Impact of the COVID-19 lockdown on pastoralists of Tamil Nadu

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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Acronyms</td>
<td>7</td>
</tr>
<tr>
<td>Introduction</td>
<td>8</td>
</tr>
<tr>
<td>Survey Method</td>
<td>11</td>
</tr>
<tr>
<td>Findings</td>
<td>12</td>
</tr>
<tr>
<td>Conclusion</td>
<td>24</td>
</tr>
<tr>
<td>Annexure I</td>
<td>27</td>
</tr>
<tr>
<td>Annexure II</td>
<td>29</td>
</tr>
</tbody>
</table>
**List of Acronyms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19</td>
<td>Coronavirus Disease or 2019-nCoV</td>
</tr>
</tbody>
</table>
| SEVA    | Sustainable – agriculture & Environment  
          Voluntary Action |
Impact of the lockdown on south Tamil Nadu

M. Mathivanan

Introduction

Herding is a major livelihood practice in rural Tamil Nadu for indigenous communities like the Konar, Nayakar, Lingayat, Toda, and Kurumba. The Konars have a long history of herding and are featured as pastoralists in ancient Tamil literature (Kalithogai), where they are classified as Ayar/Edayar. The Konars, also known as Yadavas, keep cattle, buffalo and sheep and are located in different parts of Tamil Nadu but the community is primarily based in the southern districts of Tamil Nadu. The Nayakars came from Andhra Pradesh during the Vijayanagara dynasty (1529 – 1736) and are known to be herders from those times. The Nayakars are now settled in Madurai, Virudhunagar and Dindigul districts and rear the Pulikulam and Malaimadu cattle. The Lingayats are settled on the border of Tamil Nadu and Karnataka near the Sathyamangalam Tiger Reserve. They originate from the Kollegal district of Karnataka state and rear the Bargur cattle and Bargur buffalo. The Todas in Nilgiris keep the semi-wild Toda Buffalo and the Kurumbas in Coimbatore rear sheep. Maravars, Pallars, Parayars, Nadars, and Goundars are among the other pastoral communities of the state.

Most herders in Tamil Nadu are agro-pastoralists with farmlands, although their main source of income is from animal husbandry. Communities such as the Lingayat, Toda, and Kuruba graze their sheep in grasslands in the forests as they live in proximity to the forests. The other communities graze their livestock in semi-arid grasslands, village commons, paddy fallows, and private plantations.

There is a paucity of data on pastoral communities in Tamil Nadu. It is generally considered that they are in a vulnerable position due to shrinking grazing grounds and water shortages. The movement of cattle herders in forests, which are a common grazing ground for their animals, has been particularly affected over the last few years. Social forestry has led to an increase in plantations on lands that were earlier used for grazing, leading to a five year ban on grazing in those areas. This combined with the rapid infrastructural development on private and common lands has led to a reduction in grazing lands. Adding to this are the increasing difficulties that cattle herders have to face for accessing water. Over the past decade, fish contractors have started banning cattle herders from using water in places around irrigation tanks. With existing issues of climate change and emerging diseases to livestock,
the COVID-19 pandemic is the latest challenge for herders all over India, including on Tamil Nadu's herders. The only ray of hope that cattle herders seem to have found lately is the Jallikattu festival, which has gained popularity and led to better prices for cattle.

Livestock population in Tamil Nadu

Tamil Nadu, possesses 4.56% of India’s livestock population, and produces 4.39% of the country’s milk and 7.88% of India’s meat.

Table 1: Livestock population of Tamil Nadu

<table>
<thead>
<tr>
<th>S.No</th>
<th>Species</th>
<th>Population as per 19- Livestock census (in lakhs)</th>
<th>Population as per 20th Livestock census (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cattle</td>
<td>88.14</td>
<td>95.19</td>
</tr>
<tr>
<td>2</td>
<td>Buffaloes</td>
<td>7.81</td>
<td>5.19</td>
</tr>
<tr>
<td>3</td>
<td>Sheep</td>
<td>47.87</td>
<td>45.00</td>
</tr>
<tr>
<td>4</td>
<td>Goat</td>
<td>81.43</td>
<td>98.89</td>
</tr>
<tr>
<td>5</td>
<td>Pigs</td>
<td>1.84</td>
<td>0.67</td>
</tr>
<tr>
<td>6</td>
<td>Poultry</td>
<td>1173.49</td>
<td>1207.81</td>
</tr>
</tbody>
</table>
Survey Method

We interviewed sheep and cattle herders in Tirunelveli, Tenkasi, Thoothukudi, Virudhunagar and Madurai districts of Tamil Nadu during August and September 2020. The questionnaire was designed by a group of researchers after conducting pilot surveys in April 2020. The interviews were conducted at the herders’ grazing grounds or penning sites. A total of 20 interviews were conducted, of which 10 were with sheep herders and 10 with cattle herders.

Communities Interviewed

Yadava/Konar
Yadavas are traditional herders who are identified in Tamil Sangam literature as Ayar/Idayar. They have historically been sub-classified into three categories: Kovinathu Ayar, rearing cows, Kotinathu Ayar, buffalo herders and the sheep rearing Pullinathu Ayar. They are also called Konars, although in government records they are classified as Yadavas. They are spread all over Tamil Nadu and a majority of the community live in Trichy, Thanjavur, Madurai, Ramanathapuram, Sivagangai, Theni, Dindigul, Thoothukudi and Tirunelveli districts. Many members of this community rear cattle, buffalo and sheep. They are agro-pastoralists, and most of them own land which they cultivate in one season per year.

Nayakars
Nayakars are a Telugu speaking community, originally from Andhra Pradesh who settled in south Tamil Nadu during the reign of the
Vijayanagara dynasty. The Nayakaras now pursue a range of livelihoods, including farming, business, labour and working or running small stone quarries. They inhabit the semi-arid regions of Madurai, Virudhunagar and Theni districts in southern Tamil Nadu. A considerable number of people from the Nayakar community continue to herd. They rear cattle and sheep, and some also work as hired herders.

Maravars

The Maravar is one of the ancient Tamil communities, called Thevars. They were warriors and some were also Zamindars. They are distributed all over Tamil Nadu but the majority population is in the southern districts of Tamil Nadu. They have been farming for many generations, but also keep cows, buffalos, sheep and goats. Some Maravar groups still hold big herds of cattle which they have maintained over many generations.

Findings

The respondents belonged to the three districts of Tirunelveli, Virudhunagar and Madurai from south Tamil Nadu. Members from 3 major communities were interviewed, viz, the Yadava (15), Nayakar (3) and Maravar (2). The respondents included only owners, no hired labour was part of the survey.

![Figure 1: Community wise representation of respondents](image)

**Table 2: Profile of respondents**

<table>
<thead>
<tr>
<th>Community</th>
<th>Aadhar card holders</th>
<th>Bank account holders</th>
<th>Herd size</th>
<th>Presence of sheep and goat</th>
<th>Travel beyond 10 Km from their native village in summers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konar</td>
<td>15/15</td>
<td>15/15</td>
<td>150-100</td>
<td>10/15</td>
<td>15/15</td>
</tr>
<tr>
<td>Maravar</td>
<td>2/2</td>
<td>3/2</td>
<td>300-600</td>
<td>1/2</td>
<td>2/2</td>
</tr>
<tr>
<td>Nayakar</td>
<td>3/3</td>
<td>3/3</td>
<td>150-700</td>
<td>0/3</td>
<td>3/3</td>
</tr>
</tbody>
</table>
Breeds
In our survey, we found two native species of sheep and cattle. The surveyed shepherds from Tirunelveli and Thoothukudi districts maintain Chevadu and Kilkaraisal breeds, both are short-haired and are considered to be drought-adapted. Because of their small size and disease resistance, both breeds are considered to be ideal elements of extensive, low-input grazing systems. The Chevadu is found in good numbers, whereas the Kilkaraisal is considered to be an endangered breed owing to its low numbers (Thangaraj Ravimurugan et al 2012).

Image 3: Keelkaraisal sheep grazing in semi-arid grassland

The Malaimadu (meaning hill cattle) cattle breed is reared by communities such as the Konar, Thevar, Naicker and Moopar in Madurai, Virudhunagar, Tirunelveli, Theni, Dindigul and Karur districts. This breed is known for supplying bullocks for draught power (P. Vivekanandan et al 2013). Pulikulam cattle have compact bodies and are known to be powerful. They are swift and vigorous, and hence trained for bullfighting (Jallikattu). It is a medium-sized, horned, strong cattle with good posture. The animal does well in the tropical climate of the area in the open housing system (P. Vivekanandan et al 2013). The sheep and cattle breeds are essential for agriculture in the region as they supply organic manure through Kidai (a temporary herd pooling arrangement). See Map 1, for a distribution of pastoral breeds in Tamil Nadu.
Map 2: Pastoral breeds of Tamil Nadu.
Herd size
The herd size of respondents varied between 150 to 1000.

Table 3: Herd size of respondents

<table>
<thead>
<tr>
<th>Livestock herd size</th>
<th>No. of cattle herders</th>
<th>No. of sheep herders</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>200</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>300</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>600</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>700</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>850</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1000</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Migration patterns and impact on mobility
The survey included shepherds from four major regions -- Manur, Paruthipadu, Cheranmahadevy in Tirunelveli district and Kayathar in Thoothukudi district (See home icons in Map 2). From October to February, these shepherds graze their sheep in semi-arid grasslands at their home locations. They graze their animals over a 20 km radius during this season and pen them on their own fields at night. Household women help with cleaning the penning site. From March to November they migrate to paddy fallows in Tirunelveli and Tenkasi districts where their sheep graze on agricultural residue. These herders graze on 11 major sites along the basin of the perennial Tamiraparani river (See Map 2). The herders from Thoothukudi district cross three districts (Thoothukudi, Tirunelveli, and Tenkasi) and the herders from Tirunelveli district cross two districts (Tirunelveli and Tenkasi).

Of the 10 shepherds interviewed, four were already on the move when the lockdown was announced and did not experience any difficulties due to its imposition. The remaining six did not migrate during the lockdown (from March 25 to May 3). Of these, two did not migrate even after the partial relaxation of the lockdown due to fears of livestock theft. This fear was based on an understanding that many people had returned to their homes with loss of income and livelihood and hence sheep theft might become an option for easy money. The remaining four herders had their migration delayed due to lack of transportation.
The cattle herders included in the survey belong to Koomapatti and Nedumangulam in Virudhunagar district. They maintain herds of the Malai Madu breed. They typically graze their animals in a 30 kms radius surrounding their home locations. Semi-arid grasslands, paddy fallows, coconut plantations and enough water sources are available within their home locations which allows them to manage their herds by undertaking limited movement. By way of contrast, the herders who maintain the Pulikulam cattle at Chettikulam, Perumalpatti and Vadipatti in Madurai district migrate with their herd throughout the year. The Pulikulam cattle graze in semi-arid grasslands, paddy fallows and plantations. The lack of adequate water and grazing fields around their home locations, forces them to migrate 50 to 100 kms away from their homes. Cattle herders' migration was not delayed despite the lockdown as they were already in their migratory grounds by that time.

Table 4: Seasonal pattern of migratory route (Source: Community Conservation of local livestock breeds, SEVA, 2013)

<table>
<thead>
<tr>
<th>Month</th>
<th>Place of grazing</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>Manamadurai</td>
</tr>
<tr>
<td>March-May</td>
<td>Karuppayurani</td>
</tr>
<tr>
<td>June</td>
<td>Sirivilliputhur</td>
</tr>
<tr>
<td>July</td>
<td>Koomapatti</td>
</tr>
<tr>
<td>August- November</td>
<td>Rajapalayam and Koomapatti</td>
</tr>
<tr>
<td>December- January</td>
<td>Sivakasi, Virudhunagar and Thiruchuli</td>
</tr>
</tbody>
</table>
Map 3: Herder migratory routes in Tamil Nadu.
Access to forage and water
The herders graze their livestock in semi-arid grasslands under private ownership and in temples and village commons such as irrigation tanks, poramboke lands, and private plantations when they are at their home locations. When on migration they graze their livestock in paddy fallows and plantations. None of the herders faced any difficulties in acquiring forage and water during the COVID-19 lockdown. A group of shepherds from Kayathar, Thoothukudi district, who were on migration in Tenkasi district, said “we maintain good relationship with local farmers, we are like an extended family, we attend their family functions and they attend ours. They visit our penning ground at night and we share our food with them, we have been maintaining this relationship for many generations.” The preexisting relationship between herders and farmers therefore played a key role in facilitating herders’ access to forage and water during this period.

Map 4: Shepherds’ migratory routes in Tamil Nadu.
Impact on revenues

Sheep

Sale of animals is the major revenue in sheep herding. A 3 to 6 months old ram is sold for around Rs. 3,000 to 3,500. During the lockdown and after partial relaxation too, the main markets were closed which led to a price drop. The herders earlier used to sell their sheep to agents who would sell the animals in markets for a good price. But during the lockdown, these agents couldn’t take the sheep as the large markets were closed, and the herders directly sold their sheep to mutton vendors. Three shepherds did not face any price drop during the lockdown, but the remaining seven shepherds sold their sheep at a lower price. They reported a price drop of about Rs.500 to Rs.1,000 per sheep which affected their earnings. Three herders said their revenue was affected a lot, four respondents felt theirs was affected moderately and the remaining three did not find any changes. Under usual circumstances the sale of dung pellets and penning is not a major source of revenue for them and they use it for their daily expenses and travel during the migratory season. But during the lockdown they were mostly dependent on the revenue from penning.

Cattle

The survey revealed that the sale of calves and dung is the major revenue for cattle herders. Five herders indicated they sold their calves for a lower price during the lockdown, though prices came back to normal rates after its partial relaxation. One Malaimadu herder shared that he used to sell his calves for around Rs. 6,000 but during the lockdown, prices dropped to Rs. 4,000. One Pulikulam herder reported that he sold 20 calves for Rs.6,000 per calf during the lockdown but the usual price is Rs.10,000 per calf. The other three Pulikulam herders broadly agreed with these figures. The
remaining five cattle herders stated that the lockdown did not affect their sale of animals and they received the usual prices. Though all three communities faced some form of difficulties in the sale of animals, it was the Maravars who were affected the most, followed by Konars. The Nayakars were affected the least in this aspect. When viewed in terms of animals, it was the sheep herders who faced greater difficulty in the sale of animals as compared to the cattle herders. Eighty percent of sheep herders faced problems in selling sheep, while the corresponding figure for cattle herders stood at nearly 60%.

Figure 2: Community wise responses (percentage wise)

Figure 3: Responses in terms of sheep and cattle herders (percentage wise)
Penning and sale of dung
The Malaimadu herders in Virudhunagar district prefer penning their cattle in paddy fallows and plantations. The penning is done for around 10 to 11 months because of which the sale of dung was not a big problem for them. For Pulikulam cattle herders, however, the situation was different. They usually sell dung to farmers of Kerala for a good price but were heavily affected during the lockdown due to limited availability of transport. Five out of eight Pulikulam herders reported they used to sell four to six truckloads of dung per month to Kerala for Rs.10,000 per truck but for the past four to six months they were unable to access the Kerala markets due to unavailability of transport. They said selling dung to Kerala was a more profitable enterprise for them than penning the cattle in the paddy fallows or plantations.

A herder pointed out the Kerala market plays a crucial role in sustaining cattle herding in Tamil Nadu as cow dung is purchased for estates in Kerala for good prices. He says, “if there was no Kerala, there wouldn’t be herding in Tamil Nadu”.

The migratory season for shepherds lasts from March to October. During this period the penning of sheep is usually done in the paddy fallows. The lockdown didn’t affect their penning and farmers as well the local villagers gave full support to the shepherds during the lockdown.

Figure 4: Responses in terms of sheep and cattle herders (percentage wise)
Labour

Most sheep herds are managed by family members and labourers are hired to help with herding in rare instances for a few days. Only one shepherd reported that he hired labour for five days during the lockdown and did not face any difficulties while doing so.

Additional labour is more commonly used for cattle herding. Seven out of 10 cattle herders hired labourers to manage their herd. One herder hired 10 labourers, while two hired seven labourers, and the rest of them hired one or two labourers for herd management. Labourers were paid extra to meet food and fuel expenses during the lockdown. Some herders didn't allow the labourers to go to their house and paid extra wages for their boarding and lodging. Only one herder reported that his usual helpers couldn't come due to the lockdown because of which he and his sons had to manage the herd themselves.

Transport

Lack of transport during the lockdown was a problem for shepherds as they usually depend on small trucks for transporting lambs and penning materials during their migration. Among the shepherds, four herders delayed their migration due to transport issues, another four ended up staying a long time in a single place, while two did not migrate at all. Cattle herders on the other hand do not depend on trucks during migration and hence were not affected by the lockdown. Both shepherds and cattle herders were affected by the absence of transport in that they were unable to visit their homes, normally done by rotation.

Many herders use public transport which was stopped for five months due to which herders had to reduce the number of visits and relied on motorcycles for transport. This resulted in their incurring a higher than normal expenditure as the fuel costs were higher. They also used...
motorcycles at midnight to avoid police checking put in place for enforcing movement restrictions during the lockdown. One of the herder’s bikes was also seized during this time.

Veterinary care
Deworming medicines and vaccines for some diseases are routinely required for sheep. The shepherds are trained in administering medicines and only in rare cases do they call veterinary doctors for administering medicines. During the lockdown, as the wholesale godowns were closed, herders had to buy medicines from retail stores at higher prices, resulting in increased expenditure for them. Of the 10 shepherds interviewed, six spent more money than the usual amounts for medicines.

Cattle herders, as a matter of routine, do not medicate their animals. Vaccines are given only for the Jallikattu bulls. Such bulls were very few and they were vaccinated before the lockdown. Veterinary care was therefore not a cause of concern for the cattle herders.

Access to rations and health care
Rations were available during the lockdown, but shops opened only for a limited time. The herders managed to adjust to these changes. But the price of groceries was higher during the period. A few herders managed to buy groceries in bulk. None of the herders faced any health issues during the lockdown and hence access to health facilities was not reported to be a problem.
Social stigma
While on the move, both sheep and cattle herders migrate to areas they are well-known in, and where they have good relationships with the farmers and local communities. As a result, they didn’t experience any social stigma during COVID-19.

Hopes and fears
Seventy percent of the respondents were positive they would not have to face negative impacts on their livelihood due to COVID-19 and had high hopes for the future. While the remaining 30% expressed fears relating to the negative impact that COVID-19 may have on their livelihoods in the next six months to a year.

Conclusion
Although the lockdown affected cattle and sheep herders in different ways, findings of this study suggest that both suffered significant financial losses — via increased expenses and reduced incomes.

The lockdown impacted both the cattle and sheep herders of Tamil Nadu, though in different ways. It delayed the migration of shepherds in particular because they had not yet started their migration. In the case of cattle herders this was not a problem because they were already on their migratory grounds when the lockdown was declared. Both shepherds and cattle herders were able to access forage and water during the lockdown. Limited availability of public transport affected the shepherds more because they usually rely on the use of small trucks for moving lambs. The lack of transportation affected the cattle herders too but in a different way.

The Pulikulam herders suffered major financial losses as they were unable to transport dung to Kerala which is usually a good source of income. The
Malaimadu herders did not suffer from a similar loss because they usually prefer to engage in cattle penning in paddy fallows and plantations within Tamil Nadu, which they were able to do this year too. For the shepherds, penning turned out to be a life saver as a source of income. Though they usually do not engage in penning, this year however penning was one of the few sources from which they were able to generate an income for themselves. Besides financial stress, the lack of transportation also made it difficult for the pastoralists to return home from usual migratory grounds for food and other supplies.

The shutting of markets was a cause of major difficulty in the sale of animals for both shepherds and cattle herders. As a result of which they had to sell their animals at lower prices. The price drop experienced by shepherds was in the range of 16.66% to 33%, a significant impact on these communities given the fact that sale of animals is their biggest source of income. Cattle herders experienced a price drop in the range of 33% to 40%.

Labour was an additional source of expenditure for cattle herders who had to pay extra money to cover the food and fuel expenses for hiring labour. The shepherds on the other hand do not usually need to hire labour for managing their herd, and therefore did not face this problem. Veterinary care services imposed additional expenses on the shepherds as they needed to use certain medicines and vaccines routinely for their sheep. The limited availability of public veterinary care centres and lack of wholesale medicine shops meant that shepherds had to purchase medicines at higher prices from retail medical stores. Since cattle herders do not require routine medicines, they did not experience this additional expenditure. Amidst all the increasing expenditure, the only saving grace for the pastoralists was the support they could draw from their pre-existing social ties with local communities and farmers. This helped them in not only accessing forage and water, but also ensured they did not have to face social stigma due to Covid-19.

COVID-19 is a new challenge to all marginalized communities, but for herders the challenges are high as they migrate to other places for grazing their livestock. Issuing identity cards to herders such as the cards issued for farmers can help ease their commute, as many of the herders faced issues in commuting from migratory grounds to their houses during the lockdown.
References


Annexure I

Summary of findings from a telephonic survey undertaken by CfP in April 2020

1. Restrictions on movement
Pastoralist migrations were halted by state governments either temporarily or for the entire year, on the assumption that all movements held the potential for transmission of the virus, and hence represented a threat to communities that pastoralists interacted with. In some instances, pastoral communities were able to convince governments to permit them to continue with their migrations. Others, such as the Van Gujjars of Uttarakhand were banned from moving to their summer pastures for the entire year, and were forced to either stall feed their buffaloes or find alternative grazing arrangements within the lower altitudes. Either option resulted in higher costs but also significantly reduced animal productivity. The Himachal government was particularly proactive in supporting pastoralist movement, because for the most part herders travel alone and tend to spend time in relative isolation, reducing the likelihood of viral transmission.

b) Accessing markets:
Pastoralist communities across states spoke of the difficulties of accessing milk, meat and feed markets, all closed due to the national lockdown. Some surplus milk was being converted into ghee and buttermilk, but as the weather warmed, even these products needed to be disposed of to avoid spoilage. The closure of meat markets had implications for immediate cash flows but did not represent the loss of a crop, such as may have been experienced by milk-selling pastoralists or by farmers with perishable, fresh produce.

c) Shortage of Labour:
In some instances, herders had returned home in February to attend to family functions or to help with cultivation. Post the imposition of restrictions, these herders were unable to move to where their herds were, resulting in a significant shortage of labour in managing the herds. Many herders also reported instances of hired labour choosing to return to home, owing to the limited information available on the pandemic and the associated desire to be close to home during this period of uncertainty.

d) Shearing sheep:
Sheep need to be sheared just before the onset of summer, and this is generally undertaken by shearers not necessarily part of the herding community. When sheep are not shorn, ahead of the summer heat,
there are heightened levels of sickness within the herd. Owing to the lockdown, shearers were simply unable to travel to where the sheep were located. While the Himachal government was ultimately able to facilitate shearer travel to the herds, in most States shearing operations were badly impacted. Many herders spoke of the likely impact of the lockdown and its aftermath on the import of wool and on the export of woollen carpets and durries.

e) Obtaining ration
Pastoralists on the move normally obtain ration from village kirana shops or from shops in small towns. Pastoralists across the country spoke of the fact that villagers, normally welcoming, were wary of potential transmission of COVID and were often unwilling to have transient pastoralists enter the village. In instances where the state was providing ration, pastoralists tended to miss out since they were on the outskirts of villages or were grazing their animals at some distance from human habitation.

f) Social Stigma:
Pastoralists from various parts of the country reported that they experienced a great deal of social stigma on account of their religion or their nomadic lifestyle. Gujjars in Chamba, Himachal Pradesh and from the Rishikesh/Haridwar areas in Uttarakhand faced ostracism as minorities and had difficulty in selling milk and in embarking on their annual migrations. In both instances, there were rumours to the effect that their milk carried the coronavirus and so customers should not buy their milk. Pastoralist mobility in itself has been causing social stigma for many decades and reports from across the country indicate this was accentuated throughout the lockdown.

g) Pastoralism, Resilience and COVID-19:
Several pastoralists mentioned that they may have experienced fewer negatives resulting from the lockdown than many other with rural livelihoods. This is likely linked to the fact that pastoral communities have historically needed to adapt to climatic, political and other changes. Pastoralist adaptability may have played a role in mitigating to some degree the various issues listed above.
Annexure II

Questionnaire to understand how pastoralists have fared under COVID-19

Code (State letters, followed by 1st three letters of Community name, followed by serial number of interview, in two digits – e.g. GUJRAB01)

<table>
<thead>
<tr>
<th>Interviewers name</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>a. Name</th>
<th>b. M/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Community</td>
<td>d. Phone #</td>
</tr>
</tbody>
</table>

1. Home Location
2. Current Location
3. Aadhaar Card Y/N
4. Bank account Y/N
5. Migratory Y/N
6. Owner/helper?
7. Are you with the herd Y/N
8. What animals do you manage?
9. Herd size
10. Were you on migration during LckDn Y/N

On each of the following please describe your normal practice and how this is affected because of the COVID epidemic:

A. Obtaining forage/water
   1. What is your normal pattern of migration at this time? Do you cross district or state boundaries?
   2. Has your movement been interrupted this year? Positively/Negatively?
   3. Where have you obtained forage and water this year (village commons, Forest Department land, Protected Area, cultivated land, purchased, others?)
   4. Do you normally purchase fodder? Were you able to do so this year?

B. Revenues/Expenditures
   1. During lockdown have you had difficulty in the following:
      a) Sale of milk and milk products
      b) Sale of animals
      c) Sale of wool
      i) Difficulties with shearing?
      ii) Getting wool to markets?
      d) Penning
   2. Has COVID/lockdown caused a fluctuation in the rates you receive for produce?
3. Where have these expenses changed (medicines, food, water, transport, alcohol, labour)?
4. Has COVID had an impact on your earnings?
   A bit, Medium, A lot

C. Labour
1. What is the normal labour requirement? How much of this is hired labour?
2. What is the situation during lockdown? (could not come, had to leave, stranded?)

D. Veterinary care
1. What are the normal veterinary services that you access? Health camps, doctors, medicines, vaccinations?
2. Are these services available during lockdown?

E. General Questions (Rations, health care, places to stay, social stigma)
1. Where do you normally get your rations while on migration?
2. What difficulties have you encountered because of the lockdown?
3. What state or other support has been available to ensure you have adequate ration?
4. Were you required to carry a Coronavirus free certificate? Where were you required to show such a certificate? Did you need permission to move?
5. Have you experienced difficulties in finding places to camp during the lockdown?
6. Have you experienced social stigma? Please elaborate?

F. Open-ended
1. During COVID have you been better off or worse off than other rural communities (agriculture, settled livestock keepers)… Can you compare your situation with others from your community who have moved out of herding?
2. What are your hopes and fears with regard to the next 6-12 months?
3. Do you have anything to add?

G. Additional Comments by interviewer