

Baseline Assessment Study - Goat Rearing

Jhirniya Block, District Khargone, Madhya Pradesh



January 2014

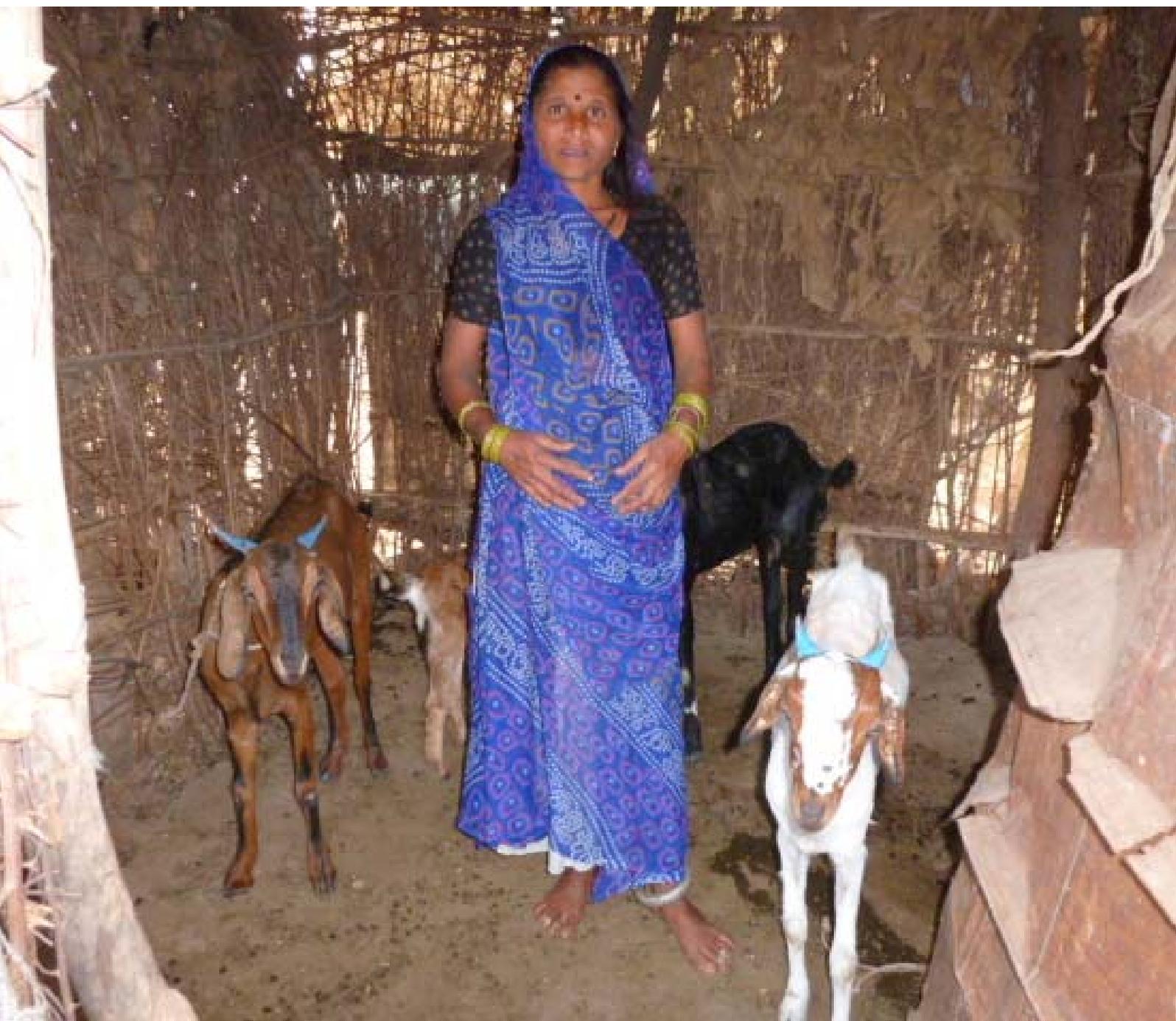
SOUTH ASIA
Pro Poor Livestock Policy Programme

A joint initiative of NDDB and FAO



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1. Background

With the objective of demonstrating an integrated approach to strengthen livelihoods dependent on goat and poultry rearing, SA PPLPP is proposing to support pilot initiatives in selected village clusters in Madhya Pradesh, to be implemented by partner NGOs.

In Madhya Pradesh, following appraisal studies undertaken by SA PPLPP and discussions and direction from the SA PPLPP Board, it is proposed to support two pilot initiatives - (i) strengthening goat based livelihoods in a selected village cluster in the Jhirniya block, District Khargone to be implemented by the Aga Khan Rural Support Programme (India) (AKRSP (I)); and (ii) strengthening *desi*/ indigenous poultry based livelihoods in a selected village cluster in the Rama block, District Jhabua to be implemented by Sampark.

Towards developing detailed proposals for the two pilot initiatives (including a specification of objectives, expected outputs and outcomes, activities, timeline and budget), baseline assessment studies were undertaken in the two identified districts, by Sampark in District Jhabua and by AKRSP (I) in District Khargone.

The major findings emerging from the baseline assessment study on goat rearing in a cluster of 12 villages (10 project villages and 2 'control' villages) in the Jhirniya block, District Khargone are presented below.

2. Methodology followed for the Baseline Assessment Study

The baseline assessment study was undertaken in November and December, 2013, through a household survey using a questionnaire format (attached as Annexure 1) and focus group discussions with goat rearers in the identified village cluster. In addition, weekly village markets (*haats*) were visited and discussions convened with traders to better understand the goat value chain. To facilitate the data assessment process, AKRSP (I) had also invited a sector expert (representative from the Goat Trust) to visit the selected village cluster and review emerging findings, particularly those related to disease symptoms and seasonality mentioned by goat rearers.

In addition to the selected cluster of 10 villages, the baseline assessment study was also undertaken in two similar villages identified as 'control' villages. This will facilitate subsequent monitoring and assessment of the impact of the pilot initiatives.

The household questionnaire was administered to 229 households in the 12 selected villages (10 project villages and two control villages) comprising 30% of goat rearing households. A summary of the major findings emerging from the study are presented below:

Total number of villages surveyed	12 (10 project villages and 2 control villages)
Total number of households in surveyed villages	1,797
Total number of goat rearing households in surveyed villages	763 (42%)
Total number of goats in surveyed villages	3,081
Average herd size	4.3
Total number of households surveyed	229 (30% of goat rearing households)
% of tribal households among surveyed households	97%
Number of bucks per 10 goats	3
Average annual income per family from goat rearing	Rs 9,034

Table 1 - Summary of major findings from the Baseline Assessment Study

Average selling price per adult goat	Rs 5,018
% households who do not milk goats	59%
Average milk production per goat per day	500 ml (ranging from a minimum of 100 ml to a maximum of one litre)
Kidding season	October – November
Kid mortality rate	32 %
Adult mortality rate	37 % (at the time of the survey) ¹
Average weight of adult goat	21 Kg
Trained veterinary doctor in the block (131 villages)	1
Most important reason for keeping goats	Liquid asset, and can be sold when money is needed in the household.
Factors constraining goat rearing	High mortality, lack of veterinary services, decreasing availability of fodder and water
DAIRY	
Average number of cows per family	1.3
% cows in milk	24%
% cows dry	76%
Average milk production per cow (ml) per day	750 ml
POULTRY	
% of households keeping poultry	48%
Average flock size	13

3. Context

Located in the central Indian region of the sub-continent, Madhya Pradesh is the second largest state in India, with a geographical area of 308,144 sq. km. It comprises 9.4 percent of the geographical area and 6 percent of the country's population. Administratively, the state has 50 districts and 342 tehsils, within 10 Revenue Divisions (also known as Commissioner Divisions). The state boundaries adjoin five other states on different sides, and its effects are reflected in the varied socio-cultural and linguistic patterns found in different parts of the state.

Geographically, MP may be divided into eight regions- Malwa, Nimar, Bundelkhand, Chambal, Baghelkhand, Mahakoshal and the central Vindhya and Satpura region.

As of 2011, the state had a total population of 72,597,565 (72.6 million), of which 72.37% resided in rural areas. Its population density was 236 per sq km, lower than the national average (382). Forty eight percent of the state's population is female. The literacy rate in the state is 70.6%; average female literacy is 60% and male literacy stands at 80.5%.

¹ During the survey, the area witnessed a disease out-break among goat flocks accounting for the high mortality rate of 37%. Although the local veterinary hospital was informed, and SA PPLPP also briefed the Department of Animal Husbandry, the disease has as yet not been diagnosed. Disease symptoms included severe diarrhoea and mortality within two days. In normal years, the community mentioned that the mortality rate in adult goats is around 25%.

Madhya Pradesh has shown consistently low achievement on both GDI and HDI², along with Bihar, UP, Rajasthan and Odisha; it ranked 33rd among all the States/UTs (35) on GDI in both 1996 and 2006, and 34th and 33rd on HDI for 1996 and 2006 respectively. Among the many problems faced by the state, it is also wracked by food shortages, water scarcity, poor health indicators, lack of educational facilities and the highest rate of crime against women and children in the nation (according to the National Crime Records Bureau and the National Women’s Commission). Nearly half of the state’s population (48.6%, rural and urban combined) is estimated to be living below the poverty line (PMPSU, State Planning Commission, MP, 2005)

Perhaps the most critical bottleneck hampering the state’s economy is the poor development of infrastructure. It ranks among the worst states in the index of social and economic infrastructure. Vijay Shankar of *Samaj Pragati Sahyog* presents an array of indicators of agricultural development, electricity consumption and rural credit to suggest that agricultural backwardness in the state has a very specific character – “upland, forested, remote and tribal”.

The economy of Madhya Pradesh is dominated by agriculture, with 72% of the population depending directly on it for their livelihood, and livestock rearing forms the second significant component.

The state has considerable livestock wealth, with the total number standing above 40 million, including cattle, buffaloes and small ruminants. Between 2003 and 2007, the total livestock population has increased by 12%; there has been a significant fall in the numbers of sheep over the period (40%), and the population of goats has marginally risen (10%).

Table 2: Total numbers of livestock in MP (in thousands)

Year	2003	2007 (total)*	2007 (rural)*
Cattle	18,913	21,915	20,837
Buffaloes	7,575	9,129	8,618
Sheep	546	390	375
Goats	8,142	9,014	8,453
Pigs	358	193	122
Horses	32	27	24
Mules	4	3	0.44
Donkeys	39	20	11
Camels	8	4	4
Total	35,617	40,696	38,444
Total Poultry	11,705	7,384	6,936
*Provisional			

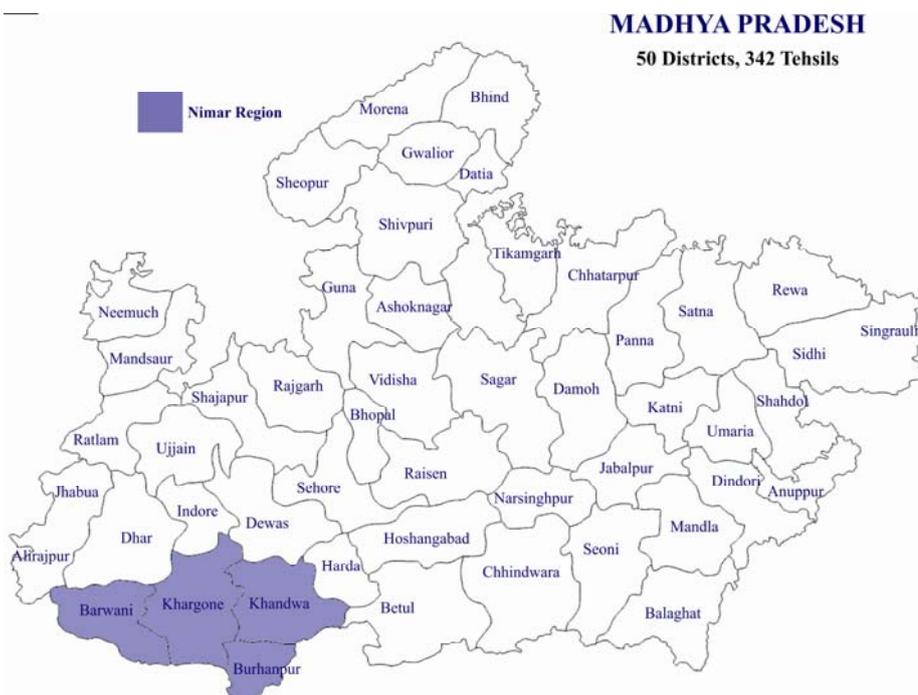
Statistics published by the Ministry of Agriculture indicate that the highest proportion of small ruminants are owned by marginal and small farmers, and this is corroborated by field findings. For many of the goat rearing families in rainfed areas of the state, goats are the most significant

² Gender Development Index and Human Development Index.

livelihood resource they possess. According to the Input Survey (2006-07), 70% of sheep, 76% goats and 83% poultry in the country is owned by marginal and small farmers.

4. Proposed Project area – Jhirniya block, Nimar Region

The Nimar region is in the south-western part of Madhya Pradesh, south of the Vindhya range. It consists of two portions of the Narmada and Tapti river valleys. The Nimar region covers four districts - Khandwa, Burhanpur, Khargone and Barwani. *Bhil*, *Barela* and *Korku* are the pre-dominant tribal communities of the region.



Jhirniya is a tribal dominated block of the region and is considered among the poorest

blocks of the country on various indicators. Income from most livelihood options is low and more people in the household are required to work to sustain families. Nearly 40 % of the households are agricultural labourers migrating to the irrigated areas of neighbouring Maharashtra in search of work.

The average landholding of small and marginal farmers, comprising 75% of the total farmers, is



0.91 hectare. In addition to the small size of land holdings, agricultural productivity is also affected by inadequate irrigation facilities.

Goat rearing has been a traditional supplementary occupation of resource poor households in the region, preferred on account of its low input requirement as also its high liquidity – goats can be easily sold when money is required within the home.

The proposed pilot will focus on addressing critical issues hampering the productivity of goat rearing. The baseline study has shown that there is considerable scope for improving the knowledge base of

the community, reducing adult and kid goat mortality, improving the local indigenous breed and market realization. The proposed pilot will be implemented through a dual strategy of promoting community participation and evolving local solutions to sustain the gains achieved during the project period.

5. Findings from the Baseline Assessment Study

(i) Demographic Profile

A majority of the households (97%) are Scheduled Tribe (ST) households. 2% are Scheduled Caste (SC) households, and only 1% belong to the General category.

55% of households are Below the Poverty Line (BPL), while 42 % are Above the Poverty Line (APL).

31.8% households are landless and 33% of the families are marginal farmers. The average landholding size is 3.7 acres.

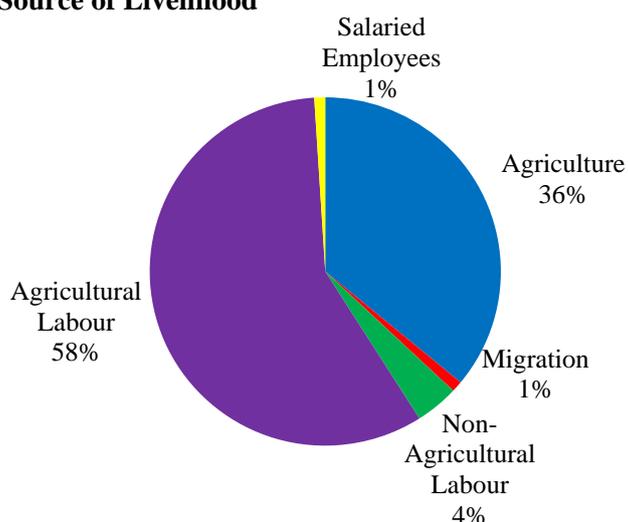
Table 3 – Landholding Pattern

Type of farmers	Number of Households	% of total households
Landless	73	31.8%
Marginal farmers (0 < 2.5 acres)	76	33.1%
Small farmers (2.5 < 5.0 acres)	65	28.3%
Large farmers (5.0 < more acres)	15	6.55%
Total	229	100%

(ii) Sources of Livelihood

36 % of the households mentioned agriculture as the main livelihood source, while 58% mentioned agriculture labour. For the remaining 6% households, the major livelihood source is non-agricultural labour, migration or salaried employment. Of the 229 families surveyed, goat rearing was mentioned as a secondary occupation by almost all households.

Major Source of Livelihood



(iii) Livestock Rearing

Cattle Rearing

The 229 households surveyed had a total of 385 cattle, with an average of two cattle per household.

Village	Total Animals	In milk cows	Dry cows	Bullocks
Abhapuri	31	6	15	10
Bagdari	28	2	26	0
Bhadlen	41	9	26	6
Gaybeda	34	6	14	14
Kalikundi	68	19	49	0
Murmiya	19	4	5	10
Nankodi	8	1	7	0
Palda	8	4	4	0
Piperkhed (Chhoti)	53	7	22	24
Saka	26	2	24	0
Ted	41	11	16	14
Tigariya	28	2	15	11
Grand Total	385	73	223	89

Cow dung is the primary source of manure for agricultural fields.

Goat Rearing

Of the total number of 1,797 households in the 12 villages where the survey was conducted, 42% are involved in goat rearing as a secondary livelihood activity. The primary occupation for these families is agricultural labour.

Number of Goats Owned	% HHs	% Goats
One	6	1
Two	18	8
Three	21	14
Four	17	16
5- 10 Goats	34	52
More than 10 Goats	4	9
Grand Total	100	100

55% of the households keep four or more goats. 77% of the total number of goats are owned by these 55% households.

(iv) Reasons for Keeping Goats

The major reason for rearing goats voiced by respondents was as a source of income when needed. Goats are considered a highly liquid livestock asset, and can be easily sold when the household needs money. Goats are also an insurance against drought and a risky rain-dependent agriculture base.

Reason	% of respondent most important reason	% of respondent second most important reason	% of respondent third most important reason
Milk consumption	4	7	22
Meat consumption	7	7	5
Cash income on a regular basis	25	32	11

Reason	% of respondent most important reason	% of respondent second most important reason	% of respondent third most important reason
Cash income a few times a year to meet regular needs	4	7	9
Cash income for emergencies	38	16	21
Insurance against drought	17	25	10
Low initial investment for goat rearing	3	2	17
Recurring expenses are low for rearing goats	0	2	3
Reduced/ unpredictable income from agriculture	1	2	3

(v) Income from Goat Rearing

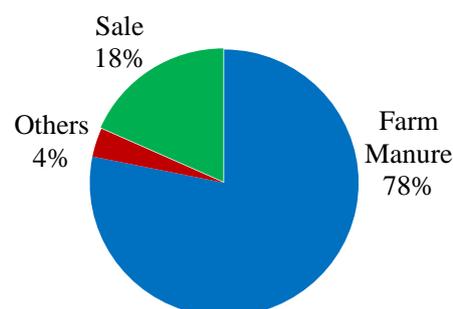
a. Selling of Bucks/Goats

The average number of goats sold annually per goat rearing household is 1.6. Goats are sold at prices ranging from Rs 2,500 to Rs 8,000, averaging Rs 5,018. Income earned from goat rearing is therefore approximately Rs 8,030 annually³.

b. Income from the sale of goat droppings

In the study villages, goat droppings are collected when the goats are housed in sheds or within the homestead. A majority of households (78 percent) use goat droppings as farm manure. 18 percent of households mentioned selling goat droppings for Rs 1,000 – Rs 1,500 per tractor trolley. On an average, families earn Rs 1,000 annually from the sale of goat droppings.

Use of Goat Droppings



c. Milk

59 percent of households surveyed reported that they do not milk goats on account of the low milk production, and allow goat kids to suckle milk. Goat kids are not provided any supplementary feed up to two months, and survive entirely on the doe's milk.

The in-milk and dry period for does according to respondents was 90 to 180 days and 60 to 180 days respectively. The inter kidding period was found to vary from 6 months to a year – this is a major concern with regard to goat productivity.

Goat milk is not sold in the study area. The maximum reported milk production per goat per day was mentioned as one litre.

(vi) Feeding Practices

A majority of households take their animals for grazing 5 to 6 hours a day (three hours in the morning and three hours in the evening). 90% of families bring some fodder, shrubs or tree foliage from agricultural fields for feeding goats in the goat sheds.

³ Rs 5,018 x 1.6 (average number of goats sold per household per year) = Rs 8,029.

Supplementary feeding of goats

70 % of families provide supplementary feed to their goat flocks in the form of grains. Maize and wheat are the major grains fed. On an average, 136 gm of grain is fed per animal per day, depending on availability. Priority is given to pregnant does. None of the surveyed households reported providing mineral mixture as a supplementary feed to goats.

In its current work on supporting goat rearing in the adjoining Pandhana block, AKRSP (I) has piloted the use of mineral blocks for goats with positive results on overall health.

(vii) Breeding Practices

In the study area, a majority of households take their animals for grazing in the forest. 97 percent does mate during grazing. Only 3



percent households reported having their own breeding bucks. Indiscriminate breeding, with poor quality bucks, is a major issue leading to an increase in the numbers of non-descript goats with poor productivity and weight gain.

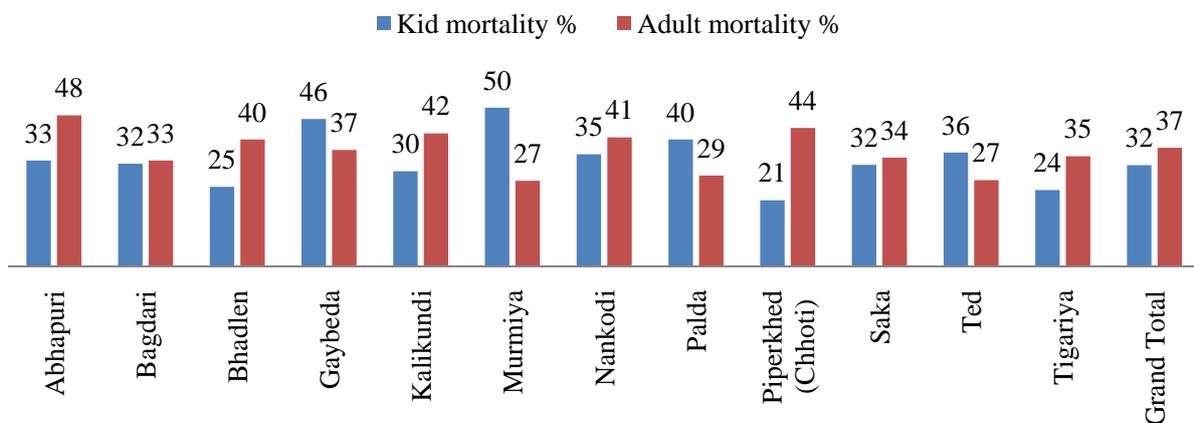
The goats found in the project area resemble the Berari goat breed, whose native tract is in Maharashtra bordering the Jhirniya block. The Berari goat breed was registered as a distinct goat breed by NBAGR in 2012.

(viii) Mortality

The overall mortality in study villages reported during the survey is 35 percent (32% among kids and 37% among adult goats).

At the time of the survey (November and December, 2013), the project area had reported a disease out-break, on account of which the mortality rates reported were higher than in normal years (i.e. 37%). Respondents mentioned that in normal years, adult goat mortality averaged 25%.

Village-wise Mortality



Information obtained during the focus group discussions indicated that the highest mortality was witnessed during the monsoon and winter seasons. Major reasons for mortality were *Diarrhoea* and *Pneumonia*.

Disease Occurrence and Symptoms in Goats

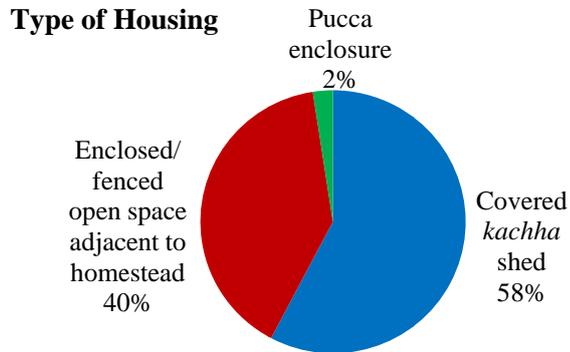
A mapping of disease seasonality, symptoms, age at which the disease occurs, and local names of diseases was undertaken as a part of the focus group discussions with goat rearers.

Month in which disease occurs	Symptoms (as mentioned by goat rearers in the area)	Age at which disease occurs	Local name	Possible Disease	Effect on animal
January	A majority of goats are not able to walk properly. Secretion from the mouth. These secretions are locally referred to as <i>laar</i> .	Goats that can be taken for grazing (adult goats and weaned kids).	<i>Laar</i>	FMD	Weakness and/ or sometimes death.
June and July	Towards the end of June or after the monsoons more than 90 % goats are affected with small pimples/ ulcers on the whole mouth, nose (<i>Thuthan</i>); watery discharge from nose and eyes.	Goats that can be taken for grazing (adult goats and weaned kids).	<i>Boriya</i>	PPR	Death
August and September	Foot of the animals affected by rot	Goats that can be taken for grazing (adult goats and weaned kids).	Foot rot		Weakness
October	Diarrhoea. The goat stops feeding. Death occurs fast, often in one night. Most mortality occurs in the night.	Adult goats	<i>Pokana</i>	ET	Death
November	Diarrhoea. The goat stops feeding. Death occurs fast, often in one night. Most mortality occurs in the night.	Adult goats	<i>Pokana</i>	ET	Death
	Small size spherical nodules/ warts under the skin all over the body with high fever, skin hardens, hair falls, and the animal does not take fodder. This disease was extensively reported in the region in 2012.	Adult goats	Unknown	Unknown	
December	A majority of goats are not able to walk properly. Secretion from the mouth. These secretions are locally referred to as <i>laar</i> .	Goats that can be taken for grazing (adult goats and weaned kids).	<i>Laar</i>	FMD	Weakness and/ or sometimes death.

(ix) Housing



More than 50% households do not have separate housing for goats, and goats are housed within the home at night. 42% households reported having separate housing arrangements for goats.



(x) Government Infrastructure

There is only one veterinary surgeon in the entire Jhirniya block with a total of 131 villages. There are 4 Assistant Veterinary Field Officers (AVFO) in the block handling three veterinary dispensaries.

FMD and ET vaccines are made available by the veterinary department. There is one refrigerator available at the block level for keeping the vaccines. Since there is limited staff in the department, vaccination drives are rarely undertaken. Timely availability of vaccines is a related constraint. Although the department has trained a large number of village volunteers in basic animal husbandry practices, including vaccination, there are only four to five such *Go-Sevaks* providing animal husbandry services in these villages.

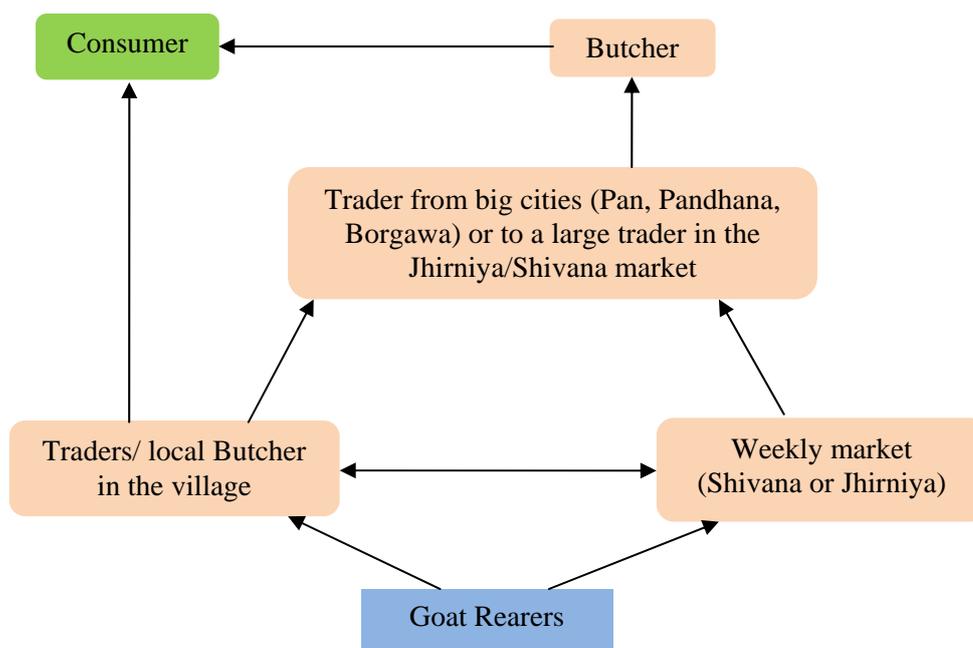
(xi) Marketing and Value Chain

Animals are sold to traders either in the village itself or at the weekly *haats* in the nearby towns of Jhirniya and Shivana. Sometimes goats are directly sold to Butchers. Traders either re-sell the goats to other families in the same *haats* or to bigger traders from other areas. As per information provided by traders at these village *haats*, goats from here go to larger markets in Maharashtra and Indore in Madhya Pradesh. It is estimated that local traders earn around



Rs 500 to Rs 700 per goat in the whole transaction process. In the market-place, almost all transactions are cash transactions.





Discussions with a Goat Trader - Mushtak Bhai, Jhirniya Market

Goat trading is his family occupation. He comes from Pan in Maharashtra which is 75 km away from the Jhirniya market. Discussions with him were based on the following aspects;

- Price determination in goat market
- Saleable body parts of goat and its price value in the local market
- Profit in the goat market

Taking the example of a healthy animal, he estimated its weight to be about 35 kg. Based on visual estimation, the meat value was estimated at 20 kg, on the basis of which the price to be offered to the rearer is determined.

Saleable Body Part	Price/Kg	Total Price
Meat 20 kg	300	6,000
Skin	150- 200	200
Head and leg	500	500
Intestine	Rs 40/250 gm	40

Butchers are able to earn Rs 700 to 800 per goat.

Traders prefer to sell the goats they purchase in the market itself on the same day either to other families, to butchers or to larger traders. The price is often increased by Rs. 800 to 1,000 per goat during re-sale. If traders send the animals to outside markets, in addition to transportation costs, they have to pay Rs 100 to 200 (per truck carrying 40 – 50 goats) to the police.

Most goat rearers prefer to sell or purchase goats in the local market (Shivana or Jhirniya). They do not like to sell their animals to traders in the village itself, unless they have an emergency such as if the animal is very sick or they owe money to the trader.

Major Constraints in Goat Rearing

Focus group discussions and intensive field observations led to the following conclusions on constraints faced by goat keepers:

- Unavailability of timely and quality veterinary services
- Inadequate knowledge on identification and management of diseased goats
- Decreasing availability of water and fodder for goats
- Acute shortage of cash with tribal families resulting in almost no investment in critical requirements like goat shelters etc
- Migration of adult household members when labour opportunities are not available in villages



Household Schedule for Goat Rearing

State: Madhya Pradesh

District: Khargone

Block: Jhirniya

Date of Survey (DD/ MM/ YYYY)

Name of Enumerator:

Signature:

Village Name		Project or Control Village (P/C) P – Project Village; C – Control Village	
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A. Demographic profile

A1. Name of Head of Household							
A2. Gender (M – Male; F – Female)							
A3. Age of Respondent (approximately)							
A4. Total family members		Males			Females		
		Adult/ Children			Adult/ Children		
A5. Social group (tick)		Gen	SC	ST	OBC		
A6. Economic group (tick)		APL	BPL	Antyodaya			
A7. Main occupation (major source of income) (use code below)							
A8. Secondary occupation (secondary source of income) (use code below)							
<u>Codes Occupation:</u> <ul style="list-style-type: none"> • Agriculture – 1 • Agricultural Labourer – 2 • Non-agricultural labourer – 3 • Migration – 4 • Monthly salaried job – 5 • Dairying – 5 • Goat rearing – 6 • Business – 7 • Caste occupation (barber, carpenter, cobbler, goldsmith etc.) - 8 • Pension/ interest/ rent/ others - 9 							
A9. Total agricultural land owned (<i>in bigha</i>)							
i. Irrigated cultivated							
ii. Crops grown							
i. Dryland cultivated							
ii. Crops grown							
Permanent fallow and private pasture (if any)							
Seasonal fallow							
Has land been leased in? (Y/N)					If Y, how much (<i>in bigha</i>)		
Has land been leased out (Y/N)					If Y, how much (<i>in bigha</i>)		

B. Livestock ownership:

B1. Do you own cows and/or buffalo? (tick)	Yes		No	
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B1.1 If Yes in B1, give details of animals (nos.)

Milch Animals	In milk	Dry	Total	Total Production (litres/ day)	Retention for home use (litres/ day)
1	2	3	4=2+3	5	6
a) Local (<i>Desi</i>) Cow					
b) Crossbred Cow					
c) Buffalo					
B1.2 If No in B1, did you possess milch animals in the past? (tick)				Yes	No
B1.3 If Yes in B1.2, how many years back?					

B2. If Yes in B1.2, why did you quit dairying? (tick) (multiple tick possible)

Shortage of feed and fodder		Water shortage	
Labour shortage		Not profitable	
Recurring drought		Family members not interested	
No marketing channels		Others (Please specify)	

B3. Poultry ownership (Yes/ No)

B4. If Yes, complete the following table. If No, move to Section C:

i. Number of Poultry Birds	
ii. <i>Desi</i> / Improved/ Exotic	
iii. Reasons for rearing poultry (use codes) (1 – household consumption of eggs/ meat; 2 – sale of eggs/ live chicken; 3 – socio-cultural reasons)	
iv. Major constraints faced in poultry rearing (use codes) (1- disease occurrence; 2 – predation; 3- space constraints; 4- difficulty in accessing markets; 5- any other)	

C. Goat Ownership:

C1. For how many years have you been rearing goats? (write 99 if it is more than 20 years)	
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C2. What are the most important reasons why you keep goats?
(Rank the three most important reasons using the codes below)

1. What is the most important reason?	
2. What is the second most important reason?	
3. What is the third most important reason?	
Codes – Reasons for rearing goats	
1 – Milk consumption	
2 – Meat consumption	
3 – Cash income on a regular basis	
4 – Cash income a few times a year to meet regular needs	

5 – Cash income for emergencies
6 – Insurance against drought
7 – Low initial investment for goat rearing
8 – Recurring expenses are low for rearing goats
9 – Reduced/ unpredictable income from agriculture
10 – Dairying activity is difficult
11 – Any other (please specify)

C3 Do you have a separate shed/ enclosure to house your goats? (tick)	Yes		No	
C3.1 If Yes in C3, for how many years?				
C3.2 If Yes in C3, Type of goat housing (use codes)				

Codes: Enclosed/ fenced open space adjacent to homestead=1; Covered kachha shed=2; Pucca enclosure=3

C4.Number of goats owned and breed wise classification

Breed	Bucks		Total Bucks	Does		Total Does	Total Goat	In-Milk Does	Total Milk Production (litres/ day)	Retention at home (litres/ day)
	Under 1 yr	Above 1 yr		Under 1 yr	Above 1 yr					
1	2	3	4 = 2+3	5	6	7 = 5+6	8 = 4+7	9	10	11
Jamunapari										
Sirohi										
Desi/ local/ Nondescript										
Others (please specify)										

C5 What is the age (in years) of eldest	Buck		Doe	
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D. Feeding practices followed for Goats (tick):

Browsing		Only Stall-fed		Browsing + Stall-fed	
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D1. Where do you take goats for browsing? (tick) (multiple tick possible)			
	Summer	Monsoon	Winter
Village common land			
Forest land			
Revenue wastelands			
Fallow agricultural land			
Roadside			
Agricultural land			
No fixed place			
Others (please specify)			

D2. Who takes goats for browsing? (tick)	Family member		Hired person	
D3. How many hours in a day?		D4. How much do you pay (Rs. /Month) for entire flock?		

D5. In which season do you experience shortage of feed and/or water for your goats? (tick) (multiple tick possible)						
Feed	Monsoon		Winter		Summer	
Water	Monsoon		Winter		Summer	

D6. Do you provide feed/supplements to your goats? (tick)				Yes		No			
D7. If Yes in D6, what feed/ supplements are provided?									
D8. Quantity and Frequency of feed/ supplements									
D9. What categories of Goats are given supplementary feed? (tick) (multiple tick possible)									
Buck		Milking goat		Pregnant goat		Kids (<1 year)		All	

E. Milking practice followed for Goats:

E1. Average in-milk period per lactation (in days)	
E2. Average dry period per lactation (in days)	
E3. Average in-milk yield per lactation (in litre per day) (write 99 if not milked)	
E4. Average inter kidding period (in days)	

E5. Do you sell goat milk? (tick)	Yes		No	
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If Yes in E5,

E5.1 How do you sell goat milk? (tick)	Separately		Mix with other milk and sell	
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E5.2 Where do you sell goat milk? (tick) (multiple tick possible)							Average price (Rs/ ltr)
Neighbour		DCS		Private dairy		Dudhia	

F. Use of Goat Droppings:

F1. What do you do with goat droppings?(tick) (multiple tick possible)							Average market price (Rs/ kg)
Used as fuel		Used as farm manure		Sale		Others (specify)	

G. Breeding Practices

G1. How do you breed your does? (tick) (multiple tick possible)							Buck service fee (Rs/ service)
Own buck		Buck within village		Buck outside village		Not known	

G2. Do you look for specific characteristics while identifying a breeding buck for your does (Yes/ No)		
If Yes, what specific characteristics do you look for? (use code below)		
1 – buck of improved breed; 2- colour; 3 – single born/ twin born; 4- overall physique (height, length, weight in relation to age); 5- other physical characteristics (ears, nose, horns, teeth); 6- temperament (aggressive/ calm/ quiet/ active); 7 – any other (please specify)		

H. Goat Economics

H1. Goat Inflows:

Provide information on the inflow of goats in the last year (last Diwali to this Diwali):

Inflow type	Number for the year	Goat type (use code, multiple answers possible)
Birth of kids from own does		
Purchase		
Gift		
Exchange		
Loan		
Reared on behalf of others		
Other reasons (please specify)		
Codes – Animal Types: 1 - Goat Kid (<5 months); 2 – young female (pre-breeding); 3- adult female (breeding age); 4- male (breeding age); 5 – males (castrated); 6 – old animals.		

H2. Goat Outflows:

Provide information on the outflow of goats in the last year (last Diwali to this Diwali):

Inflow type	Number for the year	Goat type (use code, multiple answers possible)
Death		
Sale		
Exchange		
Slaughter for festival		
Gift		
Lost/ Predation		
Stolen		
Other reasons (please specify)		
Codes – Animal Types: 1 - Goat Kid (<5 months); 2 – young female (pre-breeding); 3- adult female (breeding age); 4- male (breeding age); 5 – males (castrated); 6 – old animals.		

H3. Purchase of Goats:

H3.1 Do you purchase goats? (Yes/ No) If Yes, continue with questions in H3, else go to H4.	
H3.2 For what purpose did you buy goats in the last one year? (use code below) (1- To fatten for sale; 2 – to invest extra cash; 3 – to replace sold/ dead goats; 4 – to increase flock size; 5 – to meet contractual obligations; 6 – any other)	
H3.3 Where did you buy the goats from? (use code below) (1- from neighbour in own village; 2 – from another village; 3 – village market; 4 – goat mandi (specify name); 5 – other (specify))	
H3.4 From whom did you buy the goats? (use code below) (1- another rearer in the village; 2 – rearer in neighbouring village; 3 – local trader; 4 – other (specify))	
H3.5 What was the mode of payment ?(use code below) (1- cash payment on the spot; 2 – part cash, part credit; 3 – credit; 4- other (specify))	
H3.6 If credit, what are the terms of credit? (state)	
H3.7 In which months do you prefer to purchase goats? Why?	
H3.8 How do you determine the acceptable price to pay when buying goats? (state)	

H4. Sale of Goats:

H4.1 Do you sell goats? (Yes/ No) If Yes, continue with questions in H4 , else go to I.	
H4.2 For what purpose did you sell goats in the last one year? (use code below) (1 – To meet household expenses (expected/ planned); 2 – to meet unexpected household expenses; 3 – to meet agriculture related expenses; 4 - To meet expenses related to other livestock; 5 – high prices; 6 – lack of family labour to manage goats; 7 – when they reached a specific age (specify what age); 8 – when they reached a specific weight (specify what weight); 9 - other (specify)	
H4.3 To whom did you sell the goats? (use code below) (1- a neighbouring villager; 2 – butcher/ slaughterhouse in village; 3 – butcher/ slaughterhouse in neighbouring village/ town; 4 – local trader; 5 – Other (specify)	
H4.4 Where did you sell the goats? (use code below) (1- in the village; 2 – main road; 3 – village market; 4- nearest mandi (name the town/ village); 5 – Other (specify)	
H4.5 What was the mode of payment? (use codes below) (1- cash payment on the spot; 2 – part cash, part credit payment; 3 – credit; 4 – other (specify)	
H4.6 If payment is by way of credit, what are the terms of credit/ advance?	
H4.7 What are the main sale months for goats?	
H4.8 How do you determine the minimum acceptable price when selling goats?	
H4.9 Give the three most important factors that buyers use in determining the sale price of goats (use code below)	
Most important factor	
Second most important factor	
Third most important factor	
(1- live weight; 2 – body condition; 3 – age of animal; 4 – sex of animal; 5 – breed of animal; 6 – colour; 7 – free of disease; 8 – other (specify)	

H4.10 In the last one year, how many goats have you sold and at what price?

	Summer				Monsoon				Winter			
	Buck		Does		Buck		Does		Buck		Does	
	< 1 year	> 1 year										
Number (s)												
Amount (Rs.)												

I. Diseases and Health Care

I.1 Are diseases common in goat rearing? (tick)	Yes		No	
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If Yes in I 1.1, what disease symptoms do you commonly observe (state):

11.2 In which season do goats get more diseases?	Monsoon		Winter		Summer	
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11.3 In the last one year, how many goats died in your flock?

Goat Types	Numbers	Reason (use codes)
Adult buck		
Adult doe		
Male Kid		
Female Kid		

Codes: Disease=1, Natural calamities=2, Predation=3, Don't know=4

12. Treatment:

12.1 Do you provide treatment to sick/ ailing goat?	Yes		No	
12.2 If Yes in I 2.1, who provides treatment? (tick) (multiple tick possible)				
Self		Local healers		Private
NGO		Govt.		Others (specify)
12.3 Do you vaccinate your goats? (tick)				
		Yes		No
12.4 If Yes in I 2.3, who provides vaccination? (tick) (multiple tick possible)				
Self		Local healers		Private
NGO		Govt.		Others (specify)
12.5 Is there a price paid for these vaccinations? If Yes, state amount?				
12.6 Do you practice any ethno-veterinary/ household practices for common ailments. If yes, state these practices.				

J.

J1. Are you interested in increasing the flock size? (tick)	Yes		No	
J2. Indicate the three most important reasons favouring goat rearing (use codes)				
<i>Codes: Good supplementary income support=1, No other alternative occupation=2, Expenses are low for rearing goats =3, Good return=4, Less investment=5, No technical support required=6, Others (specify)=7</i>				
J3. Indicate the three most important reasons hindering goat rearing (use codes)				
<i>Codes: Sale price of goat less=1, High price of feed=2, Costly Veterinary services=3, Kids available at higher price=4, Not having enough space for housing=5, Lack of funds or credit facility=6, Lack of Labour=7, Lack of veterinary facilities=8, Social constraints=9, Younger generation do not want to take up this profession=10, Less availability of improved breed=11, Non availability of improved buck=12, Lack of scientific knowledge about rearing of Goat=13, High mortality rate=14, Doesn't have enough to feed=15, Better opportunity other than Goat rearing=16, Others (specify)=17</i>				
J4. Are you associated with any institution for goat rearing? (tick)	Yes		No	
Name of the				
J5. In your opinion, what help and support is required to facilitate higher incomes from goat rearing?				



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South Asia Pro Poor Livestock Policy Programme

A joint initiative of NDDB and FAO

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