LIVESTOCK TRADE IN SEMI-SUBSISTENCE TYPE OF RURAL ECONOMY: A CASE STUDY FROM UTTAR PRADESH, INDIA

Mushir Ali*

Abstract:

The paper attempts that seasons as basic determents of the livestock trade in monsoon India. To analysis livestock trade by uses and seasons, 14 rural markets were selected on the basis of stratified random sampling where four times field surveys were conducted in agricultural year, 2005-06. The analysis of data indicates that higher livestock were traded in the pre-monsoon and cool seasons. Trade deviations for buffalo 17%, cattle 9%, and goats 12% show influence of agricultural operations, weather and matrimonial seasons. The demand livestock for rearing, meat and milk varies in different seasons with the symbiosis of socio-economic conditions in the study area.

Keywords: Seasons, livestock trade, agricultural operations, and society

* Assistant Professor, Department of Geography and Environmental Studies, Mekelle University, Mekelle, Ethiopia.

Introduction

Livestock husbandry is one of the important segments of Indian agriculture. It has been practiced as auxiliary activity in the process of production of different food and non-food crops since antiquity. Various kinds of livestock species like cattle, buffalo, goats, sheep, pigs, hen, etc. were reared as domestic and subsistence animals. Traditional techniques and practices have been applied in the process of their rearing. Commercial form of livestock husbandry rarely existed before the independences except in the case of milk and meat production but at a small scale with little production to meet local demands (Gandhi & Mani, 1995).

During the last decade of 20th century, Indian agriculture was at a crossroad and frustration among farmers as well as in government was inevitable (Van Loon, 2007; Sengupta, 2008). The foodgrain production became uneconomical due to increasing gap between input cost and output price per unit weight of its production with increasing cost of inputs because of removal of subsidies by the government in successive years under the influence of world economic order. Inefficient agricultural marketing system resulted in low price per unit weight of output (Arena, 2005). Reduction in the size of operational holdings year after year due to division among the heirs has also contributed to decline of productivity (Ali, 2009) and consequently badly affected the economic viability of some traditional crops like foodgrains.

Livestock farming has offered the opportunities to producers to expand this sector through the enhancing production, both in qualitative and quantitative terms. Scaling up of the production and agri-business has also been encouraging in developing countries like India on the pattern of developed countries. It is because of that livestock products from tropical monsoon countries are greatly demanded in Asian as well as European markets. The livestock products, especially, produced in India have good competitive price in international markets due to low production cost

as compared to developed world after reducing the subsidies on agricultural production and export in recent years (Rutherford, 1999; Food world India, 2005).

Rural markets, however, are the most important nodal points for transaction of the livestock and their products. They play role in linking the livestock trade with the terminal markets where large scale livestock transaction as wholesale is undertaken. The marketable surplus of livestock like cattle, buffalo, sheep, and goats are brought through walking by producer sellers from different villages of rearing centres. Long distance transport of the livestock increases heavy transport over head cost, and bad weather puch livestock trade in nearby rural markets at large proportion (Ali & Neka, 2012).

Objectives

Keeping consideration into the significance of transaction livestock through rural markets in semi-subsistence type of economy, Shahjahanpur district of Uttar Pradesh, an effort was made by researcher the followings following objectives:

- To assess seasonal behavior of livestock trade in semi-subsistence type rural economy of Shahjahanpur district.
- To describe livestock trade variation by uses and seasons in the study area.

Data and Methodology

The present study is based fully on the primary data those were collected through field surveys. Secondary data were not available regarding livestock trade through rural markets. Fourteen rural markets, one from each block have been selected on basis of stratified random sampling technique by using hierarchical order with CFI (Composite Functional Index) formula (Ali 2009).

$$CFI = \sum_{i=1}^{n} FiWi$$

where, CFI = Composite Functional Index

Fi = number of markets/units

Wi = Weight of the particular function

On the basis of calculated Composite Functional Index (CFI) four grades as regional, sub-regional, block level and local rural markets were recognized and every type of markets (please see appendix). The selected markets were surveyed four times in the year 2005 and 2006 to collect data regarding spatial and seasonal trade of livestock. The spatial use wise demand and supply of buffalo, cattle, and goats with changing seasons were recorded in detail. The collected data were tabulated and analyzed by using simple statistical technique. Maps and diagrams were prepared with the help of GIS technique.

Study Area

In the view of importance livestock markets in the semi-subsistence type of rural economy, a micro geographical unit Shahjahanpur district was selected as study area. It is situated in the tract between the Ganga River and foothills of the Himalayas in Uttar Pradesh. The area consisted with five natural divisions, i.e. the *Tarai* forest belt, the *Gomti* basin, the Central *Bangar* land, the Ramganga *Khadar*, and the *Bankati*. A large chunk of population of the district is engaged in animal rearing and agricultural activities. The rural population is dependent on rural markets to sale and purchase of livestock. They also provide employment to workers of unorganized sector and contribute a source of livelihood for itinerant traders, who purchase the livestock from different places to sale in these market centres. The district covers an area 4575 sq km, and population of 25.4 million. There were four *tahsils* (sub-divisions), 14 community development blocks, 11 urban centres, 2080 villages, total 846947 heads of livestock consisting 315190 buffalo, 244535 cattle, 242550 sheep and goats.

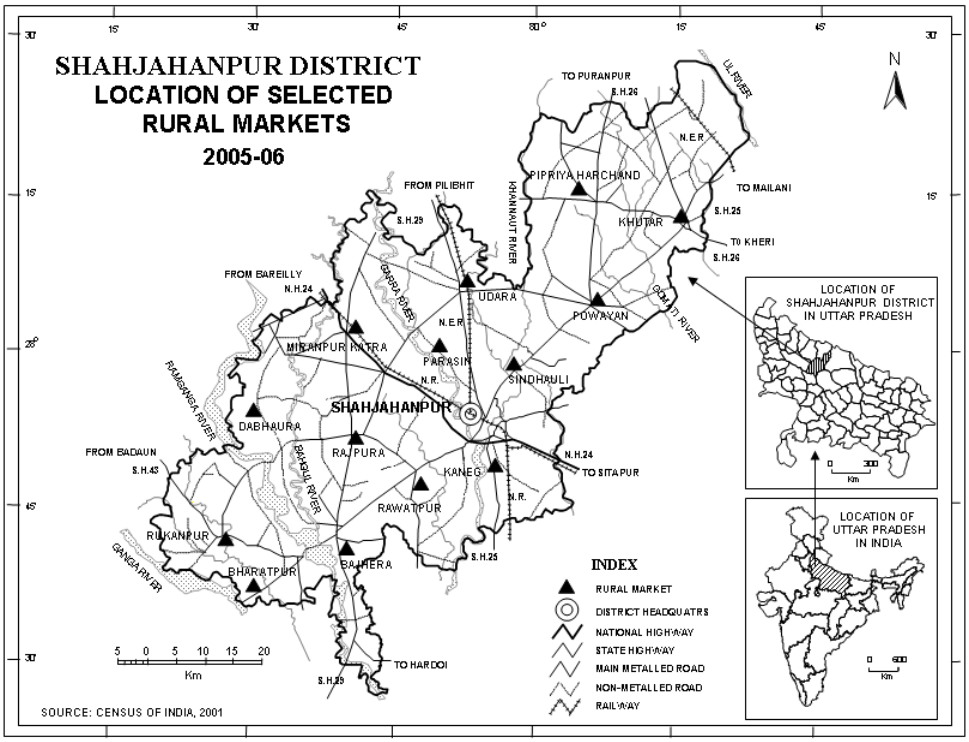

FIG.1

Results and Discussion

Livestock rearing is considered as primary activities. But, it is livestock farming is the main source for secondary activities, producing milk products-*ghee*, *khoya*[i] and meat as well as marketing of these items and livestock generates tertiary economic activities. Although without livestock trade in rural markets the secondary and tertiary activities were absent in rural areas yet their marketing has not been undertaken by any well form or organised marketing system, unlike marketing of agricultural products and manufactured goods. The transaction of livestock and their products have strong symbiosis with the rural markets. Livestock transaction appears due to demand of animal for agriculture, meat and milk, and shows spatial and seasonal variations (Ali and Neka, 2012).

Table 1: Livestock transaction by seasons through rural markets

Markets	Oct-Dec (Cool-season)	Jan-March (Cold-Season)	April-June (Pre-monsoon season)	July-Sept (Monsoon-season)	Annual
Pipriya Harchand	6396	6240	6188	6708	25532
	(25.05)	(24.44)	(24.24)	(26.27)	(100)
Khutar	5928	6552	5876	6032	24388
	(24.31)	(26.87)	(24.09)	(24.73)	(100)
Powayan	5460	6344	5200	6032	23036
	(23.70)	(27.54)	(22.57)	(26.19)	(100)
Sindhauli	4992	4940	4888	4940	19760
	(25.26)	(25)	(24.74)	(25)	(100)
Miranpur Katra	8840	9464	8580	9464	36348
	(24.32)	(26.04)	(23.61)	(26.04)	(100)
Dabhaura	6240	4264	7280	4992	22776
	(27.40)	(18.72)	(31.96)	(21.92)	(100)
Rajpura	3380	3640	3692	3172	13884
	(24.34)	(26.22)	(26.59)	(22.85)	(100)
Udara	5720	5772	6526	6032	24050
	(23.78)	(24)	(27.14)	(25.08)	(100)
Rawatpur	7254	7540	7904	6760	29458
	(24.62)	(25.60)	(26.83)	(22.95)	(100)
Parasin	1924	1976	2574	1690	8164
	(23.57)	(24.20)	(31.53)	(20.70)	(100)
Kaneg	4108	4082	4550	3536	16276
	(25.24)	(25.08)	(27.96)	1.73)	(100)
Rukanpur	7644	6136	9048	8632	31460
	(24.30)	(19.50)	(28.76)	(27.44)	(100)
Bharatpur	5798	4160	7488	5902	23348
	(24.83)	(17.82)	(32.07)	(25.28)	(100)
Bajhera	9620	9672	10244	8892	38428
	(25.03)	(25.17)	(26.66)	(23.14)	(100)
Total	83304	80782	90038	82784	336908
	(24.73)	(23.98)	(27.72)	(24.57)	(100)

*Figures in parenthesis show percentage to total livestock transaction
Source: Field Survey, 2005-06

The study area witnessed variations of livestock trade with reference to time or season and species aspects. The socio-economic factors of the market areas are the most important determinants of volume of livestock trade in the selected markets. It varies between 8164 heads in Parasin to 36348 heads in Miranpur Katra (Table 1). Study area, being a geographical unit in tropical monsoon region, experiences three distinct seasons, i.e. winter, summer, and rainy which coincide very much with agricultural seasons like *rabi*, *zaid* and *kharif* respectively. Agricultural seasons affect the arrival and transaction of not only draught livestock but also dairy and meat

animals. Agricultural operations, breeding and lactation of livestock, meat consumption, and fodder availability are very much related with seasonal changes.

The analysis of data reflects almost a of seasonal livestock transaction the slight variation from 23% to 28%. April-June (season of *zaid* crop or pre-monsoon) was recorded the highest proportion (27.72%) that was followed by 24.73% (Oct-Nov) and 24.57 % (July-Sept). However, Jan-March attracted about 24% livestock trade (Table 1).

Trade of Buffalo

Moreover, seasonal variations of the same trade were noticed to be rather high degree with reference to species of livestock as buffalo. They were transacted largely during July-September to the total transaction of respective year. It was followed by Oct-Dec (26.09%), Jan-March (22.32%), and April-June (17.20%) respectively (Table 2).

Table 2: Buffalo transaction by seasons through rural markets

Period	Meat Buffalo		Milk Buffalo		Draught Buffalo		Total	
Oct – Dec (Cool-season)	18746	(26.71)	9828	(24.20)	9204	(27.04)	37778	(26.09)
Jan – March (Cold-Season)	23088	(32.90)	4914	(12.10)	4316	(12.68)	32318	(22.32)
April – June (Pre-monsoon season)	13234	(18.86)	6396	(15.75)	5278	(15.51)	24908	(17.20)
July – Sept (Monsoon-season)	15106	(21.53)	19474	(47.95)	15236	(44.77)	49816	(34.40)
Annual	70174	(48.46)	40612	(28.04)	34034	(23.5)	144820	(100)

*Figures in parenthesis show percentage to total buffalo transaction
Source: Field Survey, 2005-06

July-Sept, the season of the highest buffalo trade (34.40%) coincided with rainy monsoon and *kharif* agricultural operations season. The demand of male buffalo was occurred to prepare agricultural plot/field for paddy, and female buffalo were required for milk purpose. Moreover, the rainy monsoon season is breeding time for buffalo that is why transaction of milch-buffalo appeared to be of high level. The rearers are also interested to

dispose off their surplus buffalo because of paucity of space (shed) to accommodate in small houses during rainy season. The meat-buffalo showed only slight seasonal variation as they are demanded uniformly throughout the year to meet the dietary demand of population. But, it is *Idul-Azha*, religious festival of Muslims that enhanced the trade of livestock.

Trade of Cattle

Cattle transaction was recorded with variation of agricultural operations, breeding time, and atmospheric seasons those were casted their effects on behaviour of cattle trade. April-June, post-harvest period *rabi* crop and sowing time for *kharif* attracts cattle for the transaction at large scale (51.17%) in semi-subsistence type of rural masses. The intensive use of cattle in *rabi* post-harvest operations like threshing and transporting of wheat, oilseeds, and preparing of fields for *kharif* paddy and rough cereals contribute to such high level of transaction. Being, an effective cow-breeding season, more milk production per unit cow elevates cattle transaction in the period and vacant fields at post-harvest of *rabi* also provides for good grazing opportunities. However, July-Sept is not preferable period to cattle. That is why the lowest (18%) cattle transaction. It is due to being wet-season, declining requirement of cattle in agriculture and paucity of covered cowsheds discourage the farmers to buy the same from the markets (Table 3).

Table 3: Cattle transaction by seasons through rural markets

Period	Milk Cattle		Draught Cattle		Total	
Oct – Dec (Cool-season)	4628	(19.67)	6578	(23)	11206	(21.50)
Jan – March (Cold-Season)	3692	(15.69)	2756	(9.64)	6448	(12.37)
April – June (Pre-monsoon season)	12402	(52.71)	14274	(49.91)	26676	(51.17)
July – Sept (Monsoon-season)	2808	(11.94)	4992	(17.45)	7800	(14.96)
Annual	23530	(45.14)	28600	(54.86)	52130	(100)

*Figures in parenthesis show percentage to total cattle transaction

Source: Field Survey, 2005-06

Trade of Goats

Field surveys reveal that goats are transacted mainly for meat purpose, more than 75% of the total goat trade. Goats are consumed mainly for meat, also exhibit seasonal variations in quantum and degree of transaction (Rathore, 1993), which is slightly different from that of earlier discussed buffalo and cattle species. A group of three-seasons except July-Sept shows seasonal variations in goat transaction with a little range not more than 6% (Table 4). Jan-March period is endorsed the highest (30%) goat transaction, chiefly due to increasing demand of live goats for sacrifice as a religious obligation offered on *Idul-Azha*. The period of April-June exhibits second maxima of goat transaction owning to occurrences of social rituals like marriage ceremonies. They are frequently held during this interval because farmers feel free after harvesting of *rabi*-crop. Commonly, mutton is used in abundance and has single option for rural population unlike urban areas where buffalo meat and chicken are as other options for marriage feasts. It was observed during field surveys that rainy season, July-Sept has rather low share due to fact that goats feel uncomfortable under rain. Besides, they are usually reared by marginal farmers who have no adequate space under covered shed; consequently, their demand is discouraged.

Table 4: Goats transaction by seasons through rural markets

Period	Meat Goat		Milk Goat		Total	
Oct – Dec (Cool-season)	25636	(24.04)	8684	(26.07)	34320	(24.52)
Jan – March (Cold-Season)	36244	(33.98)	5772	(17.33)	42016	(30.02)
April – June (Pre-monsoon season)	24804	(23.25)	13650	(40.99)	38454	(27.48)
July – Sept (Monsoon-season)	19968	(18.73)	5200	(15.61)	25168	(17.98)

Annual	106652	(76.20)	33306	(23.80)	139958	(100)

*Figures in parenthesis show percentage to total goat transaction
Source: Field Survey, 2005-06

Trade of Livestock for Different Uses

Livestock transaction in rural market is frequently held either for their live form or meat, milk and draught works. The degree and intensity of their uses in distinct sectors is the reflection of physio-socio-economic conditions of a region. Income level in the form of purchasing power, level of agricultural mechanization, weakening of ethical-taboo for use of livestock for milk and meat led to awareness of health conscious. The study of spatial variation in marketable livestock surplus provides an understanding of socio-economic transformation in both qualitative and quantitative form.

Table 5: Transaction of livestock by uses through rural markets

Markets	Meat		Milk		Draught		All	
Pipriya Harchand	13988	(54.79)	8632	(33.81)	2912	(11.41)	25532	(100)
Khutar	15132	(62.05)	7332	(30.06)	1924	(7.88)	24388	(100)
Powayan	13832	(60.05)	6500	(28.22)	2704	(11.74)	23036	(100)
Sindhauli	10712	(54.21)	6448	(32.63)	2600	(13.16)	19760	(100)
Miranpur Katra	23920	(65.81)	7280	(20.03)	5148	(14.16)	36348	(100)
Dabhaura	8320	(36.53)	8320	(36.53)	6136	(26.94)	22776	(100)
Rajpura	9412	(67.79)	2704	(19.48)	1768	(12.73)	13884	(100)
Udara	11388	(47.35)	7670	(31.89)	4992	(20.76)	24050	(100)
Rawatpur	15756	(53.49)	6552	(22.24)	7150	(24.27)	29458	(100)
Parasin	2626	(32.17)	4342	(53.18)	1196	(14.65)	8164	(100)
Kaneg	8632	(53.04)	4472	(27.48)	3172	(19.49)	16276	(100)
Rukanpur	11700	(37.19)	10868	(34.55)	8892	(28.26)	31460	(100)
Bharatpur	7176	(30.73)	8528	(36.53)	7644	(32.74)	23348	(100)
Bajhera	24232	(63.06)	7800	(20.3)	6396	(16.64)	38428	(100)
Total	176826	(52.48)	97448	(28.92)	62634	(18.59)	336908	(100)

*Figures in parenthesis show percentage to total livestock transaction
Source: Field Survey, 2005-06

Table 5 gives an idea about livestock transaction for different uses. More than 50% livestock are brought for transaction belonged to meat category. It is followed by milk or dairy (28.9%) and agricultural uses (18.6%). The species wise livestock use analysis is also showed the same pattern with the exception of cattle. Out of total buffalo transacted meat buffalo share 48%, milch-buffalo 28%, and draught-buffalo 23% (Table 2). Cattle transaction was absence for the meat purpose but milch and draught cattle have share 45% and 54 % respectively.

Meat livestock show their domination (52.48 %) in livestock transaction (Table 5). It is because of increasing demand of meat and meat-processed products in national and international markets in response of increasing urban population, health consciousness among the middle-income group population and food habit shifts from vegetarian to animal protein added food in the country (Robbins, 1999). The social transformation, weakening of religious taboos to take animal food (protein), has increased tremendously the demand of meat intake among young educated population all over the country. These markets are supplier of livestock of bovine (both big and rudimentary) for meat production and consumption needed in big regional urban centres like Bareilly and Shahjahanpur. Moreover, livestock transaction for meat purpose is still religion oriented which resulted in the absence of meat cattle transaction as cow slaughtered is prohibited in north India and she is treated as scared animal among the Hindu majority population. A laudable share of meat goats among total transacted goats has been the result of its wide acceptance among all socio-religious group and high-income group of population.

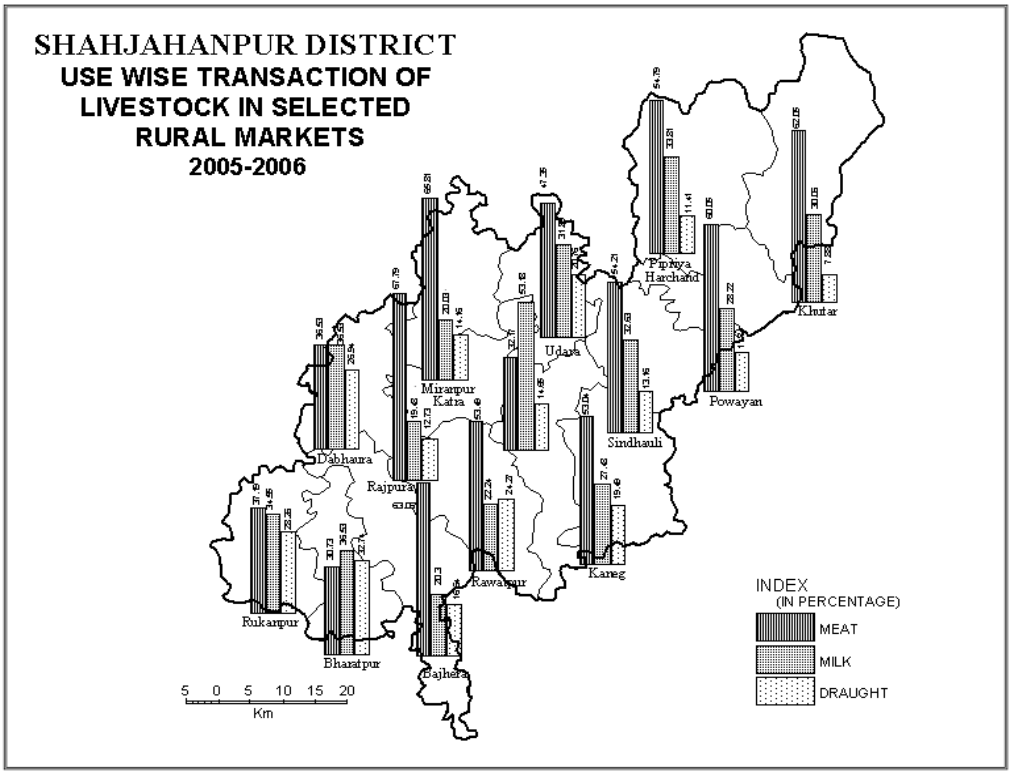

Fig. 2

Moreover, the study reveals that buffalo cattle, goats, are important species of livestock brought for transaction. Moreover, the milch-livestock especially belong to buffalo and cattle, stood at first as in cattle case and second in buffalo, in proportion of livestock trade. Development of dairy industry at household level and market accessibility for milk especially in urban areas have encouraged the trade of milch-livestock in almost all markets under the study (Fig.2).

Marketwise variations were observed regarding transaction of individual livestock by uses during field surveys. Those markets were located in the areas of urban influences, show the supremacy of meat and milk livestock, i.e Khutar (62.05% and 30.06%), Miranpur Katra (65.81% and 20.3%), and Powayan (60.05% and 28.22%). While those markets situated in interior and remote villages attract rather draught livestock in larger proportion as a consequent of low level of mechanization in agriculture.

Conclusion

The livestock marketing is in rudimentary and unorganized form in the study area. The animal transaction appears to be a spatio-seasonal and socio-economic oriented the economic phenomena. The arrival and transaction of various kinds of livestock in the markets are the functions of space, time, and economy of the area where such phenomena takes place. The study reveals that total annual average number of livestock (buffalo, cattle, and goats) surplus arrived in the market for transaction, which varied among the selected rural markets from 8164 to 38428 heads. Such variations for trade of livestock were caused mainly by their locations, connectivity, nature, catchment areas, fairness in market prices, protection of traders from bogus intermediaries inside of market and outside from robbers, and attractive policies of market owners. Marketing of livestock shows seasonal behaviour. Crop and weather seasons affect the livestock transaction in the semi-subsitsnce type of agriculral economy because mostly fatming is operated by use of livestock. April-June period attracts the largest number of livestock because cultivators become free after harvesting of *rabi* crop (wheat, oilseeds, pluses). They visit the markets to dispose off their animals (male buffalo, oxen) and purchase new one of good quality to prepare their field for *kharif* crop. Cows are transacted highly due to their breeding and lactating period. Besides, the demand of goats was rather high due to excess amount of meat is required for marriages. As, post harvesting period of *rabi* is suitable matrimonial season in the north Indian plain. Cattle were recorded second maxima of livestock transaction because male cattle (oxen) and buffalo were demanded for ploughing the land for *rabi* crop.

Buffalo scored the largest number of transaction. It was followed by goats and cattle. The larger share of buffalo and goats transaction was due to increasing, demand of meat (both mutton

and beef) within as well as outside of the study area. That is why 76.20% of total transaction of goats and 48.46% of total buffalo were transacted for slaughter.

Transaction of milch-livestock was at second position, in the milch category cattle ranked top followed by buffalo, goats at second and third positions respectively. The milch-livestock were demanded because of their increasing consumption of milk products (*khoa, ghee*) and livestock husbandry. Draught-livestock trade ranked last level due to enhancement of mechanization in agriculture.

Moreover, the livestock marketing faces several infrastructural deficiencies related to infrastructural and fairness in prices those are urgently needed for getting the benefit of livestock revolution occurred at global level after increasing influence of WTO by processing activities at grass roots level linking to the regional, national, and international markets.

[i] *Khoa is a milk-oriented product that is used for making sweets as well as other north Indian food dishes, and ghee is an Indian clarified butter.*

References

Ali, M. (2009). *Geography of Agricultural Marketing at Grass roots Levels*, Pacific Publication, New Delhi

Ali, M. and Khan, N. (2007). Agricultural Marketing through Periodic Markets in Shahjahanpur District, Uttar Pradesh, *Agricultural Marketing*, 55 (2): 31-36

Ali, M. and Neka, M. (2012). Livestock Husbandry and Economic-Sustainability of Small Farmers in Peri-Urban Areas: A Case Study from West Gojjam Region, Ethiopia, *Ethiopian Journal of Environmental Studies and Management*,5 (2):207-217

Arena, A.J. (2005). Confronting Agrarian Crisis: Historical Food Insecurity, the Indian State, and the Green Revolution, *Achieve* 8, May 2005.

Food world India, (2005). A Conference organized by *Federation of Indian Commerce and Industry (FICCI)*, 28-30 Nov, 2005

Gandhi, V.P.G. and Mani (1995). Are Livestock Products Rising in Importance? A Study of the Growth and Behavior of their Consumption in India, *Indian Journal Agricultural Economics*, 50: 283-93.

Indian Express, (2001). Fears of tainted meat cloud Muslim feast in Egypt. *Indian Express News paper*, Bombay, March 5, 2001

Khullar, D.R. (2006). *India: A Comprehensive Geography*. Kalyani Publishers, New Delhi.

Malaviya, A.K. (1996). Rural Marketing in India. *The Indian Journal of Commerce*, 41 (186-87): 43-48.

Rathore, M.S. (1993). *Marketing of Goats in Rajasthan*, Institute of Development Studies, Jaipur.

Robbins, P. (1999). Meat Matters: Cultural Politics along the Commodity Chain in India, *Ecumene*, 6 (4):399-423.

Rutherford, A.S. (1999). Meat and Milk Self-sufficiency in Asia: Forecast trends and Implementations, *Agricultural Economics*, 21 (1): 21-39.

Sengupta, S. (2008). *Indian Agriculture*, ABD Publishers, Jaipur.

Van Loon, G.W. (2007). *Agricultural Sustainability*, Sage Publications, New Delhi.

Appendix- Hierarchy of selected rural markets in Shahjahanpur district, 2005-06

Order	Designation	Rural Markets	Composite Functional Index
I	Regional Market	Rawatpur	494.05
II	Sub-Regional Rural Markets	Jalalabad, Allahganj, Bajhera, Rukanpur, Sindhauli, Barua Patti, Miranpur Katra	300.54 - 436.88
III	Block level Rural Markets	Khutar, Budhawana, Rajpura, Nigohi Khas, Khudaganj, Powayan, Zarenpur	164.18 - 300.53
IV	Local/Assembly Rural Markets	Rosa, Pipriya Harchand, Bharatpur, Dabhaura, Kaneg, Buri, Sehra Mau South, Narautha, Udhara Parasin, Mohiuddinpur, Paraur, Brah Mohabbatpur, Ukhari, Rampur Kalan, Nawada Darabast, Bhatpura, Padaincha, Jawan, Alampur	27.82 - 164.17

Computation of Composite Functional Index to Identify Hierarchy of Rural Markets Shahjahanpur Dist.. 2005-06

Periodic Markets	Administrative HQ	Score B.HQ=1 T.HQ=1	Census Status	Score Rural=1.5 Urban=2	Market Place	100 sq=2	Periodicity	Score W=1 Bw=2 Tw=3	Mean distance (km) traveled by consumer	Score 1 km =1	Mean distance (km) traveled by trader	Score 1 km =1	Accessibility	Score KR=1 PR=3 SH=4 NH=5 RL=2	Health Service (Traditional)	Score One centre =1	Police Station=1	Post Office PO =1for each	Population =1	Non Pedestrian =1	Food grains Shop=1	Milk cloth shop=1	Grocery Shop=1	Other Shop=1	Service shops for Domestic agriculture articles=1	Composite Functional Index (CFI) Z/min
Mohiuddinpur	-	-	Rural	1.5	360	7.2	Bw	2									0	1	150	452	14	0	5	10	1	65.42
Pipriya	-	-	Rural	1.5	500	10	W	1									0	1	552	393	12	0	7	13	1	82.53
Narautha	-	-	Rural	1.5	300	6	Bw	2	4.65	4.65	5.85	5.85	SHJ	5	Yes	1	0	2	140	520	16	0	5	7	0	72.56
Rampur Kalan	-	-	Rural	1.5	320	6.4	Bw	2	7.15	7.15	6.35	6.35	PRJ	4	Yes	1	0	1	140	402	12	0	6	6	0	58.38
Khutar	Block	2	Urban	2	1320	27.2	W	1	4.3	4.3	5.8	5.8	SH	4	No	0	1	2	1230	1586	44	6	12	20	1	267.61
Powayan	Tahsil	3	Urban	2	1200	24	Bw	2	3.95	3.95	5.65	5.65	SH	4	No	0	1	2	1120	928	20	9	16	19	1	182.22
Jawan	-	-	Rural	1.5	90	1.8	Bw	2	11.4	11.4	10.9	10.9	SHJ	5	Yes	1	0	1	62	231	8	0	3	2	0	32.53
Sindhauli	Block	2	Rural	1.5	1600	32	Bw	2	8.4	8.4	8.4	8.4	SHJ	5	Yes	1	1	2	1201	2310	56	0	15	25	1	351.93
Alampur	-	-	Rural	1.5	100	2	Bw	2	3.55	3.55	3.15	3.15	KRJ	3	No	0	0	1	75	201	6	0	3	1	0	29.46
Nawada Darabast	-	-	Rural	1.5	280	5.6	Bw	2	9.6	9.6	8.75	8.75	SHJ	5	Yes	1	0	2	135	379	12	3	4	9	1	55.60
Ukhari	-	-	Rural	1.5	320	6.4	Bw	2	2.65	2.65	2.65	2.65	KR	2	No	0	0	1	138	414	14	3	5	10	1	60.06
Khudaganj	Block	2	Urban	2	1160	23.2	Bw	2	4.05	4.05	4.05	4.05	PRJ	4	Yes	1	1	2	401	1335	32	6	9	16	1	187.25
Katra	-	-	Urban	2	1440	28.8	Bw	2	4.2	4.2	4.95	4.95	KR	2	No	0	1	2	1753	1825	46	9	17	18	1	328.65
Dabhaura	-	-	Rural	1.5	1000	20	W	1	5.8	5.8	5.3	5.3	PRJ	4	Yes	1	0	2	891	480	16	6	7	18	1	114.21
Buari	-	-	Rural	1.5	630	12.6	Bw	2	33.96	33.96	11.6	11.6	NHJ	6	Yes	1	0	2	214	510	18	4.5	4	20	1	77.07
Brah Mohabbatpur	-	-	Rural	1.5	960	19.2	Bw	2	9.2	9.2	8.9	8.9	KRJ	3	Yes	1	0	1	155	403	12	3	6	14	0	60.67
Rajpura	-	-	Rural	1.5	1140	22.8	W	1	3.95	3.95	3.6	3.6	KRJ	3	Yes	1	0	1	1088	1370	40	10	12	19	1	233.16
Bhatpura	-	-	Rural	1.5	960	19.2	Bw	2	4.65	4.65	5.55	5.55	KR	1.5	No	0						5				
Nigohi Khas	Block	2	Rural	2	1600	32	Tw	3	12	12	8.95	8.95	SHJ	5	Yes	1	1	2	132	353	12	6	6	12	1	53.54
Barua Patti	-	-	Rural	1.5	1720	34.4	W	1	4.8	4.8	4.25	4.25	KR	1.5	No	0	0	2	868	1160	32	7.5	9	21	1	195.69
Rawatpur	-	-	Rural	1.5	2640	52.8	W	1	9.9	9.9	8.9	8.9	SHJ,R	7	Yes	1	0	1	1621	2427	48	12	17	41	1	344.12
Parasin	-	-	Rural	1.5	720	14.4	W	1	8	8	11.15	11.15	SH	4	Yes	1	0	2	2154	2855	60	18	20	63	1	477.96
Padaincha	-	-	Rural	1.5	180	3.6	W	1	36	36	11.3	11.3	SHJ	5	Yes	1	0	0	484	300	14	0	3	2	0	66.54
Sehra Mau South	-	-	Rural	1.5	1020	20.4	W	1	4.65	4.65	4.2	4.2	KR	1.5	No	0	0	1	198	212	12	1.5	3	4	1	38.78
Kaneg	-	-	Rural	1.5	1080	21.6	W	1	3	3	4.15	4.15	KR	1.5	No	0	0	2	178	510	18	0	5	7	0	74.40
Rosa	-	-	Urban	2	1180	23.6	Tw	3	3.2	3.2	3.65	3.65	SH	4	No	0	1	1	625	496	12	3	4	6	0	99.25
Rafiabad Kalan	Block	2	Rural	1.5	2320	46.4	Bw	2	8.15	8.15	8	8	SH	4	No	0	1	2	198	1010	32	0	7	15	1	136.52
Paraur	-	-	Rural	1.5	800	16	Bw	2	3.7	3.7	4.5	4.5	NHJ, RJ	8	No	0	1	2	1400	2241	64	6	15	35	0	357.56
Zarenpur	-	-	Rural	1.5	1320	26.4	Tw	3	8.25	8.25	7.4	7.4	SHJ	5	Yes	1	0	2	283	372	14	4.5	5	7	1	64.27
Bharatpur	-	-	Rural	1.5	2620	52.4	W	1	3.05	3.05	3.55	3.55	PRJ	4	Yes	1	0	2	1009	788	24	13	8	15	1	158.77
Bajhera	-	-	Rural	1.5	2520	50.4	W	1	8.85	8.85	6.85	6.85	SHJ	5	No	0						5				
Budhawana	-	-	Rural	1.5	1200	24	Bw	2	9.1	9.1	7.6	7.6	PRJ	4	No	0	0	0	1010	557	20	0	7	21	1	132.21
Jalalabad	Tahsil	-	Urban	2	2100	42	Bw	2	30.3	30.3	9.25	9.25	SHJ	5	Yes	1	0	1	1872	2157	54	15	15	28	1	375.67
Allahganj	-	-	Urban	2	1800	36	Bw	2	8.9	8.9	8.9	8.9	PR	3	Yes	1	0	2	990	1650	40	18	14	27	1	261.25
																	0	2	545	4037	74	21	22	48	1	462.58
																			483	3450	70	18	19	49	1	424.20