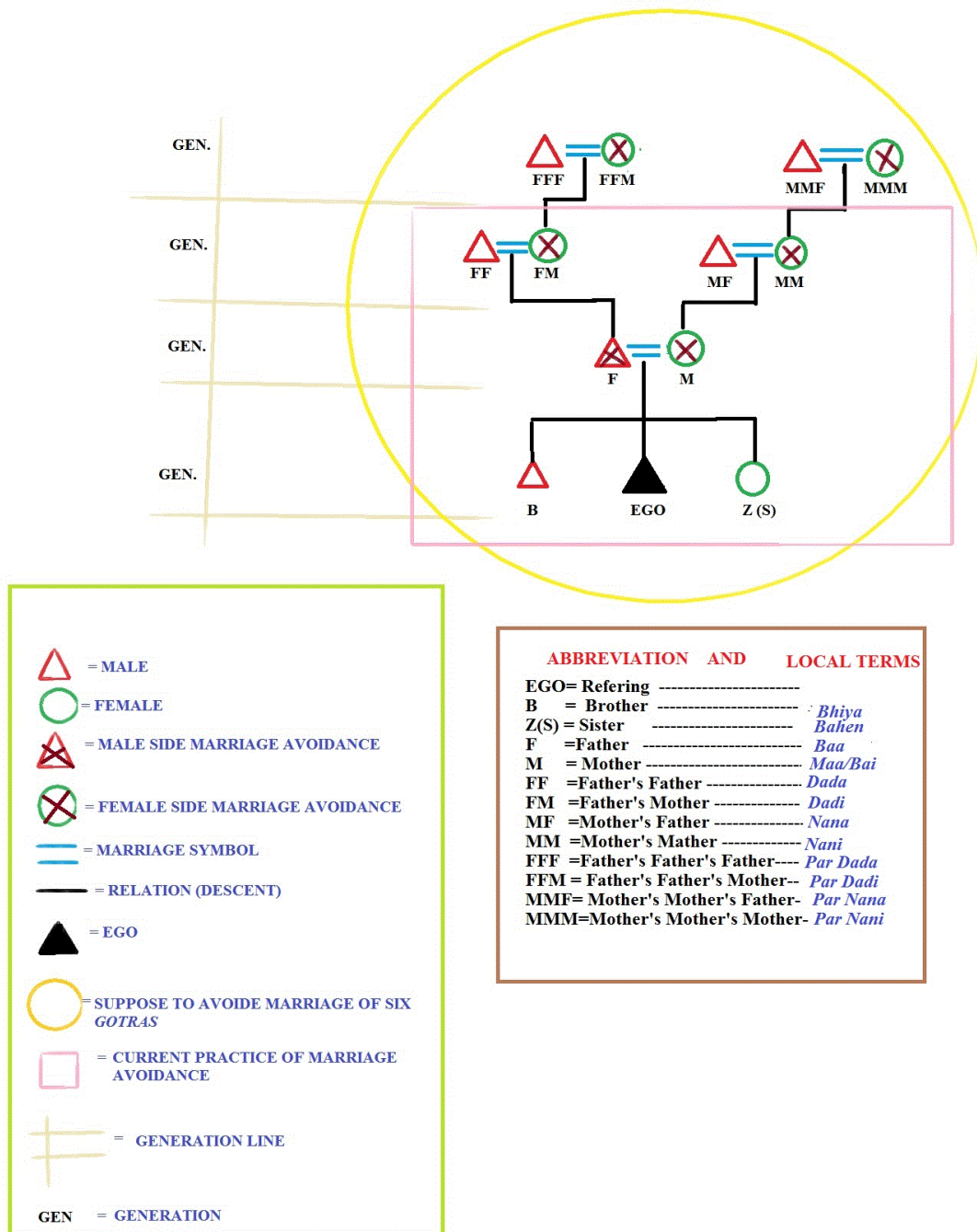


Chart. 3.1: Prepared by the Researcher

(i) Sagai (Engagement):

For the engagement ceremony, either the groom's or bride's family could visit the other's home for this ceremony. As the traditional custom among the Bishnois, the bride's side gives *sawa rupiya* (one rupee twenty five paisa) and one coconut (dry one) to the groom. In return, the groom's side gives some money locally called *Pagel gayi* to the bride. Later, sugar or *gud* (jaggery) is distributed among the people present on the occasion. Food is also served to the relatives.

The bride's family fixes the date and time for the marriage. Thereafter, the bride's family invites some of the close relatives to their home. On this occasion, *gatis* (folds) are put on two *kattcha suth* (wet threads). The number of *ghatis* on the threads decides the date of the marriage. For example, if the marriage is to be after five days, five *ghatis* are put on the threads. The threads are dipped into *Haldi* (turmeric) mixed water, which the Bishnois call as *Dorakarana*. Some rice is also mixed with the *Haldi*, which would be used during the marriage ceremony. The bride's family sends a *Nai* (barber), along with yellow threads, yellow rice and *sawa rupiya* (one rupee twenty five paisa), to the groom's family. The *Nai* plucks one *Tayeni* (small branch) from a *Khejri* tree and give that to the groom's family along with the other items. The *Khejri Tayeni* (small branch) symbolically represents the commencement of the marriage process. The groom's family welcomes the *Nai* and serves him good food and provides clothes, money and sends him back. The threads are tied on an elderly person's *Safa* (turban). Later they proceed with the marriage ritual.

(ii) Marriage Rituals:

The *Tel peeti* (oil applying) ceremony is observed in both groom's and bride's family. After that, the *tilak* process would begin. In this, the groom and bride apply *tilak* on their respective grandparents. The local term for this ceremony is called *Dadidena*. On the marriage day, a *Toran* (garland of leaves) is tied on the door of both the bride and groom's houses. The visitors are invited to come under the *Toran*, where the groom's father, or an elderly person from his family side, gifts new clothes to the bride. Along with the groom, one person (known as *Vararakshak*, which means groom's guard) stands

holding one *boldi-ki-chadi* (small branch of *Boldi* tree), which indicates that the groom has arrived. The bride's father or an elderly person ties the *Chadi* on the *Toran*. This ceremony is called *Chadi Banana* (making *Chadi*). This *chadi* signifies that the groom has arrived and bride's side has acknowledged the groom's arrival. It also indirectly gives a signal that the marriage is accepted.

As soon as *Chadi* ceremony is over, the main marriage process starts, where the groom and bride sit on two *pityas* (seating stools not much height) facing the northern direction. The Bride should sit on the right side and the groom on the left side. Amidst the chanting of *mantras*, they have to tie the *ghatzoda*. After that, *Gehu ata* (wheat flour), *Mahendi* (vermillion) and *Haldi Pindali* are kept in between the groom and bride's hands. Later, the priest prepares the *Paal*, while chanting the *Sabads*. The *Paal* is given to both the groom and the bride. The priest chants *Gotra Char (mantra)* and *varkanya wachan bol* (which enjoin on the groom and the bride to live together).

The Bishnois consider the *Khejri* and *Boldi/ Ber (Ziziphus mauritiana)* trees as being important in the marriage rituals. They try to protect these trees from the exploiters. These trees have a symbolic relationship with the Bishnois community. The Bishnois have incorporated different wild species in their social institutions, so that they could protect those species from exploitation.

Next, the bridal couple is welcomed at the groom's home. The bride is given a plate containing some *Dhan* (money, gold, etc.) and later, the groom's side hosts a feast for the villagers.

Exchange of gifts during the marriage ceremony is very common in the Indian society, including the Bishnoi community. The Bishnoi groom is required to bring gold and other ornamental items for the bride. On its part, the bride's family gives various items, like utensils, *almirah*, etc., for the new family.

(iii) Maira: *Maria* is a form of gift, which is given by the *Mama* (mother's brother) to the bride during the marriage ceremony. Such practice is prevalent among the Bishnois as well as among other castes in the village. The gifts may be in the form of cash or gold, or both. The bride's *Mama* will not get any gift in return, but during his son's or daughter's marriage, he will get gifts from his brother-in-law. The *Maira* system is very popular in

the Bishnois community, which helps to adjust the marriage expenditure. The amount spent on the *Maira* ranges from one lakh and above.

There is no convention of dowry among the Bishnois. However, the bride's family may want to provide some amount of money or gold or silver to the bride, even when there is no such demand for the groom's side. The traditional saying among the Bishnois is, '*Do rupiya aur naryan hi sahi*' means, two rupees and one dry coconut is enough along with the bride. Hanumanram Budiya (age 60 years) fodder seller and farmer and his wife Samu Devi (age 50 years) is housewife from Bishnois-ki-Dhani. He said that "if any Bishnoi family demands dowry it is looked down upon and accorded a low status in the community".⁶²

4. Death Rituals:

The Bishnois prefer to bury the dead bodies instead of cremating. The Bishnois of Khejarli Kalan villagers bury dead bodies either on the banks of the village pond, or in their agricultural fields; depending on the wish of the deceased. The preference of the Bishnois for cremating the dead body is to keep in tune with their religious doctrines regarding the environment. Cremation requires a lot of wood for which, trees have to be cut that leads to deforestation. Hence, Guru Jambheswar advised his followers to bury the dead body, instead of cremating them.

Death Ritual and Process:

They place the dead body on the floor and the *Kunchi-Sabada* of Guru Jambheswar is recited. The dead body is bathed for the last time and it is covered with a *Kafan* (shroud). If the deceased is a male, he is draped in white clothes; for married woman a red cloth is used, and for unmarried woman, a black cloth is used. The body is kept on *Trin-Shaiya* (corpse-carriage), made of dry grass to carry the dead body to the burial place. A grave, locally called *Ghor*, about 6 to 7 feet long, 6 feet deep, and 2 to 3 feet wide is dug. The body is placed in the *Ghor*, with the head towards the north and soil is poured on the body by all the relatives. This ritual is known as *Mitti Dena*. The area around the dead body is filled with salt to hasten the decomposition of the body. After that, water is poured on the burial spot.

⁶² Interview with Hanumanram Budiya and his wife Samu Devi at Bishnoi-Ki-Dhani of the study village on July 12, 2015, [Translation to English from the local language by the researcher].

The Bishnois consider the last rite of passage as a major event in their community. The Bishnois observe the death ceremony for three days. They believe that the death person's soul stays with the family for only three days after the death. After that, the soul goes to *Swarg* (heaven). After the burial, favourite food items of the deceased are prepared and fed to the birds. Some of it is offered to the fire god. This is locally called *Kagol*. The same process is repeated on the next day. On the third day, sweets are served to the relatives. Some portion of the food is taken to the cemetery and offered to birds. This is the last *Kagol*. Thereafter, a new earthen pot is filled with water and grain is mixed in it. The contents of the pot are poured on the roots of a *Khejri* tree. This ritual is known as *Jalanjali*. It is the final farewell to a dead person's soul. This is followed by *Jagaran* and *Havan*. *Paal* is prepared and served to everyone who attends the ritual. The *Paal* is also sprinkled in the house to remove *Sutak* and make the house clean.

The Bishnois prepare a *Chabutra* (a small platform) at the burial site and offer grains, water to the wild animals and birds. The period for such an offering is at the discretion of the family of the deceased. The underlying intention behind such a practice is that, even after death, the individual can make a contribution for the wildlife, in particular, and the entire nature, in general.

Mrutyu Bhoj:

Earlier, the Bishnois used to spend a lot of money on the *Mrutyu Bhoj* ceremony, in which the dead individual's family would host a feast for the entire group. The residents of Khejarli Kalan village said that even up to ten years back, they used to observe *Mrutyu Bhoj* function in their village and invite all relatives and people from the nearby 84 villages for the feast. The Bishnois chose to stop this practice since it was turning out to be very expensive and was leading to many families becoming bankrupt. Items prepared for this ceremony included: sweets, *Seera*, *Poori Sabji*, etc., which required a lot of *ghee*, oil and other costly things. About ten years back, the Panchayats of the 84 Bishnoi Villages decided to discontinue this practice. Now, any Bishnoi family found indulging in this ritual is liable to be punished with a social boycott, a hefty fine, or both.

The Bishnois consider the passing away of a person as the loss for the entire community. Hence, to mitigate the misfortune, they arrange the engagement or marriage of the children in the bereaved family soon after the third day of the death. This is a general practice among the Bishnois and is locally known as *Panauna*. The Bishnoi says they

could save money by doing this, because an engagement or a marriage entails a lot of expenditure. A mention has already been made of the mass weddings, which help in keeping the expenditure to the minimum.

The Ancestral Ceremonies or Rituals:

The Bishnois do not have ancestral ceremonies. After the death, there is no puja or any ritual or ceremonies to commemorate the death. The Bishnois believe that the dead person has left for the heavenly abode, so there is no need to perform any ceremony. They do not build any tomb. Instead, they construct a *Chabutra* at the burial spot.

Festivals and Fairs:

The Bishnois celebrate festivals like *Diwali*, *Makar Sankranthi* and *Holi* in their own ways in terms of food, *Pooja* and the rituals. They also celebrate their own festivals and *Melas*. The Bishnois fast on every *Amavasya* day, as mentioned previously in detail in the 29 principles. On this day, they do not do any work that would cause harm to any living being. Therefore, they do not go for any agricultural activities. They also fast on the day of *Nirjala* in the *Jyestha Maas* (Hindu calendar) in the summer. It is difficult to fast the summer, but in spite of that, the Bishnois fast on this day. The Bishnois say that they do not drink even water during the fast.

Holi

Holi festival is celebrated by most Hindus all over India. *Holi* that is celebrated by the Bishnois is different from that of other Hindu castes. They do not celebrate *Holika Dahan* (burning of the effigy of Holika), which most other Hindu castes do. In a typical *Holika Dahan*, a lot of wood it is burnt. The Bishnois do not follow this practice, because that would entail cutting of trees. On the day of *Holi*, the Bishnois prepare *Khichdo* with *Palewai* on the next morning; they perform *Havan* and prepare *Paal* for all the Bishnois in the village.

Bishnois, who are staying far away from the village, celebrate the festival in their respective *Dhanis* only. In Khejarli Kalan village, irrespective of caste and community, people participate in the festival. The Bishnois say that the *Holi* festival strengthens the community bond, because people of all *Gotras* attend the celebrations. Even the enemies forget their enmity and become friends. On this occasion, each household brings along at

least 10 kg of grains. Out of that, five kg are given to the Bishnoi *Sadhus*, who perform the *Pooja* and prepare *Paal*. The remaining five kg are given to the *Mindar*, in the form of *chugga* for birds. A household can give more than 10 kg also, if it is in a position to do so. On this occasion, the Bishnois also take decisions regarding their community for the next one year. They also review the progress on the decisions taken in the previous year.

Aka Teej

The *Akateej* festival is celebrated by the Bishnois and other castes, except for the Muslim community, in the study village. On this occasion, different types of sweets and dishes are prepared and offered to the deities. *Teej* songs are sung by the women in the village. The village people, irrespective of caste and tribe, gather at one place (in the middle of the village) and they attempt to make predictions about the coming monsoon. Six small *kuldiyas* (small vessels made of earthen clay) are kept in a big bowl. These *kuldiyas* are filled with water. Each *kuldiya* is named after a month, ranging from June to December. All the people observe the melting of the *kuldiyas*. If the *kuldiya* depicting June *kuldi* melts first, they predict that there will be rain in the month of June. They generally expect the *kuldiya* representing June or July to melt first. If that happens, they feel assured that there will be good monsoon that year. They retain some hope even if the *kuldiya* depicting August melts first. However, if the *kuldiya* representing September melts first, they fatalistically accept that there would be no monsoon that year and that their region would face a drought.

The residents of Khejarli Kalan village have faith in such kind of predictions, since this has been the practice for a number of centuries. Through these predictions, they get an idea of what kind of crop to grow in a particular month. They also store the fodder for the domesticated animals. After the rituals get over, the Bishnois prepare seven types of food, and the village head performs a *Pooja*. During this ceremony, irrespective of castes and communities, people from the village participated and *Prasadam* is served to everyone.

Sithalasthi

Sithalasthi festival is being celebrated after seven days of the *Holi* festival. During this festival, different types of dishes are prepared and kept for the evening. There is a rule to have cold food only. Hence, food for the festival is eaten only in the evening after *Pooja* to *Jogmaya deity* and *Guru Jambheswar* is performed.

Shravan Bhadu

In Khejarli Kalan village, all castes and tribes perform *pooja* to their respective gods and goddesses. The Bishnois also offer prayers to Guru Jambheswar on this occasion. They also visit others temples of deities like Lord Mahadev and Lord Hanuman. During the month of *Shravan Bhadu*, the Bishnois prepare *laddus* (sweet item) for dogs. This is known as the dog festival. On this occasion, the Bishnois collect grain and money from all the community members and get *rotis* and *laddus* prepared. These are fed to the dogs of the village and the surrounding two or more villages. This festival continues for nearly 15-20 days, because each village confirms its festival date after knowing whether the neighbouring villages are preparing these items on the same day or not. The intention is to avoid an overlap. They believe that if they feed the dogs, there will be good rainfall in the coming season. The other reason for feeding dogs is that these dogs will not attack the wild animals, especially black bucks and *Chinkaras* in their region. The Bishnois are conscious of the need to protect the wild animals and birds from the domesticated animals like dogs. Apart from this festival, the Bishnois prepare *roti* (*bajra* bread) first for the dog on daily basis.

Agricultural Rituals

The Bishnois pray to their i.e. god Guru Jambheswar before sowing seeds in their agricultural fields. They pray to the Gods by saying “Our agricultural production should be sufficient for us to feed our families, birds, animals and the neighbouring people”⁶³. During harvesting of crops, they leave some portion of the crops for birds and animals in the agricultural fields. This is locally called “*sand ghera*”. The Bishnoi are very close to wildlife and they know their suffering in different seasons. Their main concept is ‘live and let others live.’ There are a couple of agricultural ceremonies to be performed before the crop is harvested.

The Bishnois are very friendly towards individuals, as well as animals and birds. As indicated by the Bishnois, the birds and animals are exceptionally harmless and they would not hurt anybody. Babulal Beniwal (aged 55 years) said that “the trees always

⁶³ Group discussion with Bishnois elderly people at Khejarli Board of the study village dated January 02, 2015, [English translated by researcher].

provide service to us, in the form of fruits, wood, fuel, fertilizer, air and other form of things but it never asks anything in return from us”⁶⁴.

Many *Melas* (fairs) are held for the Bishnois because their community has a number of pilgrim places. These *Melas* may be annual or bi-annual. Among the fairs, the *Mukti dham* Mukam and the Khejarli village fairs are very important.

THE BISHNOIS EIGHT MAIN PILGRIM PLACES (ASTA DHAM) AND THEIR ECOLOGICAL IMPORTANCE

1. Peepasar Saathri:

Peepasar *Saathri* is located about 45 km in the northern part of Nagaur district of Western Rajasthan. This is the birth place of Guru Jambheswar. There is one *Khejri* tree and temple and old house of Lohat Panwar (the father of Guru Jambheswar) near the *Saathri*. Items like cooking vessels, pots and *Chullo* (grate for cooking) have been kept for public display.

The Bishnois believe that Jambheswar was born in 1451 A.D. (1508 *Shanvart*, according to the Hindu calendar). His parents, Lohat Panwar and Hansa (places), were devotees of Lord Vishnu (Maheshwari 1975; Bishnoi 1988). The young Jambheswar was a quiet child, who hardly spoke. Until he was 31 years old, Guru Jambheswar was herding cattle. After that, he went to Samrathal Dhora (sand dune) and stayed there for many years and founded the Bishnois community. The Bishnois regard this place as one of the eight main pilgrimage places (*Astadham*). On the occasion of Jambheswar’s birth anniversary, the Bishnois celebrate his *Janmadin* (birthday) at Pipasar place, by arranging a big *Mela* there.

2. Samrathal Dhora Saathri:

Samrathal Dhora *Saathri* is located about 3 km from Mukam and 83 km from Bikaner town in Western Rajasthan. Jambheswar came from Pipasar village to Samrathal Dhora and he stayed there for an about 51 years. He did *Tapasya* (meditation) under a *Hari kankedi* tree at this place for many years. He founded the Bishnoi community on *Karthik Krishnastmi* day in 1542 AD (*Vikram Samvart*) (Maheshwari 1970 and 1976; Bishnoi

⁶⁴ Interview with Babulal Beniewal at Bishnoi-Ki-Dhani of the study village dated June 1, 2015, Translated into English from the local language by the researcher].

1988; Bishnoi and Bishnoi 2002). The first *Paal*, prepared by Jambheswar, was given to his father's brother, Phuloji, who was the first Bishnoi. After Phuloji, many other people accepted the principles lay down by Jambheswar and formed the Bishnoi community. The Bishnois regard Guru Jambheswar as an incarnation of Lord Vishnu.

At the Makuham and Samrathal places *Mela* (fair) is organized on every *Amavasya* day. The devotees first visit Mukam *Mindar* and later they visit Samrathal *Dhora*. Samrathal *Dhora* is a sacred place for the Bishnois because the Bishnoi community originated here. There are a few water storage tanks at the *Samrathal Dhora*, where people take bath. There is one water *kund*, which is at a little distance from the temple. Here, the devotees provide water and *chugga* (food grains) to the wild animals and birds.



Photo: 3.1: *Chugga* provide by the Bishnois at the temple. Photo captured by the researcher.

Every devotee brings *chugga* and deposits this at the temple, which would be provided to the wild animals and birds as well as used for *religious* purposes. We can find many wild animals *chinkaras*, black bucks, *Roj /Rojda* (Antelope), rabbit, etc., and birds around the *Samrathal Dhora*. There are plenty of trees around the place.

At the *Samrathal Dhora*, the devotees collect sand in clothes, or in small bags, from the sand hill. They then store the sand at one place at the tip of the sand hill, which is close to the temple. The quantity of sand depends on how much an individual can carry. The older

people deposit the sand on the way, because climbing the dune is very difficult. While climbing the sand dune to collect sand, they should not look back. They believe that if any one looks back, he/she will not have *Punarjanam* (re-birth) as a human being. Instead, that person will be reborn as a buffalo. The Bishnois say that, their community has been practicing this custom from the 15th Century onwards. They also say that the sand hill is not increasing in size. Since Guru Jambheswar was a great ecologist in his time, he strongly suggested to the Bishnois that they should carry sand in clothes or bags, while climbing the sand dunes of Samrathal Dhora. Such practices help in controlling the movement of sand ridges from one spot to another.

3. Mukam Dham (*Saathri*):

Mukam Dham is the main *Pavitra Dham* (holy centre) for the Bishnois in India. They consider it as *the Niz Mindar* (sacred temple). Mukam Dham is located about 18 km from Nokha Tehsil (Nagaur District) and about 80 km from Bikaner town in Western Rajasthan. Many Bishnois believe that the *Samadhi* (tomb) of Guru Jambheswar is at Mukam (old name was *Talwa*), where he was buried in the year 1589 (Maheshwari, 1976; Bishnoi, 1988; Bishnoi, 2005). However, there is a debate about the actual burial place of Jambheswar, whether it is Samrathal Dhora or Lalasar (Chandla, 1998), or Jambholav, but most of the handwritten documents and folk stories shows that his mortal remains were interred at Mukam. The place attracts many devotees even from far off places. They believe that, those who engage in the welfare of humanity and wild animals would get *Mukti* (salvation) after visiting this place. Therefore, they call this place as *Mukti Dham* Mukam. This place is also considered sacred by the Bishnois because their saints and poets, like Keshoji, Surjanj, Parmanandji and Sahibramji, had lived here and provided a wealth of poetic compositions. The Bishnois lovingly tend to the *Khejri* tree at Mukam temple, which is on the right side of this *Mindar* temple at Mukam.

In 1955, *Akhila Bharatiya Bishnoi Maha Sabha* (ABBMS) took on all responsibility from the Bishnois Panchayat which was earlier looking after the temple. The construction of a new *Mindar* temple of Guru Jambheswar at Mukam started on 19th May, 1986. On February 18, 1996, the task was completed (ABBMS, 2011).⁶⁵ In the *Mindar* (temple), there is no idol, or statue of Guru Jambheswar, or any other deity. A lamp with *ghee* (clarified butter) is kept lit. No elaborate ceremonies or rituals are performed by the saints

⁶⁵ Sabha, 2011, p. 127.

in the temple. The *Hom* or *Yajna* is performed outside the temple, where devotees offer *ghee* and, dry coconuts. The Bishnois think that the *Yagna* would help in keeping the environment clean.

Mukam *Mindar* is considered as the most important religious place for the Bishnois. Twice in a year, big fairs are held at the Mukam, i.e., once on a new moon day (*Amavasya*) of *Falgun* (February-March) and another on *Asuj Amavasya* (September-October). These two fairs are considered very important by the Bishnois. Devotees come from all over India (particularly Rajasthan, Haryana, Punjab and Madhya Pradesh). *Falgun Amavasya* fair has been continuing since beginning of 15th Century, but *Asuj Amavasya's* fair was started in 1648 (*Sanvart*) by saint Villoji Maharaj (who was one of the well-known disciple of Guru Jambheswar). The devotees come in lakhs and several *dharam salas* (community resident/lodge) have been built at the Mukam and free food is being provided by the temple authorities (*Akhil Bharitya Bishnois Maha Sabha-ABBMS*) throughout the year.

Apart from the *Melas* (fairs), the Bishnois also visit the Mukam temple's small fair on every *Amavasya*. During big fairs and each *Amavasya* small fair, the Bishnoi devotees offer grains, *ghee* and dry coconuts. The *ghee* and dry coconuts are put in the *Havan* and *Chugga* (grains) is deposited near the temple and offered to the birds and animals for a month. Some of the grains are utilised for the *Langer* (temple kitchen) and the *Gausala* (cattle shed). A large number of devotees visit the Mukam *Minder* on *Amavasya* night for the *Jagaran*, where *Bhajans* (devotional songs) are sung about the community, Guru Jambheswar and the association of the Bishnois with nature by the *Sanths* and folk singers.

In the areas surrounding Mukam *Dham*, one can find a large number of deer freely grazing without any fear. The area is a well-known sanctuary for blackbucks, *chinkaras* and other wild animals and birds, like Indian gazelles, *neelgais*, wild pigs, wolves, jackals, desert foxes, Great Indian Bustards, peacocks, bulbuls, Bayas, sparrows, crows and vultures. The trees commonly found in and around the Mukam *Dham* are: *Khejri*, *Jal*, *Pipal*, *Kair*, *Rohira*, *Babool*, and *Neem*. The temple authorities and sadhus offer grains and water to the wild animals and birds.

Gausala (animal shelter) at Mukam

The *Gaushala* is situated between the Samrathal Dhora and Mukam *Mindar*, where animals (wild and domesticated), and birds have been provided shelter. It was started about two decades back by Swami Ramanandji (*Peetadeech*) Maharaj, who is a priest and head of *Nij Mindir Mukham*. This information was provided by Shiv Kumar (aged 32 years), the manager of the *Gaushala*. It is managed by the ABBMS, which provides all the requirements, including treatment of the injured animals and birds, like *chinkaras*, black bucks, *neel gayi* (antelope), and other domesticated animals, including cows, bulls, buffaloes, etc., and wild birds, including peacock, *titar* etc. The shelter accommodates around fifteen hundred cows, including one hundred seventy-five visually impaired cows and bulls; four wild cows; twenty-five deer; and five peacocks. One veterinary specialist and five workers, including one manager, have been maintaining the shelter. There is one emergency vehicle for transportation of the animals and birds. Once the staff get information about injured animals in surrounding areas (200 km radius), they immediately rush to get the animals to the *Gaushala*. After the treatment, the wild animals and birds are released into their natural habitat.

4. Jambholav Saathri:

Jambholav *Saathri* is located at Jambha village, which is about 25 km from Phalodi Tehsil of Jodhpur district in Rajasthan. It has a huge water body, put in place at the initiative of Guru Jambheswar. The Reservoir is known by names like *Bisan Sagar*, *Bisan Talab*, *Jambholav*, *Jambh-sar*, *Jambh-Sagar* and *Jambha Talab* etc. The folk story behind the lake is that once, when on his way to Jaisalmer, Guru Jambheswar saw the *Talab*(pond) there and decided to have a similar water body on the plain piece of land near Phalodi and started work on that. The lake took four years to complete (from 1510 C.E. to 1514 C.E.) and the size of the lake is about 2,000 meters wide, 400 meters long, and 25 meters deep (Maheshwari, 1970; Bishnoi, 1988; Bishnoi, 1992) . It is said that Guru Jambheswar had told his disciples that whoever will clear sand from this tank, using his own labour or money, will attain heaven (Jain, 2010). Therefore, the devotees clean the lake with their hands during the *Mela* and even on other ceremonial occasions. The main purpose for building the lake was to use water for drinking and other domestic purposes, which could also be used by the surrounding villagers, to provide water to the wild and domesticated animals and birds. The Bishnois consider this lake as sacred as and a pilgrim place like

those on the river Ganga. Guru Jambheswar had said that there is no need to go Haridwar (pilgrim place) or any other holy rivers since the lake was as holy as the river Ganga. Since the Phalodi region has always been extreme hot and extremely cold, the availability of water was also less. Therefore, Jambheswar thought to build a reservoir for the benefit of the people and wildlife there. Since, 1648 A.D., an annual fair is being held at this place (Jain, 2010).

The Bishnois believe that Guru Jambheswar liked this place as much as Samrathal Dhora and he stayed there for a long time. The ritual process takes place at the lake and the process of deepening goes on continuously for six months every year. Guru Jambheswar's spiritual values are connected with the survival of the Bishnois and fulfil their basic needs in the desert region. The Bishnois believe that by the deepening the lake, they can meet their needs. Such practices help them in maintaining the water storage. The Bishnois believe that Guru Jambheswar also initiated work on building huge water-tanks at Sohajanee in district Muzaffarnagar in Uttar Pradesh and *Vringali Sarovar* at Janglu village in Nokha Tehsil, of Bikaner district in Rajasthan. He also encouraged his followers to dig new wells and reconstruct the old wells at several places, so that there would be no scarcity of water for human beings and also for the wild animals and birds. There are several trees and bushes near about the lake, which are providing a habitat for a number of wild animals and birds. When the researcher visited *Jambholav Lake*, he saw thousands of Siberian birds there, drinking water and taking rest.

5. Rotu Saathri:

The *Rotu Saathri* is located at Rotu village in Jayal Tehsil of Nagaur district of Western Rajasthan. It is about 60 km away from the district headquarters. *Rotu Saathri* is one of the sacred and pilgrimage places for the Bishnoi community. They believe that their Guru Jambheswar visited the Rotu village (on *Akṣaya Tritiya* day of the Hindu year 1572) to attend the marriage ceremony of the daughter of one of his followers and for presenting "*Bhat*", also known as *Maira* (Bishnoi, 1988; Chandla, 1998; Jain, 2010). Guru Jambheswar noticed that there were very few trees in the village. It is believed that the residents requested the Guru to plant trees in their area. He acceded to their request and planted several *Khejri* trees in that area. The Bishnois believe that he planted nearly 3600 *Khejri* trees within one night. It is believed that he also planted *Khejri* trees at Lodipur and Meerpur (in Uttar Pradesh) and, Mohammadpur, Devmal, and Kharad on the request

of the inhabitants of these villages. After 500 years, we can see many old *Khejri* trees surrounding this village. The residents of this Village say that most of the old *Khejri* trees are about 200 to 300 years old. After the plantation of *Khejri* trees in the Rotu village, people expressed their apprehension to Jambheswar that the new forest might attract birds and wild animals that could harm or destroy the crops in their agricultural fields. Guru Jambheswar assured them that the birds would not destroy the crops. Also, the birds would only come during the night for staying under the trees and eat *chugga* (grain) from other regions, but not in the Rotu village area. The villagers still believe that birds do not harm their crops and only feed on what is offered to them. Due to large numbers of trees, we can find plenty of birds and wild animals around the region. It was not unusual to find a group of 50 to 300 *chinkaras* and black bucks moving in the areas surrounding the village.

The villagers also said that due to large number of trees, this place receives higher rainfall as compared to the neighbouring villages. These led to rich biodiversity around the village, and the consequent increase in agricultural production. Since the *Khejri* leaves significantly enhance the fertility of the land, these trees are considered to be very good trees for agro-forestry. The dry leaves from the trees and bird-droppings act as manure which helps in achieving a greater crop-yield in their region. The villagers do not even allow the chopping of branches of the *Khejri* trees in their region. We can find plenty of big trees in the agricultural fields. The large presence of wild animals and birds in the region help in maintaining the natural vegetation and balancing the climatic conditions. Birds like peacocks, *Tota* (parrot), etc., can be seen in large numbers in the region. Rotu Village is only the Bishnoi Village in the fifty km radius in the area. However, the Bishnois have been maintaining the wildlife conservation in the region in a very systematic manner. Tukaram (aged 68 years), a non-Bishnoi from a neighbouring village said that the non-Bishnois in the region also support the wildlife conservation efforts of the Bishnois and do not cut *Khejri* trees. Also, they do not hunt wild animals. He said that, “the Bishnois have been protecting trees, animals and, birds as well as other natural resources which benefits not only the Bishnois, but also all the people in the region. He said that non-Bishnois also try to conserve the plants and animals in their region. He also said that the Bishnois are very strong and committed people in their region, who beat the

hunters and fine them huge amounts”⁶⁶. Therefore, the surroundings people would not dare to hunt the wild animals and cut *Khejri* trees.

6. Janglu Saathri:

Janglu *Saathri* is located five km from Janglu village in Bhansada. It is one of the eight main *Dhams* (pilgrimage centre) for the Bishnois. There is *Hari Kankedi* tree near the temple. The Bishnois believe that this tree was planted by their Guru Jambheswar. In accordance with the Bishnoi tradition, they feed *chugga* (*bajra, jawar, mot*) and water to the birds. It is compulsory for people visiting the temple to feed *Chugga* to the animals and birds there. There are plenty of trees and bushes surrounding the place. These are locally called jungle of desert trees. It is believed that Jambheswar came to Jangloo with *chola, chipi* (bowl), and *topi* (cap) and he left the *Chola* and *Chippi*, which are kept in the temple.

7. Laalasar Saathri:

Lalasar *Saathri* is located about 7 km from Lalasar village and about 54 km south-east of Bikaner (Rajasthan). The Bishnois believe that Guru Jambheswar had moved to this place at the age of 85 years. The place where Jambheswar lived on is a sand dune about 80-metres-high, under a *Hari Kankedi* tree (Bishnoi, 1988). It is believed that Guru Jambheswar breathed his last at this place in 1536 A.D. (Bishnoi, 1992) under this tree⁶⁷. There are plenty of trees that include *Kumta, Bordi, Kankeri, and Babul*, in this place. It is one of the main pilgrim places for the Bishnoi community. They celebrate an annual fair at this place and the Bishnoi devotees arrive from distant villages and cities for the *darshan* (worship). The villagers have been taking care of the *Saathri* and providing *Chugga* and water to the birds and animals. The traditional rain water harvesting techniques have helped the Bishnois to store water and use it for themselves as well as for the animals, birds and trees.

8. Lodhipur Saathri:

Lodhipur *Saathri* or *Dham* is located in the Moradabad district of Uttar Pradesh. It is considered to be one of the eight *Dhams* of the Bishnois and a well-known *Dham* among them is in this state. It is believed that the Guru Jambheswar had come to this place in

⁶⁶ Interview with Tukaram at Khejarli Kalan village dated July 13, 2014, [English translation by researcher].

⁶⁷ Jain, 2010.

1585 A.D. (*Vikrma Samrath*) and at the request of the villagers, planted a *Khejri* tree. Even today, we can see the *Khejri* tree in the middle of the *Mindar* (temple). Guru Jambheswar influenced many people to follow 29 principles and they became a part of the Bishnoi community. The Bishnois celebrate an annual *mela* (fair) at Lodhipur *Saathri* on *Chaitra's Amavasya*, where they perform *Havan* and offer *prasad* to Guru Jambheswar. The Lodhipur *Mindar* was constructed in the year 1905 (Bishnoi, 2005)⁶⁸ and the *Mela* is organised every year. Earlier, Bishnoi devotees from the surrounding areas used to come for the *Mela*, but now-a-days, Bishnoi devotees come from all over India. Apart from *Asta Dhams* (eight pilgrim places) of the Bishnois, there are a few *Saathris* and *dhams* at various places. Among these, some of the famous *Saathris* and *Dhams* are described here.

Two other well-known *Sathrees* among the Bishnois

1. Lohavat *Saathri*:

The Lohavat *Saathri* is located about 109 km to the north-west of Jodhpur district of Western Rajasthan. This *Saathri* consists of a room for performing fire rituals and four rooms where the priest and the visitors can stay. It is believed that this *Saathri* was built by the Jodhpur king, Maharaja Maldevji, after Jambheswar performed miracles for him (Maheshwari 1970 & 1976; Bishnoi, 1988; Krishnanand, 2013b). There is a foot-print left by Guru Jambheswar, where the *Saathri* was built. It is believed that Jambheswar danced in spiritual ecstasy during that time and thus the foot-prints. The devotees offer food-grains to the *Saathri*. These grains are used for feeding the birds and animals. A few water pots are kept for the wild animals and birds. The wild animals and birds move freely around this place and other human habitats. Refilling of this water tank and feeding of birds and animals is done by the local Bishnoi volunteers who periodically stay here with the priest.

2. Khejarli *Saathri*:

Khejarli *Saathri* is located Khejarli village which is about 25 km from Jodhpur district of Rajasthan, where the fieldwork has been carried out. The Bishnois consider it as one of the main *Saathris* for the Bishnoi community. Every Bishnoi person knows about the story of Khejarli Kalan village, locally known as Khejarli *khaddano*. The details about the Khejarli *saathri* have been discussed in detail earlier in chapter two.

⁶⁸ *Amar Jyothi*, August-September, 2005, p,8.

It is believed that 200 years after the origin of the Bishnois, the Khejarli incident took place in the 17th Century. During that time, the *Mairan gadh khilla* was under construction. There is a strong belief that where there are animals, trees and birds; human beings too make their settlements there, because nature will not be complete without the wildlife. The Bishnois have remained interconnected with and have been interdependent i.e. with wildlife for centuries. We should treat these as our neighbours. Jambhoji told his followers, *jeevpe daya karo, vrakshoko nahi kantna* do not kill animals and do not cut trees. Guru Jambheswar was the first person who spoke about forest protection. During the medieval period, rules regarding the protection of forests and wildlife were not followed, but the Bishnois started following the conservation practices. The credit for conservation of wildlife first goes to the Bishnois, because they are the people who have been sacrificing their lives, while protecting the wildlife in their region. A pilgrim centre was started by the Bishnois *saint* Villoji in the first half of the fifteenth century at Mukham. Presently, there are eight pilgrim places are well known among the Bishnois and they are locally called *asta dham*.

Thar Desert has moulded thousands of human beings and other lives for centuries. In the desert, life in any form is the symbol of survival. Human beings, other animals and birds live together, following life patterns, often adverse in the barren environment. The process of desertification has been continually aggravated in the desert region since centuries. The people from the desert had been migrating to other areas due to the recurring cycle of drought and famines. The Bishnoi religion is born out of the desert, deeply rooted in environmental beliefs, propounded by their saint Jambheswar.

Chapter-4

Sustainable Conservation of the Environment, and the Comparison of the Bishnois and Others

This chapter discusses as to how the Bishnoi community has been maintaining its environmental conservation practices in a sustainable manner. The chapter will basically focus on how the different principles of Bishnois, especially in relation to conservation and protection of trees, animals, and birds, as well as other natural resources, have been practiced in their daily way of life. Therefore, emphasis will be laid on the socialization process, community conscientisation, conservation of animals, birds and trees, and their relationship with the Bishnois and how they treat these that co-exist in their surroundings. What have been the mechanisms and measures taken by the Bishnois, both at the individual and community levels, to continue their survival in the deserts ecological conditions? This chapter will also compare the different approaches of the Bishnois and non-Bishnois with regard to wildlife protection.

The religious beliefs and practices of a given community shape human behaviour towards their surroundings. The religious beliefs and ideas are rooted in the narratives about their culture, which provide direction to understand the environmental values and they extend efforts for the betterment of them and other living beings (Sideris, 2013, p. 154). The religious beliefs and ideas are practices, expressed through the rituals, ceremonies, festivals, *melas* (fairs) and other social gatherings. These kinds of practices not only allow people to have a close relationship within the group or community, but also connect human beings with the environment. As these practices become part of community's customs, humans develop relationship, respect, compassion, care, fearlessness and a spiritual connection with their surrounding environment. Conservation practices, which begin as customary beliefs and bind the community, continue for long periods, once the people establish a relationship with their environment, whether spiritual or economic, or both. In the process, different cultural and ecological aspects play an important role in order to accommodate human beings along with different species in a particular ecosystem. The ecological ethics guide them to maintain a healthy relationship with the biodiversity. The interaction between the indigenous communities and the environment

reveals how they have been maintaining the environmental ethos within the group (s). For example, the Bhil tribe in Rajasthan has been protecting various trees and animals in their sacred areas (sacred groves) (Jain, 2011), in which hunting and cutting such trees are prohibited. The nature-based religions, especially indigenous religious traditions in India and elsewhere seem to have a close relationship with their surroundings.

Socialisation Process: Conservation and Protection of the Environment among the Bishnois:

With pragmatism and strict adherence to the doctrines in the daily life, the Bishnoi religion is different from the religion of non-Bishnois in Rajasthan. They believe that rationality relies upon survival, which depends upon their religious beliefs. This belief system of direct correlation between survival and religious beliefs is reflected in the daily life and activities of Bishnois. The principles are reasonably helping, either directly or indirectly, in their everyday life in their survival. In this process, the religious principles and other environmental ethos¹,— which emphasize on a strong association between the Bishnois and trees, animals, and birds as well as other natural resources— are imparted to their children. For example, the Bishnoi children are socialised in such a way that makes them observe and take part in the conservation of wild animals, birds, and trees in their surroundings. The socialisation process among the Bishnois has distinctive features, as compared with those of the neighbouring communities. This socialization process refers to their life cycle rituals and teaching of wildlife protection. The awareness of wildlife and the significance of the environment begin from the childhood itself. As a child grows older, he/she gradually gets to understand and learn about the significance of plants, trees, animals and birds in their surrounding environment, by observing and emulating the practices of his/her parents, siblings, friends and other community members. The Bishnois children gain ecological knowledge from their parents and neighbours, while observing how they feed grain and provide water to the wild animals and birds, etc. By and large, children help their parents in the protection of plants (*Khejri* and others trees) in their agricultural fields and feeding of grain to the birds. Some of the play time activities of the children include enacting the lives of their community legends, who sacrificed their lives while protecting wild animals and trees. The children of Khejarli Kalan village are aware

¹ The environmental ethos is the character and quality of life of the people whose beliefs and moral values are related to the surrounding environment.

of wildlife and the contribution of the Bishnois to nature because this village has a history of resistance against the environment exploiters.

The present day concern of the Bishnois regarding the environment is largely conditioned by the teachings of their saint, Guru Jambheswar, who rose to prominence during the 15th century. Thereafter, the Guru's teachings have been passed over from one generation to another. The Bishnois explain to their children the rationale behind providing grains, water, etc., to the animals and birds. Birmaram Beniwal (aged 80 years) an elderly person in the village said that, "there is a need to teach children about the importance of natural resources and how to protect them, and how to systematically utilize them. This will help the next generation to avoid the scarcity of the natural resources."²

In the *Sugra Sanskar* ritual *Sadhus* (teacher) teach the Bishnoi children the necessary knowledge and relevance of conservation practices. *Sadhus* instruct the young Bishnoi children about the practical significance of the 29 principles and the 120 *Sabads*. Younger children have to promise and guarantee that, "they will take care of the principles and secure the wildlife and other natural resources throughout the life".³ The Bishnois said that this ritual is very important for the children on the grounds that, at that age, a youngster acquires some degree of maturity. Therefore, the Bishnois teach their children the core values of the community so that their tradition could be carried forward. In this manner, the Bishnois make their children conscious about the environment. Guru Jambheswar showed various ways of implementing these principles, so that the Bishnoi tradition could be continued for a long time.

From an early age, the Bishnoi children learn to identify the trees, bushes, scrubs, grass, birds and animals. Most of the children from in groups in Khejarli Kalan village go for collecting various fruits like *Sangri* of the *Khejri* tree and fruits like *Boldi*, *Pillu* and *Khoka* and honey. The children can identify at least ten types of the bushes in their regions. These are: *Bambuliya*(*Babul*), *Hingota*, *Khejri*, *Phong* or *Phonglo*, *Sarkari Bamboliya* (*Babul*), etc. The children learn from the elder siblings, cousins, friends, etc. the means of collecting the fruits from different trees in different seasons. In the monsoon, children go to their agricultural fields to collect the *Kaakdi*, *Kalenga* (water melon), etc.

² Interview with Birmaram Beniwal at his residence in Khejarli Kalan village in Rajasthan. Interview on May 14, 2014, [Translated into English from the local language by the researcher].

³ Interview with Shankar Das Maharaj. Interview done at Khejarli Kalan temple on May 12, 2014, (Translated into English from the local language by the researcher).

They also collect different types of *Bhaji* (leafy vegetables) and other vegetable items from the fields during the monsoon season.

Most of the children are able to identify the wild animals and birds and provide food and water near their houses. It is an almost daily morning ritual for many Bishnoi children to help their mothers in providing *chugga* and water to the birds in the village *chabuttra* (large courtyard). The Bishnoi female children are very particular in providing food grains and water to the wild animals and birds.

By the time they reach the age of 10/12 years, many Bishnoi children can easily identify most of the flora and fauna in the region. Majority of the Bishnoi households keep water pots outside their houses for the wild animals and birds. They also hang water pots on trees in front of their homes, especially in the summer season. Ruki (aged 55 years), wife of Chenram Babal (aged 60 years), hails from Bishnoi-Ki-Dhani in Khejarli Kalan who is also a housewife regularly engage in agricultural work. She said that, her grandchildren feel happy if *chugga* is given to the birds and animals. If anybody comes to their home, they first provide water and later food to them. Such hospitality is considered to be a part of the Bishnois' tradition that no visitor to a Bishnoi habitation should leave hungry and thirsty.

During the social gatherings in the Bishnoi community, both in the ceremonies and rituals, various kinds of information and their relevance is shared. The Bishnoi children usually plant trees in their courtyard and keep on providing water to these. They are particularly fond of *Neem* trees, because these give more shade in front of their homes. The other plants are *Imili* (tamarind).

The village and its surrounding environs provide a rich landscape in which the Bishnoi children spend time, play in groups and learn from each other about the wildlife. The children, especially the girls, help in collecting fire woods; and other forest products like *sangria ki bhaji*. The children observe the process of cultivation of land and removal of weeds, rocks, etc. They frequently ask their parents about the trees and why they are keeping the trees in the agricultural field. Sukhdev Godhara (aged 70 years), a retired school teacher, is presently a farmer living in a nuclear family. He says that his grandchildren frequently ask many questions about plants in the field and other conservation related issues. He said that, "he explains how the plants become trees and that the trees provide food, fruits, shelter, and shade for humans, animals and birds. He

tells them that saint Jambheswar had asked his followers to adopt this process of conservation.”⁴

Dolaram Beniwal (aged 50 years) is a farmer. In addition, he is having the petrol and diesel business in the Khejarli Board (circle). He stays in Lions Nagar colony in a nuclear family. He is great lover of deer and *Khejri* trees. He says that “he often takes care of injured deer and orphaned deer calves. Whenever he and his wife come across injured *Chinkaras*, black bucks, rabbits, etc., from their agricultural field, they immediately bring them to their home. They take care of injured deer and other wild animals until they get cured. Thereafter, they release these animals into the open forest. He says that, during the time he and his wife are away on work, the deer, rabbits, peacocks, etc., are looked after by his children.”⁵ Children would be very happy if the wild animals reside close to their house. They are very familiar with the wildlife. It also helps in the protection the environment.

The conservation practices and the attachment with various species facilitate the interaction of the Bishnois with their environment. As Levis Straus said about the culture and mind, where the theory of “universal patterns in cultural systems are products of the invariant structure of the human mind”⁶. The structure is in human mind and a person behaves on the basis of his/her experiences. Similarly, the Bishnois concern towards nature is developed on the basis of their childhood experiences and according to their culture.

Community Conscientisation:

In order to make awareness about the Bishnois religion and traditions, the Bishnois are continuously putting in efforts in various ways. The *Akhila Bhartiya Bishnoi Maha Sabha* (ABBMS) has started organising examinations at district levels by providing basic introduction about the community and the teachings of their saint. This initiative was first started in Haryana, and slowly spread to Rajasthan and other states having a significant

⁴ Interview with Sukhdev Godhara at Khejarli Kalan village. Interview date on June 3, 2014, [translated into English from the local language by the researcher]

⁵ Interview with Dolaram Beniwal. Interview done at Khejarli Kalan board on May 1, 2014, [translated into English from the local language by the researcher]

⁶Structuralism. 1998. *Encyclopedia Britannica* website. Accessed [October 6, 2016]. <https://www.britannica.com/science/structuralism-anthropology>.

Bishnoi population. The main purpose of such examinations for both the Bishnoi as well as non-Bishnoi students is to educate the children about the Bishnoi community and Guru Jambheswar. The community has been conducting tests for from classes' sixth to twelve students. Prizes are being awarded for the boys and girls who secure the 1st, 2nd and 3rd positions in the tests. The participants are usually asked questions about Guru Jambheswar, the culture and traditions of the Bishnoi community, and also about the environmental movements launched by the Bishnois over a period of time.

Conservation Practices and Ecological Sustainability:

The religious philosophy and the sustainable practices adopted by the Bishnois have continuously contributed to arriving at effective ways for maintaining the ecological conditions and balance and a systematic utilisation of the limited natural resources in the Thar Desert. This continuous process has been an integral part of their religious principles, which they have been applying in their day-to-day life. The Bishnois believe that the 29 principles can ensure a better quality of life for mankind as a whole. The Bishnois are convinced that adherence to these principles and being compassionate towards all the living beings can ensure the attainment of *Moksha* (salvation). The 29 religious principles have not only religious values, but also socio-economic significance.

The researcher has an opportunity to interact with a Bishnoi couple, residents of Khejarli Kalan village. The husband, Bhanaram Bhadu (aged 59 years), holds an M.A. degree. He retired as the principal of a higher secondary school. Now he is a farmer. His wife, Suvva Devi (age 55 years), is a housewife and she helps in agricultural work. According to them, "The *Dharmik Bhavana* (spiritual feeling) will always connect the people".⁷ Further, they said that, "The religious principles of the Bishnois establish a connect between animals, birds, trees and the Bishnoi people, who are following these tenets at the practical level in their daily way of life with their vast experience."⁸ The Bishnois believe that those who follow these principles would manage natural resources in a sustainable manner and could find fewer problems in their life. Out of the 29 principles, six prescribe the ways to conserve the biodiversity and develop compassion towards all living beings especially

⁷ Interview with Bhanaram Bhadu and Suvva Devi. Interview done at Khejarli Kalan village on December 11, 2014. [Translated into English from the local language by the researcher].

⁸ *Ibid.*

towards trees, plants, birds, animals. The remaining principles have indirectly supported in the sustainable conservation of nature.

In the Thar Desert, the life style of the people is different, as compared with that of those in the non- desert regions. Survival is difficult for inhabitants of the desert. Despite that, the Bishnois are living very harmoniously with their natural environment. They are effective in protecting the wildlife. They have had several encounters in the past with the poachers and tree fellers. Many Bishnois have sacrificed their lives while protecting wild animals and trees. They do not allow anyone to kill any wild animals or cut trees, especially the *Khejri* trees.⁹

The 120 *Sabad Vani* of Guru Jambheswar (Maheshwari, 1970; Kapur, 2008; Jain, 2011) are the outcome of his personal experiences and several encounters with different individuals at various places. He said, "*Vaani Sahi Rahena Chahiye*," (Maheshwari, 1970 & Krishnanand, 2003b) which implies that, we need to talk honestly and truthfully with the neighbours and we must respect them. The conversation has to be in a polite way and we should not hurt anyone with our words. These *Sabads* demonstrate the ways to live and let live. These provide knowledge to maintain social norms and moral approaches to the believers. The theoretical aspects of some *Sabads* are being implemented at the practical level by the community. It is compulsory that everyone in the community should know at least 20 *Sabads* out of the 120 *Sabads*. The researcher has observed that in the field that on every *Amavasya* (new moon day), the Bishnois chant 120 *Sabads* at the village's temple. The Bishnoi priest recites these *Sabads* on occasions like birth, marriage, death ceremonies and different rituals and festivals. The majority of the Bishnois know these *Sabads*, and recite these in their home during *pooja*. In these processes, the Bishnois keep on reminding themselves of their religious principles and other sayings of their Guru Jambheswar. On the various occasions and during *jagarans* all night vigil during festivals the importance of the *Sabads*, *Sakhis* and religion doctrines are discussed by the *Sadhus* and *Gayanas*, which help the Bishnois to follow their path for the protection of wildlife and maintain a good relationship with their neighbours. There are several *Sakhis* and

⁹ In 1998, there was an incident in which the Bollywood star, Salman Khan, was booked in a case of killing black bucks in an area largely inhabited by Bishnois. He attempted to use his power to escape possible punishment, but the Bishnois refused to compromise on their stand. There were various distinctive situations where the Bishnois resisted attempts to harm the natural life in their region. They are brave and get united quickly, when it comes to wildlife protection. The Bishnoi eco-religion values bind them to follow such practices.

other forms of oral literature about the Bishnoi community in north India. They have been successfully passing their tradition from one generation to the other.

CONSERVATION OF ANIMALS (WILD AND DOMESTICATED) AND BIRDS

In the desert region, it is difficult to sustain and manage oneself. In spite of that, the Bishnois have been not only been managing themselves, but have also been providing a place for the wildlife. According to 18th principle, the Bishnois need “to be compassionate towards all living beings”. In local parlance, *Jeev Daya Palani*, (*Jeevo Par Dayakarna*) (Maheshwari, 1970; Brockmann & Pichler 2004; Ahmed, 2002). To obey this principle, the Bishnois always try to protect animals (both wild and domesticated) and birds in their surrounding environment. The typical Bishnoi day begins with providing *chugga* (grain) to the birds and animals. Early in the morning, one of the family members has to feed grains to birds and animals. The villagers feed grains at the *chabuttra* (large courtyard) and those who are residing in *Dhanis* (houses in the agricultural field), provide grain in front of their houses. They also provide water to the wild animals and birds. Most of the Bishnois build a water tank (small) in their agricultural fields for wild animals and birds to quench their thirst. Whenever the water level is reduced, every effort is being made to fill the tanks, even by using camels or other means to transport and fill the water tanks (see the following photos). This clearly reflects the feature, mentioned in the 18th principle. As already mentioned, the Bishnois hang water pots on the trees in front of their houses, so that birds can drink water from it.

In the desert region, much importance is given to water and whoever comes to a Bishnoi home or passes through the Bishnoi habitats in the *Dhanis*, is offered water. Desert inhabitants know the value of water. Therefore, they manage the limited water in a systematic manner and try to share it with human beings and wildlife. Bishnois claim that there is more rain in their area as compared to other regions (non-Bishnoi) areas.



Photo: 4.1. Providing water to wild animals and birds, as well as domesticated animals. Photo captured by the researcher in the fieldwork.

Bishnois are involved in protection of all wild animals and birds found in their region. Wild

animals like *Chinkaras*, Black Bucks, *Neel Gai* (*Boselaphus tragocamelus*) literally meaning is blue cows roam near the Bishnoi habitations and their agricultural lands without any fear. The Bishnois are very fond of saving the *deer*. An injured *deer* is immediately treated at their home and then released when it gets healed. The Bishnoi women can even go to the extent of feeding the new-born orphaned wild animals with their own breast milk, just as they would do with their own children. Parmeshwari Beniwal (aged 45 years), who studied till 5th standard and is a housewife, helps her husband in petrol and diesel shop in the village. She also assists him in agriculture activities. She informed the researcher, “I always bring an injured *deer* to my home from the agricultural field. After it gets cured, we usually leave it back in to the agricultural field”.¹⁰ She also said that they keep the *deer* like their own children and they allow the baby *deer* to suckle their breast milk. She showed some of the newspaper articles of her with a *deer*. The Bishnois are aware of movement and behaviour of the *deer* in their

¹⁰ Interview done with Parmeshwari Beniwal at Lions Nagar Colony, Khejarli Kalan village. Interview Dated December 2, 2014, [translated into English from the local language by the researcher].

region. The Bishnois believe that the *deer* are a good omen for them and if they see roaming *Chinkaras* in their agriculture fields, they consider there would be more production of crops in the field.

Classification of Deer:

The Bishnois of Khejarli Kalan village have knowledge about the flora and fauna of their region. This is manifest in the way they are able to classify and identify various species in their surroundings. They can identify their behaviour. The Bishnois are great lovers of *Chinkaras*, Black Bucks. Generally, *Deer* are shy and avoid human habitation, but in the Bishnois habitations, they move freely without any fear. Since the Bishnois are very close to these animals the residents of Khejarli Kalan village can classify the species of *deer* on the basis of colour, weight and type of horn. The species of deer found in the study area include:

Kaliyar (black) *Hiran*, which is about 40 to 70 kg in weight and about 80 to 90 cm in height. The Bishnois have a strong association with this species of *deer*. It is only the male *deer* which assumes a black colour once it attains maturity. However, the female deer retains its golden colour. The black buck population is less. The male black bucks generally move about in groups and try to protect the other members of the group.

Modiyan. These *deer* do not have horns. A *Modiyan* weighs about 30 to 60 kg and its height is in the 75 to 85 cm range. A female *Modiayan* lives with the *Kaliyar* until she gives birth to her child. *Sinkara or Chikara* (medium size) is an Indian Gazelle, which has horns and weighs about 23 to 40 kg. Small size *deer* are locally called as *choti hiran or hiran-ka bacha*, (younger *deer*) and are without horn, and their weight would be below 30 kg. The female *deer* have small and thin horns and the male horns are in big size and thick

The Bishnois believe that *deer* helps in spreading seeds of *Khejri*, *Jaal* and *Kumatiya* trees and bushes in the agricultural field and other places. This process takes place as a result of their eating different fruits under the trees. The movements of the *deer* in the agricultural field is considered as a good sign for them and they also say that deer makes the agricultural land soft and productive as deer roam in the agricultural field.

The deer's urine is also used for medicinal purposes. The Bishnois takes *Mitti* (mud) from the place where the deer sits and use it for the medical treatment for *Piliya* (jaundice). In

some cases, they use this mud for treatment of cancer too. The Bishnois can also understand the behaviour of animals, birds and sounds through which they can predict the environmental hazards and monsoon.

Bhagirath Khilleri (aged 37 years) is farmer and he studied till the eighth standard in Khejarli Kalan village. His son was suffering from the *Piliya* (jaundice) about three years ago. He used the *deer's* urine mixed with sand as an ethno-medicine for his son. His son got cured within a month. Similarly, a few other Bishnois also used the same method as a cure for this disease.

The Bishnois say that the deer consumes less water and can survive for a few days without water as consuming more water would make it difficult for the deer to run. The Bishnoi keep some portion of the crops in the fields for the wildlife and birds. This system is locally called '*Sandh Ghera*' at the time of agricultural harvesting. They say that the agricultural crops are gifts of nature and every living being is entitled to a share of these. In fact, on every *Amavasya* (New Moon night), the Bishnois from the surrounding villages and *Dhanis*-dwellings built in the agricultural fields - visit the Amrita Devi temple in the study village. They bring along grains like *Jowar*, *Bajra* - usually 2 to 5 kg, or even more - for the wild birds and animals. Some of the Bishnois from the village and *Dhanis* come daily to the *Shahid Sthal*¹¹ to feed *chugga* (grain) to the birds and animals.

The Bishnoi populated region has more wild animals, birds and trees, as compared to the non-Bishnoi regions. Bhagirathi Beniwal (aged 45 years) is a resident of Budiya-Ki-Dhani (Bishnoi-Ki-Dhani). He is a graduate, B.A. (Bachelor of Arts). He is a farmer, who also runs his own taxi. He says that deer -*Chinkaras*, black bucks, deer, etc., - can smell the Bishnois and recognise them from distance, because the Bishnois have a distinct dress pattern for both men and women, as against the non-Bishnois (other neighbouring castes, tribes and other religious communities). The wild animals and birds often take rest in the areas surrounding the Bishnois habitats and agricultural fields. Wild animals and birds are familiar with the Bishnoi habitats and know that they will not be chased or hunted. The Bishnoi always try to protect the trees, animals and birds as well as other natural resources in their surrounding environment. Not only at the community level, but at the individual level too, efforts are being made to protect the wildlife. Before the Indian

¹¹ The place is where 363 Bishnois sacrificed their lives while opposing the felling of trees in the year 1730 A.D. The place of their martyrdom has now been sanctified as the Amrita Devi temple.

Wildlife Protection Act 1972 was enacted, the Bishnois were aware and conscious about the need to protect the wildlife in the Thar Desert of western Rajasthan. The Bishnoi village Panchayat used to hold discussions about the cases of killing of any wildlife (and even felling of trees). Now the *Akhila Bharatiya Jeev Raksha Bishnoi Sabha* (ABJRBS), a Bishnoi community organisation, is looking after the issues of hunting animals, birds, and felling of trees in the Bishnoi regions. The details about the origin of the organisation and its functions are discussed here.

Akhila Bharatiya Jeev Raksha Bishnoi Sabha (ABJRBS):

The *Jeev Raksha Bishnoi Sabha* was founded in 1974, as a result of sustained efforts by Santh Kumar Raad and other well-known wildlife protection activists and leaders in the Bishnoi community. Santh Kumar Raad had mobilised the Bishnoi people to protect the environment and he formed a committee in 1966 with 43 members for the protection of wildlife. This committee was against the poachers and trees fellers in the Abor region in Haryana. Later, this committee extended its membership at the districts level in the states of Punjab, Rajasthan, Haryana, and Uttar Pradesh. In 1975, the Bishnois established a nationwide organisation, renamed as '*Akhila Bharatiya Jeev Raksha Bishnoi Sabha*' (ABJRBS) or '*All India Jeev Raksha Bishnoi Sabha*' (Thapan, Sumit, & Subhas, 2001, p. 22)¹². Till date, this organisation has been working actively for wildlife protection in the states of Punjab, Rajasthan, Haryana, Uttar Pradesh, and Madhya Pradesh. Its principal objective is to protect all forms of life in the Bishnoi populated regions in particular and at national level in general. Membership of this organisation is also open for non-Bishnois, who are interested in promoting animal right and wildlife. The ABRBS is also promoting the Bishnoi religious doctrines, whose main philosophy is "live and let live". To expand its protection of wildlife activities and to ensure decentralisation of power, ABRBS committees have been formed at the village, tehsil, district, state and national levels. The National Committee coordinates the activities at various levels. Non-Bishnois can also be found as active members of some of the district level committees. Based on the requirements, the rescue vehicles (ambulances) are provided at the district level and some places at the Tehsil levels for carrying the injured wild animals (*Chinkaras*, black bucks, *neel gayi*, etc.) and birds (peacocks), to the hospital. The Bishnois have treatment centres

¹²On January 15, 1975, the *Akhila Bharatiya Jeev Raksha Bishnoi Sabha* was registered in the State of Punjab.

for the wild animals and birds at the district and state level. They are also concerned with issues like felling of *Khejri* trees and other trees in the Bishnoi region.

The ABRBS has gained recognition at the national and international levels for its sincere contribution towards wildlife protection. Various noted environmentalists have appreciated their efforts. The Government of India has awarded the *Indira Gandhi Paryavaraṇa Award* to the ABRBS president, Santh Kumar Raad¹³ for his contribution towards protection of wildlife. The governments of Rajasthan, Punjab, and Haryana have recognised the contribution of the Bishnois in the area of wildlife protection and awarded them for their work (Bishnoi, 1988 & Bishnoi, 2015). The various state forest departments have also recognized and added conservational practices to their policies. The district forest officer at Jodhpur (Rajasthan) informed the researcher that, in the Bishnoi populated areas, the wildlife can feel very secure, since the Bishnois are the real guardians of the forest and wildlife in the desert region. He also said a lot of inputs are being provided by the local Bishnois and ABRBS committees for the state government to formulate its wildlife protection policies.

The ABRBS has been working for wildlife protection at various levels. The active members have led movements against the anti-wildlife activities of the Nuclear Power Corporation of India Limited (NPCIL) in Gorakhpur, and Fatehabad district of Haryana. Several *Chinkaras*, *Black Bucks*, *Neel Gais* either died, or were badly injured, due to a fence installed by the NPCIL. The researcher visited the site and interacted with the residents of the neighbouring Bishnoi villages, including Vinod Kadwasara (aged 35 years), who is environmental activist of ABRBS, the state ABRBS President, Rameshwar Delu (*Comrade*) (aged 65 years) and Surendar Kumar Khichad who is chief editor of *Amar Jyoti Patrika*, Hisar. They said that they have been opposing and agitating against NPCIL, and its activities, which led to the death of several animals and birds in the region. Especially, deer are most vulnerable while passing through the fencing, because the fencing wires with sharp blades cause injuries and in some cases death. The limited area left for the wild animals in Haryana has been encroached upon by several companies, without clearance from the environment department. These companies have forcefully established their industries in the region, forcing the wildlife to move to other

¹³In December 2000, India's noted environmentalist and political leader Maneka Gandhi paid tribute to its co-founder Sant Kumar Bishnoi and unveiled a statue in his honour in Abohar (Bishnoi 2001, p. 22).

places. The ABJRBS has launched several similar movements and is still continuing its struggle to protect wildlife in various places.

There have been several unrecorded incidents in which the Bishnois had protected the trees, animals, and birds as well as other natural resources in their surroundings. These movements have been against persons, including the British rulers and local kings who were harming the wildlife in their region. Even, in the pre-independence days, there have been several movements against poaching and tree felling. As cited by Jain (2010), in the 1940s, the British soldiers fired at animals in the Bishnoi village in the Muslim princely state of Bahawalpur (now in Pakistan). Seeing this, Bishnois immediately reacted against such action. They also strongly protested vehemently and ultimately the *Nawab* acceded to the demands of the Bishnois and banned hunting in his state.

Domesticated Animals:

The Bishnois not only protect the wild animals, but also have concern for the domesticated animals. The 22nd principle guides them to, “provide a shelter to the abandoned (Maheshwari, 1970; Krishnanand, 2013a, & 2013b). The domesticated animals, like, cows and buffaloes, are being domesticated in their homes. They provide shelters for the animals by building proper huts with the local grass (*hiniya*) which protects them from the heat in the summer. They also cover animals with jute bags, so that it would protect these from the cold during winter. The Bishnois are vegetarians, they consume more milk products. Most of the Bishnois sell the milk of cows and buffaloes in the neighbouring city. This is also one of the sources of income for the Bishnois in the desert. Domesticated animals are common among the Bishnois. As Marvin Harris (1966) explained, the worshiping of the cow as a sacred animal and recognition of its economic value started in India. Similarly, for the Bishnois, the cow and Buffalo are important sources of income. Cows and buffaloes dung is being used as a *khad* (manure) in their agricultural fields, which increase the agricultural productivity. It is also used for preparing *thepdi* (cow dung cake), used as an alternative for firewood.

On the *Amavasya* day, milk is not sold to anyone and half of the milk is left for the calf. The remaining milk is used for preparing *Halwa* (a sweet dish made of sugar, carrots, milk, etc.), or other sweet items. This dish is fed to the domesticated animals too. Once a calf is born, the Bishnois do not sell its mother’s milk for nearly one month. They reason

that the mother and its calf need at least a month to become healthy. Thereafter, they perform rituals like offering milk to Guru Jambheswar before resuming sale of the milk of this animal. On *Amavasya* and *Purnima* (Full Moon) days too, the Bishnois do not sell the milk to anybody. Even on *Bhumiya* day, the Bishnois do not sell the milk to others. Instead, they offer the milk to *Bhumiya* (local deity).

The preferential treatment is not restricted to cows alone. Even oxen are treated with consideration. Their 23rd principle says, *Bail ki Badiya na Karna, ya Karwana*, which means ‘not to have oxen castrated’. The Bishnois are against the practice of oxen castration and they say that it would lead to a decrease in the reproduction of cows and oxen. Since the Bishnois are largely dependent on agriculture, they consider cattle as important for their survival in the desert region. Cattle have been playing an important role in the lives of Bishnois and non-Bishnois in the study area. The Bishnois say that the cattle not only provide milk, but also help in cultivation. Here also, the idea of Marvin Harris (1966) reflects that cows have been protected by the Hindus, as a result of mismanagement of India’s agricultural resources in the past. Similarly, the Bishnois consider oxen as having very important for the cultivation of land and reproduction of cattle. Rajasthan has the second largest domesticated cattle population in India, after Uttar Pradesh (Livestock Census, 2012). In the desert ecology, the domestication of cattle and pastoralism has been providing additional economic support to the inhabitants (Rajasthan Development Report, 2006, p. 76).

The domesticated animals provide milk for their diet. The Bishnois also get some income by selling milk and milk products. In order to provide proper fodder to the domesticated animals and they have to ensure good crops in their agricultural fields. The religious beliefs and practices of the Bishnois are interlinked with other non-religious aspects, which help them in continuing these. The religious principles and practices of the Bishnois are correlated with the emotions and feelings of compassion and mercy towards wildlife in their surroundings. These considerations direct the Bishnois to perform good deeds.

Every, time there is a danger to the life of animals like deer, black bucks, fox, *neel gai*, rabbit, etc., Bishnois come unhesitatingly forward to protect these (Srivastava, 2001). Since, deer, black bucks, peacocks, etc., are commonly found in their surroundings, they have been taking every step to protect them. The poaching of animals and birds, as well as cutting of trees, are banned in the Bishnoi region. However, on rare occasions, the poachers hunt wild animals and birds in the Bishnoi populated areas. The Bishnoi community has its own traditional, as well as modern mechanisms to deal with such issues. If the Bishnois find person(s) poaching or cutting trees in the Bishnoi region, immediately, they try to stop them (or him) and try to inform as many as Bishnois about the incident. Once they notice person(s) indulging cutting trees or poaching animals and birds, they immediately catch him (or them) and punish them (or him). The quantum of punishment for poaching in the Bishnois region is decided by their traditional Panchayat, which decides whether such person(s) should be handed over to the police, or the matter should be dealt with at the Panchayat level itself. It all depends on the nature of poaching, if the Bishnois' Panchayat decides to fine a big amount as fine, this amount is generally used for construction of water tanks, to buy grain for wild animals and birds, or planting trees. Most of the time, the Panchayat imposes fine in the form of cash or grains, sometimes both. If it is a serious case related to poaching, the Bishnoi also informs the forest department officials to look into the matters.

Kurja (Videsi Pakshi) /Demoiselle Cranes:

The Thar Desert is the habitat for a large number of local species. It also attracts different birds from the other regions. Siberian birds (Demoiselle cranes), locally called *Kurja* or *Videsi Pakshi* fly thousands of km, from Russia and reach the Thar Desert in the months of October and November every year. These cranes undertake this arduous journey to escape from Asia's astringent winter and reach Rajasthan after a week of travel (National Geographic documentary). The vast majority of these cranes arrive at a place, called Khichan, in the Jodhpur district of Rajasthan and elsewhere in India. Every year, at least fifteen thousand demoiselle cranes arrive in Khichan. In Rajasthan, the local people encourage and give good hospitality to these birds for their duration of stay. The local Bishnois say that it is their privilege to host these birds in their region. The local people's generosity towards these birds is incredible. In many countries, such birds are chased by the individuals. However, in Thar Desert, people regard these as guests. The Bishnois say

that arrival of these birds is always a good sign for them and their region. Bhagirath Beniwal (aged 50 years) said that “whenever *kurjas* arrived to my agricultural field, the same year the agricultural production is increased as compared with previous one”¹⁴. In fact, they keep some portion of the agricultural crops called *Sand Ghera* for the animals and birds during the harvest time. The Demoiselle cranes always come in a group and eat the grain from the agricultural fields. The Bishnois say that giving hospitality to other people, animals and birds is part of their culture and their religious principles. The Bishnois of these villagers also provide the grains to the forest department guest house near Guda Bishnoyan village lake (about 6 km from the Khejarli village) to feed the birds.

***Mor* (Peacock):**

A large number of peacocks, along with other birds, are found in areas surrounding the Bishnois habitats and their temples. The Bishnois everyday feeds *chugga* to these birds, who feed the item without any fear. Balu Devi (aged 50 years), wife of Harsukhram Khilleri from Khillerion-Ki-Dhani (in Bishnoi-Ki-Dhani) said that, “Peacocks and deer usually enter and roam inside our home without any fear. We also do not disturb the animals that move inside our houses and the surroundings”.¹⁵ She also said that their community considers the entry of the birds and wild animals, especially peacocks and deer, into their houses as a good sign. Their community members try to stop the dogs from killing any birds and animals in their region. Bhagirath (25), a *Rasoyya* (cook) at the Bishnois temple at Khejarli Kalan village, said, “I always watch the dogs because usually they hunt the peacocks surrounding the temple, when peacocks come to eat *chugga* (grain)”.¹⁶ He always looks after the peacocks in the temple area.

CONSERVATION OF PLANTS AND TREES

The worshiping of trees and plants has always been a part of the Indian civilization. There are ample empirical evidences in Indian classical literature and folk tales about the worshiping of trees in India. The indigenous (tribal) people in India relate worshiping of trees with their totems and community codes, due to which some clans and communities do not cut or even chop the branches of certain trees. Some communities or societies

¹⁴ Interview with Bhagirath at his residence Bishnoi-ki-Dand of the study village. Interview, date on January 12, 2015, [Translated into English from the local language by the researcher].

¹⁵ Interview with Balu Devi at her residence, Khilleri ki Dandi, Bishnoi ki Dandi of the study village. Interview date on January 15, 2015, [Translated into English from the local language by the researcher].

¹⁶ Interview with Bhagirath, a cook at Bishnoi Temple at Khejarli Kalan village. Interview date on January 10, 2015, [Translated into English from the local language by the researcher].

conceive of having a spiritual kinship with the non-human world (Haberman, 2013). Thus, it is quite common to find marriage rituals being performed with specific trees. Within India, the Hindu, and Buddhist beliefs and views towards the *Pipal* tree are different. The study by Haberman (2013) showed that, while Hindus consider the *Pipal* tree as the visible form of Lord Vasudeva, or Lord Vishnu, the Buddhists consider the Maha Bodhi tree as the symbol of enlightenment, because, it is associated with Lord Buddha. Both sides may have different views and beliefs, but, in the bargain, both are protecting the *Pipal* trees in India (Jana, 2015, p. 535).

Similarly, the Bishnois have been worshiping *Khejri* and *Hari Kankedi* and *Pipal* trees and several other plants and trees in the desert region. These practices are considered as part of their tradition and connected with their daily life. They do not cut trees and also do not allow others to cut trees. The desert region has a limited number of trees and the common tree is *Khejri* (*Prosopis cineraria*). The other trees like *Jaal*, *Hari Kankedi*, *Kumatiya* and *Neem* are also found in the region. Their concern towards trees has been motivated religious, climatic and economic factors. The religious motivation was coded in the 19th Principle, which binds the Bishnois together. This Principle says, “*Rukh Leela Nahi Dhave* or *Hara Vruksh Nahi Katna*”, which means; “not to fell (cut) the green trees or plants” (Maheshwari, 1976; Ahmed, 2002; Jain, 2011).

Historically, the Bishnois not only have spiritual connection with the trees but they also are sources of economic and social security during drought and famine years in the desert region. The *Khejri* trees are important for the agro-forestry in the Thar Desert (Kapur, 2008). The protection of trees and plants would help in stabilising the climatic conditions in the desert region. As a result, the Bishnois show more concern for green trees and plants. The Bishnois protect and conserve these trees in their agricultural fields, as well as in the areas surrounding their fields. In this region, the Bishnois have been consciously growing a few types of trees in their agricultural field, and among these trees the most common are *Khejri*, *Jaal*, *Kher* and *Hari Kankedi*.

The Bishnoi women take equal part in protecting of the environment by walking long distances for collecting firewood from the fallen trees. They neither cut the trees anymore, nor permit others to cut these. Rather, they utilise the dried cow dung (*thepadi*) as fuel for

cooking their food. The Bishnoi women play a very important role in the conservation of wildlife in their region.

Apart from the community based conservation of natural resources, the government of Rajasthan has provided institutional based governance of community land at the village level.

Table: 4.1. Institutional types of Governance for Communal Land in Marwar

Type	Land Use	Authority	Rules & Restrictions	Enforcement Agency	Power
<i>Goucher</i>	Pasture	State	Tree cutting	<i>Gram Panchayat</i>	Political hegemony
Community	Pasture	Local	Tree cutting, wet-season grazing	Panchayat/ elders	Physical/coercive cultural legitimacy social deference
Enclosure	Forest	State	Tree cutting, large herd grazing)	Forest Department guards (<i>Chokidars</i>)	Political hegemony , expert knowledge economic reward
<i>Oran</i>	Forest	Local	Tree cutting	Deity/pir elders, villagers	Physical/coercive cultural legitimacy social deference

Source: Paul Robbins (1998).

The community lands are composed of several land types. The *Goucher* (state controlled pasture land) are free cattle grazing areas. Here cutting of trees is prohibited. However, in Khejarli Kalan village, people are permitted to cut the shrubs and *Bamboliya* bushes for fire fuel purposes. It is controlled by the villagers and the traditional Panchayat members. The third type of the land is the *Oran*, which is locally controlled. Such lands come under the forest department.

The other type of land in the village is the enclosure. The forest department has the authority over it. In this type of land, cutting trees is not allowed, but the villagers can collect dry wood for fire fuel purpose. There is a forest guard to look after the trees. In these areas, herding and grazing of cattle are not allowed. This land is used by the forest department for revenue purposes

The Bishnois' Classification of Forest and other Plants, Trees, Bushes and Grass

The Bishnois have classified the different types of trees and bushes, herbs, grass and small plants etc. According to them, the forest is classified into the following types:

- 1) *Jhadi*: This has plenty of wild trees, bushes, plants, grasses etc., and is considered a thick forest. The land, here, is not being used for agricultural purposes.
- 2) *Gouchar*: Lands having more bushes, plants and grasses are considered as *Gouchar*. Such lands are used for cattle herding purposes. Some parts of the land are also spaced out as sacred groves. These are called *Orans*. In some *Orans*, human beings and animals are not allowed free entry. These are considered sacred places for them and the bushes and plants and are not disturbed by the local people.

Various kinds of wild animals and birds, especially, rabbits, deer, *neel gayi* (or *Rojda*) (antelope) and birds, like peacocks, can be seen on the *Gouchar* land. The hunting of wild animals and birds is not permitted in the *Gouchar* areas. In fact, the Bishnois do not allow hunting of birds and animals in the areas largely inhabited by them. The land, mud and sand are being used for the construction of houses, but the village Panchayat does not allow the utilisation of this land for commercial purposes. All the issues related to the *Gouchar* are resolved by the gram Panchayat.

- 3) *Agor*: Such lands are in close proximity of water bodies, like ponds and lakes.

The varieties of grass found in Khejarli village area are: *Kurasinki, Jhernia, Bhut, Lapla, Nalda* etc. The agricultural field grasses are: *Heniya* or *Shiniya, Hud Kartha, Jojri*, etc.

The trees are found in the area are: *Khejri, Bare, Hari Kankedi, Bawaliya* (Babul), *Kumatiya and Kher*, which has a sweet *Gund* (gum) that is considered good for health. *Kumatiya ki sabhji* is very tasty and a good food item in the dry season.

The Bishnois say that most of trees and plants have not only spiritual relations, but also have economic values in the desert region. Some of these have been explained here.

Kumatiya trees' *gund* (gum) is considered very delicious and very nutritious, and good for health. Its wood is also used for various purposes. The Bishnois not only give importance to trees but also a few types of grass and herbs are considered important for them, for example; *Heniya* is a grass, which grows in the agricultural fields. It is being used for the thatching huts and sheds for cattle. This is because this grass helps to keep things cool. *Heniya* is also used for medicinal purposes. The roots are used for joint pains and also used to cure animals' the internal, as well as external, injuries of animals. The Bishnois

take the clay surrounding the roots of *Heniya* grass and mix that with water and feed animals.

Harsukhram Bishnoi (aged 70 years) said that he would not remove the *Kher* bushes in his agricultural field, if these are spread in the agricultural field. Similarly, all the Bishnois try to protect small plants, in their agricultural fields, until these grow into trees. The *Kher* tree is good for hosting a variety of birds in the desert region. He stated that, “The droppings of the birds which stay on the *Khejri* tree and other trees become manure for the agricultural land, which consequently gives a good yield.”¹⁷ Similarly the *Jaal* trees, *Hari Kankedi*, *Kumatiya* and *Ber* trees are also very important for animals and humans. As repeatedly mentioned, the Bishnois do not allow cutting of trees in the region. However, an exception is made in the case of *Babul* trees, because these do not allow any crops to grow under these. The *Khejri* trees fruits and *Kumatiya* fruits are usually available in the hot summer month in May and June.

The Bishnois try to avoid constructing houses in places where there are trees, mostly *Kherji*, *jaal*, and *Hari Kankedi*. In case it is necessary to cut trees and construct the house at the same place, the Bishnois usually perform *pooja* and beg forgiveness of the tree. As a means to atone for this action, the Bishnois plant five saplings for each tree that they cut. The Bishnois are very considerate towards trees and animals. Therefore, if they want to chop the trees, they think many times and go ahead only when this step becomes absolutely necessary.

The attachment of the Bishnois towards trees and plants is also reflected in their wedding rituals.¹⁸ The protection of trees also has relevance and reflection in the social institutions of the Bishnoi

¹⁷ Interview with Harsukhram from Bishnoi ki Dhani of the study village dated November 20, 2014. [English translation by researcher].

¹⁸ For instance, on the marriage day, a *Toran* (wreath made from the leaves of the *Khejri* tree) is tied on the door of the bride's house and groom and other people (who came along with him) are invited under the *Toran*, where the groom's father or an elderly person from the groom's side gifts new clothes to the bride. Along with the groom, one person (known as *Vara Rakshak*, which means groom's guard) would be standing holding one *Boldi ki Chadi* (small branch), which signifies that the groom has arrived. The *Chadi* is tied to the *Toran* by the bride's father or an elderly person from her family. This ceremony is called *Chadi Banana* (making *Chadi*) in local parlance. This ceremony signifies that the groom has arrived and bride's side has accepted his arrival. It also indirectly gives signals that the marriage is accepted and the marriage process can be continued. This also shows the relationship of the Bishnois with wild trees. As soon as the *Chadi* ceremony is completed, women come to the groom with decorated *Kalas* (water pots)

Khejri (Prosopis cineraria):

The *Khejri* tree belongs to the family *Leguminosae* and subfamily *Mimosoideae* (Gorain, et al., 2012), which is considered as a very valued indigenous plant (Gupta, et al., 1998) and multipurpose tree in the arid areas. It is locally called *Jandi* or *Khejri* (in India), *Jand* (in Pakistan), and *Ghaf* (in Arabic countries) (Singh & Kachawa, 1998; Maideen, et.al., 2011; Gorain, et al., 2012; Malik, et al., 2013). The tree, which is medium in size, is mostly found in north-western parts of Rajasthan, Gujarat, Haryana, Punjab and Madhya Pradesh. It is also known as “Queen or King of the Desert” and locally called “Golden tree” in the Thar Desert, because it plays an important role in conserving the ecosystem in the region. It is also the predominant constituent of the complex vegetation in the region (Kalwar, et al., 2005).

The government of Rajasthan has declared *Khejri* tree as a state tree¹⁹. The *Khejri* tree has the capacity to survive in the hottest regions that is ranging from 45 to 48 degrees Celsius in the summer to less than 10 degrees Celsius in the winter (Chaudhry, 2011; Gorain, et al., 2012). Historically, this tree has played a very significant role in balancing the ecosystem in the arid and semi-arid regions. It is an evergreen tree, with its capacity to improve soil moisture and fertility. Its taproots are vertical and deeply rooted in the earth to a depth of nearly 100 feet. The tree has the capacity to draw water from the water table. It is to be considered very valuable and regarded as a sacred tree for the Bishnois. It has been imparted a status almost comparable to that of the *Tulasi* plant. The Bishnois have a spiritual relationship with the trees and plants which they trace from their spiritual Guru Jambheswar, who had planted *Khejri* trees at different places. Their folk stories and hand-written documents have mentioned about the plantation of *Khejri* trees. The Bishnois believe that, on the request of the residents of Rotu village (in Nagaur district), Guru Jambheswar had planted several *Khejri* trees in areas surrounding the village. The researcher visited this village and interacted with the local Bishnois regarding the

on their head. After that, the main marriage process starts. In this, the groom and the bride sit on two *Pitya* (seating stools) by facing the northern direction. The Bride should sit on the right side and the groom, on the left side. While the mantras are being chanted, they have to tie the *ghatzoda*, after that *Ata* (grain flowers), *Mahendi* and *Haldi Pindali* is kept in between the groom and bride's hands. Thereafter, the priest prepares *Paal* while chanting the *Sabads*. After about 20-25 *Sabads*, the *Paal* is given to both the groom and the bride. The priest chants: *Gotra Char, Var Kanya Wachan Bol* (groom and bride promises to live together). There is a separate place of stay for the groom and other people in front of bride's home. This is locally called *Dera* or *Dukaan*.

¹⁹ *Ibid* 2005 & 2013.

protection of trees and wild animals. At present, plenty of *Khejri* trees can be seen all around the village. Guru Jambheshwar also planted trees in Lodhipur (in Moradabad district of Uttar Pradesh) and many other places. The Bishnois worship the *Khejri* tree, at the Mukam temple (Bikaner), by plucking the bark of the tree with their last finger.

According to Thanaram Beniwal (aged 60 years), Amrita Devi Beniwal is considered to be a brave woman among the Bishnois because she sacrificed her life while opposing tree fellers in 1730s. Beniwal is proud of the fact that Amrita Devi hailed from his clan. The residents of the area try to grow as many as trees in areas surrounding their homes, temples and the agricultural fields. In the agricultural fields of the Bishnois, we can find as many as 10 to 15 trees such as *Khejri*, *Jaal*, *Hari Kankedi*, etc., per acre. The Bishnois assert that they do not have problem in growing trees in their agricultural fields. On the other hand, they say that *Khejri* trees not only give shade to people and animals, but also provide shelter to birds. Each part of this tree is useful and valuable for consumption and ethno-medicinal purpose in the desert area. The fallen *Khejri* leaves make the agricultural land fertile. The *Khejri* tree, with its small sized leaves, casts only a light shade which helps to retain surface moisture for agricultural crops. Its leaves, which have a high nutrient value, are used as fodder for the domestic animals in all the seasons. Ashokananadji Maharaj age 32 years, a priest at the *363 Sahid Sthal* Amrita Devi temple said that the hundreds of *Khejri* and other trees have been planted every year surrounding the temple area.

Case study: 1.

Harsukhram Babal (aged 70 years) is a retired school teacher. Now he is a farmer. He has purchased around 16 *bigas* of agricultural land about ten year back in the Babal-Ki-Dhani (Bishnoi-Ki-Dhani) when he was building his house in the field, there were only three *Khejri* trees, but within a span of six years, the number rose to about 30 to 35 *Khejri* trees. He said that his family had tried to protect the *Khejri* and *Jaal*, *Kumatiya* plants at the initial stage and ensured that these plants are not harmed during the cultivation of agricultural lands.



Photo 4.2: *Khejri* and other trees growing in their agriculture field.

Source: Photo captured by Saraswati

The *Khejri* tree roots stabilize sandy soils and ensure protection from the shifting sand dunes in the Thar Desert. Since most of the agricultural operations in the arid and semi-arid regions of western Rajasthan are relying on monsoon, agro-forestry is considered to be an efficient system of land and water utilisation, as well as for sustained biomass production (Belsky, et al. 1989 & 1993; Jackson, et al., 1990; Barara & Verma, 1995). The people of this region are able to get economic and social security due to agro-forestry (*Khejri, Jaal, Kumatiya, Boldi, etc.*) during crop failure in drought and famine years. The pods of the *Khejri* tree are locally called *Sangri-ki-Palli* and the dried pods, *Kho-Kha*.

These are used as vegetables in their diet. It is brown to chocolate in colour on ripening. Each pod contains several seeds. Each part of *Khejri* tree is useful and valuable for vegetable and ethnomedicinal²⁰ purpose in the desert area. Leaves are used as fodder for

²⁰²⁰It also has the several medicinal values. The fruits, leaves, bark, flowers of *Khejri* are used for different medicinal purposes, including as safeguards against miscarriage and inflammation (Maideen, et al., 2011), nervous disorders, eye troubles, boils, swelling, including mouth ulcers in livestock (Malik, et al, 2013), relief from snake (*Samp Khana*), scorpion bites (*bichukhana*), diabetes, rheumatism, in cough, colds, asthma, diarrhoea, dysentery, piles, leprosy, bronchitis, tremors of muscles and to combat worm infestations and other skin problems. The bark of the tree has abortifacient and laxative properties and is

the domestic animals in all the seasons, which have higher nutrient values and it increases milk productivity. In this region, farmers have been consciously growing a few types of trees in their agricultural fields (Belskyet, et al. 1989 & 1993; Jackson, et al., 1990).

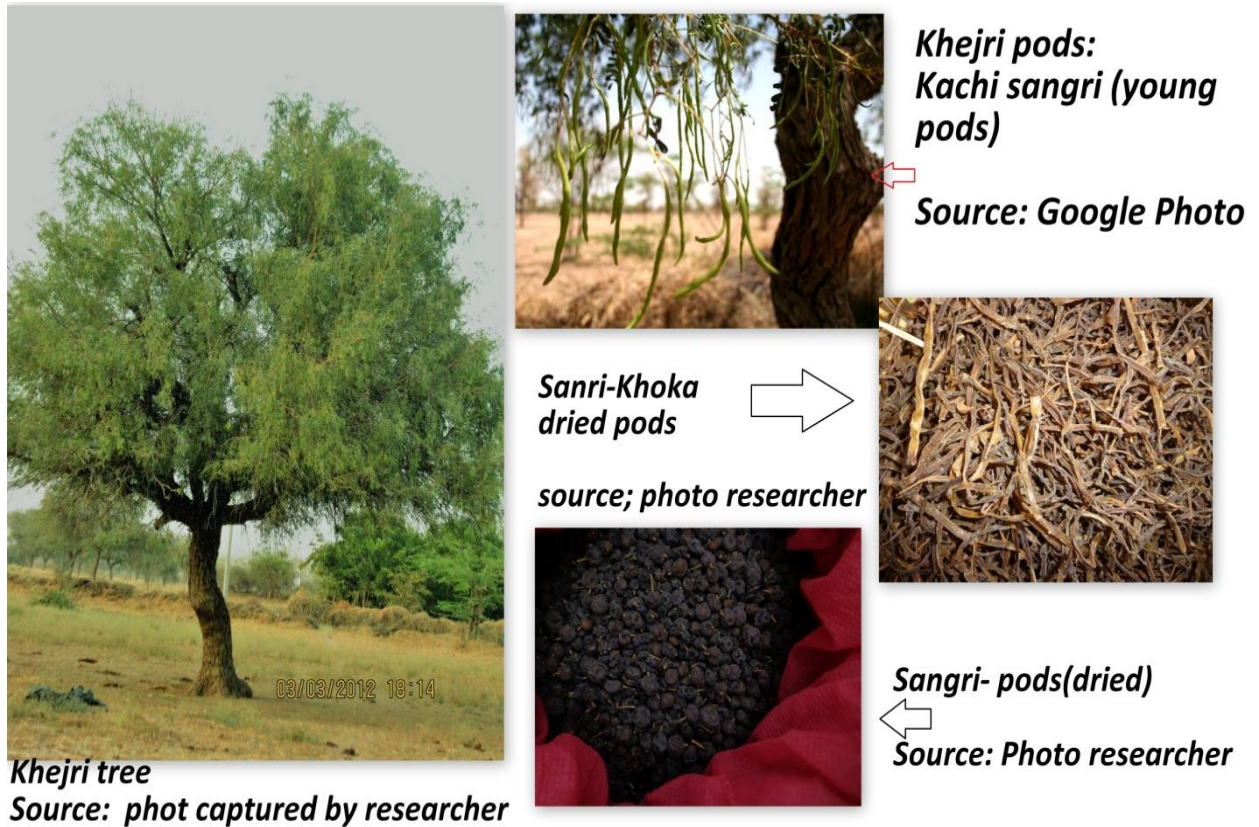


Photo 4.3: *Khejri* tree and its pods. Photography by researcher except *kachi sangria* which is accessed from Google photo²¹

The *Khejri* tree provides fodder, fruits, shelter and shades to human beings and wild animals and birds in desert region. It can survive in the hottest region, because roots are so deep that it draws water from water table. The fallen *Khejri* leaves make the agricultural land fertile, which enhance productivity levels. The Bishnois conserve the

also used as a remedy for problems regarding bone joints and connective tissues (rheumatism) (Chogem, et. al., 2007; USNAS 1980; Velmurugan, et. al., 2010; Haldhar, 2012; Malik, et. al., 2013).

²¹ Summer impressions.
https://www.google.co.in/search?q=khejri+pods&biw=1366&bih=651&tbm=isch&imgil=eg3SCOTzs6j-XM%253A%253B8nMgEUvavmYm3M%253Bhttps%25253A%25252F%25252Fwww.omashram.com%25252Fnews%25252F84-summer-impressions&source=iu&pf=m&fir=eg3SCOTzs6j-XM%253A%252C8nMgEUvavmYm3M%252C_&usg=__8u-ZhPqQzuh9mKFdgEcpW_8ftps%3D&ved=0ahUKEwjRt8WD9rHSAhXCKZQKHVrVBpkQyjcJg&ei=Nvi0WNHELcLT0ATaqpvICQ#imgrc=eg3SCOTzs6j-XM: (accessed on 12.12.2016).

small plants (*Khejri, jaal*, etc.) in the field until the plant grows into a tree (which may take four to five years).

The Bishnois consider the *Sangri ki Sabji* to be very delicious and important in their diet, which provides protein, iron, vitamins A and C and other micro minerals. Young *Sangris* are also nutritious. These are used to prepare²² curries and pickles. It is one of the most important ingredients of *Panchkuta*, in terms of nutritional value and it provides health benefits (Malik, et al., 2013). The *Sangri* pods are known to prevent protein and mineral deficiency (USNAS, 1980). Cooked pods of *Khejri* are used as a functional food in Rajasthan as a cure for a number of ailments (Chogem, et al., 2007; USNAS, 1980). The *Khejri* tree has economical values such as the Pods (*Sangri*) and *Kho-kha* (Dried *Sangri*), which are being sold in the market. The *Sangri* fetches about Rs 200 per kg. The leaves, sold for animal fodder, can bring in about Rs.1000 per quintal. The *Khejri* wood is reported to contain a high calorific value.

The Bishnoi have been protecting these trees not only for the economic benefits but also the social and emotional and spiritual attachments with it. Although most members of the Bishnoi community have been taking care of wildlife for centuries, there are a few individuals who deserve special mention. One such person is Ranaram Bishnoi.

Case study: 2.

Ranaram Bishnoi (Tree man of the desert):

Ranaram Bishnoi is about 75 years and a resident of Ekalkhori village, about 100 km from Jodhpur city of Rajasthan. He has been planting trees and feeding wild animals in the surroundings of his village and his agricultural field since his childhood (*The Hindu* April 2, 2013). He spends most of the time with the wildlife in his agricultural field. The Bishnois' understanding of ecology is in a simple way reflected through their daily experiences. It was reported that the "Ranaram Bishnoi planted over 27,000 trees"²³. He planted most of indigenous trees which could sustain in the desert region. These trees include Neem, *Rohida*, *Kankeri*, *Khejri*, Fig, and Babul. He makes arrangement of providing water for the trees. The newspaper article has also brought out the fact that he has been drawing water for this purpose from a nearby tube well in earthen pots. In

²³ *ibid* 2013.

Rajasthan, the Bishnois got inspiration from Ranaram Bishnoi's contribution towards wild animals and plants. During community *Melas* (fairs), the Bishnois felicitate Ranaram. The researcher interviewed Khamuram Bishnoi (aged 50 years), an environmental activist in Jodhpur. He said that, he got inspiration from the Ranaram Bishnoi, because he is from the same village. In Khamuram's childhood days, he used to go along with Ranaram and help him in planting trees. Likewise, many Bishnois from the same village and surrounding villages have been inspired by Ranaram Bishnoi.

OTHER TREES AND SHRUBS

Significance of the *Hari Kankedi* Tree for the Bishnois:

The Bishnoi community considers *Hari Kankedi* as a sacred tree, as they believe that Guru Jambheswar meditated under it and attained enlightenment. The Bishnoi community firmly believes that Guru Jambheswar has given *Paal* to the followers of his doctrine under the same tree at Samrathal Dhora (Western Rajasthan). In other words, symbiotically all the members of the Bishnoi community relate to each and other on an equal basis by following the same religious principles. An interesting aspect of *Hari Kankedi* tree is that it is evergreen and can withstand all seasonal changes and gives shelter to humans and animals. Guru Jambheswar stressed upon the significance of the tree by stating, '*Hari Kankedi Mandap Medi, Jaha Hamara Wasa*' meaning "my home is under the *Hari Kankedi* tree". Guru Jambheswar had made *Hari Kankedi* tree as his shelter and closely observed the relationship between human beings and nature. He also reflected upon the ecological problems in the Thar Desert. Since the Bishnoi community



Photo. 4. 4. *Hari Kankedi* tree

Photography by researcher during field

believes that their Guru Jambheswar resides under every *Hari Kankedi* tree, they worship the *Hari Kankedi* tree and connect it with their cultural and historical past.

Babul trees (*Bomboliya*) and Bushes:

The Babul (*Bomboliya*) trees are preserved by the Bishnois. They do not cut *desi* (local/indigenous) Babuls in the region. Sometimes, they cut the bushes of *desi* babuls, if they feel that these would spoil the agricultural crops. It was observed by the researcher in his field work that *Sarkari* Babuls, locally called *Angrez Bomboliya* (foreign *Babuliya*), are available in plenty in the desert region, in the form of bushes (*Bochki*). Along with many advantages, the *Angrez Bomboliya* has some disadvantages as well. The Bishnois believe that it decreases the fertility of the agricultural field. An interesting aspect about this tree is that it provides shelter for wild animals such as *chinkaras*, blackbucks, deer, rabbits and various birds and even dogs are afraid to enter the *Bomboliya* bushes to kill *Chinkaras* and other wild animals. The Bishnois cut the *Sarkari Bomboliya* bushes for fuel purposes and also to make their fields more suitable for agriculture. The respondents informed the researcher that this shrub grows very fast and that its uncut bushes affect the agricultural work. However, the *desi Bomboliya* pods, especially the young leaves and pods, are considered as good fodder for the cattle. This tree also provides *gund* (gum) and barks which are used for ethno-medical purposes. It was noticed that, in the *Gouchar* land of Khejarli Kalan village, that there are plenty of *Bomboliya* bushes and most of the villagers cut these bushes for fire fuel purposes.

***Jaal* (*Salvadora oleoides* and *persica*):**

Jaal trees are of two types, one is *Mitha Jaal* (*Salvadora oleoides*), whose fruits are sweet in taste. The other type is *Khari Jaal* (*Salvadora persica*), which means salty *Jaal* tree, which is medium-sized. Both the *Khari* and *Mitha Jaal* are evergreen trees, which grow naturally in arid and sandy areas. These trees are largely found in Jodhpur, Barmer, Bikaner, Jaisalmer, Churu and Nagaur districts of Rajasthan. *Jaal* trees are dense and the vertical extensions of the root system prevent soil erosion in the Thar Desert. Unlike *Khejri* tree, the roots of the *Jaal* tree penetrate very deep into the soil and reach the water table. It is able to survive even in the saline water in the desert region. *Jaal* tree is culturally important both in local knowledge systems and major religious beliefs in the desert. It is being worshiped by the Bishnois. It is also one of the famine food trees in the desert region. *Jaal* trees are also found in the Khejarli Kalan village temple area (*Shahid*

Sthal). Shakardas Maharaj (aged 45 years), a Bishnoi temple priest, believes that, wherever the *Jaal* trees grow naturally, they find more ground water sources beneath.

The Bishnois grow the *Jaal* trees in their agricultural fields because the *Jaal* leaves help to make the land fertile, which facilitates the growing of various crops. The *Jaal* mostly grows along with the *Khejri* trees. The members of Bishnoi community in Khejarli Kalan village said that during summer, temperatures are relatively less under *Jaal* trees. These trees provide shelter to different species. The *Jaal* tree bears fruits in the summer season. These fruits are locally called *Pillu*, and are usually greenish yellow in colour. These turn into red brown on ripening. *Pillu* also used for the medicinal purposes in the heat (for *looh*, or heat-wave). Even the dried fruits are also delicious and consumed by the Bishnoi community. The local Bishnoi children usually pluck fruits and eat. These fruits are also dried and cooked as these have preservative value. Saheri Devi Beniwal (28) said that, during the famines, *Jaal* dried fruits are used in their diet. During the summer season *Jaal* fruits serve as food for a variety of insects and birds. Their leaves are also a source of fodder for the domesticated animals. The dead branches of *Jaal* are used for fuel purpose by the Bishnois. She also said that *Jaal* tree's wood is very strong and it can make ploughing tools for cultivation of agricultural land. *Jaal* seeds contain rich non-edible oil and the purified oil is used for making soap by companies like Godrej Soaps Ltd., Tata Oil Mills, and Hindustan Lever Ltd. (Zodape & Indusekar, 1997).

Kher/ Kheria (Capparis decidua):

These are a very common thorny shrubs or small trees found throughout the desert region. These trees and grow naturally in dry regions and in exposed habitats such as foothills and wastelands, having very shallow soils and saline irrigated water (Singh & Singh, 2011, p. 146). According to the Bishnois, these generally grow along with other small plants. They said that during famines, *Kheria* fruits provide a source of diet. This tree survives by consuming less water and provides good vegetation for the local people, animals and birds during the summer season. According to an estimate, the *Kher* is distributed over 3,540 km plains in Bikaner and Jodhpur districts of Rajasthan, with an estimated annual production 7000 tons of fruits (Chandra, et al., 1994, as cited by Ranjay & Dheeraj, 2011). The flowers buds and immature green fruits of *Kher* are used for pickles, and are also cooked and consumed as vegetables in the desert region. The Bishnois cook these fruits as vegetables along with other fruits like *Sangri* of *Khejri* and *kumatiya*. The *Kher*

pickle considered very delicious by the Bishnoi community. It is also believed to have a good protein and vitamin value. It has good commercial value in the market. Each *Kher* tree bears about 8 to 10 kg of fruits, depending on the size of the tree. The dried *Kher* bushes and trees provide firewood and charcoal and it is considered as one of the best firewood for cooking. The dead wood is used for making huts and for fencing purposes.

This tree not only provides fruits to human beings, but also provides fodder to wild and domesticated animals. The *Kher* fruits and other parts of the tree are being used for ethno-medicinal purposes such as for improving appetite, curing cough, asthma, and related stomach disorders. Both the *Hari Kankedi* and *Kher* can be used in landscape gardening, a forestation and reforestation in semi-desert and desert areas, because it has the capacity to prevent soil erosion particularly the wind erosion and helps in controlling the shift of sand dunes, because its roots are strong. The *Kher* tree's wood is also considered strong and is used to make agriculture implements. The wood is also used for the construction of houses. This tree has the capacity to improve the fertility of sand dunes land. The tree not only has economic and ecological values, but it also has religious sanctity for the local people. They grow trees near and around temples and social gathering places. Newly married couples and new born children are made to offer prayers to it.

Bordi (Ziziphus nummularia):

The *Bordi* trees are commonly found in desert region and other semi-arid zones. It has small shrubs and big trees too. It is found in all places, except the saline patch and sand dunes. The Bishnois grow these trees in their agricultural fields and near their homes. During the winter season, the *Bordi* tree bears fruits, which ripen in the months of November and December. Particularly children are fond of having the *Boldi, or Ber,* fruits. During the famine period, it is consumed as a food item. The dry fruits are eaten during the leisure time. The powder is made out of dry fruits and mixed with *jaggery (gur)* or sugar, and used for eating purposes. The tree wood is useful for making agricultural equipment and furniture for house.

Phog or Phogla (Calligonum polygonoides):

This is a bush and grows on bare sand dunes. It is commonly found in the desert region. The *Phog or Phogla* tree is able to adapt and grow in extremely hot desert conditions. It does not shed its leaves during the summer season and looks greenish. It is ecologically

valuable, since it helps in stabilising the sand dunes. It prevents soil erosion in the desert region through its roots. It is also an important source of food and fodder for both human beings and animals, especially during the summer season. During the month of February and March, the *Phog buds* (Lasson) are mixed with butter milk and salt and are eaten by the Bishnois, because of its rich nutritious content. It produces numerous flower buds during March and April for honey bees and other flies. The flowers are used as medicinal purposes, apart from being used as a traditional food item during famines. This medicinal/dietary use was mentioned by the local Bishnoi interviewed by the researcher. Harlal Budiya (aged 75 years) recalls his younger days. During the times of terrible famines, they used to collect all kind of shrubs and plants and prepare food with these. The *Phog* green flower is locally called *Phogla* which is harvested and stored for food consumption especially during the summer season. They make delicious food with this flower to relieve their bodies from the heat of extreme heat of summers. This dish is locally called *raita* (a curd/yogurt preparation). “Its flowers contain good amount of protein and fat, possess tonic and digestive properties” (Srivastava, 2006). The Bishnois say that *Phog* green flower items are used for curing asthma, cough, cold, scorpion sting, dogs bite, etc.

Bhurat Ghass (Cenchrus biflorous):

These are widely grown in the desert region and are able to survive in the hot climatic conditions. Their seeds are also used for food consumption during famine periods, because of their very high nutritious content. The Bishnois dry its seeds and mix these with *Bajra Atta* (flour), ghee and sugar and give to children for improving their immunity and muscle power. The leaves of this tree are used as fodder for domesticated animals.

Tumba (Citrullus colocynthis):

It is a wild fruit tree, which grows in sandy areas, like the Jodhpur region. It survives in the summer season. The Bishnoi community uses the fruits of this tree in their diet. They rinse these fruits with salt water to remove bitterness from it, or bury these with salt in small sand pits for a few weeks. Thereafter, they wash these materials and dry these for some time. They then grind these to make *chapattis*, either solely or mixed with *Bajra*. *Kankra* is a delicious dish prepared by mixing seeds with *Bhurat* flour during the famine period. The yellow colour *Tumba* is cut into pieces, dipped in buttermilk, to minimise the bitterness, and then eaten. The Bishnois believe that *Tumba* is a very delicious fruit and

has several medicinal values. The *Tumba* seed oil and its fruits are used as a remedy for various diseases. The Bishnois use the *Tumba* seeds oil as a remedy for snakebite and scorpion bites. The plant roots are also used as a remedy for jaundice and other urinary diseases (Bhansaly & Dunkwal, 2010).

The American Botanical Council (1990) mentioned that *Tumba* seeds contain the drug called colocynth, which is used as a cure for acute and chronic constipation and for liver and gall bladder ailments. It is used against menstrual disorders, pain in the joints and fever. It is used for preparing anti-cancerous drugs, as it contains anti-tumour ingredients (Duke, 1978) and in management of diabetes mellitus, as its spooning glycoside has a hypoglycaemic property. It is also helpful in reducing the blood glucose level (Bhansaly & Dunkwal, 2010).

There are other shrubs, plants and fruits, which serve as food for humans and fodder for cattle during the famine and in the summer in the Thar esert. *Kanti Baru* (*Sorghum halpense*), *Bordi* (*Zizyphus nummularia*) and *Gokhru* (*Tribulus terrestris*) is an annual herb in the desert region, which provides small spiny fruits and hard seeds. Its fruits are eaten by the Bishnois, and the seeds are stored. After seeds are dried, these are crushed into powder and mixed with *Bajra* and eaten with *rotis* when food becomes scarce. *Sevan* (*Lasiurus hirsutus*) is a fodder grass commonly found in the desert season. This is used for wild and domesticated animals. Another variety, *Mathira* (*Citrullus lanatus*), is a watermelon which grows in the desert region. The fruits are eaten fresh and the seeds are dried and made into flour. The Bishnois use this flour for food consumption not only for themselves, but also for animals during summer when there is no vegetation. They store such variety of foods to sustain during times of famine. This flower is mixed with *Bajra Ata* and eaten with *rotis*.

Conservation of plants, trees, animals and birds is rooted in the culture of the Bishnois. As Marvin Harris (1966) observed, cow worship in India is based on economic grounds. The present study will attempt to unravel this understanding by exploring the cultural and economic practices of the Bishnoi community. It is understood from the field work that since the Bishnois derive their livelihood from the environment, they protect, conserve and preserve the nature. Their way of living is based on 'live and let live' sustainable practices. Along with the economic imperative, there are several other predominant values

stemming from their cultural and religious symbols that contribute to the importance of the surrounding environment to the Bishnois.

ETHNO-MEDICINAL PRACTICES AMONG THE BISHNOIS

In the course of human evolution, ethno-medicine has played an important role in improving the health of the people. Plants and herbs are being used from their surrounding environment for the treatment of various diseases. Healing practices have been in the form of medicines as well as magic²⁴. The traditional medicines /ethno-medicinal practices have been passed on from generation to generation aiding better treatment over a period of time. The knowledge of these methods has been mainly passed on in the oral form. The Bishnois are known as good conservationists of wildlife and plants in India. They are one of the traditional forest dwellers inhabiting the desert region of Rajasthan. They have had a close interaction with nature for centuries and have developed various mechanisms to conserve the plants and animals. Their ecological adaptations and value system orientation have brought various mechanisms for maintaining health and recovery from illness through the indigenous knowledge systems/ethno-medicinal practices.

The Bishnois normally keep plants and herbs in their houses for the treatment of common illnesses like cold, fever, abdominal pains, and headaches. If they fail to cure the illnesses, they consult traditional herbalists called *Veds (Jadibutti Walas)* in their villages or neighbouring villages. Sometimes, traditional herbalists (*Veds*) are from other communities. If the ailments are not cured by their traditional medicine, they approach the allopathic primary health centre in the village or district hospitals. They often visit private clinics to get their health issues addressed.

An interesting aspect about the Bishnois is that they use ethno-medicinal plants and herbs not only for their ailments, but also to treat birds and animals injured in their habitat. Among many other herbal plants and trees, the *Khejri* tree has medicinal value, as it is used for the treatment of different diseases. The fruits, leaves, bark and flowers of the tree are used for different medicinal purposes, including safeguards against miscarriage and inflammation. Its flower is crushed and mixed with sugar, which is used during pregnancy, as a safeguard against miscarriage. The leaves are used for preparing

²⁴<http://www.encyclopedia.com/medicine/divisions-diagnostics-and-procedures/medicine/folk-medicine> (Accessed on June 10,2016).

medicines for curing nervous disorders. The smoke of the leaves is considered good for curing eye infections. The *Khejri tree* gum (*gundh*) is highly nutritional and is used for ensuring safe delivery for pregnant women. The leaf paste of the *Khejri tree* is applied to boils and healing the swelling, including mouth ulcers in livestock. Similarly, the bark of the *Khejri tree* is used as an antidote for snake bites (*Samp Khana*) and scorpion bites (*Bichu Khana*).

Table 4.2: Plants and their specific parts used in Ethno-Medicine purpose by the Bishnois

S. No	Plants (Local Name)	Botanical Name	Part of the Plant used	Usage of the Plant
1	<i>Ank podha/ Ank jad</i>	<i>Calotropis gigantean/ Calotropis procera</i>	Milk, fruits, flowers	Milk is mixed with locally available clay (<i>mitti</i>) and used for treatment of <i>fever</i> and <i>Snake bite</i> . Fruits: These are cut into pieces and boiled with salt-water, and, thereafter, used for protection against sunstroke. Flower: The inner part is eaten during weather change to protect from sun stroke.
2	<i>Tumbabel</i>	<i>Citrullus colocynthis</i>	Fruits, roots, flowers	Fruits: dried pulp of fruits, source of <i>colocynth drug</i> . It also used for <i>kabaji (constipation)</i> . Roots: are used for as a cure for asthma, liver problems, fever, urinary diseases and stomach pain.
3	<i>Nimboli ped</i>	<i>Azadirachta indica</i>	Leaves, barks	Leaves and Bark are boiled in hot water and used for tooth ache and itching.
4	<i>Giloy</i>	<i>Tinospora cordifolia</i>	Mature stem	Stem: This is used for curing fever.
5	<i>Mandusi jad</i>	Not Allowed (NA)	Roots	It is boiled and later the filtered water is given to the person suffering from <i>viral fever and cough</i> .
6	<i>Shisham</i>	<i>Dalbergia sisoo</i>	Leaves, bark	Used for treatment of inflamed mammary glands. The leaves are warmed and tied over the breast
7	<i>Gwar</i>	<i>Guar Gum /Cyamopsis tetragonaloba</i>	Seeds	These are used for the <i>swelling or inside injuries</i> . The leaves are tied with a cloth over the injured area and water is poured on it. In case of animals, it is directly fed to them.
8	<i>Ringani</i>	NA	Fruits /seeds	Burned to produce smoke and used for <i>Ear Pain</i>
9	<i>Lauki</i>	<i>Lagenaria siceraria</i>	Fresh fruit	The fruit is used for Jaundice,

Source: Fieldwork data collected from Khejarli Kalan village in the month of December 2014.

Table 4. 3: Material and dry fruits /seeds used for ethno-medicines for various diseases:

Diseases	Local Name	English name/ Botanical name	Uses
<i>Shardi, Jukham</i> (Cold)	<i>Sount</i>	Dried ginger	It is crushed and boiled with ghee and then used for treatment of common cold.
	<i>Bajri, +na mak+kali mirch</i>		These three materials are mixed and boiled with water and then taken for the treatment of common cold.
<i>Luh (sun stroke)</i>	<i>Bor</i>	<i>Ziziphus mauritiana</i>	Dry fruit is kept in water and eaten for health purposes and protection against sun stroke.
Vomiting	<i>Tatiya ghar</i>	Bee hive	This is powdered and mixed with cold water. Thereafter, the mixture is filtered and given to the patient. This is regarded as an effective cure for vomiting.
<i>Dum</i> (continue cough, Asthma)	<i>Sayad</i>	Honey	For <i>Cough, ghee+wheat powder+ dry ginger</i> are fried, and then eaten. It is used for cough and other related complications.
<i>Piliya</i> (Jaundice)	<i>Ghada gobar</i>	Donkey's dung	The dry dung is kept in water in a clay pot for a night. Thereafter, the mixture is administered to the patient. This has been found to be an effective cure for Jaundice.
<i>Jodem dard</i> (Joint pain)	<i>Bhed ka dudh</i>	Sheep's milk	A cloth is dipped in the milk. Next, this cloth is tied on the painful joint. This measure has been found to provide a degree of relief to such patients.

Source: Fieldwork data has been collected from Khejarli Kalan Village in the months of December 2014 and January 2015.

Bishnois mostly give traditional medicine to the sick person in the night time, because during that time, the person will sleep and take rest. So the healing process will be completed soon and he/she will be healed.

Cosmological Knowledge and Beliefs among the Bishnois:

All cultures have their own ways of understanding, adapting and adjusting to their respective environment. Geertz says; “cultural systems are broadly based on how people interpret the world around them” (Geertz, 1973 as cited by Pilgrim & Pretty, 2010, p. 3). The Thar Desert inhabitants have been experiencing several droughts and famines for centuries. At the same time, the historical observations, and resulting changes in the environment allowed them to think and develop different mechanisms and predictions overcome the impact of climate change. Irrespective of religions, castes, and tribe, they have developed some kind of conservation practices to adapt to the desert’s climate condition. The cosmological knowledge has helped them to overcome the droughts and famines. The continuing observations of the sun, moon, heat waves, winds, stars, clouds, etc., in additions plants, animals, birds, insects behaviours helps them to predict the climatic conditions. According to weather predictions, the local inhabitants take safety measure to overcome the droughts and famines.

Constant interactions between the people of the Thar Desert with their environment through their values, knowledge, perceptions, worldviews, belief systems, etc., brought them to live closer to nature. There are several ways of understanding droughts and famines among the Bishnois through the wildlife’s behaviours and changes in the climatic condition. For example, if they see more *Kora* (fog) during the day in the winter season, they predict that there will be rain after six months in their region, as they believe that the amount of rain fall depend on the size and thickness of the fog. Similarly, noticing the fallen *Khejri* tree leaves in yellow (*pilo*) colour it indicates that, after a month there will be rain in their surroundings. If they see more fruits on the *Khejri* tree, they predict that there will be very less rainfall or drought in the coming monsoon. These predictions are connected with the traditional seasonal calendar which helps to foresee the climatic conditions and its variations from time to time. They document and cross-check the climatic conditions with the previous recorded climate details. This helps them to predict the future climatic conditions. The traditional calendar guides them to celebrate festivals, rituals, as well as plan for occupational activities, by understanding the environment changes. The prediction of seasonal variations helps them to optimally manage their food grains and fodder for domesticated animals as well. These kinds of cosmological

knowledge and practices help them in managing and sustaining themselves with the limited natural resources during famines and draught conditions.

Application of Modern Knowledge (technology) in the Protection of Trees, Animals, and Birds:

The Bishnois are not only follows the conservation of wildlife, but they also protect wildlife and natural resources from the exploitation by others in the desert of Rajasthan. According to change in the time, the Bishnois also adapt to the modern globalised world and spread the awareness about the protection of wildlife. Bishnois have shifted to different professions over period of time like driving trucks and other vehicles. By carving deer paintings, pictures and other imagery of animals like tree hugging provided by their 29 principles on their vehicles in a much nuanced way they promote conservation methods and practices. The researcher found that on most of Bishnois vehicles two or four wheelers or trucks they have written 29 symbolising principles. They also prefer to choose the vehicles having numbers either 363 or 29 in the digits. Even they have cell phone numbers which have either 363 or 29 numbers in the digit. These kinds of practices show that the awareness about the wildlife is strong.

The present mobile and internet technology also helps in spreading awareness about the conservation of wildlife and Bishnois contribution. Apart from the mass media's contribution in spreading about the wildlife in the desert region, contemporary social networks also have positive impact. The Facebook, WhatsApp groups and individuals too spread awareness about the protection of wildlife. The social networks spread the message of protection of trees, animals and birds in the community in particular and others in general. Through the Facebook and whatsapp groups, the Bishnois gets information about various social, religious and conservation activities among themselves.

Water Harvesting Techniques among the Thar Desert inhabitants

Water harvesting system has been an age-old concept in India. The *Khandins*, *Tanka*, *Nadis*, *Kuyis*, etc., are very important water conservation bodies in the Thar Desert. The traditional forms of water harvesting techniques are an explicit response to ecological conditions in the given area (Kateja, 2003). These kinds of mechanisms have helped in the conservation of ecology have met the local needs and created a friendly relationship between the people and their environment. Due to awareness of the possible negative

consequences of climate change, the local people have been continuing their efforts for the collective benefits of the community. The ground water in the desert is mostly salty. People, therefore, have been depending on rain water stored in ponds, lakes, and canals, wells, etc., for their survival as well as wildlife and livestock purposes. The stored water is used throughout the year.

Table: 4. 4. Tradition Rain-water Harvesting Mechanisms in the Thar Desert:

Local name	English name	Areas of Storage	Purpose of Uses
<i>Tanka</i>	Tank (small)	Rainwater is being harvested from the house roofs through a pipe which is connected to underground <i>tanka</i> in their house or courtyard. The storage capacity ranges from 25,000 to 30,000 litres .	Water is being used for the whole year for domestic, as well as for animals, birds, etc.
<i>Nadi</i>	Pond, Tank	It is an open tank or pond built for the natural catchment of rainwater. It is being regulated by the village Panchayat. The catchment of water capacity depends on the physiographic area of the <i>Nadi</i> .	Stored water is used for drinking, washing clothes, livestock, etc., by the villagers.
<i>Kund/Kundi</i>	saucer-shaped tank	It is an underground tank constructed by the individual families outside their house or outside their village. It is about 10 to 12 meters deep.	Stored water is used mostly for drinking, domestic, as well as for livestock, purposes.
<i>bowari (Bawadi), or beri/Kui</i>	Well	It is constructed near the ponds/ tank by the villagers.	Water is used for drinking purposes by the villagers.
<i>Khadin / dhora</i>		It is constructed to harvest the surface water	Stored water is used for agricultural and irrigation purposes.

Source: Fieldwork data collected from Khejarli Kalan village in the months of November and December 2014.

The traditional water harvesting and storage systems are *Paar, Jhalara, Toba*, etc. These are very important to ensure efficiency of land and water uses. These kind of practices helps in sustenance during the droughts. The modern source of water available in the Thar Desert is through canals. The canal water is supplied to the cities and towns and, to some

extent, to villages. Earlier, the Khejarli villagers depended on the water Pond and *Jal Nadi* (well), but nowadays they are getting water through the Indira Gandhi Canal. However, in most of the *Dhanis*, the Bishnois are still practicing the traditional rainwater harvesting system.

Traditional Agricultural Practices:

In the desert region, a majority of the agricultural farmers are depending on the monsoon, or rain-fed water. They mostly cultivate food grains and a few other commercial crops. To make the land fertile and more productive, farmers use natural (organic) fertilizers, such as manure. The researcher has found that, in the village, that Bishnoi and non-Bishnois avoid using any pesticides and chemical fertilizers for the crops). They not only have an economic relationship with the land, but also a spiritual connection. They worship the agricultural land during cultivations and at the time of harvesting.

CONSERVATION PRACTICES OF THE ENVIRONMENT BETWEEN THE BISHNOIS AND THE NON-BISHNOIS

Nowadays, it has become quite the norm to exploit every meagre natural resource in the name of development. However, the Bishnois have been practicing a unique selfless dedication to nature in the Thar Desert, through their management of wildlife and other natural resources. Despite the hardships of desert life, they have been practicing wildlife conservation and they want to continue this even in the future. History is evidence of the Bishnois contributions towards the trees, animals and birds as well as other natural resources. The Bishnois struggle to adjust in the desert region has been recorded in their folklore and some of the earlier writings. The Bishnois made their region green and established harmonious co-existence with other animals and birds. Wherever there is greenery, wild animals and birds in the Thar Desert, it could be convincingly said that this is in the Bishnoi inhabited areas. The influence of the Bishnoi community can be seen on the neighbouring castes, tribes, and other religious communities. The non-Bishnois of Khejarli Kalan village say that they are very supportive of the conservation practices of the Bishnois. They also respect them for their outstanding contributions towards wildlife.

Andaramji Bheem (aged 60 years) from Raika community in the Khejarli Kalan village said, “We are very supportive of the Bishnois conservation practices, since our traditional occupation is pastoralism and we need fodder for goats, sheep and camels”.²⁵ He added that the conservation practices of the Bishnois not only help their community, but also to the inhabitants of the neighbouring areas. Both the Raikas and the Bishnois are vegetarian. The Bishnois have taken to vegetarian to protect the wildlife in their region. The Bishnois are very close with the non-Bishnois in their village. The Bishnois say that the villagers are dependent on each other in many ways.



Picture 4.5: Water Tank, called *Nadi*, Rain harvested water for the cattle and other animals. Photography by Researcher



Photo 4.6. *Tanka*, Rain water harvesting from the house roof. Photo captured by the researcher during the field work

The priestly castes in the village include; Brahmins, Vaishnavs and Saths (Das) who perform *pooja* at the different temples. The Brahmins in the village are supportive of Bishnois conservation of trees and animals in their surroundings. Satyanayana Dadich aged 70 years is a priest of two temples, Mahadev (Shiva) and Hanuman in the village, and his wife Madi Devi (age 65 years) said that the Bishnois efforts for the protection of trees specially *Khejri* trees and chinkaras, black bucks are appreciated. Further they said

²⁵ Interview with Andaramji Bheem of Khejarli Kalan village dated April 13, 2015, [English translation by researcher].

that, the village surroundings are full of many trees, birds, and wild animals because of the conservation efforts of the Bishnois there. The wild animals could move freely in the Bishnois *dhanis* without any fear. The poachers and tree fellers get scared with the Bishnois whenever they think of taking any step to kill wild animals or fell *Khejri* trees in the region. The desert life is dependent on the surrounding natural resources which are limited. The Vaishnav caste also supports the Bishnois practices of protection of trees in their surroundings. Goswami aged 52 years, a farmer said that the Bishnois protection of trees especially *Khejri* trees has historical roots. He further said the Bishnois are strict followers of their Guru Jambheswar's preaching. The priestly castes families in the village are pure vegetarians like the Bishnois.

The barbers are traditional occupational caste in the village called as *Sen*, or *nai*. Most of them are following their traditional occupation as barber in the village and other neighbouring villages and towns, cities. Some of the *nai* still provides their services to the some castes and communities in the form of *jajman* system. Most of the Bishnois take services from the *Nais* for their hair/beard cut. Apart from cutting hair and other services the *Nais* also plays a significant role in the Bishnois social institutions such as marriage and death processes. Ashok Kumar Sen (age 32 years), is barber having his own hair salon at Khejarli Board in the village. He was one of the informants who introduced the Bishnois. He said that the Bishnois are very strict followers of their community principles, especially the *niyam* (doctrines) which are related to protection of trees and animals. The unity among the Bishnois is strong as compared to non-Bishnois in the village. For any issues related to community and individuals, they take decision in their traditional panchayat.

The *Suthar* (carpenter) caste in the village is also supportive of Bishnois efforts, and appreciates the Bishnoi practices of conservation of trees and birds. The *Suthar* members in the village also follow vegetarianism. Their traditional occupation is carpentry. The Bishnois are farmers whose agricultural equipment and household tools are beings prepared by *Suthar*. Syamlal Budal (age 45 years), a carpenter, mentions that, "protection of trees is very important in the desert region and more credit goes to the Bishnoi community whose constant efforts results help plant and presence plenty of

Khejri trees in the region. We wait until the trees fall down due to their old age. The dried trees wood is used for different tool.”²⁶

The Rajput caste in the village is politically and socially dominating group in the village. They are the traditional ruling class and they have already ruled the study village. Most of the Rajputs accept the Bishnois 363 sacrifices in the 1730 A.D. but some of them have not accepted the incident. Some of them claim that out of 363 people, the non-Bishnois also sacrificed their lives while hugging trees. Achal Singh Champawat (age 40 years) is working in a private company in Jodhpur city said that, “Guru Jambheswar was a Rajput and many of the Rajput got converted into Bishnois and even different rulers of those period have also respected his teachings. Further the Rajputs are supportive of conservation of trees and animals of the Bishnois in their surroundings. The Rajputs also provide *chugga* daily to bird.”²⁷

The other people in the village are Muslims, Potters, Meghwals, Dholis, Mochi, Bhangis, etc., and they also support the Bishnois conservation practices. Most of the households in the village provide *chugga* to birds. The Bishnois are concerned about the *Khejri* trees and deer in their region green, and their continued efforts had turned the region with plenty of trees and many wild animals in the area. One could find out Bishnois agricultural field with many trees and non-Bishnois agricultural field with less trees. Sometimes, the non-Bishnois chops small branches of the *Khejri* trees in their agricultural field for using as a fodder for cattle, goats and sheep. The poachers are sacred to hunt wild animals and birds in the Bishnoi populated region.

²⁶ Interview with Syamlal Budal at his residence in Khejarli Kalan Village dated May 27, 2015, [English translation by researcher].

²⁷ Interview with Achal Singh Champawat at his residence in Khejarli Kalan Village dated May 12, 2015, [English translation by researcher].

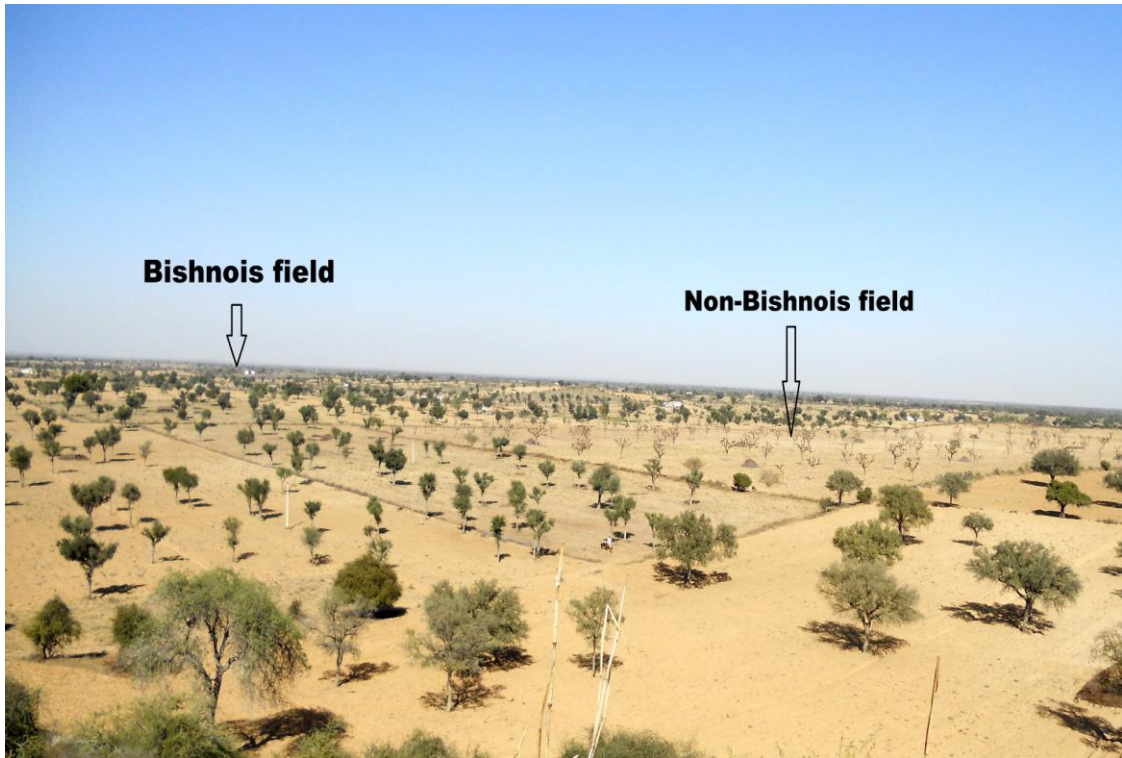


Photo. 4.6: Bishnois and Non-Bishnois protection of trees in their agricultural field where Bishnois will not prefer to cut the branches of trees in their field but Non-Bishnois does it.

Photo captured by Researcher

As earlier mentioned, Bishnoi religious principles have influenced their conviction about the protection of nature. The 19th principle says, “*Rukh Leela Nahi Dhawe*, (or *Hara Vruksh Nahi Katna*) (Maheshwari, 1976; Srivastava, 2001; Brockmann & Pichler, 2004), which means not to cut the green trees, plants, bushes and, sometimes, even grasses. These are some of the main distinctions between the Bishnois and non-Bishnois. The Bishnois not only follow the conservation practices, but also protect wildlife from others (poachers, tree fellers, etc.). The sustainable wildlife conservation practices are rooted in their religious philosophy and are practiced in their daily life and they are continuing these as part of their culture. The association of the Bishnois with wildlife and the significance of the 29 principles are being taught subsequently to their family members from the very beginning.

The Bishnoi children observe and take part in the conservation of wild animals, birds, and trees in their surroundings. By and large, children help their parents in the protection of plants (*Khejri* and others) in their agricultural fields and feeding *chugga* to the birds. The life cycle rituals of the Bishnois are distinct from those of the other communities. The

Bishnois follow *Chulu Paal*, *Sugra* rituals, where the young children are taught by the priests about the conservation practices and the importance of their religious values, ethics, rules and regulation. It has already been mentioned that the Bishnois bury the dead-bodies, instead of cremating these. However, members of the other castes in Hindu fold cremate their dead bodies. They try to minimise the burden on the nature. Ramuram Bhadu Bishnoi (aged 50 years) a farmer said that by burying dead bodies, they save many trees, since the desert region has less plant species in the region.

The traditional political system of the Bishnois is strict. It is mandatory to obey the decision of the community Panchayat. The political rules and regulations of the community are much synchronized with their religious doctrine. The punishment for an offence is generally in the form of fine. The fines could be in the form of cash or grains (in quintals), and sometimes both, which would be used to feed the wild animals, birds. The cash fines could be used for constructing of water tanks for the wildlife and, at times, used for the maintenance of their temple. On some occasions, the Panchayat might decide that the guilty person should be socially boycotted for some time from the community. These kinds of practices were not being practiced by the non-Bishnois in the study village. The social and cultural practices of the Bishnois are different from those of the non-Bishnois in the region. For the wedding ceremonies, the Bishnois do not consider any auspicious day and time for the marriage. The Bishnoi community does not requisition the services of Brahmin priests for their marriage rituals. The Bishnois have their own community priests, who conduct the marriages and other rituals in the community. The Bishnois do not follow any auspicious days for the marriage or any other rituals, except on the *Amavasya* day, because on this day, they do not go for cultivation of land and sell milk. Many Bishnois observe a fast on this day. The Bishnois assert that their Guru Jambheswar had said: “For the Bishnois, every day and time is auspicious. So, they can start any new work at any day and any time”. On the other hand, the non-Bishnois tend to consults astrologers and find the auspicious day and time for the weddings and other purposes. The Bishnois do not practice circumambulation seven times around the fire, which is almost the norm in most other Hindu marriages. The Bishnoi community does have *Paal* rituals during the marriage ceremony. Once the *Paal* is taken by the both the groom and the bride, they consider that the marriage ceremony is over. Several procedures about life cycle rituals have already been discussed in chapter three.

The Bishnois do not consider a child as a Bishnoi, until the *Paal* ceremony takes place after thirty days. The Bishnois first religious principle is *Tees Din Sutak*, which means after its birth the *sutak* ritual is being observed for 30 days after the childbirth. On the last day, the Bishnois go for the *Chulu Paal* ceremony. From then on, the newborn child is considered part of the community.

There has been a tremendous influence of the Bishnois on the non-Bishnois regarding the relationship with nature, especially protection of wildlife in their region. The Bishnois have strongly resisted the actions of the poachers and tree fellers. There are several reasons for the persistence of their movement in the Thar Desert. A number of incidents have taken place in different places between the Bishnois and poachers, rulers and the authorities. The Bishnois had sacrificed their lives, while protecting wild animals and trees in their inhabited areas (Brockmann & Pichler, 2004; Jain, 2011). They unite very quickly, when it comes to wildlife-related issues. The poachers are scared to kill wild animals and birds in the Bishnoi populated region. The non-Bishnois claim that the Bishnoi movements have had a positive effect on them.

According to Khamuram (aged 50 years), “Loving and protecting the wildlife is rooted into the *Sampradaya* (culture) of the Bishnois. The protection of trees, animals, and birds as well as other natural resources has come as a means of compassion, and it can be continued among others once there is a change in the people’s *Soch* (thinking) and *Adat* (behaviour). This is because whatever we get for our survival comes from the *Prakriti* (nature).”²⁸

The religious institutions of the Bishnois provide the form of laws and conventional information for the administration on methods for conserving the scarce wildlife and natural resources. Social institutions are considered as an essential medium of interaction between the Bishnois and the environment in executing the religious doctrines and ecological norms among the people of the community. Traditionally, the Bishnois have been cultivating land and their economy is largely dependent on agriculture.

²⁸ Interviewed with Khamuram. Interview done in Jodhpur city. Interview date on May 11, 2015. [English Translation by researcher]

COMPARISON BETWEEN THE BISHNOIS AND THE FOREST DEPARTMENT WITH REGARD TO THE CONSERVATION OF ENVIRONMENT

In India, scientific forestry and the forest department was introduced by the British rulers during the colonial period. The Forest Acts were enacted in the 1865, 1878, 1927 and the Wildlife Protection Act, in 1972. The Wildlife Protection Act 1972 exclusively emphasizes on the wildlife protection in India. However, the Bishnois have been protecting wildlife since the 15th Century. Wildlife protection in the Bishnoi region has become the norm in 1730, when 363 Bishnois sacrificed their life, while protecting the trees. In 1730, the Bishnois mobilised people and made a strong demand to the Jodhpur King, Maharaja Abhay Singh, that wildlife protection should be implemented in the Jodhpur princely state. According to the Bishnois, the King accepted their demands and gave a *Tamara Patra* (written proof) to the Bishnoi elders and made a rule that there should not be felling/cutting of trees and poaching of animals and birds in the Bishnoi inhabited areas. The Jodhpur king was also advised to collect less amount of tax (grain) from the Bishnois, because they were feeding grains and water on a daily basis to the wild animals and birds.

The Bishnois' conservation practices of trees, animals, and birds as well as other natural resources have recognized by the forest departments and the environmentalists. The Bishnois know how to protect limited resources and utilize them in systematic manner. The trees are protected by giving water and keeping their surroundings clean at the initial stage in their agricultural field, until the *Khejri*, *Jaal*, *Hari Kankedi* plants mature. The Bishnois are able to create agro-forestry in their agricultural field in the Thar Desert. We can see the differences between the Bishnois agricultural fields and non-agricultural fields. The Bishnois agricultural fields are full of trees and most of the non-Bishnois agricultural fields either have less trees or trees' branches are chopped.

Protected Areas Scenario in Rajasthan:

The Rajasthan state has 32 districts and the forests cover an area of 32,638.74 sq. km which is 9.54% of the total geographical area of the state (Indian State of Forest Report [ISFR] 2011). These are spread unequally in the northern, southern, eastern and south-eastern parts of the state. There are five national parks, twenty five wildlife sanctuaries and four conservation reserves in the state of Rajasthan. The state has many Protected Areas (PAs), teeming with wildlife, which is not confined to the National Parks and

Sanctuaries alone. In fact, a lot of wildlife, barring tigers, can be found in areas outside the PAs.²⁹ Apart from the protected and reserve areas, there are four types of land areas that are managed by the village Panchayat land or communal land in western Rajasthan. These includes the following; *Goucher*, Community enclosure, *Oran*.

Oran is the land left for the temple and other sacred activities in the village. The authority on this land is exercised by the local people. The Khejarli Kalan village has different temples and other sacred places for different castes, tribes and other religion communities. In the *Oran*, the cutting of trees and grazing are restricted activities. The Bishnoi community has one huge tract of land for its temple in Khejarli Kalan village. This is known as 363 *Shahid Sthal*. The members of this community have planted hundreds of trees, including *Khejri*, *Neem* and *Imli* (Tamarind), in the areas surrounding the temple. In the temple area, grazing and cutting of trees and even collecting firewood are not permitted. Some *Orans* are maintained by the villagers, but other *Orans* are maintained by the community. Jha and others (1998) studied the *Orans* (sacred groves) on two Bishnoi villages, namely, Peepasar in Nagaur district and Khejarli in Jodhpur district. They concluded that that Khejarli Kalan village covers up an area of 157.56 hectares (as cited by Malhotra, et al., 2001, p. 22).

A district forest officer of Jodhpur told the researcher that, “The forest departments are not unduly worried about wildfires in the Bishnois populated areas, because the Bishnois have been guardians for the wildlife for centuries”.³⁰ It does not mean that the non-Bishnois are not following the conservation of wildlife practices in the desert region. They indeed do, but, as compared with the Bishnois, they are less active in this regard. He further stated: “The forest department is also taking help from the Bishnois community in the protection of wildlife. In fact, two forest guards are working in the Guda Bishnoiyan protected area, which falls under the Luni Tehsil forest area. Their responses were good about the conservation of wildlife in that area”.³¹

The Bishnois also advise on how the forest division authorities to care of the wildlife and they pass on information about the poachers and tree fellers to the forest department. The

²⁹ *Ibid* 2011.

³⁰ Interview with Mahindra Singh Rathore, District Forest Officer (DFO) of Jodhpur dated January 6, 2015, [English translation by researcher].

³¹ *ibid*.

neighbouring community constantly gets motivation from the Bishnois in ensuring the safety of natural resources. The Bishnoi community has several organizations which are working for the protection of wildlife. Then national level organizations are like ABBJRS, Tiger Task Force and in addition several individuals and organizations are working at the regional level for betterment of the environment.

Environmental Movements of the Bishnoi Community:

Most of the indigenous/tribal people are attached with their surrounding environment, either in the form of economic benefits, or spiritual relationships with it. If this relationship is disturbed by internal or external factors, the local people try to protect their interests. They have some kind of environmental ethics, cultural codes, through which they urge other members of the community/group to raise their voice against the exploiters. In this process, people may go in for agitation or prepare political agendas against such kinds of exploitation. Similarly, whenever the wildlife in the Bishnoi areas was harmed, members of this community have strongly protested. The protection efforts may be from individuals, groups at the community level. The Bishnois say that if they see someone felling trees or hunting for any animals or birds in their region, they resist such actions, even at the cost of their lives. The folk literature, handwritten documents (*Poti*) and printed documents on the Bishnois reveal their commitment towards wildlife. Sahabramji Rahad (1814-91 A.D.) has mentioned in his book, *Jambha Sara* that the earliest agitation of the Bishnois against hunting of wildlife was in the year 1604 (Jain, 2011, p. 16). The Bishnois called it the first *Saka* (self-sacrifice), where two Bishnoi women, Karma and Gora, sacrificed their lives, while protecting trees in the village Ramsari of Jodhpur area (Kapur, 2008; Jain, 2011). The Bishnois became conscious when the first incident took place.

The second incident took place at Pilwas near Merta of Nagaur district in the year 1643, where non-Bishnois felled trees to celebrate *Holi*³² festival. Buchoji Bishnoi sacrificed his life at the hands of tree fellers (Saran, 2001). The reason for not allowing cutting of trees in their region was to protect keystone trees, because such trees are able to sustain themselves in the particular environment. The detail of *Khejri* tree and its significance in the Thar Desert has already been discussed. Though there have been different social, political, economic and religious diversifications in western Rajasthan, the Bishnois have

³² *Holi* is a Hindu festival.

strictly followed their religious principles and tried to maintain a harmonious relationship with the wildlife there.

A very significant incident took place in 1730, at Khejarli (local name, *Khejadli*) village near Jodhpur city of Rajasthan, in which 363 Bishnois sacrificed their lives, while protesting against the soldiers, who were felling *Khejri* (*Khejadi*) trees (Maheshwari 1970; Kapur, 2008; Jain, 2011). On Tuesday September 9, 1730, some soldiers of Maharaja Abhay Singh (the then King of Jodhpur) arrived at Khejarli village for cutting *Khejri* trees to use for the construction of a new palace. The soldiers started felling trees and a Bishnoi woman, Amrita Devi,³³ from Khejarli village objected to that, but the soldiers ignored her protest and continued to fell the trees. She soon rushed to a *Khejri* tree and hugged it. It was the form of protest, but soldiers again ignored her and told her to get away from their path and allow them to cut trees. She proudly uttered her last words, “*Sar Santé Rukh Rake to bi Santho Jaan*” (Maheshwari, 1970; Kapur, 2008; Jain, 2011), which means, if a tree is saved, even at the cost of one’s head, it is the cheapest deal. The soldier chopped her head, along with *Khejri* tree. Immediately after that, Amrita Devi’s three young daughters also hugged the trees and offered their heads. As soon as the villagers got the information, they also rushed to the massacre place and one by one 363 Bishnois sacrificed their lives by clinging to the trees. The Bishnois believe that when the message reached the different Bishnoi villages, other people also came to the village, hugged the trees and sacrificed their lives. The Khejarli village incident has been discussed and mentioned by the different scholars. Hiralal Maheshwari (1970) compiled handwritten documents and oral narration about the Khejarli Village incident, which termed as Khejarli *Khadana*. Krishanan Lal Bishnoi (2000) has also cited writings on *Khayat of Khejadli Village* in the narration of the Bishnois regarding the incident. The Bishnoi religious priests have also spread the information about the Khejarli incident. Mangilal Rao and Bhagirathrai Rao were two men from the traditional recorders of historic events of the Bishnoi community. They gathered information about the incident from oral and hand written documents in the years 1976 and 1977 (Jain, 2011, p. 65). It was brought out that Bishnois from 49 villages had sacrificed their lives in Khejarli *Khadan*. The total numbers of sacrifices were 363, including 294 men, 69 women and

³³ Shankar Das Maharaj (age 45 years), a priest at the Khejarli village temple, says that Amrita Devi’s house was near the *jaalnadiaya*. The folk narration reveals the Bishnois started worshipping at *jaal nadiya* after the massacre. The Bishnois believe that soil at the place of massacre is still in red colour, because of the blood of the martyrs.

36children.³⁴ Some Bishnois believe that the massacre continued for two to three days. According to Mangilal Budiya (aged 65 years) a farmer and editor of the *Jambh Jyoti* Bishnoi monthly magazine, the Bishnois were aware of environmental issues much before the established government became conscious of the issues.

It is believed that as soon as the King, Maharaja Abhay Singh, got information about the massacre, he immediately ordered the soldiers to stop the killings. The Bishnois of Khejarli³⁵ and Guda Bishnoiyan villages believe that king, Maharaja Abhay Singh, arrived at the spot of the massacre and met the members of the Bishnoi Panchayat at Guda Bishnoiyan *Sathri*.³⁶ Bishnois from 84 villages were also present during this interaction. The *Sathri* is about three to four kilometres from Khejarli from the massacre place.²¹ They believe that Maharaja Abhay Singh apologised for the massacre and accepted the demands of the Panchayat members of the Bishnois. The king issued (written on) a *Tamara patra* (copper plate) to the Bishnois by saying that trees should not be cut and wild animals, birds should not be hunted in the areas where the Bishnoi community inhabited. Also, lesser tax (1/5 of grain) would be collected from the Bishnois, because they were providing *Chugga* to the wild animals and birds.

The Bishnois proudly claim that conservation of wildlife practices and protection of forest was started much before the British India Forest Act 1865, Indian Forest Act, 1927 and the Wildlife Protection Act, 1972. The Bishnois' struggle for protection of wildlife has continued and they tried to influence several rulers to declare prohibition of hunting animals and birds and cutting of trees in their regions. In the process, the Bishnois received good response from different rulers. For example, in 1752, the King of Bikaner, Maharaja Anup Singh, issued orders prohibiting the cutting of green trees (Jain, 2011, p. 72). The bravery and commitment of the Bishnois had an impact on different rulers in

³⁴ *Ibid* 2011, p. 65.

³⁵ Some Bishnois say that the village had acquired the name, Khejarli, before the massacre of 1730 AD. It was so named because there used to be very thick *Khejri*, and *jaal* trees surrounding the village. The people used to get scared to enter this place. The *Jaal Nadiya* was the only water source for the surrounding villagers and they used to collect water from it. Irrespective of caste and religion, they used to collect water from the *Naadi* (well).

³⁶ Historically, the villages Guda Bishnoiyan and Khejarli have been the main center for the Bishnois of 84 villages. Most of the issues were resolved in the traditional Panchayat. The traditional Panchayat used to hold its meetings at the Guda Bishnoiyan *Shatri* or Khejarli village. The Bishnois of Khejarli village believes that the 363 martyr meeting took place at the Guda Bishnoiyan *Sathri*.

their region. Though there were different political conditions in the desert region, the Bishnois stood against the exploiters - even the kings.

After the Second World War, the environment awareness assumed greater importance in the west, as well as in India. The Bishnois became more aware of the environmental issues and they are now logically connecting their traditional conservation practices to the contemporary environmental problems. In 1965, the Rajasthan government declared the place where the massacre took place as a protected one. In 1965, the Khejarli temple and later, *Shahid* (martyr) *Stupa* were built by the Bishnois. Shankar Das Maharaj (aged 45 years) said that before the Bishnoi temple was constructed at Khejarli Kalan village, the Bishnois used to visit and pray at the place where the massacres took place.

363 *Shahid Mela* (Fair):

In remembrance of the martyrs, the Bishnois celebrated the first *Mela* (fair) in the year 1978 (Jain, 2011). Now, every year, a *Mela* is organised in Khejarli Kalan village temple. The Bishnois have planted 363 *Khejri* trees in the area surrounding the temple (*Mindir*) of *Shahid Sthal* (martyr place) to commemorate the sacrifice of the martyrs. Apart from that, there are several *Nimboli* (*Neem*), *Imli* (tamarind) and *Papal* trees along with the *Khejri* trees. The *Shahid Sthal* is considered to be one of the eight *Dhams* (pilgrimage centres) for the Bishnoi community. The Bishnois plant trees, especially *Khejri* trees, near about *Shahid Sthal* every year on the occasion of the *Mela*.

Similarly, on September 2015, the 363 *Shahid Sthal Mela* was organised in Khejarli Kalan village. The Bishnoi devotees arrived from the states of Rajasthan, Haryana, Uttar Pradesh, Punjab, Madhya Pradesh and Delhi. On this occasion, various environmental and health related contributions were made by the Bishnois. The Bishnoi youths donated blood around 280 units (*Bhaskar News*, September 24, 2015)³⁷. The Bishnoi youths explained that every year they donate blood in the Bishnoi *Melas* (*Mukham Mela*, 363 *Shahid Sthal Mela*, etc). In such *Melas*, the Bishnois maintain stalls, with the support of the state forest department. In these stalls, *Khejri* plants are provided to the devotees for planting in the area surrounding the *Shahid Sthal*. Some of the devotees take the *Khejri* plants to plant in their agricultural fields. This kind of practice reminds them to follow

³⁷ Bhaskar News. 2015. "*Khejarli Mela main Shahidon ko shradhanjali*", *Dainik Bhaskar*. website, September 24. Accessed [October 19, 2016]. <http://www.bhaskar.com/news/RAJ-JOD-HMU-tribute-to-martyr-in-jodhpur-5122346-PHO.html>.

their religious principles and also establish a strong relationship with nature. The *Melas* not only provide for religious interaction, but also social relationships among the members of the community. In the *Melas*, a *Nasha Mukti Ayojan*, is organised where the people are exhorted to avoid the consumption of addictive items like, *hafeem*, *tobacco*, etc. The Bishnoi women hug *Khejri* trees to express their respect to the martyrs. *The Akhila Bhartiya Jeev Rakhsha Bishnois Sabha* (ABJRBS) is spreading awareness about the environment. Khamuram Bishnoi aged 50 years and his team of volunteers have been removing plastic bags and spreading awareness about the importance of conservation of water.

The story of the Bishnois sacrifices and Amrita Devi's bravery is famous not only among the Bishnoi community but has also been recognised by the government of Rajasthan and the Government of India. The Amrita Devi Award, instituted by the Union Ministry of Environment and Forests, is given to a person on the basis of his or her contributions to wildlife (*The Hindu*, May 30, 2003, as cited by Jain, 2011, p. 66). The first award was given to Gangaram Bishnoi's family for his sacrifice while protecting deer from the poachers on August 12, 2000 (*The Times of India*, 2000). In the third standard text book of the State of Rajasthan, there is a chapter about the Khejarli village massacre and Amrita Devi's contribution. To spread awareness about wildlife among the children, the state government has designated the *Khejri* tree as the state tree. The government of India has released a postage stamp about the *Khejri* tree (use picture).

The news about the contribution of the Bishnois towards wildlife has spread internationally. Some documentaries, in French and English languages, have been produced about the 1730 incident. The documentary, *Willing to Sacrifice*, depicts the love of the Bishnois for wildlife. This short film won the best environmental film award in the Fifth International Film Festival (Jain, 2011, p. 69). The famous Chipko Movement, led by Sundarlal Bahuguna, in Uttaranchal, drew its inspiration by the 1730 incident. Mr. Bahuguna has openly acknowledged this fact. Vandana Shiva (1988) has mentioned about Amrita Devi an eco-feminist who sacrificed her life while protecting trees. However, Indian environmental scholars like Ramachandra Guha, and Madhav Gadgil have ignored the environmental movements launched by the Bishnois.

Several incidents took place in the regions that predominantly inhabited by the Bishnois after the 1730 incident. A mention of these has been made in the literature about the

Bishnois (Brockmann & Pichler, 2004; Jain, 2011). In 1946, Dhonkal Ram son of Lachhman Ramji Maal Bishnoi, a resident of Rotu village in Nagaur district of Rajasthan, sacrificed his life while protecting antelopes (Saran, 2001). On April 12, 1947, two brothers, Chima Ram (aged 35 years) and Pratap Ram Bishnoi (aged 29 years), sons of Gokha Ramji Bishnoi, residents of Barasan village of Barmer district in Rajasthan, lost their lives at the hands of poachers while trying to prevent the hunting of deer in their surrounding area.³⁸ The (March, 2001) issue of the *Amar Jyoti* magazine carried a news report that Arjun Ram Bishnoi (age 36 years), son of Prabhuramji Panwar Bishnoi, hailing from Bhagtasni village of Jodhpur district, Rajasthan, lost his life while trying to protect deer. On 17th May, 1963, Binya Ram (aged 25 years), son of Lala Ram Godara, who hailed from Banar village of Jodhpur district of Rajasthan, sacrificed his life while protecting black bucks.³⁹ Another supreme sacrifice was made on 17th December, 1977 by Birbal Ram Bishnoi (aged 30 years), son of Birdaramji Khichad, who was a resident of Lohawat village of Jodhpur district in Rajasthan. He was trying to save deer from the poachers.⁴⁰ Jain (2011, p. 69) has written that dozens of similar incidents of martyrdom in the process of saving wild animals and birds were recorded by Hanuman Singh Bishnoi in his writings (Brockmann & Pichler, 2004).

A well-known sacrifice was that of Nihal Chand Bishnoi (aged 30 years), son of Hanumanji Dharnia resident of Sanwatsar village in Bikaner district of Rajasthan. He was shot dead by the poachers while he was trying to save deer on 3rd October, 1996. His sacrifice made Bishnois very strong and the news spread nationwide. The documentary film, *Willing to Sacrifice*, describes the incident and his father mentioned that the poachers had killed his son. Both the state and central governments recognised the supreme sacrifice made by Nihal Chand Bishnoi. The government of Rajasthan conferred the *Amrita Devi Smriti Puraskar* on him posthumously on 28th August, 1997. At the same time, the President of India, K. R. Narayanan, honoured Late Nihal Chand Bishnoi with the *Shaurya Chakra* on 22nd September, 1999 (Saran, 2001& Jain, 2011). The researcher visited the martyr's village and interacted with his family members about the incident during his fieldwork in December, 2012. The Bishnois have installed a statue of Nihal Chand Bishnoi in the circle of the village to commemorate his bravery.

³⁸ *Ibid* March, 2001.

³⁹ *Ibid* March, 2001.

⁴⁰ *Ibid* March, 2001.

On 12th August, 2000, Ganga Ram, son of Phoosa Ramji Isarwa, hailing from Cheri (Aekal Khori) village of Jodhpur district in Rajasthan was shot dead while he was chasing poachers for a distance of five km. To recognise his bravery, the government of Rajasthan conferred the *Amrita Devi Smriti Puraskar* on him in 2001. The *Jeev Jantu Kalyan* Board of the Government of India awarded him *Prani Mitra Award*. The government of Maharashtra awarded him the *Jeev Dayal Puraskar* and many other Non-Governmental Organisations (NGOs) also honoured him for his bravery and love towards wildlife (Bishnoi, 2001).

A more recent incident took place on 29th January, 2014, in which a Bishnoi youth, Saitanram Bishnoi (aged 25 years) lost his life while protecting chinkaras from poachers near the Manu village, near Jambha in Phalodi Tehsil of Jodhpur district. He noticed some poachers hunting *chinkaras* and chased them in his *Bolero* (four wheelers vehicle) and caught them. But, one of the poachers shot at Saitanram Bishnoi and he died on the spot. After the incident took place, a large number of Bishnois arrived at the place and demanded special status for Saitanram from the District Collector.⁴¹

The Bishnoi literature both in its oral and written forms mention about several incidents of poachers killing wild animals and birds in the areas largely inhabited by the Bishnois, for e.g., the July 2001 issue of the *Amar Jyoti* magazine reported that, in August, 1957, some poachers of Mahalla Asalatpur of Moradabad district in U.P had killed deer at the Hakimpur area of Moradabad. Immediately, on hearing the sound of gun shots, two Bishnois, Bhudu Singh Bishnoi and Satbir Singh Bishnoi, rushed to the spot, caught the poachers and punished them. The dead body of the deer was buried according to the Bishnoi tradition. Similarly, Bishnoi (2002, p. 170) cited the incident on 12th June, 1994, when poachers had killed deer near the Lions Nagar colony of Khejarli Kalan village. Immediately Bishnois rushed to the spot and caught the poachers. The Bishnois filed a case against the poachers and handed them over to the authorities of the forest department (Saran, 2001).

The Bishnois believe that they are prosperous because of their eco-friendly lifestyle. They are passionate lovers of wild animals, trees and birds. It is because of such a protection, that in the Bishnois populated areas, wild animals and birds can be seen moving about freely, despite the fact that the area faces severe water shortage. The free movement of the

⁴¹ *The Times of India*, 30th January, 2014.

wild animals and birds and protecting trees have entailed a lot of struggle by every individual in the Bishnoi community, as well as cooperation from some non-Bishnois too. In the process, several persons lost their lives. The supreme sacrifice and continuous struggle for the protection of wildlife has given strength to the community in the conservation process. These issues have been repeatedly discussed by the Bishnois.

Case Study -1.

Salman Khan Case:

Salam Khan, a Bollywood star, was booked by the Bishnois and the forest department for poaching of two deer in the Bishnoi area of Jodhpur district on 2nd October, 2008 (Saran, 2001). The researcher visited the place where the incident took place. The place is about 20 km from Jodhpur city and 8 km from the study village. This place is close to Kakani village. This incident caused ripples nationwide and globally.

According to Sukhdev Thapan (aged 55 years), a priest of the *Mindir* (temple) in Kakani village, in 1998, around mid-night, there was a marriage celebration in the village. A gunshot was heard. The Bishnois rushed to the spot and attempted to stop the vehicle, yet the poachers escaped. The Bishnois followed the vehicle and traced it to Jodhpur city and found two dead black bucks in it. The police found out that Salman Khan was in the vehicle and registered a case against him. The government of Rajasthan gave 8 *bighas* of land to the Bishnois for the protection of wildlife at the place where the incident occurred. The land was given as a reward to the community for its strong commitment towards the welfare of the wildlife.

After six months of the incident, the Bishnois built a *Chugga Chabutra* at the hunting spot. The temple priest collects grains from the surrounding villages and provides *chugga* to the wild animals and birds every day. The measure of *chugga* should not be less than 5 to 10 kg for each day. The area surrounding Kakani village is a protected area, in which huge bushes and trees and two water lakes can be found. A large number of *Chinkaras*, black bucks and Siberian birds can be found near the lakes in the evening. There is a forest department guest house for tourists and a spot for sightseers close to the lake. Tourists visit the place from the different places, including from the other countries. Residents of the surrounding villages provide *chugga* to the wild animals and special hospitality is given to the Siberian birds in the region.

The Salman Khan case has made the community popular and brought their strong commitment and relationship with wildlife to the limelight. The media have covered the incident and also highlighted the environmental movements of the Bishnois. One side the poachers and tree fellers have been protected by the Bishnois. Other side, some of the individuals has been doing tremendous job for the conservation of trees and animals.

Case Study -2.

Khamuram Bishnoi's Contribution towards the protection the Environment:

Khamuram Bishnoi is a well-known person among the Bishnois. He hails from Aekal Khori village, which is around 80 km from Jodhpur city. He is a social worker, who has been fighting against the utilisation of plastic sacks in the *Melas or Jathras* (folk festival) for 20 years. His aim is to engage individuals to stay away from plastic sacks and advises them to utilise jute bags. He spread his message among the Bishnois in the *Melas*. He alone started this movement and later a couple of individuals joined him in his crusade. At present, around 100 individuals are working with him. He and his group members arrange no less than 5 -10 *Melas* in a year. Very early in his life, he got inspired by the example of Ranaram Bishnoi, who hails from his own village. He used to observe and help Ranaram Bishnoi, who used to plant trees in the areas surrounding his village. That is how he developed his interest toward nature. He attended an environmental protection course and visited France and other European nations to spread awareness about the Bishnoi philosophy and its concern for nature. He was honoured and rewarded by the Bishnoi associations, the state government and educational institutions and universities. In spite of the fact that he is employed in the Jodhpur Bench of the Rajasthan State High Court, whenever he finds time, he is always willing to give his support to the individuals and his community members.

SOCIAL STRUCTURE OF THE BISHNOIS: CONTRIBUTION TO THE CONSERVATION OF NATURE

Guru Jambheswar has given *paal* (sacred water) to the people who accepted the 29 principles and they became Bishnois. The Bishnoi literature mentioned that people who accepted the 29 principles were from 25 castes and communities (Bishnoi, 2009, pp, 14-16). However, the Bishnois' story tellers and genealogy writers (*vamsavali*) called Bai Bhats, said that, "the people who accepted the 29 principles were from 36 *kom* (caste and

community)”⁴², including the higher caste like the Brahmins, and the lower castes Meghwal and Bhangi. The People from the castes and other communities who accepted the principles of the Bishnois are the *Jat (80%), Agrawal (Baniya), Rajput, Brahman, Kurmi, Ahir, Sutar (Khati, Jangad, Badai, Tarkhana), Sunar, Nayi, Teli, Gayana, Dhangar purvia (Puri), Gujar, Gupta (Vans), Chimpa (Darji), Taga (Tyagi), Maheshwari, Kasbi, Behada, Julaha (Bugar, Bejara), Puspakaran (Pohkarana), Bajaj, Baniya (Baniya), Saraswat, and Srimali* (Bishnoi, 2009, p,14).

Within the Bishnois, the division of sub-groups on the basis of their occupational specialization such as Bishnois (general, cultivator and many other occupations), Thapan Bishnois (priests), Gayana Bishnois (priests and folk story tellers), Sutar Bishnois (carpenters), Dhangar purvia (*Puri*) Bishnois (sheep, goat and camel herders).

Kinship Relationship and Social Organisation:

The Bishnoi community is a patrilineal in descent and patrilocal in marriage, and divided into various sub-groups. The sub-group is further divided into *gotras* (clans). The Bishnois are *gotra* exogamous and the Gayanas Bishnois, Sutar Bishnois are sub-groups endogamous but the Thapan is exogamous sub-groups. The Bishnois of Khejarli Kalan village consists of the Bishnois (general) and Thapan Bishnois.

The institution of marriage was built in such way that the Bishnois should obey the rules and regulations of the community. It is believed that after taking *paal* (sacred water), members of the groups were considered equal among themselves. The Bishnois of Rajasthan have a good relationship within the community bound in the social institutions. The elderly person in the family has the authority to make decision in the family. Family matters are discussed between the wife and the husband. In case of joint family, the discussion takes place among the elderly persons. The *gotra* of elderly person(s) are respected by members of the *gotra* and they were invited to participate in the function or rituals such as *paal* ceremony for birth, *sugra*, marriage and death.

Social structure among the Bishnois is strong and they strictly follow their principles especially related to conservation of the environment. The “social interactions between the individuals, institutions and social organizations and cultural norms” (Ban, et. al.,

⁴² Interview with Harbajan Bhat at Melana village of Jodhpur district dated December 12, 2014, [English translated by researcher].

2013, p. 194)⁴³ plays a very significant role in the management of natural resources. The political institution plays an important role in conservation of environment as it regulates different individuals, families, *gotra* and sub-*gotras* and encouraging them to follow and practice. Therefore, the Bishnois are identified through their practices which have been strictly in upholding the conservation of various species and natural resources in their region. The traditional Panchayat of the Bishnois also allows the individuals to give opinion on the conservation of different species. The decision and issues related to the poachers and tree fellers have been resolved in the traditional Panchayat.

The Bishnois's compassions towards all living beings and the emotional attachment towards the species such as *chinkaras*, *Khejri* trees, *neel gayi*, peacocks etc in their surroundings. The emotional attachments towards the trees such as *Jaal*, *Khejri*, *Hari Kankedi* have given birth to the historical movements for the protection of trees from wood cutters. The courage in sacrificing their lives while protecting animals and trees in their surroundings since the 16th century has made the Bishnois more emotionally attached with species and nature.

The members of the Beniwal *gotra* in the study village are emotionally attached with the incident in the year 1730, in which, Amrita Devi was the first person to sacrifice her life while protecting trees from tree fellers. The members of Beniwal *gotra* said that Amrita Devi Beniwal belongs to their *gotra* and they are proud of her bravery.

Social Influences in the Conservation of the Environment:

The social influence among the members of the Bishnois with regards to the conservation of trees, animals and plants as well as other natural resources comes through their feelings beliefs, and attachments learned through members of the community. The social norms of the Bishnois restrict its members from over exploitation of natural resources in their surroundings. The social norms are combined with their beliefs that help Bishnois to continue their conservation practices. Their belief systems of worshiping trees and animals can observed during several occasions like *melas*, festivals, ceremonies, etc. The Bishnois hugs the *Khejri* trees and worships them. The grains were fed to the wild animals on daily basis. The members of the family, clan and community are very alert on the issues related to protection of the environment.

⁴³ https://drive.google.com/file/d/0BwvjoN-q7yJ_cHhISFdNWEIKWjg/view.article.

Behavioural Aspects in the Conservation of the Environment:

The social behaviour also plays a major role in the conservation of different species in respective areas. The social behaviour among the Bishnois with regard to the conservation has been embedded in their day to day life. The structural relationship between the individuals provides scope for treating the wildlife and nature well in maintaining the ecological balance in the process. The ecological, economic, technological and demographic conditions in the Thar Desert in the 15th century made different individuals regardless of their socio-cultural and economic background to follow the Bishnois' doctrine in order to survive in the hot region. The social structure have been playing significance role in binding members of the community together.

To spread awareness about the community and other related information, the Bishnoi community has launched monthly magazines, like *Amar Jyoti* and *Jambh Jyoti*. Recently, the Bishnoi has community built a library in the name of *Jambhani Sahitya Academy* in Bikaner city of Rajasthan. The academy publishes literature about the Bishnois. Apart from print communication, the audio and visual media are being used to spread information about the Bishnois - religious values and impact on the protection of wildlife in their surroundings.

The conservation practices of the environment among the Bishnois have been followed through their socialization process. The practices have been observed in the Bishnoi community in the day to day life. The protection and conservation of various species (both plants and animals) are rooted into their culture. The ecological knowledge has been transmitted to one generation to another. The survival of the Bishnois depends on the surrounding natural resources and these resources have been systematically inter-connected with different species and other resources. The Bishnois claim that the contribution of each species -animals, birds and trees- towards others has showed their interrelationship and inter-dependence. The Bishnois try to balance the desert ecosystem by obeying their moral, ethical and religious values and constant efforts has been made to achieve their goals. In the process, many of the Bishnois have lost their lives while protecting trees and animals in their respective places. On the other hand, some of individuals from the community have dedicated their life in planting trees and protecting animals. The appreciation comes from the neighboring non-Bishnois and officials of the

forest department as well as from various governments for the contribution of members of the community in balancing their surrounding ecosystem in a sustainable manner.

Chapter- 5

Summary and Conclusion

The current global environmental crisis urges one to critically think and understand the relationship between human being and nature, and the way human depend on the nature for their survival. Major issues like climate change and environmental issues have become buzzwords for both natural and social sciences as it question the survival not only of human beings but also other lives on earth planet. Global warming and climate change have already adversely impacted life on earth. If these issues are not debated, discussed and addressed urgently, it may lead to irreversible environmental damage.

Human beings know that without protecting the natural environment and non-human species in their surroundings their survival would be difficult on earth. Despite knowing about the negative consequences due to misuse or overuse of natural resources, we still observe the continuous exponential increase of the human pressure on the natural resources through the anthropogenic activities. However, there are tribal/indigenous communities across the globe that has been practicing conservation of the bio-ecosystem such as protection of animals, birds, trees, hills, rocks, water bodies, etc. maintaining the environment in a sustainable way. These practices are part of their social, economic and spiritual relationship. The early Vedic and non-Vedic religions like Jainism, Buddhism, and others have also given importance to the five elements - air, water, earth, fire and space. It is mentioned that the animals, trees, and birds were worshiped. Even archaeological evidence from the Harappa and Mohenjo-Daro' civilization showed that animals and species were worshiped.

To overcome the current environmental problems, the need of the hour is to critically understand the process of conservation among the different tribal/ indigenous communities. Various studies in social sciences have attempted to explain the dynamic relationship between society and nature. In this context, the ethnographic approach in anthropology helps in understanding the interaction between culture and the environment at micro level. Anthropological research on processes of conservation of trees, animals, birds, water bodies, etc. among different communities showed relationship between religious beliefs, practices, and ethical values with their environment. There are indigenous communities in India who have been protecting the natural resources and various species as part of their cultural practices. The Bishnoi community in western

Rajasthan is one of them, have been practicing sustainable conservation of nature in the Thar Desert region for centuries.

The present research has been undertaken with the intention of trying to understand the religious principles, cultural ethos and traditions of the Bishnoi community in conserving and protecting nature in the Thar Desert region of Rajasthan. The endeavour is to recognise their practical efforts on the ground towards addressing various issues regarding nature and making their habitat sustainable where plants, birds and animal life can enjoy equal right to life.

The conservation practices of the environment and harmonious relationship with the surrounding species among the Bishnois are little known to the world. Nevertheless the 'Blackbuck case' involving the popular movie star, Salman Khan, has helped in bringing the Bishnoi community into global focus. Many people were intrigued why residents of a largely drought prone area were so agitated on this issue and what have been their motivations for their immense love for nature.

The thesis discussed the background of the study and theoretical understanding of the concept of sustainable environment and its practices. The review of literature focussed on the conceptual understanding about the anthropology of religion which covers ethnological, ethnographic and ecological approaches to study the relationship between humans and nature. Earlier literature in Anthropology had focussed exclusively either on religion or ecology. Though some of the earlier studies have attempted to understand the link between the religion and ecology, however, they have not explained this relation extensively. Roy Rappaport and Marvin Harris are among the pioneers who emphasised on "ecological approach to the study of religion". The studies showed that war and pigs' festival among the Tsembaga contribute to the equilibrium of ecosystem (Rappaport, 1968). In another study, Marvin Harris (1966 & 1979) provided ecological and economic reasons for protection of cow in ancient India. The 'religion and ecology' scholars emphasised on the world's major religious beliefs and how religious values contribute to the conservation of the environment. It also highlighted that religious practices are in favour of human adaptation and adjustment in a particular environment.

The life style of the Bishnois provides us a significant example in questioning the dominant discourse of present environmental problems. In spite of the harsh conditions in the desert, the Bishnois take every measure to ensure the enrichment of the area they live

in. For more than 500 years, the Bishnois have not only conserved trees, animals and birds but have also protected these from others. The Bishnois do not bother about their life when it comes to the protection of the trees and animals in the territory in which they are residing now.

This thesis explores the question of continuing the practice of nature conservation for centuries, in the face of resource crunch, consumerism and materialism all around the Bishnoi inhabited regions. The Bishnois' conservation of nature is religious obligation.

The main objectives of this study are:

- To critically examine the Bishnois' 29 principles (more emphasis on six principles which are related to conservation of environment;
- The reasons for sustainable practices of Bishnois religion for the protection of nature and wildlife in their surrounding; and
- Comparison between the Bishnois and non-Bishnois with regard to conservation and protection of nature.

To fulfil the objectives, Marvin Harris' concept of "cultural materialism" is employed as a theoretical framework with Leslie Sponsel's concept of 'Spiritual Ecology'. To examine the above objectives an ethnographic study was carried out in Bishnoi dominated Khejarli Kallan village in Jodhpur district located in Western Rajasthan.

II

The village consists of multiple castes, tribes and religious communities. The residents were either staying in the main village (or the nearby colonies), or in *Dhanis*. The total households in the study village are 554, out of which 213 households belong to the Bishnois community. The village has a total population of 3471 including 1820 (52.43%) of male and 1651 (47.57%) of female. The study found that there is high concentration (about 39%) of Bishnois, of which 50.70% of male and 49.30% of female. The male - female ratio among the Bishnois is almost equal it might be due to the equal preference given to female and male children. More than half of the marriages take place through exchange, for example X family has one boy and one girl, and same is found in Y family then the marriage takes place through an exchange between them.

Half of the Bishnois population resided in the *Dhanis*, scattered in the agricultural fields. Majority of the Bishnois are depending on the agricultural and milk selling activities in the *Dhanis* as well as in the main village and other colonies. Agriculture has emerged as the most common occupation in the Khejarli Kalan village followed by daily wage labour. A very significant fact that came to the fore was that a number of persons were leaving their traditional occupations and started pursuing other livelihood activities.

The Bishnois males are employed in various occupations, and majority of them are also engaged in agricultural and non-agricultural activities as well. The Bishnois' women mostly engaged in the agricultural activities and household activities. The proportion of females employed in agriculture is higher than corresponding proportion of males. A very encouraging issue in the study area was that 82.5% of the households owned land. The Bishnois owned the highest land area followed by Rajputs, Jats and priestly castes. The landless households were mostly of the service providing castes.

Almost all the Bishnois except four householders (out of 213 households) are holding fair amount of agricultural land. The Bishnois are depending on agricultural activities along with diary-farm business, government employee and other occupations. Only less than 1percentage (0.8%) of Bishnois are working as daily wage labourers. In other words, it is also significant that there is an almost negligible presence of Rajputs, Bishnois and Brahmins in the category of daily wage labourers. Historically, the land distribution among the social groups had been on the basis of social hierarchies in India.

A waste majority of wage labourers belong to lower castes and the Muslim community because they own very negligible percentage of agricultural lands. The overall literacy rate is 61%. If we look into community wise statistics; on the one hand, Rajputs, *Nais*, Bishnois, Brahmins and Vaishnavs have high degree of literacy rate. On the other hand, marginalised castes group such as Bhangi, Valmik, Meghwal, and Jogis have low literacy rate. Among the Bishnois, 64% are literate and 26.84% are illiterate with (9.14% yet to go school).The Bishnois consist of a good number of educated people in the higher studies (both under-graduate and post graduate) as compared with non-Bishnois (except Rajputs) in the village. The Bishnois send their children (both boys and girls) to the school and they believe that formal education is very much necessary for the younger generation. The older generation are less educated compared to the younger generation.

The social structure of the village is constructed on the basis of social stratification, where Brahmins and Rajputs considered to be enjoying the highest social status. The Bishnois are traditionally cultivators, whose occupation is farming and along with domestication of animals. Politically, Rajputs dominate the village but the Bishnoi community also have a strong hold because they consist 39% of the population. The Bishnois' material aspect and patterns, ornaments, and food differ from the neighbouring people. The social and religious practices of the Bishnois can be traced back to the 15th century A.D. when the community was founded by Guru Jambheswar.

III

The thesis critically examines in detail the history and contemporary significance of the religion of the Bishnois preached by Guru Jambheswar. The teachings of Guru Jambheswar are related to conservation of nature. The focus was on the principles of the Bishnois, which are related to conservation of trees, animals and birds in particular and nature in general. Bishnoi folk stories and other literature reveals that Guru Jambheswar witnessed several droughts and observed the sufferings of human beings and non-human beings in the desert in the 15th century A. D. He belonged to Panwar Rajput community, a farming family and he also reared cattle for several years, keenly observed the relationship of human beings with nature. The folk stories of the Bishnois and literature on the *Bhakti* movements of medieval western Rajasthan reveal that the *Bhakti* movements were based on social, economic, religious and ecological base. The visions of saints and other social reformers in the medieval period were considered beyond the caste and sects (*Jat-Panth*) (Khan, 1997). They were able to convey their ideas to local inhabitants (peasants, pastoralists and other artisan and castes) through their preaching. Similarly, Guru Jambheswar influenced different castes and communities to become part of the way of life of the Bishnois. Guru Jambheswar emphasised on the maintenance and sustainable practices of socio-religious relationship with their desert ecology by the inhabitants to meet their survival and to overcome droughts and famines. The Bishnoi folklore and Villoji's writings reveal that Guru Jambheswar provided food grains and fodder to inhabitants to sustain during famines. He also made the inhabitants to dig water tanks (*talabs*), protect animals, birds and trees in their surroundings in order to maintain the ecology and make it sustainable to meet their needs. He suggested that the inhabitants need not to consume meat by killing animals and birds in their surroundings. He laid down 29 principles and founded the Bishnoi community. There are six doctrines (18th,

19th, 22nd, 23rd, 28th, and 29th) out of 29 focusing on the conservation and protection of animals, birds and trees in general and nature in particular. Principles 18 says that *Jeev daya palani*, (or *jeevu par daya karna*) means being compassionate towards all living beings. The Bishnois have been protecting wild animals like, *chinkaras*, *neelgayis*; birds, peacocks, *chalkodi*, *titar*, and trees, *Khejri*, *jaal*, *kher*, *boldi*, and *neem*. The Bishnois make every effort to provide water, *chugga* to protect animals, birds and trees. Principle 19 says that *Rukh Lila Nahin Ghave or (Haare Vraksh Nahi Katna)* means Bishnois do not cut green patches and trees. To obey this principle, the Bishnoi protects different trees and other bushes in their surroundings. They grows *Khejri*, *jaal*, *boldi*, *kher*, *hari kankedi* etc., and they makes sure that the plant takes shape of trees in their agricultural field and other places too. They even do not burn the grass in their agricultural field after harvest. The 22 principle says that *Amar Rakhave* that means sheltering the abandoned animals. The Bishnois protect trees, bushes and lakes (water tanks) to ensure that wild animals can avail fodders; waters etc. and take shelter. The 23rd principle says *Bail Badhiyana Karave* means “Do not castrate bulls.” It also stresses on the need to show compassion towards livestock and protect the male livestock from injury and slaughter. Even today, the Bishnois will not allow bull castration in their surroundings. They say that this practice is against law of nature and the Bishnois have been engaged in farming therefore bulls have been required for cultivation of land, transportation, etc. The 28th says *Mahns Su Dur hi Bhage* means do not consume meat (any non-vegetarian food) the Bishnois feel that if they consume meat it may leads to the death of animals and birds. In order to protect wild animals and birds in their surrounding the Bishnois have become non-vegetarians. The 29th principle reads *Lil na Lava Ang, Dekhtadur hi Tyage*, means the Bishnois do not wear blue colour clothes because earlier the blue colour used to be obtained from indigo trees. Guru Jambheswar suggested to the Bishnois not to use the blue colour clothes and therefore most of the Bishnois men can be seen in white colour clothes and women prefers red. These principles are related to conservation of nature and are being practiced in their day-to-day life. The 29 principles suggest some of the duties and responsibilities to be followed by the Bishnois. Of the 29 doctrines, 7 principles doctrines related to social behaviour, 12 principles maintaining personal hygiene and good health and the remaining 4 principles provide guidelines on spiritual aspects.

For the next 51 years, he devoted himself to propagating his beliefs. Very soon his creed spread all over the Western part of Rajasthan, southern Punjab, Western part of Uttar

Pradesh (Moradabad, Meerut) and other places. He was critic of those who exploit people in the name of religions and beliefs as well as *Jadu-Tona* (magic and tantric). Apart from the 29 principles, the *Sabad Vanis* and *Sakhis* reveal that he had planted several thousands of *Khejri* trees in various places.

In addition, the study have also discussed about the disciples of Guru Jambheswar who emphasised upon the conservation of trees, animals and birds. There were some disciples of Guru Jambheswar who have been ensuring that the Bishnois practices are in a continuation. Villoji's was one of the influential sanths in the Bishnoi community who made an effort to re-follow the principles of the Bishnois and those who left the Bishnois practices. There are traditional religious specialists among the Bishnois and they are Sanths (sadhus), Thapans and Gayanas. They contribute as religious specialists in the community such as in the life cycle (*Sanskaras*), pilgrimage centres and different ceremonies. They preach about the conservation of animals, birds and trees and try to maintain social structure among the Bishnois. The Bishnois have different religious practices as compared to the Hindu religion that there is no idol worshiping and sacrifices of animals. The Bishnoi community follows only four *sanskaras* (life cycle rituals) but in Hindu religion there are 16 *Sanskaras*. The Bishnois do not believe in auspicious days, they emphasise that every day is an auspicious day for them.

The basic philosophy of the Bishnoi's religion is to be compassionate to all living beings on earth. They say that every living being has right to live and share the available natural resources. The religious philosophy of the Bishnois says that the Supreme Being resides in every living being, and harming these would amount to sacrilege towards the Supreme Being. Therefore, to perform a good *karma*, one needs to be compassionate towards all living beings. The Bishnois's philosophy and practices have emphasised ecological preservation in the desert region and sustained them for centuries.

Even though changes have taken place in agriculture, communication, technologies, land values and policies due to modernisation and globalisation processes, the Bishnois have tried to maintain their principles of harmony with nature. There exists a description of the numerous struggles and sacrifices of the Bishnois for protecting plants and wild animals. The Bishnois have two significant facts about the death rituals i) the Bishnois does not

cremate their dead since that process would entail cutting down of trees, and ii) after cremation; they feed *chugga* for about a month to the birds on the burial site.

There are no feasts after the death since the community Panchayat found that the earlier practice of feeding a large number of persons led many families into heavy debt. Today, any family violating this injunction is liable for a heavy fine, as well as social boycott. The religious philosophy and practices of the Bishnois are presently very important in any kind of environmental conditions - especially in the arid and semi-arid regions. This also seeks to counter the 'development-induced displacement', which is playing havoc with the lives of humans and other forms of life in these areas.

IV

The study also dealt in detail the Bishnoi's religion and other conservation theories being implemented by them for centuries. Further, it explained the relationship between the Bishnoi community and animals, birds, and trees. The study compared the relationship of the Bishnoi community with the non-Bishnoi communities neighbouring castes, tribes and communities as well as the forest department with regard to conservation of trees, animals, and birds. The study found that the Bishnoi community's basic religious philosophy is "live and let live", where they follow their religious principle in a strict way, which resulted in greenery and plenty of wildlife in their surroundings. Since the 15th century, the Bishnois have been constantly managing the environment in a sustainable manner.

These sustainable practices are rooted in their day to day life. The socialisation of the Bishnois children aims to build close relationship and understand the importance of trees and animals to from the very beginning. The children providing water to wild animals and birds make the relationship strong. The Bishnois closeness to the environment helps in the conservation of various species in their region. The behaviour of animals and birds can be a source of weather prediction to which Bishnois can predict rain. The changes in colour of *Khejri* leaves, bearings flowers and pods on the trees also indicate fluctuation of rain in particular and weather in general.

The close interaction of Bishnois with their environment allows them to gather knowledge about their surrounding species and other natural resources. The Bishnois are able to differentiate the same species into various classifications on the basis of colour and size. For example deer are further classified into *modyar*, *kaliyar*, *chinkara*, *choti hiran* and

badi hiran etc. Similarly, the Bishnois have classified forest and other areas as *Jhadi*, *Gouchar*, *Aghor* and *orans* etc. The *orans* and *gouchar* are maintained by the village Panchayat and community.

The Bishnois protect different wild animals like, *chinkaras*, *blackbucks*, *neel gayi*, fox, rabbit, jungle cat, etc., The birds are peacocks, vultures, eagles, great bustard falcons, kestrel etc., and other reptiles. The Bishnois try to protect them from the poachers and provide necessary facilities like water and grains to them. They obey their doctrines which focus on the conservation of animals and birds. They take every measure for the animals and for their birds' survival in their surroundings. The first *roti* (bread) is offered to dogs and *Dhanis* early in the morning so that dogs will not hunt the wild animals and birds in their surroundings. The village *chabuttra* (where grains offered to birds) is filled with grains early in the morning. They made arrangement for water for the wild animals and birds in front of their houses, on trees and also build water tanks in their agricultural fields so that the wild animals and birds will not remain thirsty. In order to provide *chugga* to the birds and animals, the Bishnois keep some portion of their agricultural crops in the field during harvest season locally known as *sand-ghera*. The Bishnois are very fond of saving the *deer*, *mor* (peacocks), *rabbit* etc. The injured *deer* is treated at their home and then released when it gets healed. If necessary, the Bishnoi women can even go to the extent of feeding the new-born orphaned wild animals with their own breast milk, just as they would do to their own children. Similarly, they provide ethno-medicinal treatment to injured birds and animals.

The desert region also attracts the Demoiselle cranes from the Siberia region. The desert people provide grains and water as they believe that the arrival of these cranes is auspicious for them. The Bishnois not only protect the wild animals and birds but also look after domesticated animals. The Bishnois 23rd principle says “do not castrate bulls,” this rule is strictly followed by the Bishnois in the study areas. The Bishnois enjoy both the economic and spiritual relationship with domesticated animals.

The trees like, *Khejri*, *jaal*, *rohida*, *hari kankedi*, *babul*, *neem*, *kher*, *boldi* or *ber* etc., are protected by the Bishnois in their region. The Bishnois do not even chop the branches of the *Khejri* trees instead they grow trees in their agricultural land as it helps in making the desert land fertile and increases agricultural productions. The wild planted trees also control soil erosion, shifting sands, help in agro-forestry, provide fodder, firewood, food,

and shelters to both human and animals. These trees not only have economic and ecological value but also have socio-religious values for the Bishnois. *Khejri* and *Hari Kankedi* are considered as the sacred trees among the Bishnois as they worship and hug. These trees connection with the Bishnoi traced back to their religious Guru Jambheswar, who used to live under the *Hari Kankedi* trees for many years and the *Khejri* trees were planted at several places by him. The protections of trees are considered to be part of the Bishnois tradition as stated in the 19th the principles which “not to cut the green trees or plants”.

Historically, *Khejri* tree played a very significant role in balancing the ecosystem in the Thar Desert of Rajasthan. It is an indigenous tree and its taproot is vertical and deeply rooted, has the capacity to take water from the ground (deep) of water table. The Bishnois believe that Guru Jambheswar had planted 3600 *Khejri* trees in the Rotu Village in Nagaur district of Rajasthan, Lodhipur (in Moradabad district of Uttar Pradesh) and many other places. His disciples strictly suggest the Bishnois to plant *Khejri* tree. Felling of trees especially *Khejri* trees started in the 16th century A.D. Several incidents took place as the Bishnois have been continuously opposing the felling of any trees in their region and become symbolic for the Bishnois. As symbolic representation of the 363 Bishnois martyrs, the Bishnois planted hundreds of *Khejri*, *neem*, and others trees in the martyrs place on the occasion of *Mela* (fair) in the study village.

The Bishnois have adapted alternative mechanisms to fulfill some of the needs in the desert region. The deadwood, dried branches of trees and bushes are used for cooking instead of cutting the trees. The Bishnois also use cow or buffalo dung cake for cooking every season. Every Bishnoi households domesticate one or two cows or buffaloes for their milk and cow dung purposes. They bury the dead body instead of cremation to save the trees and bushes in their region. Guru Jambheswar initiated digging of several water tanks (*taalabs*) for rain water harvest to meet the needs of human beings, non-human beings in the desert region. The *Jambholav Talaab* in Jodhpur district is a living example of lake which was initiated by the Guru Jambheswar. The reasons to dig several tanks at different places were to meet the people’s and other species’ needs, through which they were able to sustain and continue their lives in the desert region.

There is an indication in Bishnois’ folklore and some of the writings by disciples of the Guru Jambheswar with regard to various struggles and movements have been led by the

Bishnois. The struggle for the protection of animals, trees, and birds and other natural resources initiatives have been taken from the individuals, organisations and community. Various Bishnoi organisations have been working for the protection of animals and trees at the state, district and village level. Some of them are *Akhil, Bharatiya Bishnoi Maha Sabha (ABBMS)*, *Akhil Bharatiya Jeev Raksha Bishnoi Sabha (ABJRBS)* and *Bishnoi Tiger Task Force (BTTF)*, and *Jeev Raksha Samithi* at the districts level.

The most noted movement was by the Bishnois in the Khejarli Kalan villagers against the king of Jodhpur in seventeenth century A.D. Every member of community knows the incidents and how they have been struggling to balance ecological conditions in the desert region. Various Bishnois movements for protection of animals, birds and trees in their surroundings have strengthened their principles related to conservation.

V

The Bishnoi name itself indicates that they are followers of 29 principles which emphasized on the conservation and protection of animals, birds and trees in particular and nature in general. The environmental concern started long before the worldwide awareness of its crises. The worldwide debates, discussion on the conservation and protection of the environment emerged very recently. The Bishnois have successfully proved the sustainable conservation practices in the Thar Desert as way of life for centuries. The famous Chipko movement in Uttarakhand was inspired by the Bishnois environment movement which took place in the 1730 A.D, where 363 Bishnois were murdered while protecting the trees. The trees hugging movements was started by the Bishnois against the trees fellers in the western Rajasthan. Protection of the forests in India was initiated in the 18th century by the British India and Wildlife Protection Act enacted in the year 1972 for the protection of plants and animals.

The Wildlife Protection Act 1972 has strengthened the Bishnois principles and practices. The trees felling and poaching was prohibited by law. The Bishnois are the guardians of the wild animals, birds and trees in western Rajasthan and continued to co-existence with other species. The governments have appreciated the Bishnois for their contributions in the desert region. The state and central governments have honored different individuals and organizations of the Bishnoi community for their contributions and protection of various species. Different individuals and organizations are awarded in the name of Amrita Devi –she was the first to sacrifice her life in 1730 by hugging trees. The forest

officials also acknowledged the Bishnois relationship with the environment in the Rajasthan and they said that traditional practices of the Bishnois would help in the conservation and protection of animals and forest in the desert region.

The ongoing environmental movements have brought international recognition for the conservation practices of the Bishnois. Despite the fact that western Rajasthan faces severe water scarcity, the Bishnois have been continuing their struggle to meet their needs along with the other species too. Sharing the same ecological niche by both human and non-human species reveals the harmonious co-existence. The social, economic and political structures of the Bishnois maintain harmonious relationship with neighbouring castes and communities as well as other wildlife.

The traditional political system of the Bishnois is so strong that the community obeys the rules of the elderly people in the village. The institutions of family, kinship and marriage are also strong among them. The dowry system is strictly prohibited and any family demanding dowry is liable to be socially imposed low status. It was very emphatically brought out that the conservation practices of the Bishnois have had a deep impact on the neighbouring communities, many of whom have adopted vegetarianism. Even the Rajput rulers were also influenced by the religious principles of the Bishnois banning hunting and indiscriminate felling of trees in the Bishnois' inhabited areas. Most of the non-Bishnois in the village support the conservation of the environment practices.

The Bishnoi's are not only following the policy of conservation of wildlife, but their success lies in preventing others from exploiting the natural resources in their habitat. Interestingly, they are availing the facilities of traditional and modern communication media, including the social media to spread awareness about the need to conserve nature and wildlife.

The economic factor is also one of the reasons for the protection of trees, animals and birds by the Bishnois in the Thar Desert. Since it is a peasant community, and the Bishnois need to maintain the ecology in a sustainable way, which help them to continue their survival in the region. Although, there are several other non-Bishnois living in the region, their religious principles have marginalised the environmental aspects in the Thar Desert. The non-Bishnoi religion principles are more focused on the social and religious aspects whereas for the Bishnois it is directly connected to the protection of animals, trees and birds. The protection of different plants and trees also help them in their survival. The

Bishnois devote a lot of care to the *Khejri* trees, which have multiple economic values for them. It is considered best for the agro-forestry in the desert region.

The Bishnois' environmental conservation practices have been supported by different organizations as it benefited to every living species in the desert land. The natural resources are very important for any species to survive in a given environment. To continue their survival in the Thar Desert the Bishnois are maintaining very harmonious relationship with their surroundings. They utilize the natural resources in a systematic way in meeting their needs and the other species.

There are various *melas*, pilgrim places and other sacred places that keep Bishnois reminding about their religious principles and their duties towards environment. The recent environmental crises all over the world have busted them to continue their practices.

This present study employed the synthetic approach of 'cultural materialism' by Marvin Harris (with its revisions) and 'spiritual ecology' proposed by Leslie Sponsel. According to Marvin Harris, infrastructure is deterministic factor that influence the structure and the super-structural factors. The current study, in the light of Harris theoretical postulation reveals that the super-structural aspects of the Bishnois have influenced over period of time and continue to fill the infrastructure and structural aspects.

The study reveals that, in the 15th Century A.D. the Bishnois' social structure and religious beliefs, morals and ethics were influenced by ecological, economic, demography and technological aspects. However, over a period of time, the continuation of conservation of trees, animals, and birds have been influenced and regulated by super-structural aspects such as religious doctrines, beliefs, morals, ethics and symbolic representation. The social structure of the Bishnois played a supportive role to the super-structural aspects for sustainable development and conservation of trees, animals, and birds in their environment. According to Leslie Sponsel religious beliefs and practices help human being to interact with nature to which he called 'spiritual ecology'. In this context, it is clear that those who follow the Bishnoi religion preached by Guru Jambheswar have a religious mandate to protect nature and help people in conservation of various species. This is evidenced from the six principles (18th, 19th, 22nd, 23rd, 28th, and 29th), out of the 29 preached by Guru Jambheswar. In Bishnois' religious principles, protection and conservation are obligatory for every individual. The rational value of

nature conservation is wrapped up with religious prescriptions, in Leslie Sponsel's religious beliefs and practices shape the idea of conservation of surroundings, so the followers continue the sustainable practices over a period of time.

APPENDICES



Guru Jambheswar

Source: www.google.com.

Appendix-A

Gotras in the Bishnoi community

Agrawal, Ardig, Abhir/Ahir/Aher, Adol, Avtal. Ahodhiya, Atri, Atli, Aand, Aanjana, Aamara, Ayash, Aasiya, Aanna, Aakha, Akhid, Iharam (Ishram), Ishrva, Ishrwal, Enaniya, Eyaram, Edang, Atkal, Umarav, Uniya, Echara, Yeron, Yerab, Ohu, Avola, Adiya(Ahodiya). Aaotiya, Vorva, Kadwasar (Kurada), Kasava (Kawa), Karir, Karneta, Kabira, Kalwaniya, Kalediya, Kamnigara, Karada, Kamediya, Kachhaya/Kachhawayi, Kashyap, Kalirana (Kalyana), Kakad, Kaldkashniya, Kamata, Kamaa, Kasha, Kangada, Kirawala, Kinkar, Khadab, Khadahad, Kheda, Khokar, Khot, Khoja, Khod, Garg, Gawal, Gayana, Gaat, Gilla, Guru, Gulejela, (Udavatt), Gurusar, Gujjar, Gulech, Gupta, Gurud, Gudal, Ger, Gehlot, Godhara (Songhr, Udani, Khiragiya, Dholiya, Babinad), Shosodiya, Devada, Gehlot., Gora, Goyat, Goyal (Gobhil, Govil, Gohil), Gogiya, Gola, Goud, Ghanghas, Ghatiyal, Ghangu, Chandel, Chamanda, Chimpa, (Darji), Jwar (Johar), Jandu, Jhakad, Jayal Jajuda, Jani, Janda, Jawaliya, Jatwad, Jita, Jinja Jiwal, Julaha (Bungar, Bejara), Judiya, Juba, Joohiya, Jhawaliya, Jhans, Jhang, Jhanjhada, Jhanjhan, Jhala, Jhuriya, Jhodhakan (Jodkaran), Jhada, Jhord, Tandan, Tada, Tanda (Tandi), Tusiya (Tujiya), Tokshiya, Tokrawa, Tod, Dabokil, Dara, Daga, Dagar, Dingal, Doi, Dehla, Delu, Hogipal, Dhal, Dhayiya, Dhaka, Dadrwal Dandniya, Did, Dindiya, Dhukiya, (Dhahukiya), Teliwal, Teli, Tawar (Tiwari, Tuvar, Tomar), Taga (Tyagi), Tadi, Tapas, Tayal, Tanda, Tundal Turka, Tatarwal, Teli, Tod, Thalwat, Thalod, Thapan, Thori, Dadak (Ghadak), Darji, Dasa, Diloya (Duloliya), Dugasari, Dehadu, Dahiya, Devda (Khedawala, Toharwala, Mod, Loda), Dotad, Dhatarwal, Dhadhari, Dharniya, Dhayal, Dham, Dhariya, Dhoomar, Naruka, Nakoshiya, Nafri, Nada, Nayiya, Nagar, Nath, Nayi, Niwan, Nibibaga, Nehra, Nain, Parmar (Panwar, Pawar, Puwar, Puaar) Padiya (Padihar), Pathan, Parasari, Pyari, Paldiya, Paras, Pal, Patodiya, Parikh, Pithra, Purwar (Purawal, Porवाल, Payerwal), Pudiya, Puskarani (Pohkaran), Puniya, Potiya, Fhalawar, Barad, Badita, Badila, Badayet, Brahdayi, Bangar, Batesar, Balawat, Baldkiya, Bajaj, Baloya, Bachiyal, Badeta, Baaniya (Baniya), Bawari, Bangadwa, Bana, Bajiya, Banag, Basat, Bagesu, Bakel, Banarwal (Ahir), Bichu, Bidasar, Bilad, Bidal, Bidag, Bidiya, (Bidar), Biloniya, Bilodiya, Beniwal (Bohniwal, Baniyal), Berwal, Berupal, Beda, Behal, Boda, Bola, Bohara, Behya, Berdak, Budkiya, Budiya, Bhawal, Bhatt, Bhaludiya, Bhambu, Bhadu, Bharwar, Bhodar, Bhatari, Bharduj, Bhilumiya, Bhichar, Bhojawat, Bhediyar, Bhocha, Bhurda, Bhuranta, Bhul, Bhusran, Manda, Matawala, Mahik, Malla, Marat, Manju,

Mal, Machara, Malpuwa, Machara, Maliwal, Maheswari, Matavi, Mandu, Mayi, Manglika, Misra, Mitawal, Mil, Mithataga, Murda, Mundel, Mudgil, Muriya (Mawariya) Mand, Mahela, Mewada, Mohin, Moga, Rasa, Ranga, Raghuvansi, Rad (Rahad), Rayal, Rao, Rawat, Rathod, Ranod, Riyava, Rubawal, Khod, Rohj, Ronja, Rod, Latiyal, Lariyal, Lamba, Lagi, Lol, Lohmarod, Luha, R, Vara, Vyas, Vyarasar, Vashaneya, Vatsalya, Vilaala Vishu, Sarak, Sarawak, Sahu (Sahu, Soha) Sadhu, Sagar, Sai, Sanwak, Sahara, Saran), Sankhal (Saagar), Saraswat, Saban (Saabn), Shiyak (Shiyakh, Siyagh, Shihag), Shodiya (Sagar, Shingal (Shingala, Shinhal, Shihala), Shiwar, Shiwal (Siyol), Shiwarkhiya, Shirdak, Shirodiya, Shindal (Rathod), Shiradiya, Shilak, Shigad, Suthar (Khati, Jangad, Badayi, Tararwan), Sunar, Sur, Seradiya, Sewada, Sehar, (Sher) Sedho (Setho), Shegada, Soda, Solanki, Sonak, Sunak (Sunar), Shank, Shah, Shandalya, Shiv, Shrimali, Shodola, Hardu, Hareja, Hada (Udawat, Balawat, Bhojawat), Dariya, Hariwasiya, Humda, Hudda (Jambhsar, Jambhewsar Charitra Bhanu, Maheswari, 1970; Jani, 1995; Jambh Jyoti, 1997; Beniwal, 2000; Prasad, 1997; Godhara 1993; Samrathal Sandesh, 2005 as cited by Bishnoi, 2009, pp. 14-15).

Gotras in the Sub-Groups of the Bishnois

The *Gotras* of the Bishnoi (General) have mentioned in the appendix-2.

Thapan Goth (Gotra): *Godhara, Beniwal (Biniyal), Lol, Manju, Berwal, Panwar, Khokar, Toksiya, Jaani, Tetarwal, Nain, Garge, Saha, Puniya, Chauhan.*¹

Gayanas Goth (Gotra): *Bagadiya (Bagadwa), Chauhan (Chawan) Latiyal, Shwal, Shinyol, Shiwar, Gujar Goud, Bawra, Agrawal, Dadak, Tawar (Tiwari), Pawar (Puaar), Soda, Pandwaliya (Pawadiya)*². *Bai Vansawali,*

Suthar Goth (Gotra): *Changda, Patodiya, Silal (Chiiya, Dohiya, Bhurta, Jala, Jhans, Ludhariya, Luhar, Dhamu, Gujar, Pawar Kuladiya.*³ *Suthar.*

Dhangar Purviya (pur) Goth (Gotra): *Chauhan (Shandalaya), Thapan (Chauhan, Sahu), Badhola, Rathod, Devda (Mod, Loda, Khedwal, Toharwalla), Sosodiya*

¹ *Ibid* 2009, p.15.

² *Ibid* 2009, p.15.

³ *Ibid* 2009, p.15.

(Sagar), Chandel, Hada (Bhojawat, Udawat, Balaawat), Mohil, Panwar, Gujela, Sankhla (Eyar)⁴.

Table: 4. The Number of *Gotras* of the Bishnois have mentioned in the different sources

Sl. No.	Source	Number of <i>Gotras</i>
1	Jambhsar	219
2	<i>Jambhdev Charitra Vhanu</i>	143
3	<i>Jambhoji, Vishnoi Sampradaya and Sahitya</i> (Maheshwari, 1970)	161
4	<i>Suchi Dwara Swami Bhadriprasad Ji</i>	271
5	Thanedar Gopaldas, only about Sutar <i>gotra</i>	11
6	Shri Bhawarlal Gayana	140
7	Prudvi Sinh Beniwal, 2000	290
8	Shri Hanuman Jani 1995	235
9	<i>Jambh Jyothi</i> (Monthly Magazine) 1997	216
10	Patwari Bharmal Godhara (<i>Jambhsar Darsan</i>)	284
11	Samrathal Darsahan	284
12	Samrathal Sandhes	310
	Presently the Bishnoi community consists of <i>Gotra</i>	421-21 <i>Jatiya Evam Vansh</i> (Castes and Communities).
		400 <i>gotras</i>

Source: (Jambhsar, Jambhewsar Charitra Bhanu, Maheshwari 1970; Jani, 1995; *Jambh Jyoti* 1997; Beniwal, 2000; Prasad, 1997; Godhara, 1993; *Samrathal Sandesh*, 2005 as cited by Bishnoi, 2009, pp. 15-16).

⁴ *Ibid* 2009, p.15

Appendix-B

Dress patterns of Bishnois



Men



Yonger generation



Middle aged



Older generation

Tree Hugging



Tree hugging by Bishnois on *Amavasaya* at 363 Shahi sthal



Providing *chugga* at 363 Shahid Sthal

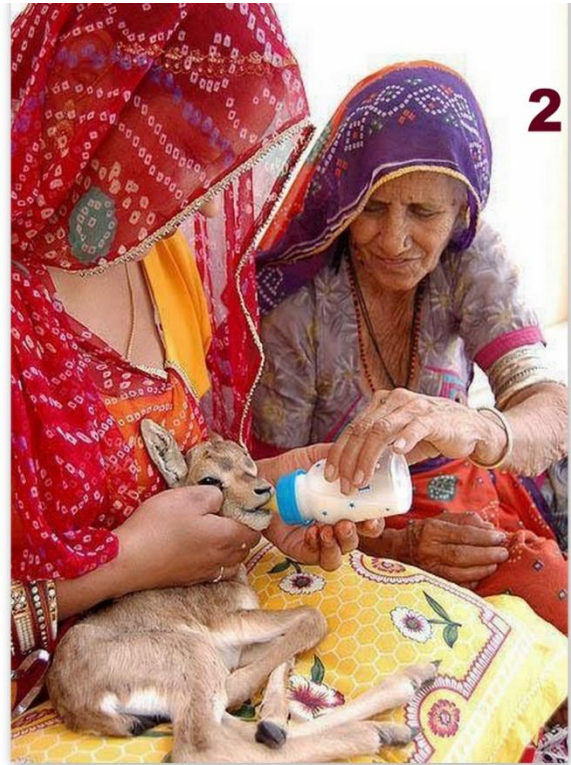
Photos captured by Researcher

363 Bishnois' Martyrs at Khejarli Village
Painting shows. Bishnois'
woman opposing trees felling

Source: painting at Martyrs temple



363 martyrs stupa
(memory of sacrifices in 1730)



1. Baby is feeding milk
2. Feeding milk
Source: www.google.com
3. Chinkaras provided chugga
4. Treatment of injured chinkaras
5. Feeding chugga to deer
source; www.google.com

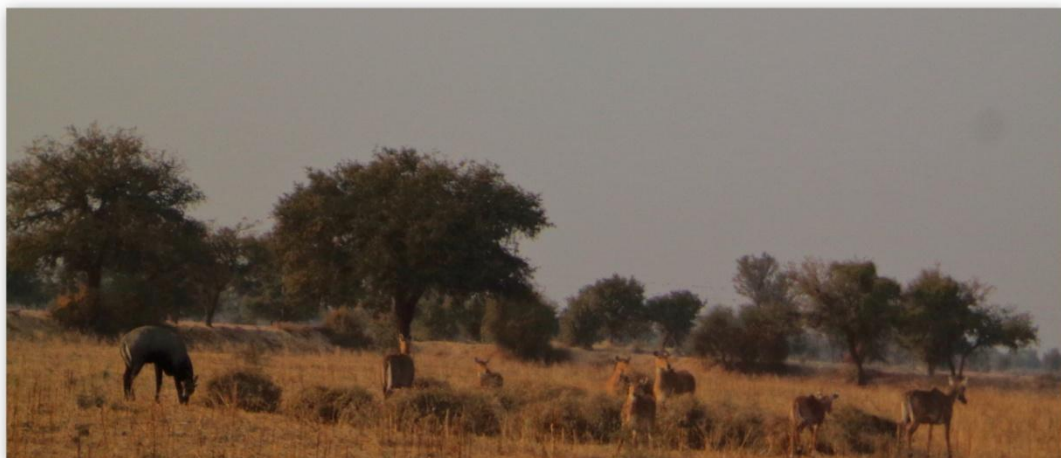
Deer and Roj (Blue cows):



Deer in the field (photo by Vinod. K)



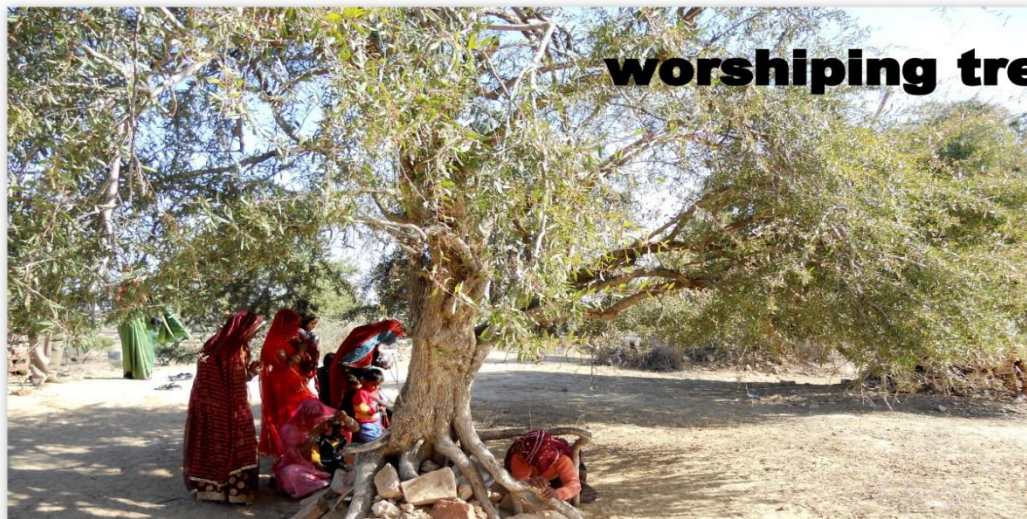
Black Buck and chinkara (Photo by Vinod. K)



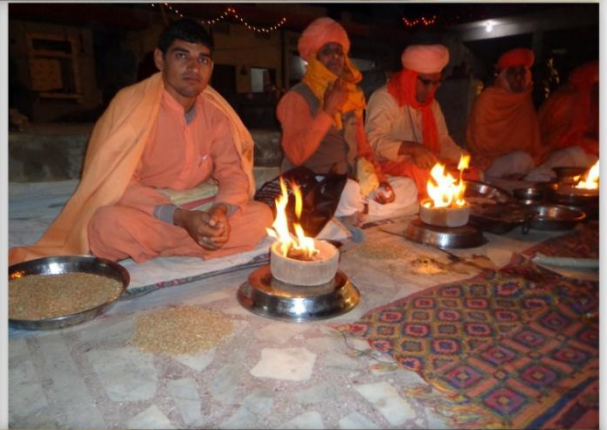
Roj/Rojda (blue cows)-Photo by Researcher



**Collecting Sands
from down hill
at Samrathal dhora**



worshiping tree





Social gathering (Marriage ceremony)



Elder Bishnois in the Marriage ceremony

Ethno-medicinal Practices among the Bishnois



Ankh podho (Calotropis gigantean)



Tumba



Nimoli (neem tree fruits)



Tumba bel (Citrullus colocynthis)



Ankh flower

Photo captured by the Researcher

1



2



3



4



1. Mukam temple
 2. Havan kund
 4. Samrathal dhora

Havan Kund (Sacred flame)



Devoties are pouring *Ghee* in the kund at Mukam temple



Devoties are pouring ghee and dry coconut in the sacred fire at Samrathal dhora temple

Photo captured by Researcher

Research Scholar's pictures in the field



At Khejarli board



Mukam Gausala



at Jodhpur



Bishnoi-ki-dhani



**With School children and Bishnoi's women
at Khejarli village**



Bibliography

Ahmed, M. (2002). Bishnoi Religion and Nature. In K. R. Bishnoi., & N. R. Bishnoi. *Religion and Environment Vol.II* (pp. 45-71). New Delhi: Arihant Prakashan Pvt. Ltd.

Alier, J. M. (2002). *Environmentalism of the Poor: A Study of the Ecological Conflicts and Valuations* . UK: Edward Elgar Publishing Limited.

Anderson, E. N. (1996). *Ecologies of the Heart: Emotion, Belief, and the Environment*. USA: Oxford University Press.

Arora, J., Goyal, S., & Ramawat, K. G. (2010). Biodiversity, Biology and Conservation of Medicinal Plants of the Thar Desert. In K. G. Ramawat, *In Desert Plants: Biology and Biotechnology* (pp. 1-23). Heidelberg: Springer.

Bahuguna, S., Patkar, M., Shiva, V., Sathis, C. N., Jayal, N. D. (2007). *India's Environment: Myth and Reality*. New Delhi: Natraj Publishers.

Barnard, A. (1996). Cultural Materialism . In B. Alan, & J. Spencer, *Encyclopedia of Social and Cultural Anthropology* (pp. 133-34). London and New York: Routledge.

Barnhill, D. L. (2001). Relational Holism: Huayan Buddhism and Deep Ecology. In D. L. Barnhill, & R. S. Gottlieb, *Deep Ecology and World Religions: New Essays on Sacred Ground* (pp. 77-106). Albany, New York: State University of New York Press.

Belsky, A. J., Amundson, R. G., Duxbury, J. M., Riha, S. J., Ali, A. R., Mwonga, S. M. (1989). The Effects of Trees on Their Physical, Chemical and Biological Environments in a Semi-Arid Savanna in Kenya. *Journal of Applied ecology*, 26 (3), 1005-1024.

Benavides, G. (2005). Ecology and Religion. In B. Taylor, *The Encyclopaedia of Religion and Nature* (pp. 48-53). London and New York: Continuum.

Bennett, J. W. (1976). *The Ecological Transition: Cultural Anthropology and Human Adaptation*. New York: Pergmon Press.

Bhadani, B. L. (2002). Socio-Economic Context of Development of Jainism in Rajasthan . In S. N. Dube, *Religious Movements in Rajasthan: Ideas and Antiquities* (pp. 64-72). Jaipur: Centre for Rajasthan Studies, University of Rajasthan .

- Bhansaly, C., & Dunkwal, V. (2010). Standardization of Processing Technique for Tumba (*Citrullus colocynthis*). *Ethno-Medicine*, 4(3), 207-09.
- Bharara, L. P. (1999). *Man in the Desert: Drought, Desertification, and Indigenous Knowledge for Sustainable Development*. Jodhpur: Scientific Publishers (India).
- Binford, L. R. (1977). General Introduction. In L. R. Binford, *For Theory Building in Archaeology* (pp. 1-10). New York: Academic Press.
- Birx, H. J. (2010). *21st Century Anthropology: A Reference Handbook, Vol. 1 & 2*. California: Sage Publication.
- Bishnoi B. L. (2001, August). *Jeev Raksha Sakha Bishnoi Sabha Hisar. Amar Jyoti Patrika* (Monthly Magazine), 52(7), 66-67.
- Bishnoi, K.L. (2000). *Guru Jambhoji evam Bishnoi Panth ka Itihasa*. Sirsa: Samrathal Prakasa Abubshahar.
- Bishnoi, M. (2012). *Villoji-ki-Vani main Darshanikata*. Bikaner: Jambhani Sahitya Academy.
- Bishnoi, M. R. (2002). Bishnois: Environmentalists by Creed. In K. R. Bishnoi, & N. R. Bishnoi, *Religious and Environment Vol-II* (pp. 151-193). New Delhi: Arihant Prakashan Pvt. Ltd.
- Bishnoi, M. R. (2009, April). *Bishnoiyon ke Gotra. Amar Jyoti Patrika* (Monthly Magazine), 60(4), 14-16.
- Bishnoi, M. R. (2013, October). *Bishnoiyon ke Gotra. Amar Jyoti Patrika* (Monthly Magazine), 64(10), 21-22.
- Bishnoi, O. P. (2015, February). *Paryavaran Samrakshan aur Pradushan Eveam bishnoi Samaj. Amar Jyoti Patrika* (Monthly Magazine), 66(2), 32.
- Bishnoi, R. (2005, August-September). *Bishnoi Dharm Ke Pramukh Asta Dham. Amar Jyoti Patrika* (Monthly Magazine), 56(9), 5-8.
- Bishnoi, V. (2002). Movement for Tree Preservation. In K. R. Bishnoi, & N. R. Bishnoi, *Religion and Environment, Vol. II* (pp. 322-340). New Delhi: Arihant Prakashan Pvt. Ltd.

- Brockmann, H., & Pichler, R. (2004). *Paving The Way For Peace: Living Philosophies of Bishnois and Jains*. New Delhi: D.K. Publishers and Distributers Pvt. Ltd.
- Brown, A. R. (1922). *The Andaman Islanders: A study in Social Anthropology*. UK: Cambridge University Press.
- Burman, J. R. (1996). Hindu-Muslim Syncretism in India. *Economic and Political Weekly* , 31 (20), 1211-15.
- Buzney, C., & Marcoux, J. (2009). *Cultural Materialism*. Tuscaloosa: Department of Anthropology in the University of Alabama. <https://anthropology.ua.edu/>.
- Callicott, J. B., & Karenk, M. (1997). Ecological Sustainability as a Conservation Concept. *Conservation Biology* , 11(1), 32-40.
- CAZRI (1983). *July 1976-Flash Flood in the Luni: A Case Study*. Jodhpur: CAZRI Publications.
- Chandla, M. S. (1998). *Jambhoji Massiah of the Thar Desert*. Chandigarh: Aurva Publications.
- Chapple, C. K. (2000). Introduction. In C. K. Chapple, & M. E. Tucker, *Hinduism and Ecology: The Intersection of Earth, Sky, and Water* (pp. XXXIII-XLIX). MA: Harvard University Press.
- Chapple, C. K. (2001). Hinduism and Deep Ecology. In D. L. Barnhill, & R. S. Gottlieb, *Deep Ecology and World Religions: New Essay on Sacred Grounds* (pp. 59-76). Albany, New York: State University of New York Press.
- Chapple, C. K. (2011). Religious Environmentalism: Thomas Berry, the Bishnoi, and Satish Kumar. *Dialog: A Journal of Theology* , 50 (4),336-43.
- Crate, S. A. (2011). Climate and Culture: Anthropology in the Era of Contemporary Climate Change. *Annual Review of Anthropology* , (40),175-194.
- Crooke, W. (1896). *The Tribes and Castes of the North-Western Provinces and Oudh Vol.I*. Calcutta: Office of the Superintendent of Government Printing, India.
- Darwin, C. (1859). *On the Origin of Species by Means of Natural Selection*. London: Murray.

- Das, N. K. (2003). Introduction . In N. K. Das, *Culture, Religion, and Philosophy: Critical Studies in Syncretism and Inter-Faith Harmony* (pp. 1-47). . Jaipur: Rawat Publications.
- Descola, P. (2005). *Beyond Nature and Culture*. Translated by Janet Lloyd. Chicago: University of Chicago Press.
- Dove, M. R., & Carpenter, C. (2008). Environmental Anthropology: A Historical Reader. In M. R. Dove, & C. Carpenter, *Introduction: Major Historical Currents in Environmental Anthropology* (pp. 1-86). Oxford: Blackwell Publishing.
- Duke, J.A. (1978). The Quest for Tolerant Germ Plasm in ASA Special Symposium 32. Crop Tolerance to Suboptimal Land Conditions. *Am Soc Agron Madison*, pp. 1-61. < <http://ww38.progenebio.in/> > (Retrieved March 12, 2016).
- Durkheim, E. (1915 [1912]). *The Elementary Forms of the Religious Life*. Translated by Joseph, Ward Swain. London: George Allenand Unwin LTD Publication.
- Dwivedi, O. P., & Tiwari, B. N. (1987). *Environmental Crisis and Hindu Religion*. New Delhi: Gitanjali Publishing.
- Dwivedi, O. P. (1993). Human Responsibility and the Environment: A Hindu Perspective. *Journal of Hindu-Christian Studies* , (6), 19-26.
- Dwivedi, O. P. (2004). Satyagraha for Conservation: Awakening the Spirit of Hinduism. In G. S. Gottlieb, *This Sacred Earth: Religion, Nature, Environment* (pp. 145-57). New York and London: Routledge.
- Ferguson, B. R. (1984). Introduction: Studying War. In B. Ferguson, *Warfare, Culture, and Environment* (pp. 1-81). New York: Academic Press.
- Ferguson, B. R. (1995a). *Yanomami Warfare: A Political History*. New Mexico: School of American Research Press.
- Ferguson, B. R. (1995b). Infrastructural Determinism. In M. Murphy, & M. Margolis, *Science, Materialism, and the Study of Culture* (pp. 21-38). Gainesville: University of Florida Press.
- Fernandes, W., & Thurkal, E. G. (1989). *Development, Displacement, and Resettlement*. New Delhi: Indian Social Institutes.

Fisher, R. J. (1991). Ecological Anthropology and the Study of Social Change in Western Rajasthan. In S. K. Lal, & U. R. Nahar, *Development of Underdeveloped Regions: A Case Study of Arid Regions* (pp. 185-96). New Delhi: Mittal Publications.

Fisher, R. J. (1997). *If Rain doesn't come: An Anthropological Study of Drought and Human Ecology in Western Rajasthan*. Sydney, Delhi: Sydney Studies and Manohar Publications.

Foin, T. C., & Davis, W. G. (1987). Equilibrium and Non-equilibrium Models in Ecological Anthropology: An Evaluation of 'Stability' in Maring Ecosystems in New Guinea. *American Anthropologist* , 89 (1), 9-3.

Foltz, R. C. (2003). Introduction . In R. C. Foltz, F. Denny, A. Baharuddin, M. E. Tuckern, & G. J, *Islam and Ecology: A Bestowed Trust* (pp. xxxvii-xliii). Cambridge, MA: Harvard University Press.

Frazer, G. S. (1922). *The Golden Bough: A Study in Magic and Religion*. New York: Macmillan. New York: Macmillan.

Frazer, G. S. (2009 [1910]). *Totemism and Exogamy, Vol. I-VI*. New York: Casimo Publications.

Friedman, J. (1974). Marxism, Structuralism and Vulgar Materialism. *Man* , 9(3):444-69.

Gadgil, M., & Guha, R. (1993). *This Fissured Land: An Ecological History of India*. New Delhi: Oxford University Press.

Gottlieb, R. S. (2006). Introduction: Religion and Ecology—What Is the Connection and Why Does It Matter? In R. S. Gottlieb, *The Oxford Handbook of Religion and Ecology* (pp. 3-21). Oxford: Oxford University Press.

Grim, J., & Tucker, . E. (2014). *Ecology and Religion*. Washington, DC: Island Press.

Grim, J., & Tucker, . E. (2014). Introduction our journey into Religion and Ecology. In J. Grim, & E. Tucker, *Ecology and Religion* (pp. 1-12). Washington, DC: Island Press.

Guha, R. (1994). Introduction. In R. Guha, *Social Ecology* (pp. 1–18). New Delhi: Oxford University Press.

Guha, R. (2001). The Prehistory of Community Forestry in India, in *Environmental History* , 6(2), 213-238.

Guha, R. (1999). *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*. New Delhi: Oxford University Press.

Haberman, D. L. (2013). *People Trees: Worship of Trees in Northern India*. London: Oxford University Press.

Habib, I. (2011). *Economic History of Medieval India*. New Delhi: Centre for Study in Civilizations.

Harris, M. (1966). The Cultural Ecology of India's Sacred Cattle. *Current Anthropology* , (7), 51-66

Harris, M. (1968). *The Rise of Anthropological Theory: A History of Theories of Culture*. New York: Crowell.

Harris, M. (1977). *Cannibals and Kings: The Origins of Cultures*. New York: Vintage.

Harris, M. (1979). *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.

Headland, T. N. (1997). Revisionism in Ecological Anthropology. *Current Anthropology* , 38(4), 605-30.

Hessel, D. T., & Ruether, R. R. (2000). Introduction: Current Thought on Christianity and Ecology. In D. T. Hessel, & R. R. Ruether, *XI-XXXIII Hessel, D; Ruether, R Christianity and Ecology: Seeking the Well-Being of Earth and Humans* (pp. xi-xxxiii). Cambridge, MA: Harvard University Press.

Hindu, the. (2013, April 21). Tree-Man' Turns Sand Dune 'Green'. *The Hindu: Bushiness Line*. Retrieved from <http://www.thehindubusinessline.com/>.

IIPA, R. (1997). *Regional Workshop on Community Based Conservation: Policy and Practice*. New Delhi: Indian Institute of Public Administration.

India, G. o. (1901). Census of 1901: Distribution of Population According to Residence, Sex, And Civil Condition : London & New Delhi: British India Majesty's Stationary Office [Office of the Registrar General & Census Commissioner, India] No. 11.

- India, G. o. (2006). *Rajasthan Development Report 2006*. New Delhi: Planning Commission Government of India and Academic Foundation.
- India, G. o. (2011). *Census 2011: Population of Rajasthan*. New Delhi: Office of the Registrar General & Census Commissioner, India.
- India, G. o. (2011). *19th Livestock Census-2012 All India Report*. New Delhi: Ministry of Agriculture Department of Animal Husbandry, Dairying and Fisheries, India.
- Indira. (1992). Conservation at Human Cost: Case of Rajaji National Park. *Economic and Political Weekly* , 27(31-32), 1647-50.
- Jain, P. (2010). Bishnoi: An Eco-Theological "New Religious Movement in the Indian Desert. *Journal of Vaishnava Studies* pp. 1-19.
- Jain, P. (2011). *Dharma and Ecology of Hindu Communities: Sustenance and Sustainability*. London: Ashgate Publishing Limited.
- Jenkins, W. (2009). Religion and Ecology: A Review Essay on the Field. *Journal of the American Academy of Religion* , 7 (1),187–197.
- Jenkins, W., & Chapple, C. K. (2011). Religion and Environment. *The Annual Review of Environment and Resources* , 36, 441-63.
- Jha, A. K. (1994). Wildlife and Indigenous People. *Economic and Political Weekly* , 29(33), 2131.
- Jodha, S. N. (1970). Land Policies of Rajasthan: Some Neglected Aspects. *Economic and Political Weekly*, 5 (26, 27), A80-A84.
- Johar, K. K. (2004, August-September). *Jeev Raksha aur Bishnoi Sampradaya ka Goswapur Itihas*. *Amar Jyoti Patrika* (Monthly Magazine), 55(8), 61-62.
- Kachhawaha, O. P. (1985). *Famines of Rajasthan*. Delhi: Giani Press.
- Kalwal, S.C. et. al., eds. (2005). *Geomorphology and Environmental Sustainability*. New Delhi: Concept Publishing Company.

- Kapur, N. S. (2008). *Reconstructing Identities: Tribes, Agro-Pastoralists and Environment in Western Rajasthan (Seventh-Twentieth Centuries)*. New Delh: Manohar Publishers.
- Kateja, A. (2003). Groundwater Recharge: Need of the Day', in Kanchan Chopra. In C. H. H. Rao & R. Sengupta. *Water Resources, Sustainable Livelihoods and Eco-System Services*, (pp. 194-203). New Delhi: Concept Publishing Company.
- Kattel, S. P. (2005). Sustainability or Sustainable Development: An Anthropological Perspective. *Occasional Papers in Sociology and Anthropology* , 9: 258-77.
- Khan, D. S. (1997). *Conversions and Shifting Identities: Ramdev Pir and the Ismailis in Rajasthan*. New Delhi: Manohar Publication.
- Kothari, A., Suri, S., & Singh, N. (1995). Conservation in India: A New Direction. *Economic and Political Weekly* , 30(43), 2755-766.
- Kottak, C. P. (1999). The New Ecological Anthropology . *American Anthropologist* , 101, 23-35.
- Krishnanand, A. (2013a). *Jambha Purana*. Bikaner: Jambhani Sahitya Academy.
- Krishnanand, A. (2013b). *Jambha Sagara*. Bikaner: Jambhani Sahitya Academy.
- Kumar, Surendra (2011). *Hindi Santh Parampara aur Santh Keso*. Gaziabad: Akash Pblisher and Distributers.
- Landry, E. (1990). *An Introduction to the Fifteenth Century Rajasthani Saint Jambhoji and His Vani*. A Thesis for Master of Arts. USA: University of Washington.
- Lele, S., & Richard, N. B. (1996). Sustainability and the Scientist's Burden. *Conservation Biology* , 10(2), 354-65.
- Lemons, J., Westra, L., & Goodland, R. (1998). *Ecological Sustainability: Concepts and Approaches*. Dordrecht: Kluwer Academic Publishers.
- Little, M. A. (2007). Human Ecology in Anthropology: Past, Present, and Prospects. In V. Bhasin, & M. K. Bhasin, *Anthropology Today: Trends, Scope and Applications Vol. III* (pp. 25-38). New Delhi: Kamal-Raj Publications.

Livestock, C. (2012). *All India 19th Livestock Census Report*. Ministry of Agriculture (Department of Animal Husbandry, Dairying and Fisheries): New Delh.

Maheshwari, H. (1970). *Jambhesvara, Vishnoi Sampradaya Aura Sahitya, Jambhavani*. Calcutta: B.R. Publications.

Maheshwari, H. (1976). *Jambhesvara ki Sabadavaṇi, Mula Aur Tika*. Calcutta: B.R. Publications.

Maheshwari, H. (1981). *Jambhesvara*. New Delhi: Sahitya Akademi.

Maheshwari, H. (2011). *Shri Jambhoji aur Jambhavani Mimansa*. Jaipur, Abhor: Guru Jambheswar Sahity Sabha.

Maheshwari, H. (2011). Jambhoji: Bishnois Vishnoi Sampradaya. In S. N. Dube. *Religious Movements in Rajasthan: Ideas and Antiquities*(pp. 223-228). Jaipur: Centre for Rajasthan Studies, University of Rajasthan.

Maine, S. M. (1888). *Early History of Institutions*. New York: Holt.

Malinowski, B. (1922). *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*. London, New York: Geo. Routledge and Sons Ltd & E. P. Dutton and Co.

Malinowski, B. (1948). *Magic, Science and Religion and Other Essays*. Glencoe, Illinois: The Free Press.

Malhotra, S.P., (1976) *Combating Desertification in Arid Zone of Rajasthan*. Jodhpur, CAZRI.

Margolis, M. L. (1973). *The Moving Frontier: Social and Economic Change in a Southern Brazilian Community*. Florida: University of Florida Press.

Margolis, M. L. (1984). *Mothers and Such: Views of American Women and Why They Changed* . California: University of California Press.

Martinez, A. J. (2002). *Environmentalism of the Poor: A Study of the Ecological Conflicts and Valuations*. UK: Edward Elgar Publishing Limited.

Menon, G. (2012, July). The Land of the Bishnois-Where Conservation of Wildlife is a Religion. *The Better India*, July 3, 2012.

- Milton, K. (1993). *Environmentalism: The view from Anthropology*. London: Routledge Publications.
- Milton, K. (1996). *Environmentalism and Cultural Theory: Exploring the Role of Anthropology in Environmental Discourse*. London: Rutledge Publications.
- Misra, K. K. (1998). Trees in the Religion and Folklore of the Konda Reddi of South India. *Journal of Human Ecology*, 9 (3), 257-62.
- Misra, K. K., & Murty, M. L. (2001). Environment, Culture and Development in India: A Thematic Introduction. In M. L. Murty, & K. K. Misra, *People and Environment in India* (pp. 1-23). New Delhi: Discovery Publishing House.
- Misra, K. K., & Basa, K. K. (2007). *Traditional Knowledge in Contemporary Societies: Challenges and Opportunities*. New Delhi: Pratibha Prakashan.
- Moran, E. F. (2008). *Human Adaptability: An Introduction to Ecological Anthropology*. Philadelphia: Westview Press.
- Morgan, L. H. (1877). *Ancient Society*. New York: World Publishing.
- Murphy, M. F. (1991). *Dominican Sugar Plantations: Production and Foreign Labour Integration*. Westport, CT: Praeger Publishing.
- Murphy, M. F., & Margolis, M. L. (1995). An Introduction to Cultural Materialism. In M. F. Murphy, & M. L. Margolis, *Science, Materialism, and the Study of Culture* (pp. 1-6). Gainesville: University of Florida Press.
- Naravane, M. S. (1999). *The Rajputs of Rajputana: A Glimpse of Medieval Rajasthan*. New Delhi: A. P. H. Publishing House.
- Netting, R. M. (1968). *Hill Farmers of Nigeria: Cultural Ecology of the Kofyar of the Jos Plateau*. Seattle: University of Washington Press
- Netting, R. M. (1977). *Cultural Ecology*. Menlo Park: California Cummings. California Cummings.
- Netting, R. M. (1993). *Smallholders, Householders; Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Stanford: Stanford University press.

- Orlove, B. S. (1980). Ecological Anthropology. *Annual Review of Anthropology* , 9, 235-73.
- Panagariya, B. L., & Pahariya. (1993). *Political, Socio-Economic and Cultural History of Rajasthan*. Jaipur: Panchasheela Prakasan.
- Pant, G. B., & Maliekal, J. A. (1987). Holocene Climatic Changes over North-West India: An Appraisal, *Climate Change*, 10, 183-94.
- Pilgrim, S., & Pretty, J. (2010). Nature and Culture: an Introduction. In S. Pilgrim & J. Pretty *Nature and Culture: Rebuilding lost Connections* (pp. 1-20). London, UK & Washington, UK: Earthscan.
- Pitale, G., & Balkansky, A. (2011). Holy Cow! India's Sacred Cow Revisited. *Popular Anthropology Magazine* 2 (2), 11-17.
- Rappaport, R. A. (1968). *Pigs for the Ancestors* . New Haven: Yale University Press.
- Rappaport, R. A. (1971a). The Flow of Energy in an Agricultural Society. *Scientific American* , 224(3), 116-32.
- Rappaport, R. A. (1971b). The Sacred in Human Evolution. *Annual Review of Ecology and Systematics*, (2), 23-44.
- Rappaport, R. A. (1971c). Ritual, Sanctity, and Cybernetics. *American Anthropologist* , 73, 59-76.
- Rappaport, R. A. (1977). Ecology, Adaptation and the Ills of Functionalism: Being, Among other Thing,a Response to Jonathan Friedman. *Michigan Discussions in Anthropology* , 2 (2), 138-90.
- Rappaport, R.A. (1979). *Ecology, Meaning and Religion*. California: North Atlantic Books.Rappaport, R. A. (1996). Risk and the Human Environment. *Annals of the American Academy of Political and Social Science* , 545, 64-74.
- Rappaport, R. A. (1984). *Pigs for the Ancestors [Second Edition]*. New Haven: Yale University Press (Reissued Long Grove, IL: Waveland Press, 2000).

- Rappaport, R. A. (1996). "Risk and the Human Environment". Challenges in Risk Assessment and Risk Management: *The Annals of the American Academy of Political and Social Science*, 545, 64-74.
- Rappaport, R. A. (1999). *Ritual and Religion in the Making of Humanity*. Cambridge: Cambridge University Press.
- Robbins, P. (1998). Authority and Environment: Institutional Landscapes in Rajasthan, India. *Annals of the Association of American Geographers*, 88(3), 410-435.
- Russell, R. V., & Lal, H. R. (1916). *The Tribes and Castes of the Central Provinces of India Vol-IV*. London: Macmillan And Co., Limited.
- S, C. M. (2001). *The Bishnois: Wildlife Protection an Article of Faith*. Chandigarh: Aurva Publications.
- Saberwal, V., Rangarajan, M., & Kothari, A. (2001). *People, Parks and Wildlife: Towards Existence*. New Delhi: Orient Longman Pvt Ltd.
- Sabha, A. B. (2011). *Rajat Jayanti Samarika*. Mukam: ABBMS Published
- Saharia, V. B. (1982). *Wildlife in India*. Dehradun: Natraj Publishers.
- Saran, D. (2001, February-March). *Guru Jambheswar Mandinr Ratiyan main Stapana Deewas Samaro*. *Amar Jyoti Patrika* (Monthly Magazine), 52(2), 46-47.
- Shahabuddin, G., & Shah, A. (2003). Relocation of People from Wildlife Areas: Socio-Economic and Ecological Issues. *Economic and Political Weekly*, 38(47), 4945-46.
- Sharma, G. N. (1968). *Social Life in Medivial Rajasthan (1500-1800 A. D)*. Agra: Lakshmi Narain Agarwal Educational Publishers.
- Sharma, K. K., & Mahra, S. P. (2009). The Thar of Rajasthan (India): Ecology and Conservation of a desert Ecosystem. In C. Sivaperuman, Q. H. Baqri, G. Ramaswamy, & M. Naseema, *In Faunal Ecology and Conservation of the Great Indian Desert* (pp. 1-11). Heidelberg: Springer.
- Shiva, V. (1988). *Staying Alive: Women, Ecology and Development*. London: Zed Books.

Shoreman-Ouimet, E. (2010). Concessions and Conservation: A Study of Environmentalism and Anti-Environmentalism among Community Farmers. *Journal of Ecological Anthropology* , 14(1), 52-66 .

Sideris, L. H. (2013). Science as Sacred Myth? Eco-spirituality in the Anthropocene Age. In R. P. Rozz, S. TA, C. Palmer, J. J. Armesto, & J. B. Callicott, *Linking Ecology and Ethics for a Changing World: Values, Philosophy, and Action* (pp. 147-152). London: Springer.

Singh, D., & Singh, R. K., (2011). *Kair(Capparis decidua)*: A Potential Ethnobotanical Weather Predictor and Livelihood Security Shrub of the Arid Zone of Rajasthan and Gujarat. *Indian Journal of Traditional Knowledge* 10 (1), 146-155.

Singh, K. S. (1998). *People of India: Rajasthan. Part 1, Vol. 38*. Mumbai: Popular Prakashan PVT.LTD.

Singh, K. S. (1998). *People of India: Rajasthan. Part-2, Vol.38* . New Delhi: Popular Prakashan.

Sinha, U. K. & Navada, S. V. (2008). Application of Isotope Techniques in Groundwater Recharge Studies in Arid Western Rajasthan, India: Some Case Studies, In W. Dragoni. & B. S. Sukhija, *Climate change and Groundwater* (pp. 121-135): UK: Geological society of London.

Surendra, Poonia and Rao A S (2013), Climate Change and Its Impact on Thar Desert Ecosystem, *Journal of Agricultural Physics* 13(1), 71-79.

Sinha, A., Kevin, G., Cannariato, L. D., Stott, H. C., R, L. E., Madhusudan, G., et al. (2007). A 900-years (600 to 1500 A.D.) Record of the Indian Summer Monsoon Precipitation from the Core Monsoon Zone of Zone of India.”. *Geophysical Research Letters* , 34(16), 1-5.

Sinha, R. K., & Sinha, S. (1999). Conservation and Utilization of Biodiversity in the Thar Desert of India. In M. K. Bhasin, & V. Bhasin, *In Rajasthan: Ecology, Culture and Society* (pp. 65-76). Delhi: Kamal Raj Enterprises.

Sponsel, L. E. (2007). Sacred Places and Biodiversity Conservation . In C. H. Cleveland et.al. *Encyclopedia of Earth*. www. eearth.org. Accessed 12 May 2016.

Sponsel, L. E. (2011). The Religion and Environment Interface: Spiritual Ecology in Ecological Anthropology. In H. Kopnina, & E. Shorenan-Ouimet, *Environmental Anthropology Today* (pp. 37-55). London and New York: Routledge.

Srinivas, M. N. (1955). The Social System of a Mysore Village. In M. Marriott, & A. R. Beals, *Village India: Studies in the Little Community* (pp. 1-35). Chicago: University of Chicago Press.

Srinivas, M. N. (1975). An Obituary on Caste System. *Economic and Political Weekly* , 6 (3), 56-72.

Srinivas, M. N. (1976). *The Remembered Village*. UK/New Delhi: Oxford University Press.

Srivastava, V. K. (1997). *Religious Renunciation of a Pastoral People*. New Delhi: Oxford University Press.

Srivastava, V. K. (2001). Religion and Environment: A Perspective from the Community of Bishnois. In V. Basin, V. K. Srivastava, & M. K. Bhasin, *Human Ecology in the New Millennium* (pp. 249-254). New Delhi: Kamal-Raj Publications.

Srivastava, R. L. (2006). *Food from Forests in Arid Zone, Compiled by: Non-wood Forest Products Division. Arid Forest Research Institute* . Jodhpur: Rajputana Stationery Mart.

Stein, R. L., & Stein, P. L. (2008). *The Anthropology of Religion, Magic, and Witchcraft*. New York: Pearson Education. Inc.

Steward, J. H. (1949). Cultural Causality and Law: a Trial Formulation of the Development of Early Civilizations. *American Anthropologist* , 51(1), 1-27.

Steward, J. H. (1936). The Economic and Social Basis of Primitive Bands. In L. H. Robert, *In Essays on Anthropology in Honor of Alfred Louis Kroeber* (pp. 331-350). Berkeley: University of California Press.

Steward, J. H. (1955). *Theory of Culture Change: The Methodology of Multi-linear Evolution*. Urbana: University Illinois Press.

Sullivan, S. (2000). Gender, Ethnographic Myths and Community Based Conservation in a Former Namibian Homeland. In H. D. L, *Rethinking Pastoralism in Africa* (pp. 141-64). Oxford: James Curry.

Thapan, D., Sumit, Subhas. (2001, July). *Jeev Raksha Evam Paryavarn ke Sajak Prahari choudary Santh Kumar Raad. Amar Jyoti Patrika* (Monthly Magazine), 52(7), 21-22.

Taylor, B. (2005). Introduction . In B. Taylor, *The Encyclopaedia of Religion and Nature* (pp. vii-xxii). London and New York: Continuum.

TOI.(2014, January 30). Bishnoi Youth Dies Protecting Chinkaras in Jodhpur. *The Times of India*. [htt//timesofindia.indiatimes.com/](http://timesofindia.indiatimes.com/).

Tobias, M. (1996). The Anthropology of Conscience . *Society and Animals* , 4(1), 65-73.

Tod, J. C. (1829). *Annals and Antiquities of Rajasthan or the Central and Western Rajpoot States of India, Vol. I, II & III*. London: Smith, Elder.

Tucker, M. E., & Grim, J. A. (2001). Introduction: The Emerging Alliance of World Religions and Ecology. *Daedalus*, 130(4), 1–22.

Tylor, E. B. (1871). *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art and Custom*. London: John Murray.

Upshur, J. L., Terry, J. J., Holoka, J. P., Cassar, G. H., Goff, R. D. (2012). *Cengaga Advantage Books: World History: Before 1600: The Development of Early Civilizations*. USA: Wadsworth Cengaga Learning.

Vaughn, L. M. (2006). Marriage and the Family . In H. J. Birx, *21st Century Anthropology: A Reference Handbook Vol.I* (pp. 162-73). London: Sage Publications.

Vayda, A. P. (1976). On the “New Ecology’ Paradigm”. *American Anthropologist* , 78, 645-6.

Vayda, A. P., & Rappaport, R. (1968). Ecology, Cultural and Non-Cultural. In J. A. Clifton, *Introduction to Cultural Anthropology* (pp. 476-498). Boston: Houghton Mifflin.

Vayda, A. P., & MacKay, B. (1975). New Directions in Ecology and Ecological Anthropology. *Annual Review of Anthropology* , 4, 293-306.

Vayda, A. P. (1969). The Study of the Causes of War with Special Reference to Headhunting Raids in Borneo. *Ethno-history* , 16, 211-24.

Vayda, A. P. (1996). *Methods and Explanations in the Study of Human Actions and Their Environmental Effects*. Jakarta: CIFOR/WWF Special Publication.

Vyas, V. S. (2007). Introduction: The Journey, Milestones and Destinations. In V. S. Vyas, S. Acharya, S. Singh, & S. V, *Rajasthan: The Quest for Sustainable Development* (pp. 14-17). New Delhi Jaipur: Academic Foundation publications & Institute of Development Studies.

Watts, K. L. (2001). *The Social Semiotics of Relational Terminology at Zuni Pueblo*. Leviston: Mellen Press .

White, L. J. (1967). The Historical Roots of Our Ecologic Crisis. *Science* , 155, 1203-07.

White, L. A. (1972). Ownership and Political Ecology. *Anthropological Quarries* , 45, 201-5.

White, L. A. (2016). *The Evolution of Culture*. New York: McGraw-Hill.

Zodape, S. T., & Indusekhar, V. K. (1997). *Salvadora Persica: A Boon to Wasteland Development*. *Journal of Scientific and Industrial Research* , 56(11), 657-661.

Structuralism. 1998. *Encyclopedia Britannica* website. Accessed [October 6, 2016]. <https://www.britannica.com/science/structuralism-anthropology>.