



FES

FOUNDATION FOR ECOLOGICAL SECURITY

KULLU CALL

For the Recognition of the Importance of
Common Pool Resources (CPRs) and
Pastoralism for India's Livestock Sector



LIFE Network



Lokhit Pashu Palak
Sansthan



RAINFED
LIVESTOCK
NETWORK



LEAGUE FOR
PASTORAL PEOPLES
AND ENDOGENOUS
LIVESTOCK DEVELOPMENT

With the purpose of creating visibility for pastoralism - a livestock production system that is gaining increased international recognition¹ but not recognized officially by Indian policy makers - fourteen experts from all over India met in Kullu (Himachal Pradesh) from 13-15 May, 2016 to define the term in the Indian context and establish a methodology for estimating numbers and assessing trends².

The experts noted that the principles of pastoralism are different than those underlying conventional agriculture in which native vegetation is replaced with cultivated crops or sown pasture. By contrast, pastoralism makes use of available vegetation or crop by-products, requires no fuel or fertilizer (in fact contributes organic fertilizer), makes it possible to produce food in marginal areas (deserts, high mountains) and unlikely ecological niches (for instance marine areas), besides benefitting local flora and fauna. Furthermore, these systems are able to adapt to climate change.

The participants went about calculating the number of pastoralists state wise, using various sources of

data, including human, livestock, and breed census data, own field data and observations, numbers of grazing permits, etc.

They agreed upon the following criteria as characteristics of pastoralist households: dependence on common pool resources, mobility, primary income from livestock, existence of traditional knowledge systems and association with specific breeds.

A very dynamic picture emerged, characterized by great regional diversity. While Himalayan pastoralism appears to be stable, due to a system of fixed grazing permits, in the western states of Rajasthan and Gujarat, pastoralism is under pressure. However on the Deccan Plateau, many non-traditional pastoralists are entering the field, leading to an increase of livestock numbers kept in pastoral systems.

The meeting highlighted the difficulties and gaps of information that prevent the establishment of precise number of pastoralists. Livestock census data are a more reliable source of information than caste based figures because an

1 Pastoral Knowledge Hub of FAO <http://www.fao.org/pastoralist-knowledge-hub/en/>, Policy Framework for Pastoralism of the African Union <http://rea.au.int/en/sites/default/files/Policy%20Framework%20for%20Pastoralism.pdf>

2 There are no recent data or even estimates on the number of pastoralists in India, although there is a frequently repeated statement that they make up 6% of the Indian population, apparently based on KHURANA, I. (1999) The Milk that Ate the Grass. Down to Earth, April 15, 1999: 24-31



unknown, but substantial, proportion of members of castes and tribes with a pastoralist identity and heritage have left their traditional occupation. On the other hand, people with no previous history of pastoralism continue to enter the occupation.

While the actual number of pastoralists thus remains fuzzy and they may not number more than 1% of India's population, the experts concluded that around 77%³ of India's livestock is kept in extensive systems and dependent on CPRs⁴. For many smallholders, livestock may not be the primary source of income, yet still make an important contribution to family income or nutrition. The contribution to the Gross National Product is

significant, with 53%⁵ of India's milk and 74%⁶ of its meat deriving from such systems. An increasing number of scientific publications suggest that the animal products generated this way are more nutritious and tastier than those from intensive stall-fed operations.

The experts call for a re-orientation of India's livestock policies from a focus on stall-fed systems, intensification, and breed improvement to the creation of an enabling environment for mobile livestock keeping and especially the conservation and upkeep of Common Pool Resources. Specifically, the experts recommended the following strategies and activities to maintain the strength of India's livestock sector:

3 Table I

4 According to the National Sample Survey, less than 1% of private agricultural land is used for livestock rearing.

5 Table II

6 Table III

1. Recognition of the contribution of extensive livestock systems and pastoralism to the national Gross Domestic Product (GDP) and to livelihoods.
2. Considering the paucity of data, **field** research and national **census/surveys** to determine numbers and economic contributions of extensive livestock keepers are urgently needed.
3. Development of livestock policies that support extensive livestock keepers and are sensitive to their specific needs, including mobile services.
4. Securing tenure, access and rights to common pool resources for these livestock keepers.
5. Appreciation of the role of pastoralism in adaptation to climate change and in biodiversity conservation.

Annexure I

Table I

Distribution of Livestock with regards to their Dependence on Commons*			
Category	Total Livestock Population (No.)	Assumption for Proportion of Total under Extensive Feeding System (%)	Final Extensive Feeding System (No.)
Indigenous Cattle Male (only others)	17,84,114	100	17,84,114
Indigenous Cattle (less than 2 years + breeding + draught)	590,97,703	50	295,48,852
Indigenous Cattle Female	1468,99,534	90	1322,09,581
Buffalo Male (only others)	3,56,647	100	3,56,647
Buffalo Male (non-others)	151,57,223	50	75,78,612
Buffalo Female total	885,81,515	60	531,48,909
Yak	76,237	100	76,237
Sheep (indigenous) Total	601,45,718	95	571,38,432
Crossbred sheep (Himachal Pradesh and Jammu & Kashmir)	25,31,749	100	25,31,749
Goat	1290,80,808	80	1032,64,646
Pigs Indigenous	70,99,587	100	70,99,587
Mules and Donkey (total)	2,67,498	100	2,67,498
Camel (Rajasthan, Gujarat, Madhya Pradesh)	3,50,000	100	3,50,000
Total	5114,28,333	77	3953,54,863

* The above data has been taken from Livestock Census 2012.

Table II

Milk Production from different Livestock Systems** (Tonnes)			
Category	Total Production	Assumption for Proportion of Total under Extensive Feeding System (%)	Final Extensive Feeding System Production
Indigenous cattle	266,95,000	90	240,25,500
Buffalo	577,70,000	69	398,61,300
Goats	47,82,000	80	38,25,600
Exotic and Crossbred Livestock	386,57,000	-	-
Total	1279,04,000	53	677,12,400

**The above data has been taken for year 2011-12 from Ministry of Agriculture, Gol and state and U.T departments.

Table III

Meat Production from different Livestock Systems*** (Tonnes)			
Category	Total Production	Assumption for Proportion of Total under Extensive Feeding System (%)	Final Extensive Feeding System Production
Buffalo	9,76,000	60	5,85,600
Sheep	3,99,000	95	3,79,050
Goats	9,05,000	80	7,24,000
Pigs	N.A.	-	N.A.
Total	22,80,000	74	16,88,650

Value in year 2013-14 (In Crore INR)			
Category	Total Production	Assumption for Proportion of Total under Extensive Feeding System (%)	Final Extensive Feeding System Production
Sheep/Goat	700	90	630
Buffalo	26457	60	15874
Total	27157	61	16504

***The above data has been taken for the year 2011-12 from Ministry of Agriculture, Gol and state and U.T departments and comprises data for only organised sector.

Table IV

Calculation of Total NPK produced by the Extensive Feeding System Annually				
Category	Final Extensive Feeding System (No.)	Manure production per animal per day on dry matter basis(kg)	Urine production per day per animal (kg)	Value in INR (crore) based on NPK ****
Indigenous Cattle Male (only others)	17,84,114	5	20	2,528
Indigenous Cattle (less than 2 years + breeding + draught)	295,48,852	5	20	41,959
Indigenous Cattle Female	322,09,581	5	20	1,87,738
Buffalo Male (only others)	3,56,647	5	20	506
Buffalo Male (non others)	75,78,612	5	20	10,762
Buffalo Female total	531,48,909	5	20	75,472
Yak	76,237	5	20	108
Sheep (indigenous) Total	571,38,432	1	1	4,857
Crossbred sheep (Himachal Pradesh and Jammu & Kashmir)	25,31,749	1	1	2,152
Goat Total	1032,64,646	1	1	8,778
Camel (Rajasthan, Gujarat, Madhya Pradesh)	3,50,000	10	3	298
Total	387987778			335156

****based on calculations by Athani, B., et al(2015) in the paper 'The significance of nomadic pastoralism for sustaining soil fertility in Northern Karnataka', presented at 23rd International Grasslands Conference, New Delhi and Kolay, A.K. 2007. Manures and Fertilizers. Atlantic Publishers, New Delhi.



Kullu, 15 May, 2016

Signed by organizations: LIFE-Network, Rainfed Livestock Network, Lokhit Pashu-Palak Sansthan (LPPS), ANTHRA, Foundation for Ecological Security, WOTR, Pathe Pathshala, Sahjeevan, Future Greens, Mitan, Maldhari Vikas Sanghatan.

Individuals: Datta Rangnekar, Sajal Kulkarni and Devinder Sadana.

For further information on methodology and detailed results, please contact Kamal Kishore at kamal_3456@yahoo.co.in or Ilse Köhler-Rollefson at ilse@pastoralpeoples.org



FOUNDATION FOR ECOLOGICAL SECURITY

P B No. 29, Anand - 388 001, Gujarat, INDIA

Tel: +91 (2692) - 261238, 261239

Fax: +91 (2692) - 262087

email: ed@fes.org.in

Website: www.fes.org.in