

**FLOOD 2010 - LOSSES AND FUTURE SCOPE OF THE
KP DAIRY SECTOR**

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Abstract

The recent flood has hit the banks of river Indus and the adjoining river Kabul and Swat in Punjab and Khyber Pukhtunkhwa, followed by Sindh province. The river banks have been the seats of civilization since ancient times and provided an opportunity for dairy farming, especially buffaloes. However, this farming had just occurred naturally by the inhabitants, without any scientific, development or business support. In the maritime these farms are facing huge economic losses, to the tune of US\$ 20 billion per annum due to under managed health, fertility and productivity and a very hostile marketing system. Still the livestock holders survive due to lack of any alternate source of livelihood and a huge investment of forefathers of these poor people. Resultantly the investment can neither provide an appropriate return to the farmers, nor a cheaper food of acceptable quality to the consumers. The author has proposed an International Workshop on Dairy Science Park -2011 at Baragali, Abbottabad. Loss of livestock heads by the flooding waters, total or partial damage of animal sheds, loss for land of animal fodders have been recorded. There is a need to provide a vehicle for the rehabilitation process, providing guidelines for erecting the hub of dairy enterprises in an environment friendly way for providing livelihood support to the flood affected people. Local and international investors need to join hands with the government, who can provide waste land to the young graduates for imitating livestock enterprises.

Keywords: Livestock, dairy, Pakistan, buffalo, farming, consumers, quality, livelihood

The livestock resources

The International Dairy Federation has ranked Pakistan as 2nd in buffalo milk production and 3rd in total global milk production (IDF, 2010). The Global Dairy Agenda for Action on Climate Change is a statement of commitment by the dairy supply chain to take action to address climate change. The dairy supply chain is committed to providing consumers with the nutritious dairy products they want, in a way that is economically viable, environmentally sound and socially responsible. This includes reducing emissions of greenhouse gases such as methane, nitrous oxide and carbon dioxide that are associated with the production of a unit of dairy product and which contribute to climate change.

Pakistan's Livestock is the single largest contributor to overall agriculture and it grew by 4.1 percent in 2009-10 as against 3.5 percent last year (Economic Survey, 2009-10). The overall thrust of Government livestock policy is to foster "private sector-led development with public sector providing enabling environment through policy interventions and play capacity building role for improved livestock husbandry practices". However, the implementation of the strategy in its true spirit is still a dream. Although the livestock sector contributes 51.8% to the agriculture added and 11.3% to the gross domestic products in the country, the role of the sector on export and production of certified products for human consumption inland is negligible. The country has got a rich base of livestock resources in the form of food animals like cattle,

buffaloes, sheep, goats and poultry. These animals produce 45.0 million tons of milk, 3.0 million tons of meat, in addition to other by-products like hides, skins, wool, hair, manure, etc.

The Khyber Pukhtunkhwa province contributes 22%, 6%, 14% and 18% of the national livestock population comprising 34.3, 30.8, 59.9 and 27.8 million cattle, buffaloes, sheep and goats, respectively. The former two species contribute to dairy production which constitutes a major source of daily income and human diet of the rural people.

The dairy sector status

The provincial livestock sector as in other provinces is based upon opportunity cost under low-input low profit subsistence system (Qureshi, 2008). The livestock assets have been inherited by the farmers from their forefathers and little new investment is made in these holdings. So the farmers do not consider these assets as commercial enterprises and little attention is given towards their development. No effective national program could be implemented since independence of the country which could support the sector towards a viable base for food production and economic revival of the nation.

Provincial government has been practicing a stereotyped approach for disease prevention which is attractive for the practicing veterinarians as a business activity. The farmers call the veterinarian only if there is a health emergency due to infectious and contagious diseases and the hidden losses associated with the parasitic diseases, the poor growth rate, late puberty, prolonged calving interval, under and overfeeding practices and selective breeding are totally ignored.

Artificial insemination has been successful in propagating the black and white Holstein Friesian cattle in all parts of the country but it lacked any wisdom to push the population towards establishing a national herd of genetically improved animals having excellent economic traits and survivability under the local climatic and disease stresses. However, the provincial departments have succeeded in sensitizing a meagre number of the livestock farmers to go for better health and productivity management practices leading to better returns in an environment friendly way.

The Challenge

The recent floods have exposed the sector to greater threats. The losses ranged from death of the animals to reduced fodder supply associated with lowered immunity status, occurrence of diseases and slaughter of animals due to lack of feeding and management support. This needed immediate relief support, which was provided by various organizations and individuals with varying success levels.

For proper utilization of the existing livestock resources, sensitization of investors for production, processing and services will be required. Underutilized labor engaged in livestock production need appropriate support for improving labor efficiency. The huge number of unproductive animals constitutes a burden on natural resources. Poorly managed health make the products unfit for human consumption, locally and abroad.

Peri-urban dairy farms are considered as a threat to environment by the local government and they wish to eradicate such farms. The processing Industry lacks the capacity to handle production of milk worth Rs.+1000 billion; only 5% of which could reach the formal market. The remaining is marketed as such which is exposed to adulteration and contamination. In addition the prices of raw milk comes under government control while the farm inputs are sold without such legislations; making the milk production business unprofitable and exposed to hostile forces. Public support in financing, technical and marketing areas is at minimum level.

The KP Agricultural University

The KP Agricultural University Peshawar, Pakistan has been serving the rural community since 1950 as a General university and since 1982 as a specialized agricultural institution of the northern Pakistan. The University has been actively engaged in education, research and training of farmers since long. The faculty of AH and Vet Sciences is equipped with sufficient resource-backup to contribute its share in an excellent way. The faculty strength comprises 40 teaching staff in various disciplines of animal health and production. Laboratories have been functional in dairy technology, animal nutrition, semen research, poultry science, microbiology, pathology, pharmacology, physiology, endocrinology, anatomy, parasitology and allied sciences.

A veterinary teaching hospital has been established at the University Campus providing diagnostic and therapeutic facilities to the surrounding areas. Diagnostic services are supported by the analytical work at microbiology, pathology and parasitology laboratories. This facility is used for clinical teaching of the undergraduate students in veterinary medicine, surgery, animal reproduction and artificial insemination and training/research of the graduate students. Postgraduate students conduct their thesis research in clinical sciences.

A dairy farm has been established at the University campus for teaching and research purposes have dairy herds of Australian and Dutch Friesians, Australian Jersey and some Sahiwal cows and Nili-Ravi Dairy Buffaloes, totalling 137. Sixteen acres of forage land is also available for fodder production on full time basis and 20 acres land is shared with other departments for meeting additional requirements of fodder.

A Dairy Processing Unit has been established with facilities for machine milking supported with processing infrastructure for milk chilling, pasteurizing, UHT, packaging and components for production of cheese, yoghurt and butter. A dairy science laboratory provides facilities for milk analysis and reproductive techniques. The unit is helping in demonstration of various techniques before the undergraduate students and applied research of postgraduate students. It is also being used for training of farmers, field officers, para-staff, technologist and civil society agents.

A feed technology center comprising a feed mill complimented by an analytical laboratory support, has been established at the Faculty providing teaching and demonstration facilities to the undergraduate students and a research setup for postgraduate students. These facilities are also used for training of farmers, field officers, para-vets and civil society activists.

Outreach: Linkages have been established with Dairy Farm Harichand, SPU and VRI Peshawar. A liaison is kept with various community development organizations for capacity development of farmers, processing industries and exporters. Technical assistance is provided to the Livestock and Dairy Dev Board and Pakistan Dairy Co, PM Initiative, SMEDA and other development organizations. Agribusiness Support Fund has been extending financial assistance in conducting stakeholders training in value addition of dairy products.

Livestock Trainees and Consultants have been assisting in planning and execution of these training programs. The provincial government is assisted in planning and development in the province and FATA. Research areas have been prioritized recently, for postgraduate thesis work under field conditions. The International Workshop on Dairy Science Park, March 15-17, 2011 will be held for developing a hub of dairy enterprises in the flood affected regions of Khyber Pukhtunkhwa province through partnership of academia, government, entrepreneurs and civil society.

Research program: A Semen research and production laboratory is also in function. A PSF-funded study has been initiated to validate various extenders for protecting goats' semen in

liquid state, to determine the optimum concentration of spermatozoa leading to production maximum doses from the semen ejaculates in various seasons and to support veterinary graduate and postgraduate studies through lab and field facilities.

Factors affecting sperm membrane integrity and fertility of goats' semen are being investigated under a project funded by Pakistan Science Foundation. The post-conception decline in milk yield of dairy buffaloes was investigated through doctoral thesis research of Dr. Sarzamin Khan and progesterone levels beyond 6.4 ng/ml were associated with drastic decline while feed supplementation prevented this effect. A series of studies was completed on availability of fatty acids in milk from various dairy species during different physiological states for PhD thesis of Ms Anila Mushtaq. Facilities are being created for introduction of new disciplines like dairy science, meat science, reproductive biotechnology, environment and public health through various research and development projects. Technical cooperation of the Charles Sturt University has been sought and the author has been working as Adjunct Professor CSU to explore collaboration in stress physiology and animal welfare.

THE PROPOSED PLAN

The Dairy Herd Improvement Network: KP Agricultural University Peshawar intends to extend its outreach services through a collaborative program with the Charles Sturt University and other partners mentioned above. The Sheep and goats' flock and cattle and buffaloes dairy farms will be registered under the network. The target areas of the program will be peri-urban and the flood affected dairy farms of the districts Peshawar, Charsadda and Nowshera, D.I. Khan and other willing farmers of the province. These farms are run under a low input production system and in spite of investment of a reasonable amount in these facilities the financial return is not satisfactory. The reason is lack of good practices impeding their productivity and profitability. The program will focus on these objectives:

1. To develop an extension network based upon efficient data recording system for the purpose of continuously assessing the nutritional, reproductive and health management practices and economic feasibility of the dairy enterprises
2. To introduce the practices of dairy processing in the local production system for value addition and income enhancement of the farms
3. To introduce the concept of entrepreneurship in the low-input haphazard peri-urban dairy farming in the province and the country
4. To provide an affective and sustainable genetic improvement backup for the peri-urban dairy farms.
5. To establish a teaching and research setup for veterinary under-graduate and postgraduate students, field officers and workers of the dairy industry

IW-DSP-2011: An International Workshop on Dairy Science Park -2011 will be held with the theme "Developing a hub of dairy enterprises in the flood affected regions of Khyber Pukhtunkhwa province through partnership of academia, government, entrepreneurs and civil society. The workshop has been organized to analyze the current situation in the country and propose means for research and development intervention in the dairy sector through coordinated efforts of academia, government departments, development agencies and private sector organizations. The initiative for holding this workshop was supported by National Vocational and Technical Education Commission (NAVTEC) of Pakistan and Agri-Science Park@ICRISAT, Hyderabad India (Mr Abdur Rahman Ilyas, Chief Operating Officer). The Global Dairy Health Limited has shown their interest in contributing to development of a model.

In the meantime the country and especially the Khyber Pukhtunkhwa Province were badly affected by the flood. The livestock holdings suffered the most, withdrawing the livelihood support from the people. Rehabilitation process is going to commence soon, supported by various donors. The workshop will provide a vehicle for the rehabilitation process, providing guidelines for erecting the hub of dairy enterprises in an environment friendly way providing livelihood support to the flood affected people.

References

- Economic Survey of Pakistan, 2009-10. Economy Survey. Government of Pakistan, Economic Advisor's Wing, Islamabad.
- IDF, 2010. The World Dairy Situation Bulletin Number 438/2009. International Dairy Federation, 80, Boulevard Auguste Reyers, 1030 Brussels – Belgium
- Qureshi, M.S., 2008. Dairy Farms and farmers. Social norms and training needs. Pak J Agric Sci,45 (2):215-217.

