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“GROWTH AND EXPORT PERFORMANCE OF LIVESTOCK SECTOR IN GUJARAT”

ABSTRACT

Key words: Livestock, growth rate, markov chain, NPC, RCA

Development of Indian livestock has become eye-catching and more competitive over the last few years. Under the changing liberalized era, livestock sector has been transformed significantly in all the contexts of population, production and productivity. India is the leading country occupying the largest share of livestock population globally. As of 2013-14, the sector has contributed 5.32 per cent to the state GDP and 24 per cent to the GDP of agriculture and allied sectors. Thereby, it is needful to assess the performance of livestock sector at regional level. In this connection, the present study is undertaken on “Growth and Export Performance of Livestock Sector in Gujarat”.

District-wise and state level data of livestock population, production and productivity was compiled from 1985-86 to 2014-15. Export data of dairy, poultry and meat products was taken from 1995-96 to 2014-15. Compound growth rate, instability indices, markov chain, NPC, EPC and gravity model was major tools employed for the analyses. The findings revealed that population of crossbred cow in milk and milch animals reported noteworthy growth rate both at district and state levels. On the contrary, the population of indigenous cow in milk and milch category was found slow growth. By and large, growth of buffalo population showed positive trend and it was higher than indigenous cow. The negative trend observed in growth rates of goat and sheep population at districts and state levels. Desi poultry registered slower growth rate in majority of districts while improved poultry showed high growth rate. Productivity of crossbred was found much higher than indigenous cow but growth rate in the productivity was higher in indigenous cow than crossbred cow. Productivity of indigenous cow is slowly increased. Growth rate in buffalo productivity in the state has improved faster than crossbred cow but less than indigenous cow. Besides, instability was also found lower. Sheep wool productivity showed negative growth rate in recent times (Period-III) at both district and state levels but growth rate was
positive in overall study period. Productivity growth of desi layer poultry has increased faster than improved in all the periods, except in Period-II at state level. But actual egg productivity of improved poultry was nearby 2.4 times higher than desi poultry. Species-wise milk production revealed that growth rate of crossbred cow milk production was higher than indigenous milk production mainly due to growing popularity of crossbred population and their higher productivity. Share of crossbred milk production in total milk production of the state is significantly raised. In addition, crossbreed milk production was unstable compared to indigenous, buffalo and goat milk production. Though growth rate in buffalo milk production was higher than indigenous and goat milk production, its share in total milk production showed dwindling trend. The egg production by improved poultry has showed appreciable growth over the desi poultry, however improved layer egg production was found unstable than desi layer eggs production. On the contrary to milk and egg productions, growth rate in total wool production in districts, state and national level indicated poor performance and negative growth rate in many cases which might be due to declined population and low productivity. Banaskantha and Sabarkantha were found major milk producing districts. Egg production was mainly dominated in Ahmedabad, Bhavnagar, Anand and Surat districts while Kachchh and Bhavnagar were the leading wool producing districts. Growth in per capita availability of milk and eggs has increased faster than national level. On the flip side, per capita wool availability has shown negative growth rate in state as well as national level.

Percentage share of cattle and sheep population in total livestock has declined gradually at state and national levels. On the other hand, share of buffalo in total livestock has increased over the years. The results of markov chain analysis showed that both buffalo milch and indigenous cow population retained higher share. Over the period, dairy and meat export were found to be diversified toward other countries. Angola was found to be most stable country in terms of poultry products export. Except meat and eggs, India has meagre share even less than one per cent in world livestock export basket. India is dominated in the bovine meat export in world market and its share is increased over the period. The results of NPC confirmed that SMP, WMP, bovine meat, eggs, pig meat, sheep and goat meat, were export competitive while butter and condensed milk were not competitive in global market. NPC was more than one in initial years in poultry meat but NPC declined to less than one after 2007. India has comparative disadvantage in case of Butter, WMP, condensed milk, live animal, pig meat, poultry meat and cheese and curd as the value of RCA was found less than one. Though country has comparative advantage in both bovine meat and eggs but RCA in egg decreased to less than one after 2009. The results of Hausman test for panel data indicated the preference of fixed effect over the random effect. Coefficient of importing country GDP was positively influenced the dairy and meat products export. In case of poultry and meat products exports, coefficient of population of importing country was found negative and statistically significant. The coefficient of population of India was found positively significant in poultry products exports. The per capita income of India was negative while per capita income of importing country was positively influencing the poultry export. Trade openness was found positive and statistically significant in dairy and meat product exports. Real exchange rate positively influenced the meat products exports. Distance variable was found negative and statistically significant in case of poultry and meat products export.