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MEAT PRODUCTION STRATEGIES TILL THE YEAR 2000

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Meat production in Pakistan has been estimated to be 1.59 million tonnes in 1990-91. It is mainly obtained from buffaloes and cattle (43.47%), sheep and goats (42:57%) and poultry (13.94%). The demand for meat is increasing day by day due to ever increasing human population (@ over 3% per annum). If appropriate measures arc not taken to enhance meat production it is likely that an acute shortage takes place in the years to come. Measures for boosting up meat production have been discussed.

INTRODUCTION

As ever before meat production will continue to constitute an important aspect of livestock production just because it has convincing role in improving human diet and in satisfying human taste. Compared with several other food items such as cereals, legumes and non-conventional food sources, meat is highly palatable and has very high biological value. Among other important nutrients, it provides essential amino acids which otherwise cannot be synthesized by the human body. Thus apart from the economic benefits on national level, increased meat production is inevitable from the viewpoint of human health and liking for this product.

Enhanced attention to the role of nutritional education coupled with increasing trends in per capita income of the masses is also rapidly influencing the demand for meat particularly in urban areas where more awareness is found compared with that of rural population. As a myth with common man, beef is considered inferior both to mutton and poultry, therefore, consumer's preference for both mutton and poultry has gone up with rise in per capita income.

It is an admitted fact that land and livestock represent a form of long term capital formation embodying inputs primarily from within the agriculture sector. Therefore, development of livestock sector has been envisaged as an integral part of a sound system of agricultural production. Livestock resources have considerable genetic diversity within the species and have ability to adapt and withstand drastic environmental changes particularly in the light of inadequate level of feeding and management. Even with the present livestock inventory of about 32.3 million cattle and buffaloes, 64.6 million small ruminants (sheep and goats) alongwith 184.7 million poultry birds, there exists vast potential to meet the growing needs for meat for the ever increasing population of the country (Economic survey, 1990-(1). Special emphasis is required to be given to the development programmes for enhancing meat production through sustained livestock production, genetic manipulation for introduction of beef breeds, better nutrition and management and effective health cover. Economics of livestock production and marketing also need to be given particular attention to boost up meat production.

Table 1. Meat production: targets and projections

	1986	Benchmark 1987-88	Target 1992-93	Target 1999-2000	Annual average % rate of growth 1987-88 1992/93	1987-88 1999/00
Domestic demand (000 MT)	1.135	1.250	1,700	2,625	6.50	6.40
Animals slaughtered (000 head):						
Buffaloes	2,916	3,060	3,250	3,450	1.20	1.00
CaUle	2,534	2,635	2,910	3,150	2.00	1.50
Sheep	12,840	13,330	15,080	17,300	2.50	2.20
Goats	18,990	19,750	21,800	24,480	2.00	1.80
Average carcass weight (kg):						
Buffaloes	116.1	123.5	150.7	223.0	4.06	5.04
Caule	105.5	110.8	135.2	208.0	4.06	5.40
Sheep	12.8	13.5	15.5	18.8	2.80	2.80
Goats	12.0	12.7	14.6	17.8	2.83	2.83
Total meat production (000 MT)	1,000	1,lOt	1,435	2,185	6.17	5.88
Poultry meat production (000 MT)	135	149	265	440	12.20	9.50
Total meat supply (000 MT)	1,135	1,250	1,700	2,625	6.50	6.40

Source: Report of the National Commission on Agriculture (Pakistan), 1988.

Supply and demand situation: various national ami international agencies have estimated meat production in the country. The information so gathered by different agencies does not coincide with each other as regards production and consumption of meat because of lack of sound system for collection of statistics. The situation is aggravated by the hidden trade for livestock which being unoflicial goes unrecorded. Even statistics on export of animals to neighbouring countries arc not properly available. Private slaughtering outside the recognised butchcrhouses is also a major impediment towards collection of proper data for meat supplies. It has been estimated that only 60% beef and 40% of the mutton animals arc slaughtered in recognised slaughterhouses (F.A.O., 1984). Bench mark production and future targets for the year 2000 for meat have been worked out by the National Commission on Agriculture (Table 1).

Meat production was estimated to be 1.25 million tonnes in the year 1987-88, which has increased to 1.59 million tonnes in 1990-91. About 0.69 million tonnes of the supply (43.47%) comes from buffaloes and

cattle, 0.68 (42.57%) from sheep and goats and 0.22 tonnes (13.94%) from poultry which includes both rural as well as commercial types. With this modest supply, per capita availability comes to about 13.0 kg per annum which is far below the consumption level of that of developed countries like Australia, USA and UK, where per capita consumption is 104, 103 and 73 kg, respectively (Gill *et al., 1979).*

Beef in this country is primarily a product of milch animals and to a somewhat smaller extent is also obtained from draught animals. Cattle and buffaloes are not being primarily maintained for beef production. F.A.O. (1984) has estimated that about 20% of the overall supply of beef comes from animals (buffaloes and cattle) slaughtered under three years age. Most of the under-3 years animals (being the male calves particularly buffalo males, reared as much by accident as by intent] are the calves that are merely kept to facilitate milk letdown of their dams. Mortality in these calves particularly in case of buffalo calves is as high as 50% due to negligent management. . The remaining supply of beef comes from buffaloes and cattle of more than 3 years age.

There are about 50 breeds of sheep and goats mainly maintained for muuon, wool and hair production. Nearly 0.68 million tonnes of mutton is derived from these animals. Contribution of poultry (both rural and commercial) is 0.22 million tonnes which constitutes 13.94% of the total production. Contribution of meat from non-conventional sources such as rabbits, quails and other birds is negligible.

Total production of meat is likely to increase during the current decade approximately at annual growth rate of 5.88% for meat derived from large and small ruminants and 9,50% from poultry. This perceptible increase in meat production will not add to human meat consumption if population continues growing unchecked at the present growth rate of over 3% per annum.

Constraints: Main objective of the government is to achieve increased supply of animal protein by policy changes and appropriate use of available technologies. To achieve these objectives, improvement in nutritional status of animals, development of long term breeding programme for livestock improvement, improving reproductive efficiency of the animals, assessment of need for better disease control, devising economically viable livestock marketing policies and management system and developing feedlot systems for mutton and beef production are underway, offering better opportunities for animal production.

Due to recent technological developments and provision of infrastructure, availability of needed inputs and services has increased the hope for enhanced livestock production leading to transforming itself from a traditional to dynamic agrobased industry as witnessed in phenomenal growth particularly in poultry farming during the last three decades. Short term policy has been to collaborate with provincial governments and other institutions for increasing supply of services like recent technologies, improved breeding, feeding and health cover, whereas long term policies are to build up institutions and expertise for efficient supply of services and to step up productivity of livestock for enhancing meat production in the country.

Strategies for enhancing meat production: Current contribution of livestock to meat production further calls for improvement through technological advancements. Contribution of meat to national exchequer on equivalent basis is much more than that of a single subscctor on crop side, demanding higher resources for meat production. Policy suggestions and measures, therefore,

need immediale attention for enhanced meal production before the end of this ccntury so as lo meet growing needs of the nalion. These are as follows:

I. The QrCs.clll ~.I:.~"'\<:'"\.~'b~\ \,~~ economy, requires that all sorts of curbs and reslriClions be removed on PfOtJV£:);£.w .?JtP.?:c/.F. Meal being not a highly essential food commodity need not be kepl under the policy control of the govcrnmcm thus creating incentives for the primary producers.

II. There is need lo establish an agencyal the federal level which should work for marketing vigilance, suggesting policies, maintaining data bank and should have liaison with provinces and privale enterprise for boosting meal production.

III. Range lands which are still a major source of meal production have been denuded as a result of excessive grazing. These are required to be improved for enhancing their productivity. Reseeding with pasture grasses, bushes and suitable species of trees both in arid and semiarid areas need lo be undertaken.

IV. Need for enhancing fodder production is of fundamental impenance for livestock raising. Improvement of fodder has always been given low priority in the past. This subscctor, therefore, needs special attcntion of the government Short term measures lhrough supply of good quality fodder seeds can go a long way in enhancing immediate fodder production. Pri) vale sector be given further incentivcs lo enter into this important area.

V. In the absence of rendering/processing plants, byprouucls like blood meal, bones, rumen ingesta, ctc., go waste since with the presenl 6u(cner(iouses il *is* not possible lo process the same. Private sector needs to be allracled for the modern butcherhouses. These byproducts are a source of good quality nUlrienls for recyeling through feeding lo poullry and liveslock.

VI. Crop residues which ordinarily are of low nutritive value can be processed through chemical and biological lechniques for enhancing their nutritive value, leading to better utilisation of these rcsiducs for meal production. Recent work done in the country in this regard can provide a base lo initiate such work on commercial scale.

VII. Conservalion of fodders for ulilisalion during lean period for meal production is another important innovalion in modern husbandry which needs attention of the policy makers.

VIII. Genetic engineering and biolechnology has led lo rapid advancemenl in improving production capacity of livestock for meal. High priority is required lo be given through these techniques lo the devclopmenl of meal breeds adapted lo local environment.

IX. Shift from curative system of treatment lo preventive measures is needed due lo economic

reasons and better husbandry practices.

x. Small and landless farmers being primary producers of livestock need attention of the planners for redressing their grievances for earning their livelihood through better livestock raising.

xi. There is need to have meat grading and processing plants at the production centres to avoid losses through transport of animals and also to enhance shelf-life of meat.

xii. Fecdlot system using low cost ingredients particularly for finishing of animals at pre-slaughtering stage, can enhance meat production immediately by 15-20%.

xiii. Production of coarse grains for feeding to livestock and poultry is required to be taken up at an appropriate level.

xiv. Manpower well trained in various aspects of livestock production must be appropriately utilized.

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