



REVIVING TRADITIONAL PASTURE ROUTES IN DRY AND ARID PARTS OF THE COUNTRY

BASELINE SURVEY REPORT EARLY TRENDS

MARCH 2020



The report focuses on comprehending the socio-economic conditions as well as the issues and opportunities of the pastoralists in the harsh regions of the Thar. The report and the detailed empirical study carried out in the program intervention villages will further aid our intervention in mitigating the issues faced by the pastoralists.

INTRODUCTION

In western Rajasthan, scarcity of water and harsh summers exacerbates the daily struggles of the people. The desert and its people are at the mercy of weather conditions and have to depend on barely sustainable resources. For centuries, the locals have relied on nomadic pastoralism as a means of livelihood safety-net. It has supported the locals during deficit rainfall, droughts, and crop failures. The result is a regional pastoral population on the move. Pastoralism can be considered as an essential mechanism for ensuring sustenance in the harsh desert ecosystem.

Unfortunately, due to rapid urbanization and increased industrialization pastoralists are in a losing battle with industry and urban sprawl. Pastoralism is facing a severe crisis in India. What threatens this way of life are the development strategies and neglect by the modern-state. These pastoralists are facing pressure due to shrinking fodder and water sources, the collapse of veterinary services, the absence of streamlined markets for their animals-based products, and scanty state support along these pastoral routes. The community is marginalized and excluded from the decisions that affect them. Thus, it becomes imperative to ensure that they receive the support services that are essential to their ecosystem.

OUR APPROACH

In its efforts to strengthen traditional livelihoods across the desert, Urmul through a set of focused interventions has initiated to revive and support this forgotten ecosystem. These strategic interventions through collaborations with varied stakeholders and domain experts are gradually ensuring the resurgence of this vibrant ecosystem. Through the journey of strengthening this ecosystem support from the community, state agencies, academia, and non-profit organizations is being leveraged.

The four villages that have been identified for project interventions were Rajasar Bhatiyan, Kelan, Dhani Gopalaram and Kalu. In these four villages, revival of common property resources would be undertaken. In Kalu and Rajasar Bhatiyan, a common facility centre catering to the needs of the pastoralists would be developed.

Due to the harsh climatic conditions and low forage, water unavailability, pastoralists also tend to migrate to villages in Punjab and Haryana seeking for the same. This long pastoralist route is tiresome and time consuming and often leads to numerous deaths of the livestock. These areas have been chosen as they host a large number of pastoralists traveling to Punjab and Haryana. The project interventions is focusing on strengthening the necessary infrastructure, enabling the capacity building of the pastoralists, and launching policy advocacy efforts that has enabled sensitively responding to their concerns This revamped pastoral ecosystem would ensure that the animals get timely forage, water resources, healthcare facilities through development of CFCs and revival of CPRs to ensure they avail necessary services. In addition to strengthening the services, the interventions aim to empower and motivate the pastoralists to adopt this traditional livelihood.

PURPOSE OF THE SURVEY

The purpose of the survey was to gather information about pastoralists in the Western part of Rajasthan. It was conducted with intent to focus upon the availability of the resources in the

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region for pastoralists and to comprehend the challenges they faced during seasonal migration. This was done through a series of questions addressing several issues revolving around forage, water availability and contemporary threats to the environment. Along with that information on the local self-governance in the region was also acquired. Through the interviews and the empirical study, the aim was to draw a link between the requirements of the pastoralists in the region and their limited accessibility to the resources. With the help of this information, it would help us in addressing the gap and bring about essential initiatives for the betterment of the inhabitants.

RESEARCH METHODOLOGY

A mixture of both qualitative and quantitative methods was applied for the field work conducted between 15 Jan to 28 Feb, 2020 . Qualitative methods include focus groups, in-depth interviews etc which is more subjective whereas quantitative methods include surveys, structured interviews and observations and reviews of records or documents for numeric information which is more objective. The interviews were conducted on the basis of a semi-structured snowball method which enabled us to cover all the aspects around pastoralists. Semi-structured interviews entail that a researcher goes into the field with predetermined open ended questions for the interviewees with possibilities open for adaptation if necessary. Snowballing helped us to fasten the survey of 394 respondents in an effective manner since it was carried out by a local researcher. Random Sampling was adopted to conduct pen and paper interviews on the field which was later digitally entered by the project team. The survey centred around Rajasar Bhatiyar, Kelan, Dhani Gopalaram and Kalu and survey respondents from villages within a 90kms radius. These areas host the majority of pastoralists migrating to Punjab and Haryana in search of forage and water due to the limited availability of the same in the nearby regions.

Improvisations made on field

1. Majority respondents were uncomfortable sharing Aadhar/Ration/MNREGA card details, therefore it was voluntarily taken.
2. Since women of the households were mostly reluctant to answer, male members other than the head of the households were also approached for an insight on different perspectives.

FIELD SITE DESCRIPTION

Demographic Profiling

The survey was conducted in the western part of Rajasthan in Lunkaransar and Chattargarh blocks of Bikaner. Bikaner consists of a population of 23.64 lakhs with a population density of 78 persons per sq. km per 2011 data. Out of the total population, 66.14% population lives in the rural areas of districts while 33.86% comprise the urban population. The region has a sex ratio of 903 females per 1000 males. Since literacy is often a problem in the rural parts of India, the average literacy rate in Bikaner district as per census 2011 is 77.98 % of which males and females are 85.66 % and 69.54 % literates respectively. Bikaner in Rajasthan faces rainfall deficit, the rainfall in the region is around 241 mm, 9.5 inch per year. November receives the lowest precipitation while the month of July receives the highest.

Profile of the Respondents

It was decided to focus on Lunkaransar and Chattargarh blocks of Bikaner because the majority population in the area is historically reliant on Pastoralism and during harsh summers in the region, the pastoralists have resorted to migration to ensure forage and water support for their

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animals. In the survey, we aimed to focus on the pastoralists migrating to nearby states of Haryana and Punjab, pastoralists migrating within the state and pastoralists who used to migrate earlier and had given up now.

Limitations and Mitigations

Some of the major problems that was faced while conducting the field work are mentioned below -

- Mostly the head of the households responded to the interview questions and women were often reluctant to answer. To get a diverse opinion, other male members of the families were approached as well.
- Since the majority of the respondents were residing in hamlets, it was difficult and time consuming for the researcher.
- Most of the houses were devoid of house numbers and the area was sparsely populated. Hence, it was difficult to navigate the houses of the respondents nearby.

KEY SURVEY FINDINGS

The period of study was from 15 Jan to 28 Feb 2020. During the survey, 394 inhabitants from Bikaner, Chattargarh and Lunkaransar blocks were interviewed. The survey was carried out in the two blocks of Bikaner with an increased history of migration by pastoralists. The key factor that governed the identification of sample size was the migration routes taken up by the pastoralists.

Through the survey tool the following key information was captured:

I. Primary information of the respondents

- The literacy levels of the respondents are poor with 76% of the total respondents are illiterate and 82% of the total inhabitants have not received any form of formal education.
- Income is meagre in these regions and mostly dependent on agriculture and livestock as 67.5% and 71.6% of the total population earn between 0-60,000 as annual income from farming based distribution and animal husbandry based distribution respectively.
- About one third of the respondents have either practised pastoralism for more than half a century or have started adopting pastoralism in the last five years.
- All the respondents own a total of 27,578 sheep and 7,338 goats.
- While more than half of the respondents belong to the caste category of OBC, the other half is divided between Scheduled Caste (32%) , Unreserved (17%) and Scheduled Tribe (1%).
- Out of the total respondents, 83% avail banking services and are under formal economy which gives impetus for emergence of probable enterprises in the future.
- The inaccessibility to resources is evident in the region as 61% do not have a functional toilet followed by 61% respondents who do not own any form of vehicles in comparison to 35% camel cart owners.
- 98% of the respondents sell animal derived products as a major source of livelihood.
- It was found out that the majority of the pastoralists initiated migration from Kalu Lunkaransar followed by different routes ranging from Gaurisar, Rajasar, Mahajan Field Firing Range (Area) and other nearby villages. These pastoral routes extend up to Punjab and Haryana seeking for forage and water.

II. Forage support

- The annual amount of investment on animal fodder ranges from INR 10,000 to INR 1,00,000 every year with 34% pastoralists investing up to INR 20,000.

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- 66% of the respondents migrate on a yearly basis on foot for adequate access to fodder and believe that the routes have changed in the last 10 years.
- About 99% of the total population seeks a need for improvement in Common Property Resources(CPR).
- Of the 74% respondents who use CPRs for forage, respondents are mostly dependent on Oran and Gochar or both.
- There has been a collapse in the traditional relations enjoyed by the pastoralists with the farmers on the pastoral routes they used to pass through. Presently, 61% of respondents expressed that they are allowed their animals to graze on fallow lands.

III. Veterinary Facilities

- 98% of the animals are vaccinated on an yearly basis.
- Even though more than half of the population have medical facilities within 10 kms of their pastoral route, 90% of the respondents still vaccinate their animals themselves.
- 99% of the respondents have reported deaths due to sickness or infection which might be linked to the fact that almost 84% have reported that 1-20 animals have died over the span of two years.
- Almost 78% people spend INR 10,000 or below on medical care of the animals.
- Along the pastoral routes, the animals are prone to diseases. 76% of the respondents reported that diseases such as Pox (*Mata*), Enterotoxaemia (*Fidkiya*), Mange (*Khujli*) and Measles (*Auri*) pose a great threat to the lives of their animals.

IV. General Awareness

- More than 95% of the total population is unaware about climate change, desertification and soil erosion.
- 99% of the total population do not participate in Gram Sabha or in any discussions regarding environmental activities. The locals have low interest and limited enthusiasm for participation in the activities of Panchayati Raj Institutions.

V. Majority of the total respondents were facing the following problems during migration

- Lack of water resources- The limited water resources available are mostly inadequate to cater to the needs of the pastoralists.
- Fear of theft- With herd size of hundreds of sheep and goats and absence of security, theft in the region is imminent.
- Fodder unavailability- Due to harsh weather conditions in the region, fodder is limited.
- Absence of medical facilities- Due to its unavailability, pastoralists often have to deal with health related issues of the animals. One of the major health related issues during migration is the death of a child bearing sheep/goat or its offspring catering to long distances.

KEY TAKEAWAYS

Like most rural areas in India, illiteracy is a challenge for the pastoralists of the region. With the majority of the population in Lunkaransar and Chattargarh having no formal education the reliance of locals on pastoralism as the primary source of income is evident. But, recently with the onslaught of urbanisation and collapse of management of commons their livelihood is under threat. As a result, the majority of the farmers migrate seeking forage in CPRs and seek improvement but over time the reduction in Common Property Resources and unavailability of

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veterinary facilities in the vicinity has led to the loss of numerous animals. In addition, collapse of previously maintained traditional relations between pastoralists and agriculturalists are no longer cherished.

It is difficult to mitigate these issues as there is a lack of awareness in the area regarding the environment as well as a low participation in the activities of panchayats. Presently, the pastoral fragile ecosystem is facing challenges from rapid urbanisation and disregard of their needs by the locals. Scarce resources and limited exposure makes it difficult for them to demand their rights. Their animals urgently require better veterinary support, restoration of common property resources, revival of community water resources, forage support from farmers with fallow lands, and better market access to sell their products.

Through the course of the next one year, Urmul, with the aid of stakeholders, aims to mobilize the pastoral community, infrastructure, knowledge, and potential. Ensuring management of inputs like water, fodder, veterinary health, and also support services for safety and social upliftment of pastoralists in selected clusters of traditional routes is essential. Urmul Rural Health Research & Development Trust through a set of focused interventions would work towards the pilot management of these pastoral routes. We aspire to facilitate pastoralists to take charge of their livelihood and drive an inclusive, accountable, collaborative, and sustainable enterprise ecosystem. This project with the resources, technology and knowledge support from multiple stakeholders would develop a resilient pastoral derivative ecosystem in western Rajasthan.

Note: Key data findings are visualised in Annexure I.

ANNEXURE I. KEY DATA FINDINGS VISUALISED

FIGURE 1

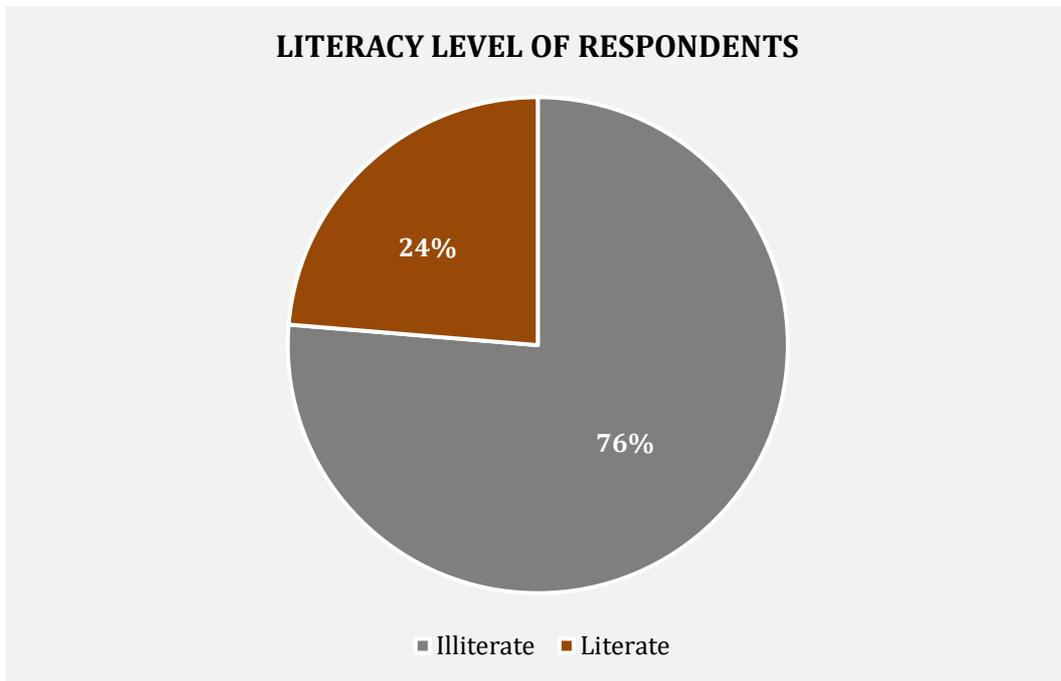
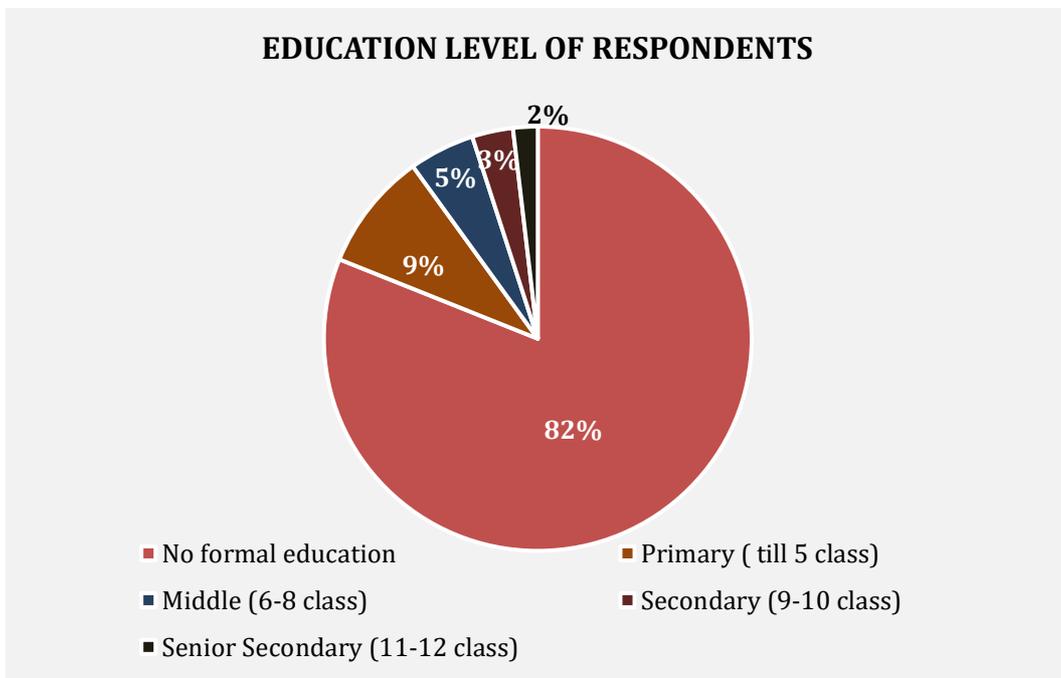


FIGURE 2



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FIGURE 3

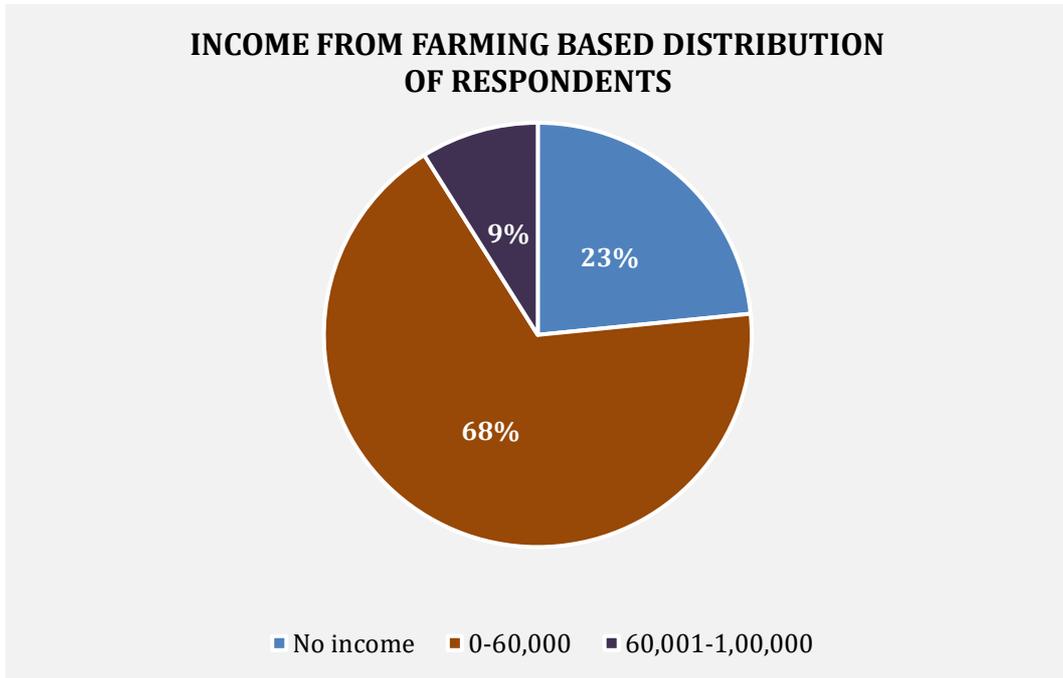
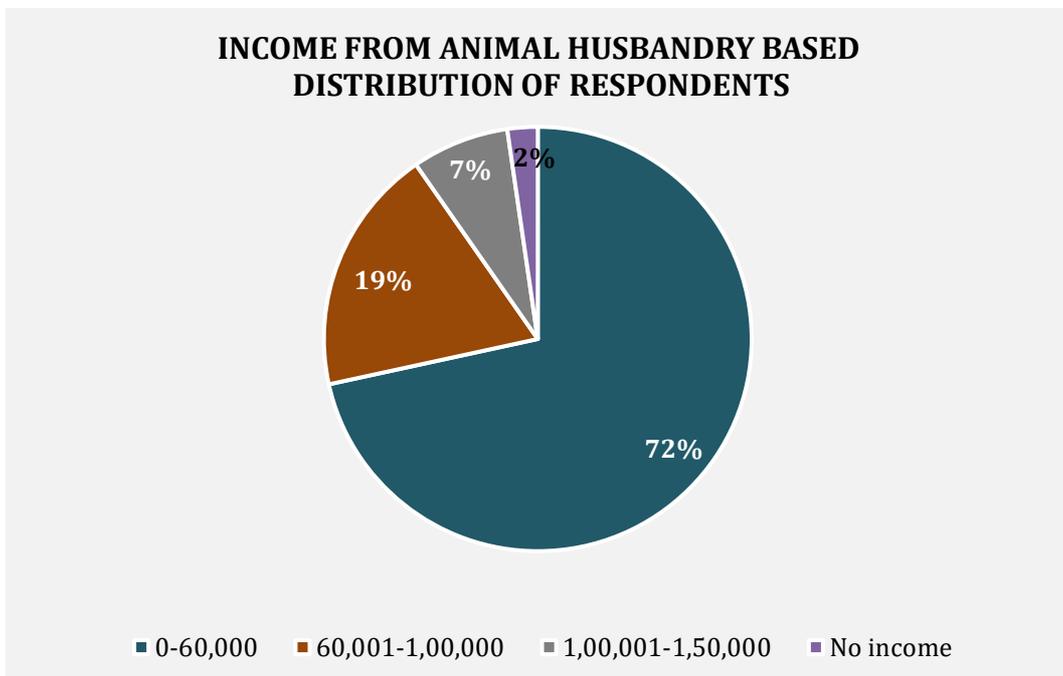


FIGURE 4



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FIGURE 5

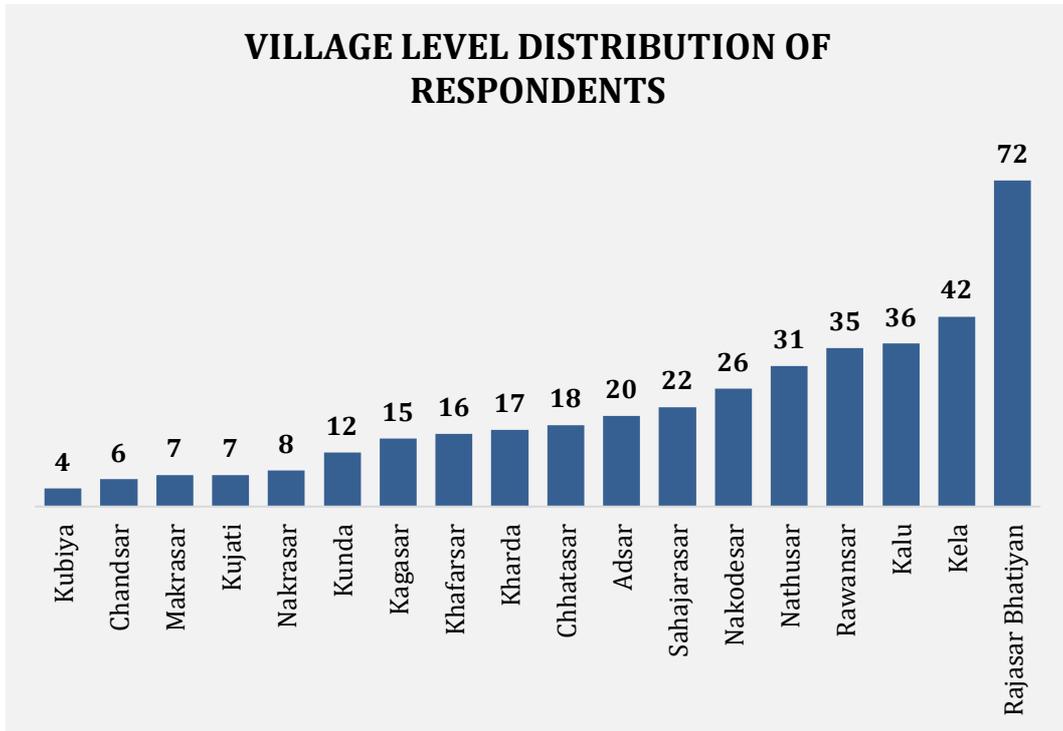
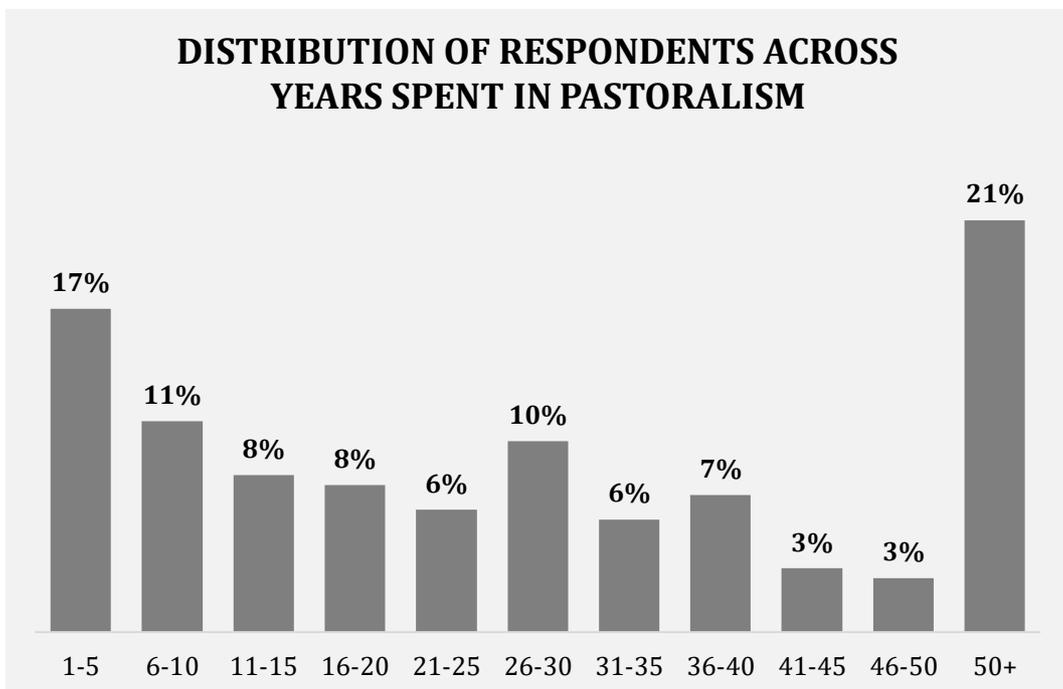


FIGURE 6



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FIGURE 7

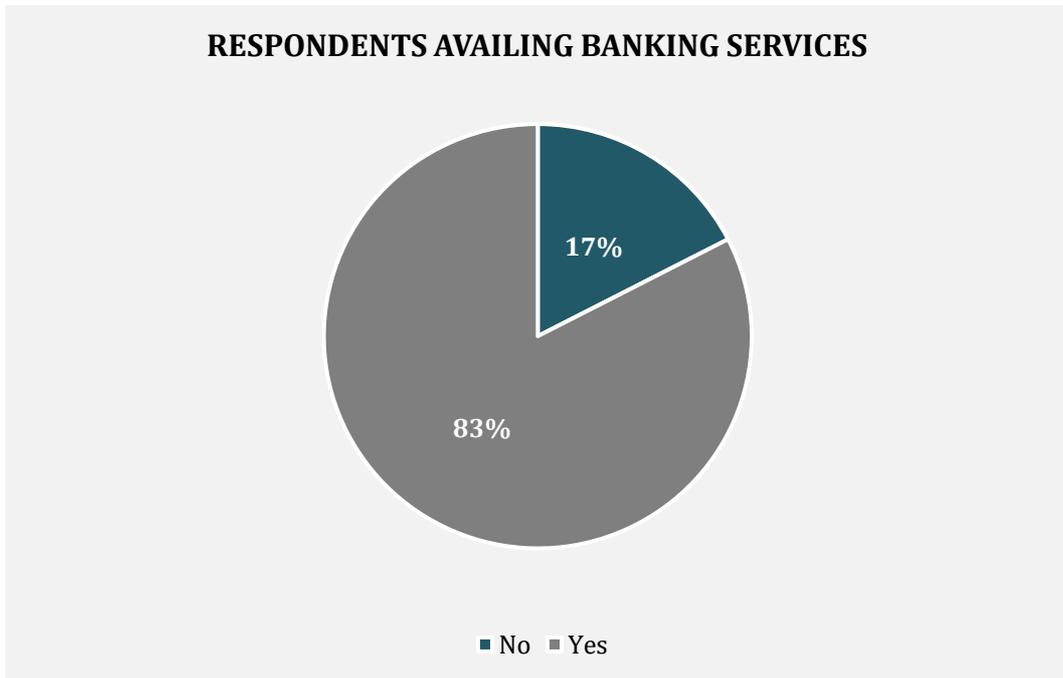
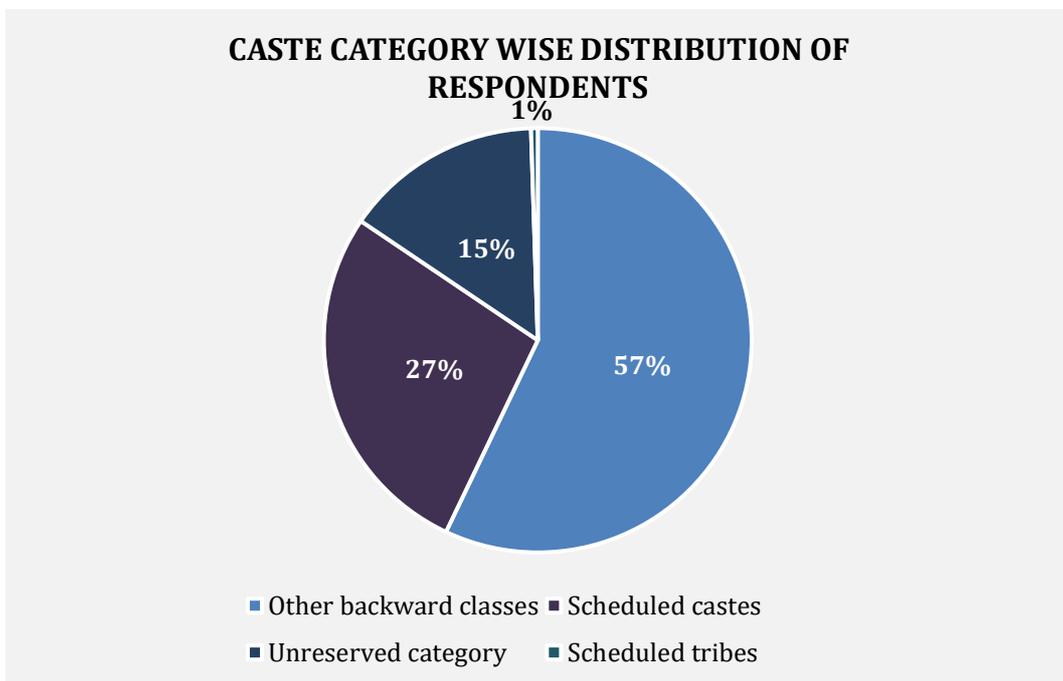


FIGURE 8



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FIGURE 9

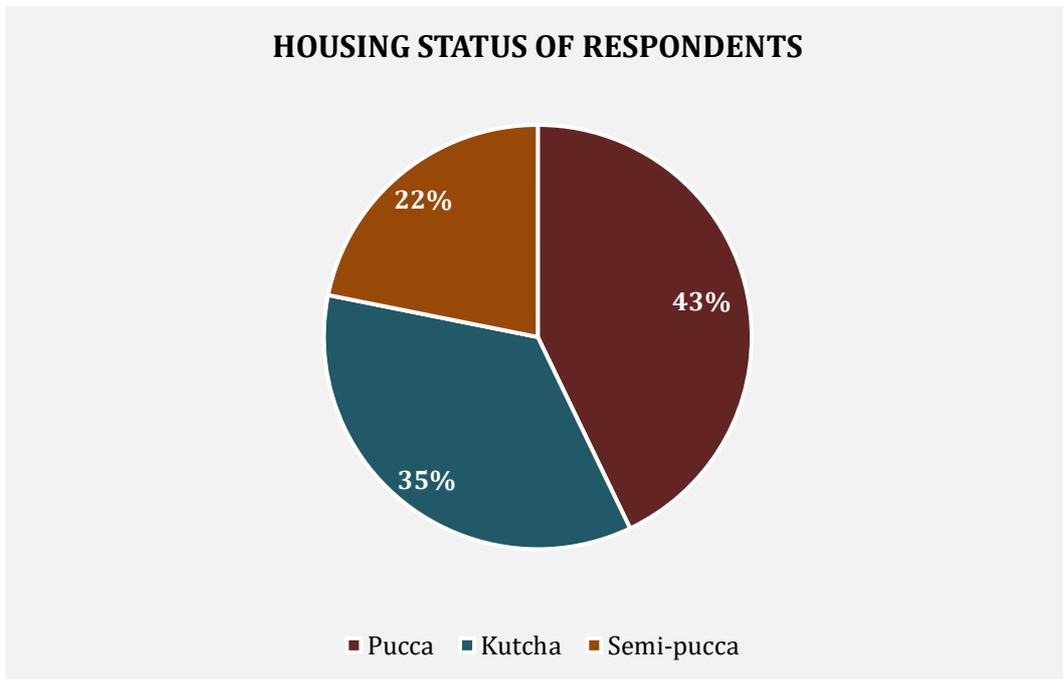
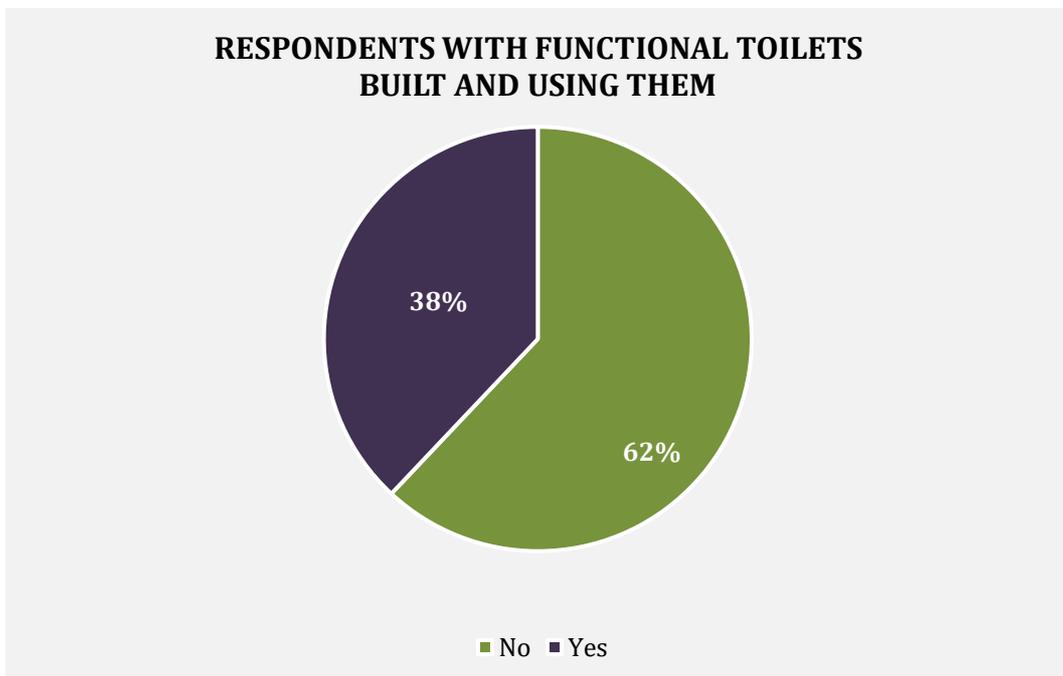


FIGURE 10



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FIGURE 11

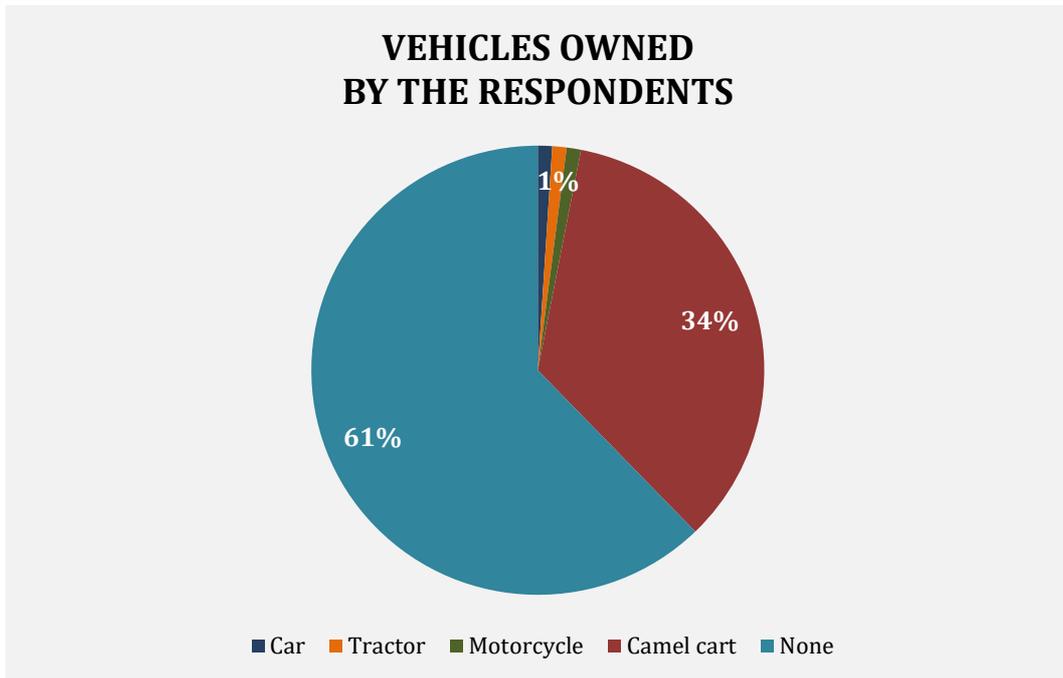
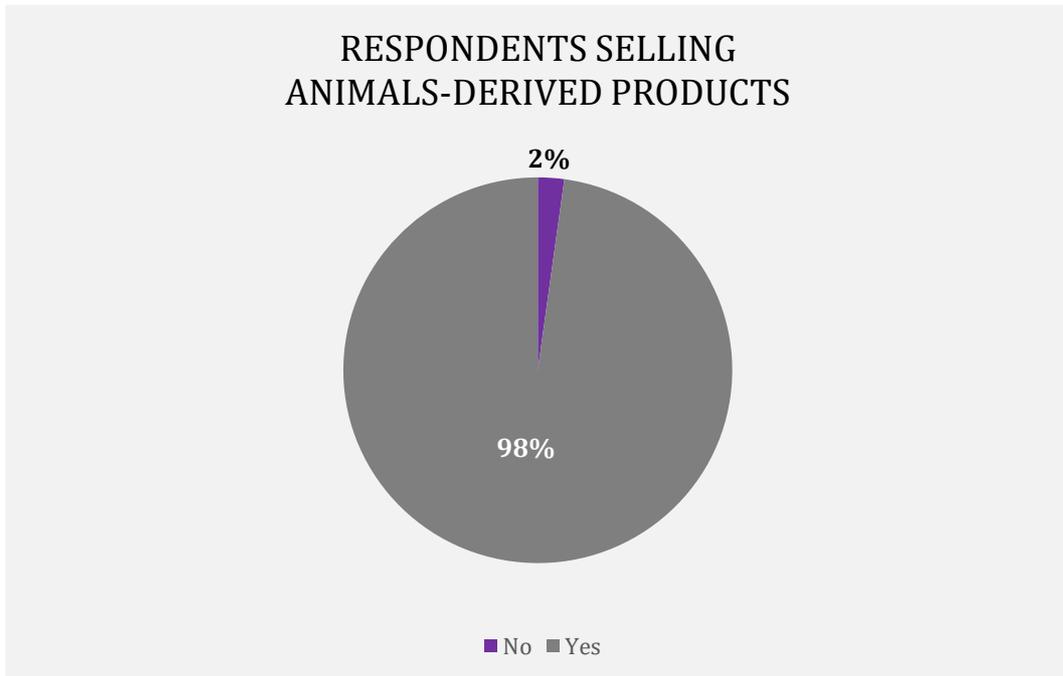


FIGURE 12



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FIGURE 13

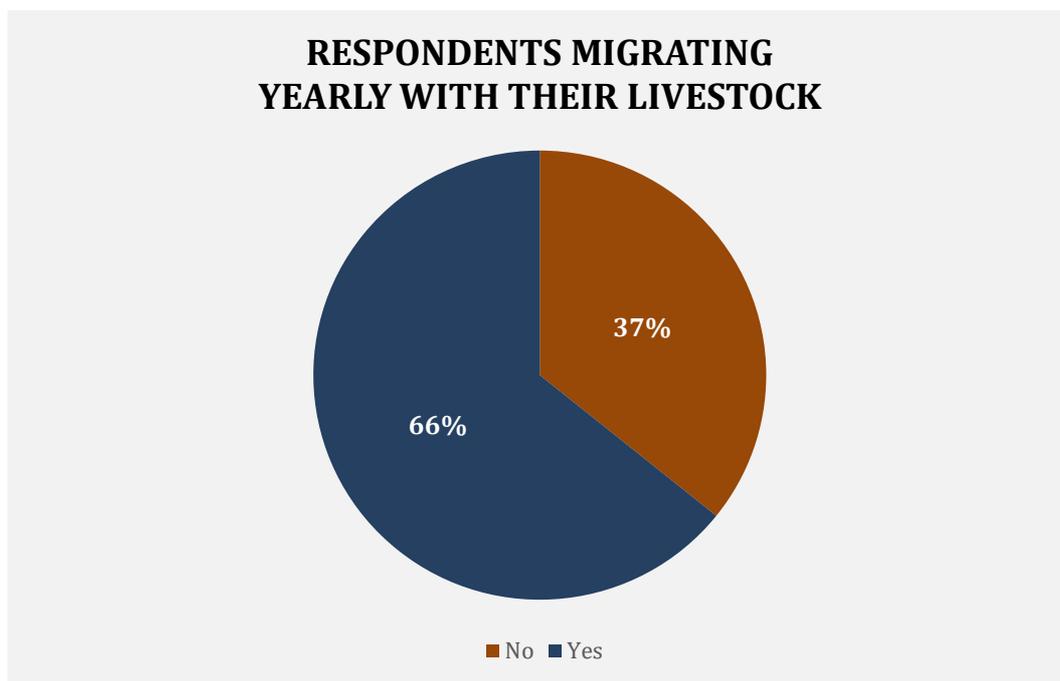
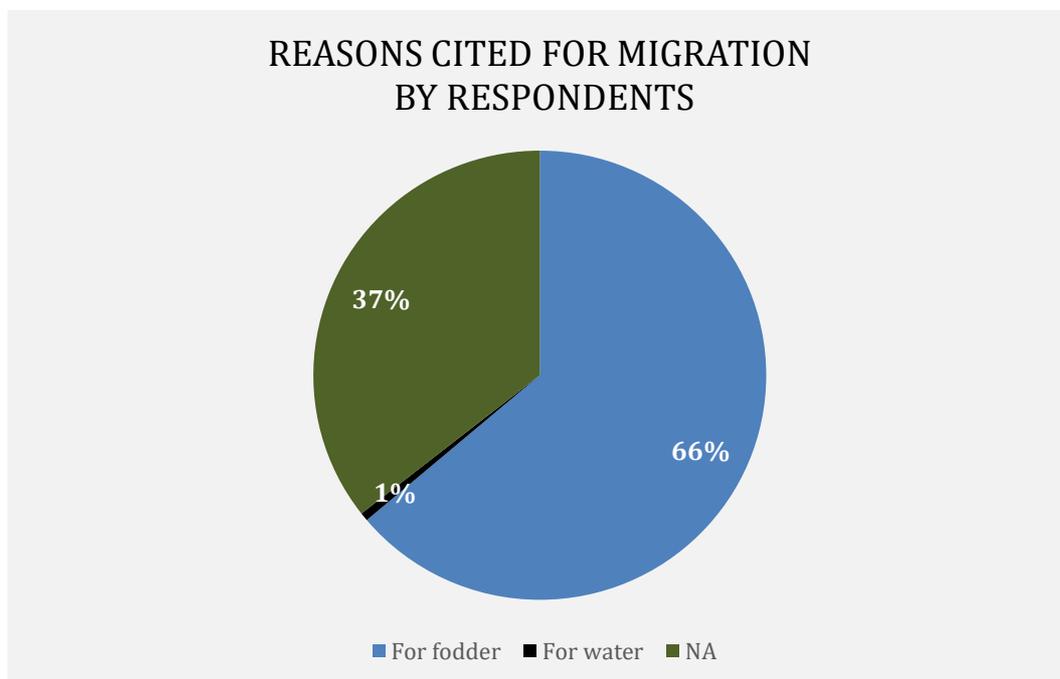


FIGURE 14



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FIGURE 15

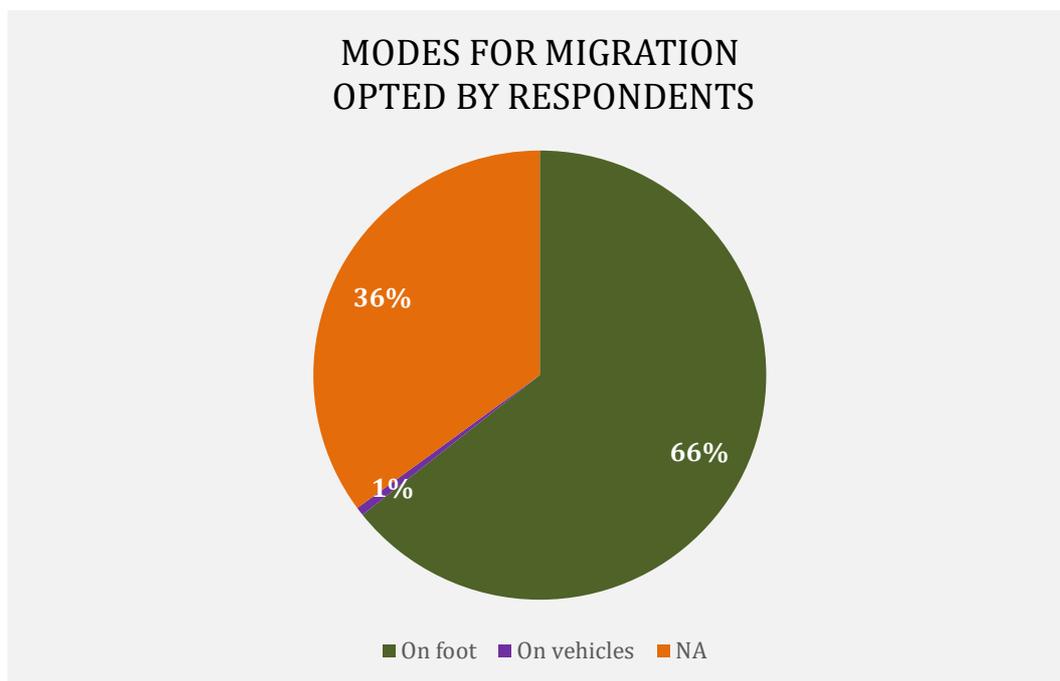
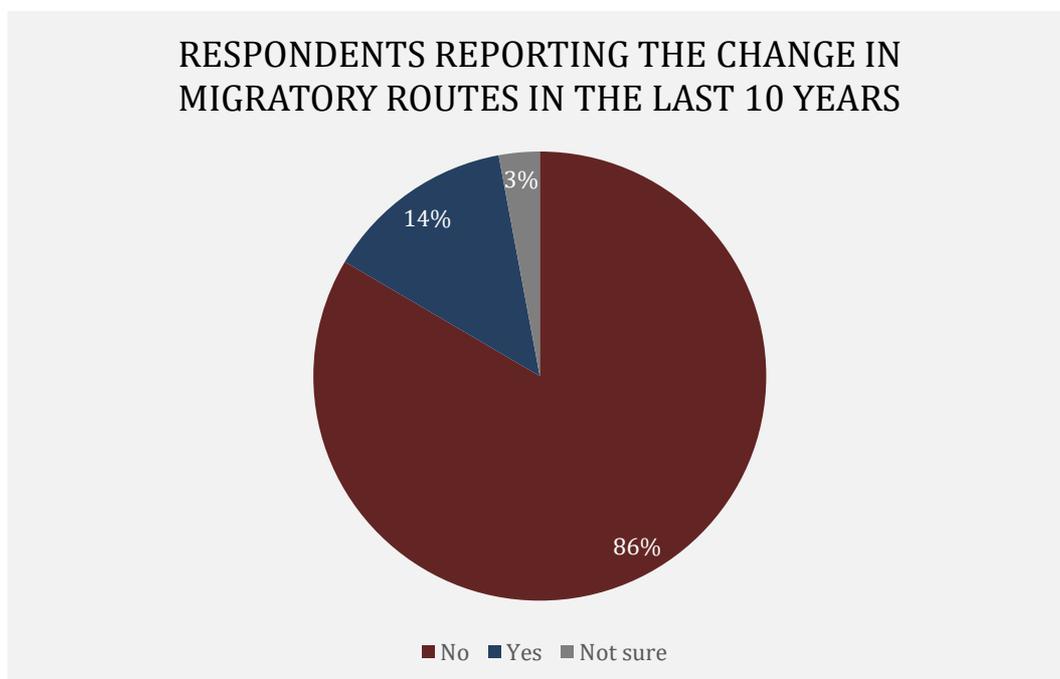


FIGURE 16



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TABLE 1

AVERAGE HERD SIZE OF SHEEP OWNED BY A RESPONDENT	AVERAGE HERD SIZE OF GOATS OWNED BY A RESPONDENT
71	19
TOTAL NUMBER OF SHEEP REPORTED BY RESPONDENTS	TOTAL NUMBER OF GOATS REPORTED BY RESPONDENTS
27,578	7,388

TABLE 2

NAME OF VILLAGE	TOTAL NUMBER OF SHEEP	SUM OF NUMBER OF GOATS
Adsar	1435	269
Chhatasar	772	357
Kagasar	477	424
Kalu	3875	829
Kela	2568	933
Kunda	696	376
Makrasar	398	150
Nakodesar	2350	494
Nakrasar	820	141
Nathusar	1447	330
Rajasar Bhatiyani	3996	1070
Rawansar	2890	675
Sahajarasar	1615	449
Kharda	2255	310
Kujati	275	75
Kubiya	360	65
Khafarsar	1134	221
Chandsar	215	170
Grand Total	27,578	7,338

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FIGURE 17

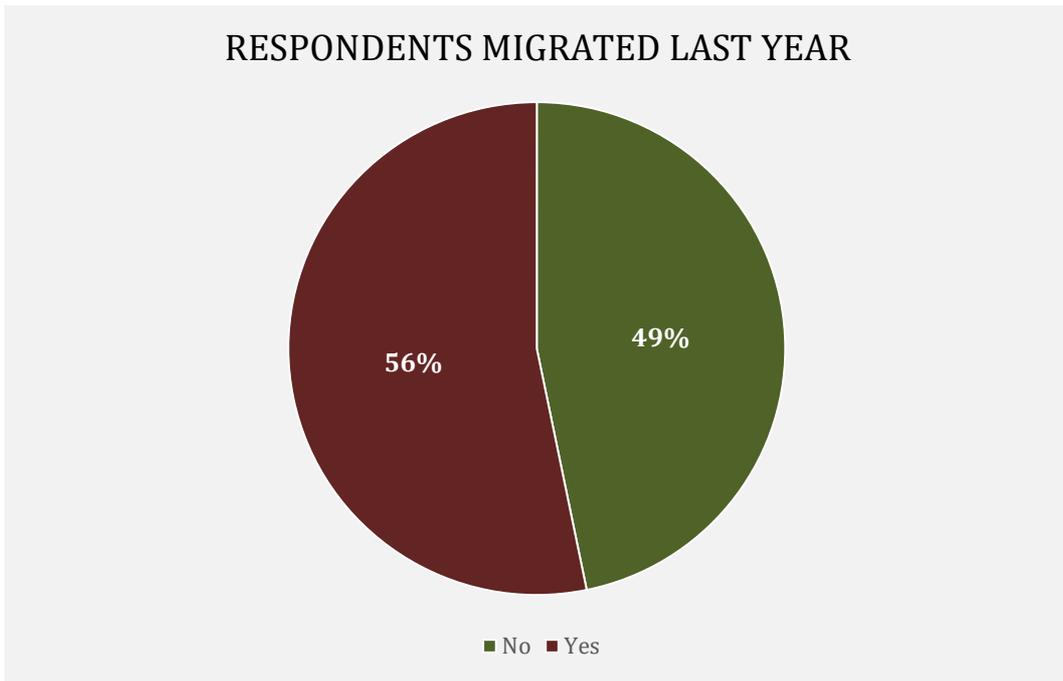
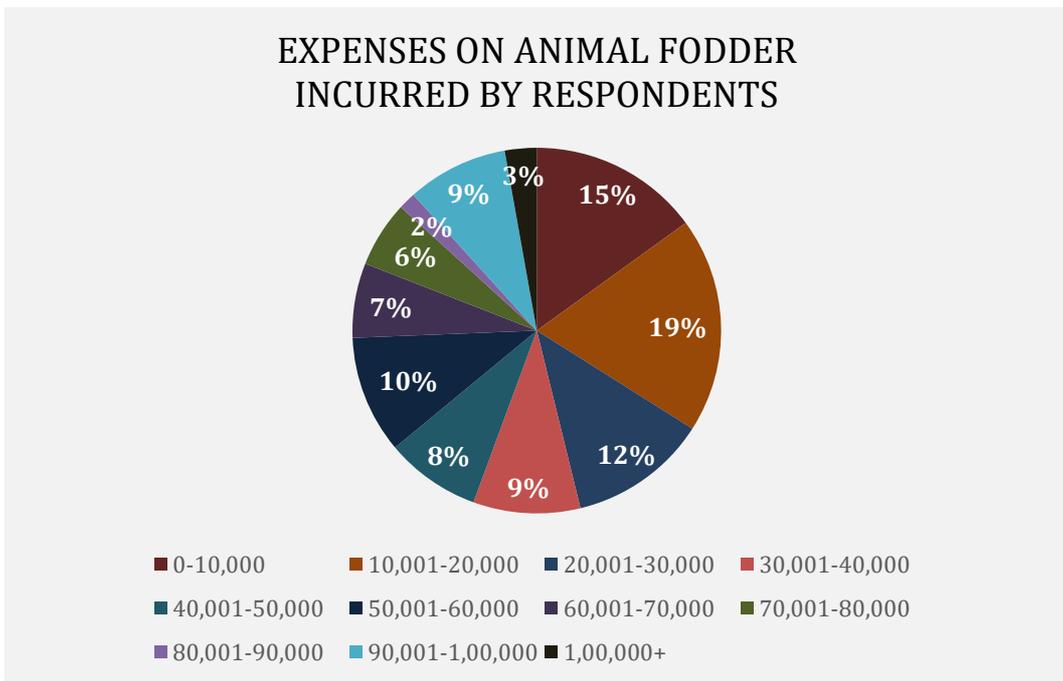


FIGURE 18



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FIGURE 19

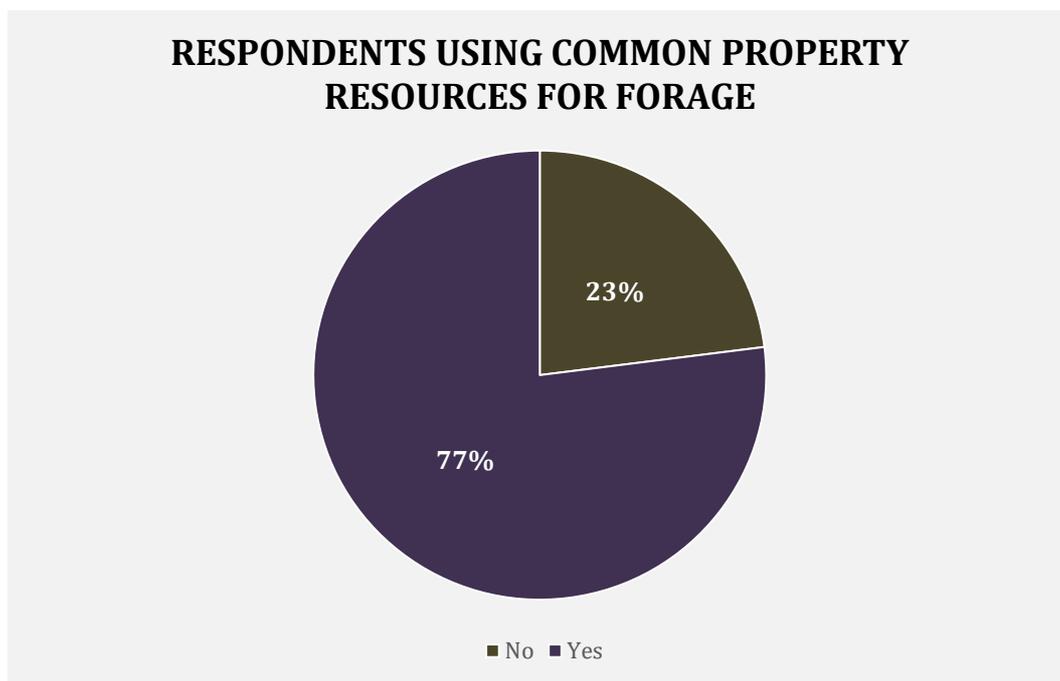


FIGURE 20

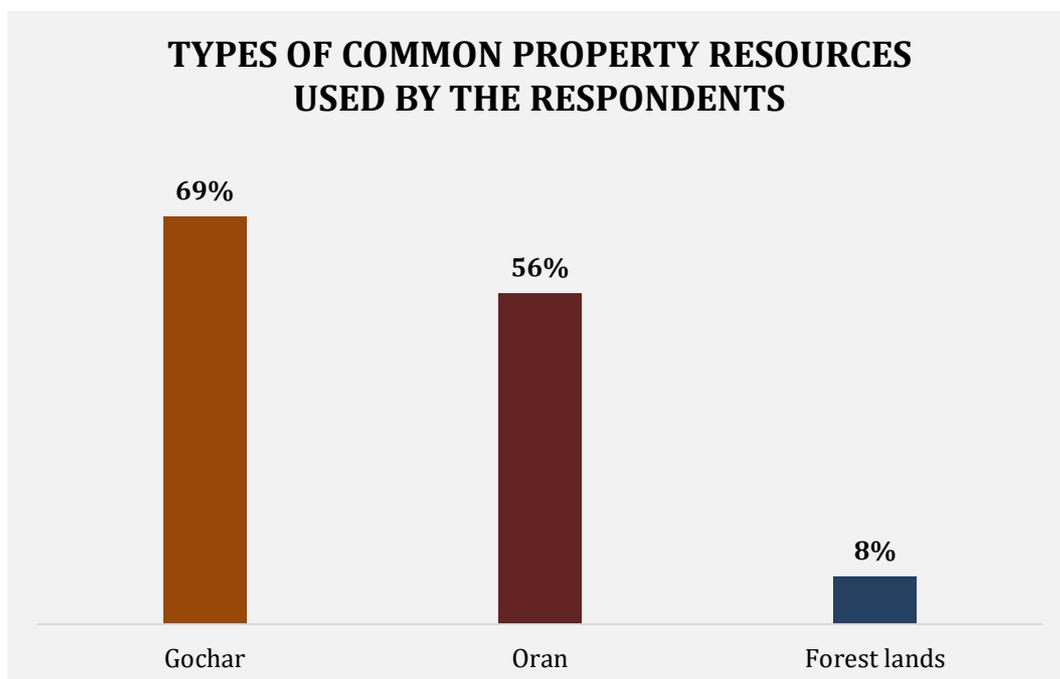


FIGURE 21

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**RESPONDENTS REPORTED COMMON PROPERTY
RESOURCES REQUIRE IMPROVEMENT**

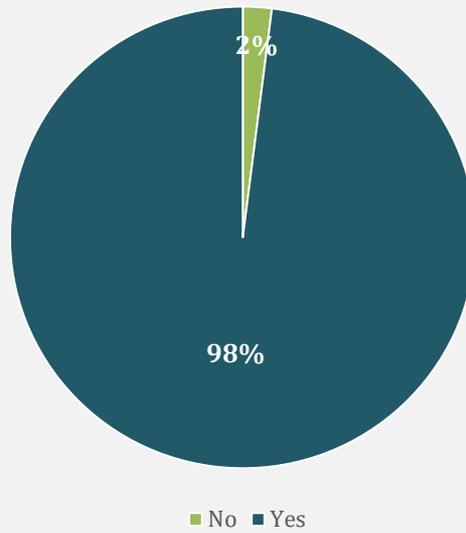
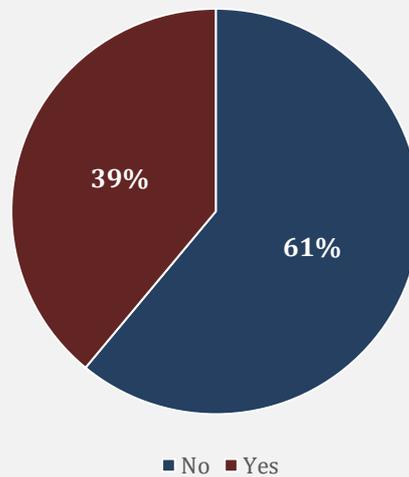


FIGURE 22

**RESPONDENTS REPORTED FARMERS ALLOWING
THEIR ANIMALS TO GRAZE ON THEIR FALLOW
LANDS**



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FIGURE 23

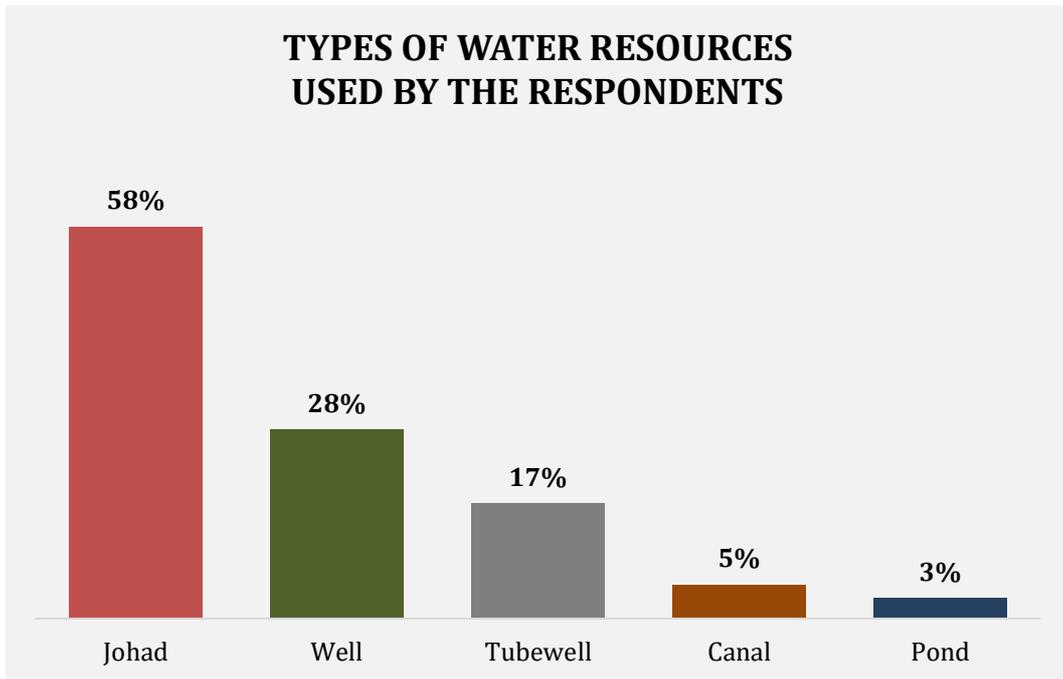
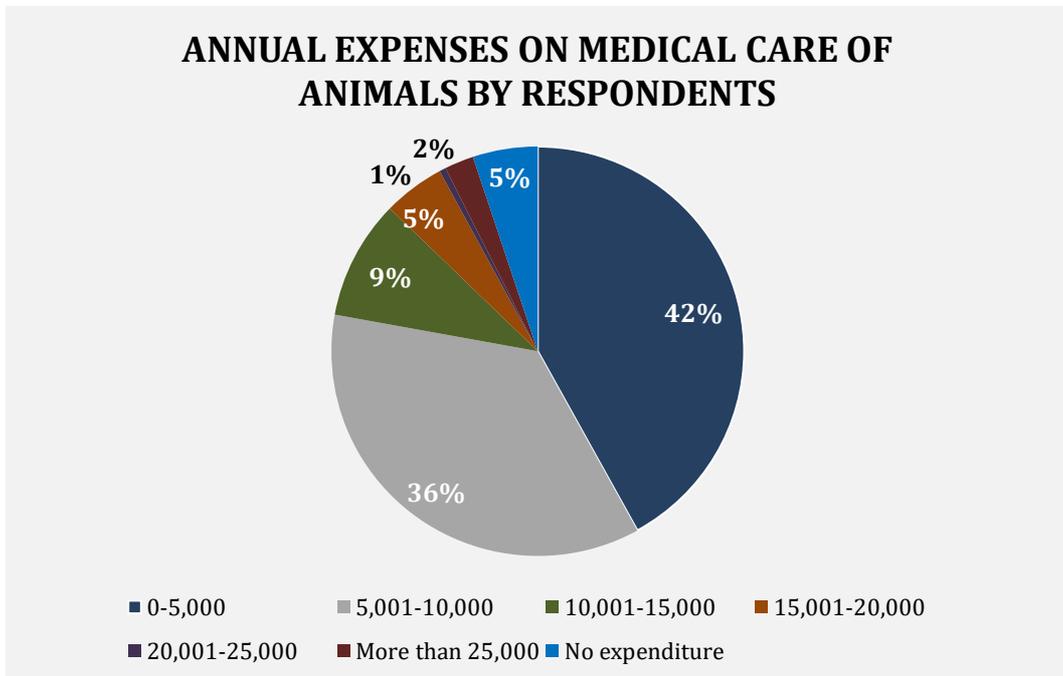


FIGURE 24



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FIGURE 25

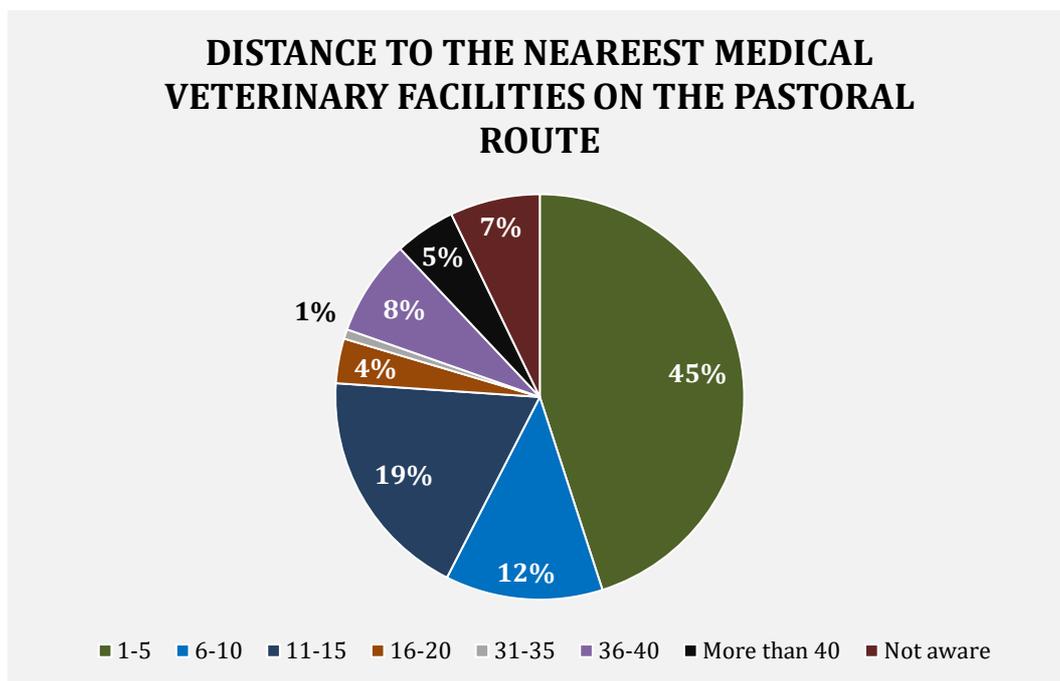
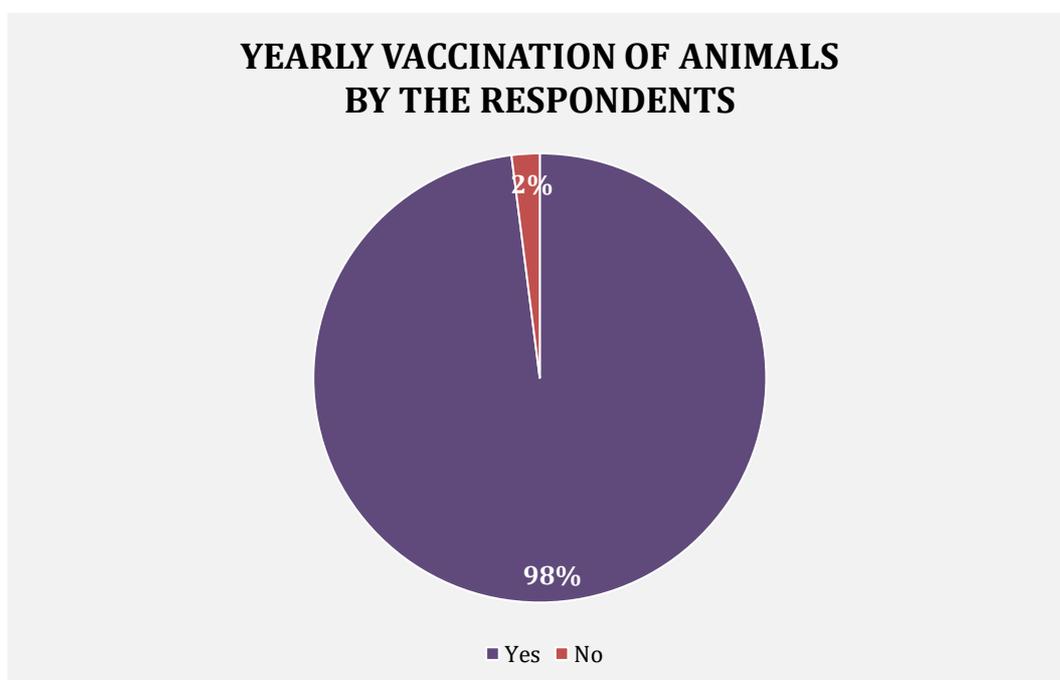


FIGURE 26



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FIGURE 27

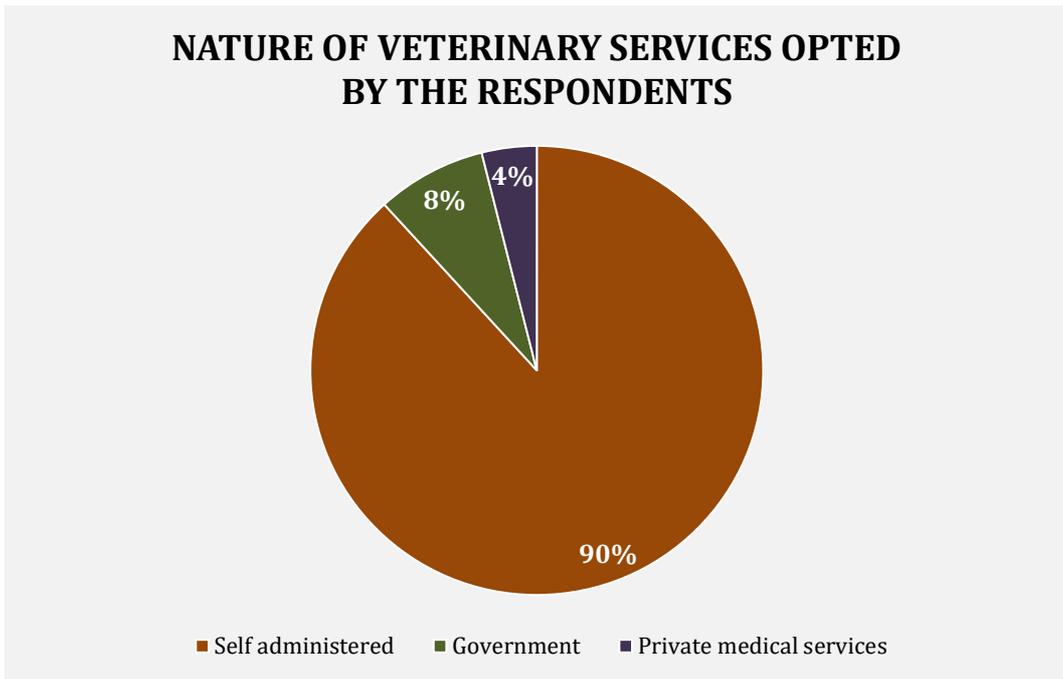
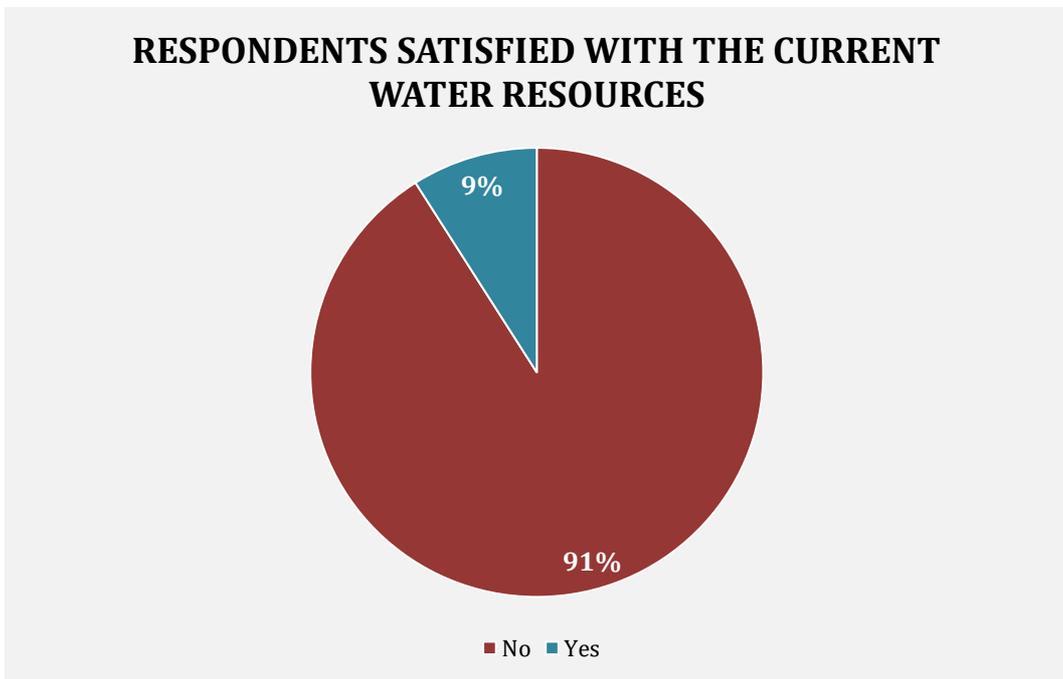


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FIGURE 29

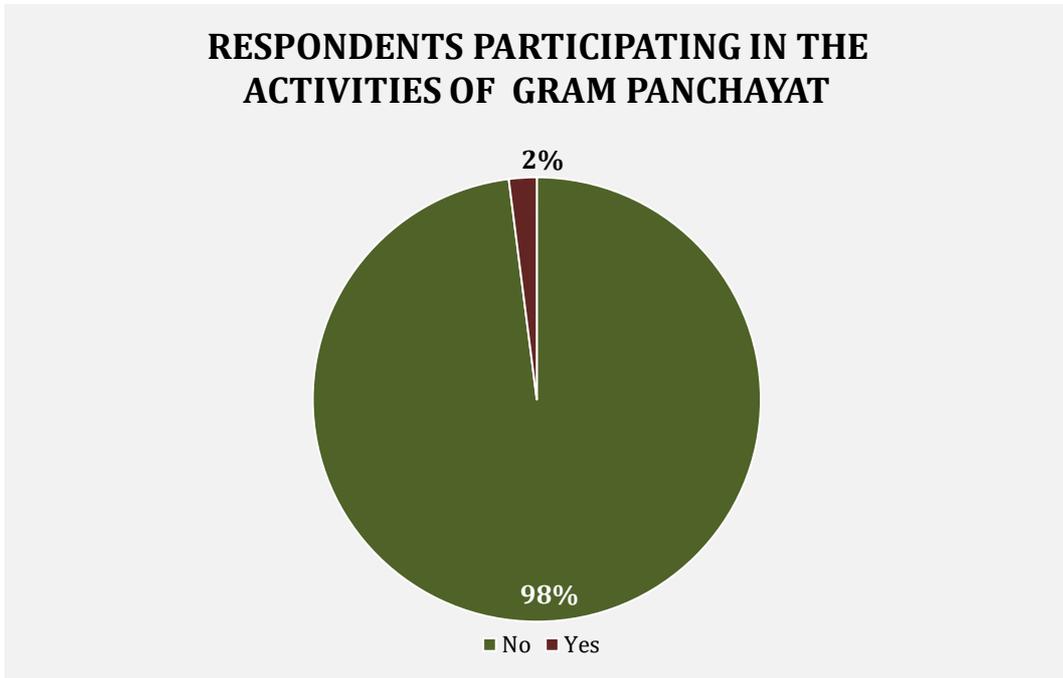


FIGURE 30

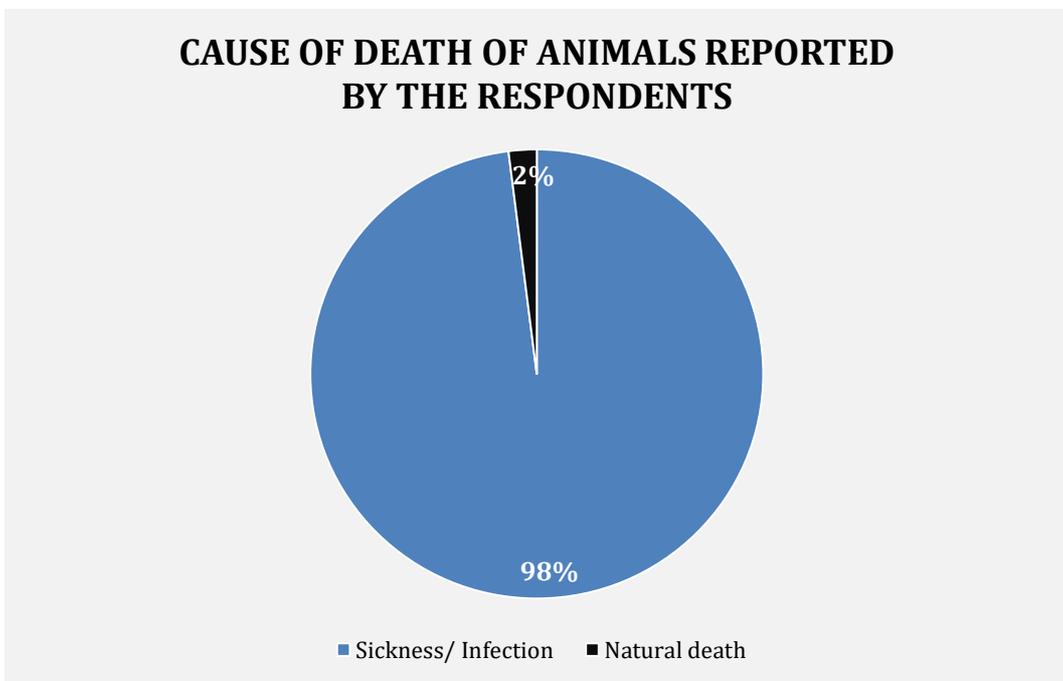


FIGURE 31

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IN THE PAST TWO YEARS NUMBER OF DEATH OF ANIMALS REPORTED BY THE RESPONDENTS

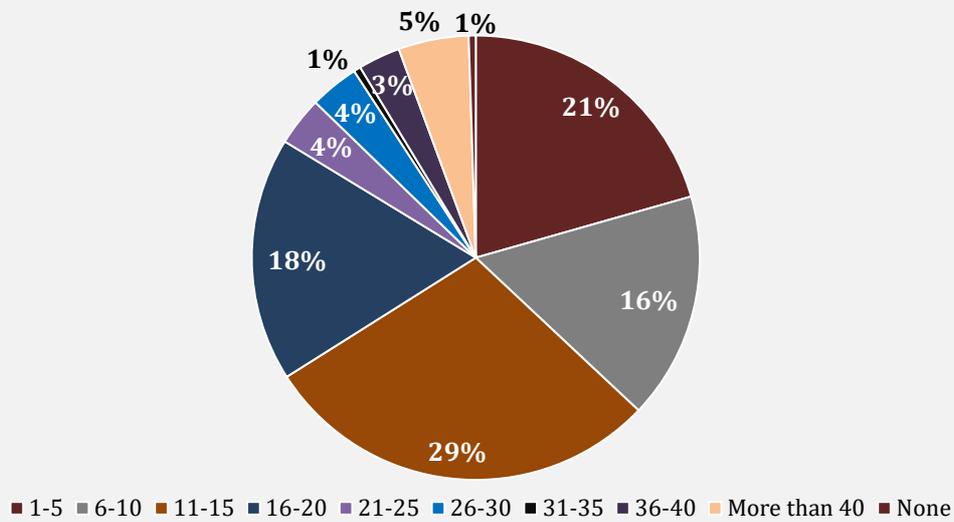


FIGURE 32

DISCUSSIONS ABOUT ENVIRONMENTAL ISSUES WITH THE GRAM PANCHAYAT BY THE RESPONDENTS

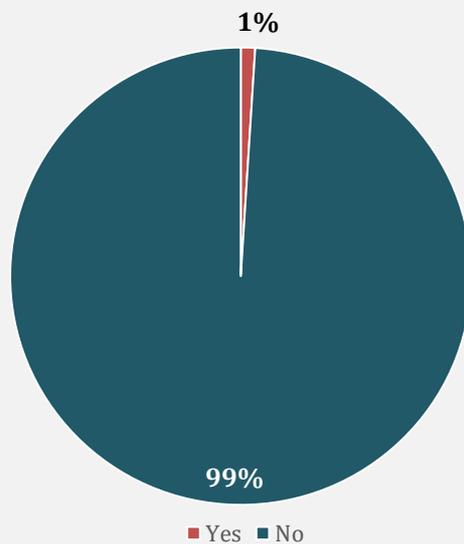


FIGURE 33

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RESPONDENTS AWARE OF CLIMATE CHANGE

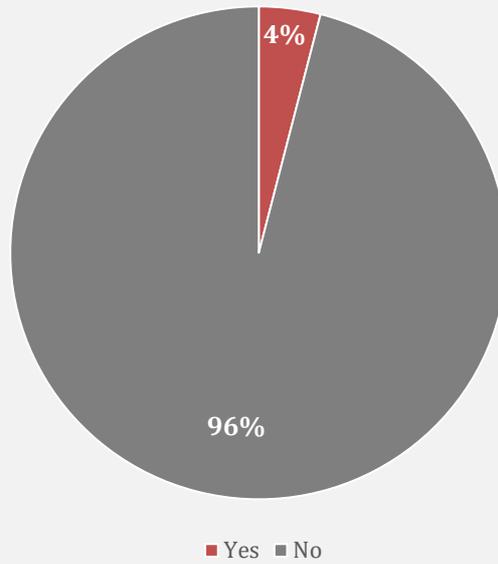
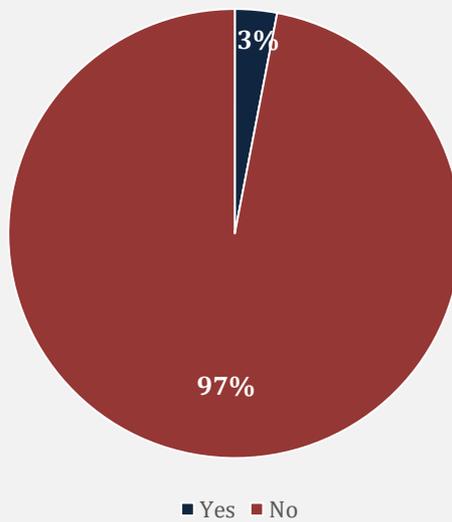


FIGURE 34

RESPONDENTS AWARE OF DESERTIFICATION AND SOIL EROSION



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