

Backyard poultry production potential in Telangana

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There is a decline in share of backyard eggs to total egg production in the state. Number of desi chicken germplasm is decreasing whereas improved varieties chicken population is increasing. Supply of improved germplasm, other inputs, technical and financial support along with market linkage should be created for rural and tribal farmers of the state. Farmers should take advantage of government schemes and support of local institution in backyard poultry production. There is niche market in the urban area for rural chicken produces where farmers can get premium price.

Keywords: Backyard poultry, Chicken, Egg, Poultry potential, Telangana

Poultry is one of the fastest growing segments in agriculture sector with an annual growth rate of 8-10% in broiler and 6-8% in layer production. Telangana is one of the leading states in commercial poultry sector with 6th position in chicken meat production and 3rd position in egg production. However, the incremental growth in backyard sector and its contribution was not impressive over the years and its share of backyard egg production to total egg production had decreased from 6.1% in 2015-16 to 2.7 in 2021-22. Backyard poultry has been the proven tool for nutritional security, women empowerment, rural employment generation etc. in addition to the supplementary income generation for millions of rural and backyard poultry farmers in the country. The backyard poultry production is an age-old practice in rural India which is true in Telangana state also. Backyard poultry farming is characterized by an indigenous night shelter system, scavenging, natural hatching of chicks, low productivity of birds, scant supplementary feed, local marketing and minimal health care practices. The organized or

commercial poultry sector in India contributes nearly 85% of the total egg output while the unorganized/backyard sector contributes about 15%. The productivity of some of the indigenous breeds is low with less than 100 eggs/bird/year and growth rate is also slower. However, some of the layer indigenous breeds produce about 160-180 eggs. In Telangana only, Aseel chicken breed is found in different places, though home tract is nearby Andhra Pradesh. The production potential of Aseel and other native chicken is quite low with 60-80 eggs per annum in Telangana. However, the backyard poultry production can easily be boosted up with improved rural chicken varieties along with better management practises. The development and availability of high producing improved rural chicken varieties by different Government and private organization has contributed immensely for the development and sustainability of backyard poultry in India in general and in Telangana in particular. It is a small/ household enterprise with low-cost initial investment, but high economic return along with guarantee for improving protein

deficiency among the poor.

As per the Livestock Census (2019), Telangana stands 8th in livestock population and 3rd in poultry population. Contribution of Livestock Sector to state Gross State Value Added (GSVA) for the year 2018-19 was ₹ 7,79,797 crore (7.3%) and contribution of livestock sector to agriculture, livestock, forestry and fishing GSVA for the year 2018-19 was ₹ 1,12,495 crores (50.3%). The contribution of poultry was significant to livestock GSVA with ₹ 3,392 crore (7.5%) from eggs and ₹ 6,476 crore (13.3%) from poultry meat in Telangana during 2017-18. The egg production in the state is constantly increasing by annual growth rate of 5-8% in different years from 2015-2022 and production reached to 16.67 billion in 2021-22 with per capita availability of 442 which was second highest in the country after Andhra Pradesh (501) while per capita availability was 95 in the country in same period the (Fig. 1).

Backyard layer population was 54.29 lakh in 2021-22 (42.49 lakh desi and 11.8 lakh improved), whereas in 2016-17, it was 89.08 lakh (84.93 desi and 4.15 improved).

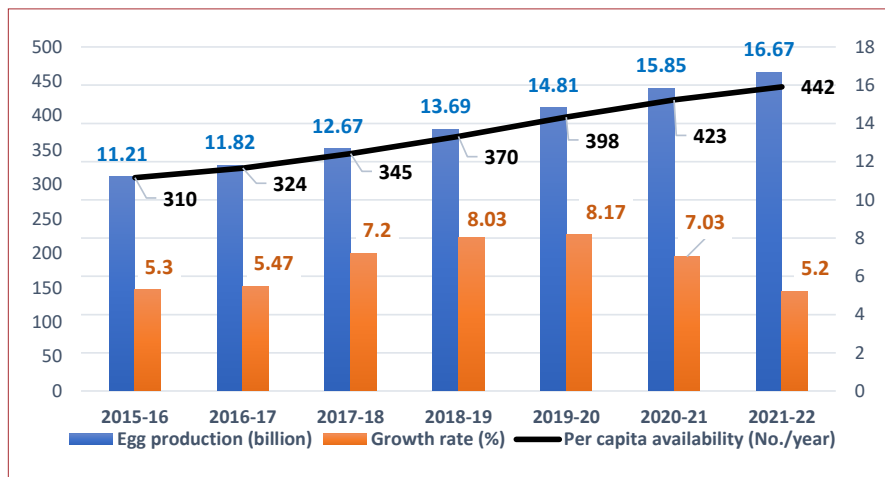


Fig. 1. Egg production, growth rate and per capita availability in Telangana

Poultry productivity in different regions

There was variation in the productivity of Desi (Local) and improved birds i.e., eggs produced/year/bird, also varied in different regions of the state. Maximum productivity of Desi (Local) birds (91 eggs/year) was reported in Eastern Region and minimum of 15 eggs/year, was reported in Northern Region of the state. In case of improved birds, the productivity was highest in Southern Region (241 eggs/year), followed by 238 in Western Region, 209 in Northern Region and 204 in Eastern Region. Region-wise, the productivity of Desi (Local) birds was maximum in Adilabad, i.e., 168 eggs/year and lowest in Warangal, i.e., 79 eggs/year. In case of improved birds, the maximum productivity was 278 eggs/year in Vikarabad, and minimum of 180 eggs/year, again in Warangal. The hybrid parent stock was heavily concentrated in Southern Region, with nearly 45% of layers and 37% of broilers. The Northern Region (Adilabad) ranked second, with 27% layers and 25% broilers. It was followed by the Western Region (Vikarabad), with nearly 20% and 25% of layer and

Number of improved chicken has been increasing every year whereas desi birds population is decreasing (Table 1). Within 6 years (2016-22), desi chicken population became almost half whereas improved chicken population increased by almost three times. Share of backyard egg production to total egg production of the state also decreased from 6.1% to 2.7% in the period. During the same period (2016-22), commercial layer population increased from 372.3 lakh to 503.47 lakh while egg production increased from 11.08 billion to 15.38 billion.

Meat production in Telangana increased from 754.06 to 1004.99 thousand tonnes during 2015-16 to 2021-22 while chicken meat production reached to 445.24 from 262 thousand tonnes during the same period (Table 2). Share of state chicken meat production to the country production reached to 9.32% from 8.03% whereas share of total meat production of state reached from 7.72% to 10.82% during the same period. It might be due to other species which were also contributing significantly in the state meat production.

Table 1. Backyard layer population, production and productivity in Telangana

Year	Backyard layer population (lakh)			Backyard egg production (billion)			Productivity per bird		Percent share of backyard egg to total egg production
	Desi	Improved	Total	Desi	Improved	Total	Desi	Improved	
2016-17	84.93	4.15	89.08	0.60	0.12	0.72	70.67	281.99	6.1
2017-18	88.80	6.25	95.05	0.63	0.18	0.81	71.27	285.6	6.4
2018-19	94.04	8.16	102.20	0.67	0.19	0.87	71.71	238.44	6.3
2019-20	97.88	6.25	104.13	0.70	0.18	0.88	71.99	288.37	6.0
2020-21	56.54	11.85	68.38	0.42	0.14	0.56	73.84	120.99	3.5
2021-22	42.49	11.80	54.29	0.31	0.14	0.45	73.1	119.6	2.7

Source: BAHS

Table 2. Meat and chicken production in Telangana and India in different years and percent share of Telangana in country meat production

Year	Meat production ('000 tonnes)			Per capita availability (kg/yr)		Slaughter birds no ('000)		Meat production from chicken ('000 tonnes)		
	TS	India	% share	TS	India	TS	India	TS	India	% share
2015-16	542.05	7019.4	7.72	14.99	5.51	205567.65	2394702.51	262.06	3263.81	8.03
2016-17	591.04	7385.61	8.00	16.21	5.72	224584.2	2297770.14	288	3463.65	8.31
2017-18	645.03	7655.63	8.43	17.57	5.86	242615.93	2544298.8	314.25	3766.94	8.34
2018-19	754.06	8114.45	9.29	20.4	6.15	259061.64	2812839.1	336.33	4061.79	8.28
2019-20	848.16	8599.97	9.86	22.79	6.45	264593.75	2820834.56	363.85	4343.13	8.38
2020-21	920.25	8797.91	10.46	24.56	6.52	298063.96	2917949.68	410.31	4472.69	9.17
2021-22	1004.99	9292.13	10.82	26.64	6.82	323883.96	3065165.35	445.24	4779.6	9.32

Source: BAHS

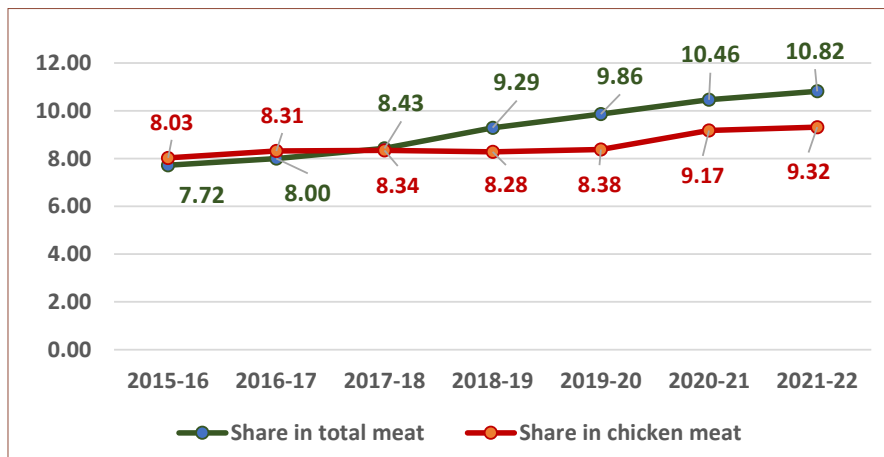


Fig. 2. Telangana share in total and chicken meat production of the country

broilers, respectively. The Eastern Region (Warangal) had only 9% of layers and 14% of broilers.

Constraints in backyard poultry production

There are some major challenges in backyard poultry production like maintenance of biosecurity, emerging and re-emerging diseases, nutrient deficiencies, predation, marketing, and erosion of indigenous breeds. Lower hatchability, high mortality of chicks, unstable price and lack of veterinary services are some other important constraints that demotivate the farmers. Local/native birds produce smaller number of eggs and it is not comparable to high-producing birds. Some experts also say that native poultry rearing decreased in Telangana due to limited scavenging area and the increased incidence of conflicts among households because of infrastructural developments within the settlement areas. Due to speedy urbanisation, land value increased many folds in different parts of the state. Instead of doing agricultural activity on land, farmers use to sale their land specially in peri urban area for construction. There are some specific regions where new farmers are not coming in this business owing to non-availability of chicks, high cost of chicks, lack of technical guidance, lack of proper space for scavenging and lack of financial support.

Demography and food consumption pattern in Telangana

Telangana accounts for 3.5% of India's total geographical area

and 2.9% of population and ranks 12th both in geographical area and population among Indian States. Telangana has a literacy rate of 66.46% with family size of about 4. About 37% of them are involved in agriculture or allied activities, while one-eighth of them are regular wage earners. Family size, education and social category greatly influence food consumption expenditure. Larger family and less educated households have low monthly per capita expenditure on food. Meat, fish and egg (MFE) food group, or generally called as non-vegetarian items, forms an important source of protein in Telangana where over 95% of the population are non-vegetarian. MFE occupies third position in the diet of Telangana people with about 14% of total food expenditure. In terms of quantity, chicken and eggs are the most consumed items with over 85% of households reported their consumption. The consumption of MFE is about 1.38 kg per month. There are different types of consumers in the market whose requirement varies. This also create greater opportunity for poultry producers. There is high price of backyard produce in the urban market.

Scope for poultry producers

Addressing the constraints of backyard poultry farmers may create lot of business opportunity especially, production and supply of input at farmers door step to meet the requirement of supply chains. There is regional variation in the

production system and it creates scope to work there for entrepreneurs. Intensive poultry farming with native birds should be taken up by motivated entrepreneur with modern technologies and practices to reduce the cost of production and increase the production potential of birds and productivity of the farms. Designer foods (Zn-enriched eggs, Fe-enriched egg, low cholesterol eggs), organic egg and chicken production, fresh chicken production, production of other avian species especially Quails are getting very popular as they convert manure to potential by-product like vermicompost. There is niche market for rural chicken produces in urban area on premium price.

Support from Government

Central Government provides support through National Livestock Mission (NLM) scheme in backyard poultry production and many banks also financially support the eligible farmers. Under the NLM scheme, beneficiaries may be individual person, Self Help Group (SHG)/ Farmers Producer Organizations (FPO)/Farmers Cooperatives (FCOs)/Joint Liability Groups (JLGs) and Section 8 companies for establishment of Parent Farm, Rural Hatchery, brooder cum mother unit for production of hatching eggs, and chicks and rearing of the said chick up to four week in the mother unit. The Central Government provides 50% capital subsidy for the cost of the project for establishment of Parent Farm, Rural Hatchery and Mother Unit with minimum 1000 parent layers (<https://nlm.udyamimitra.in/Home/SubmissionOnBreed>).

In the state, there are two government organisations which are supporting the stakeholders along with many Krishi Vigyan Kendras (KVKs) in different districts. ICAR-Directorate of Poultry Research, Rajendaragar, Hyderabad (<http://pdonpoultry.org/pdpnew/>) and P. V. Narsimha Rao Telangana Veterinary University, Rajendranagar, Hyderabad (<https://tsvu.nic.in/home.aspx>) are providing improved varieties of germplasm along with technical support to

the stakeholders. In addition, Department of Animal Husbandry, Government of Telangana is involved in development, propagation and implementation of Government sponsored schemes in the state. The state government, local bodies, research institutions and line departments should work together to establish a conducive infrastructure facility for mother farms and chick nurseries, health cover, capacity development and marketing network. Integrated Tribal Development Agency (ITDA) has been continuously working to boost backyard poultry among

tribal population in the state. There is a need to develop strong marketing network the rural parts of state to support the farmers. Shelf Help Groups (SHG), Non-Government Organisation (NGO) and Cooperative Organisations can play important role at grassroot level.

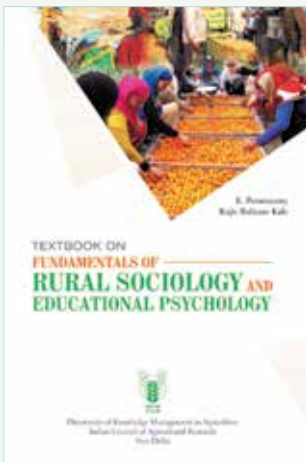
CONCLUSION

Backyard poultry is a forfeitable enterprise in Telangana due to large consumers base and higher productive birds and environment. There is a urgent need to address regional variations and producers

issues at their doorstep as per need. There are various designer produces which have great demand in market that create potential for backyard poultry producers in the state. Government agencies and private organisations should work together especially in input supply, health care, capacity development and marketing to get optimum production from backyard poultry in Telangana state.

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TECHNICAL SPECIFICATIONS

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