



REVIEW OF RESEARCH

ISSN: 2249-894X

IMPACT FACTOR : 5.7631 (UIF)

UGC APPROVED JOURNAL NO. 48514

VOLUME - 8 | ISSUE - 9 | JUNE - 2019



A STUDY OF ORGANIC FARMING PROVIDES IN KARNATAKA STATE

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ABSTRACT:

The article was study entitle 'A Study of Organic Farming Provides in Karnataka State', the funds are proposed to assist these federations to take up organic produce collection, grading value addition, processing, packing, brand development and marketing apart from consumer awareness programme and related activities. Livestock products are fundamental to the organization of agricultural production in Karnataka. The financial was achievements of poultry development in the study area. Organic farming creates local employment opportunities and local marketing available for organic farm products. The Karnataka Co-operative Milk Federation has been formed on Co-operative basis which has three tier systems. Fisheries has attained as an important sector contributing to fish production besides source of foreign exchange earner. Following are the advantage and disadvantages of Organic Farming.



KEYWORDS: agricultural production, Livestock in Organic Farming, Livestock and poultry production and Livestock Population, Financial Achievements of Poultry Development, Global Warming, Animals, Soil Fertility, Inorganic Fertilizers and Pesticides Etc.

INTRODUCTION :

Organic farming movement was initiated in Karnataka by the innovative farmers of the State and the movement gained momentum during 1990s. The Abvent of chemical intensive farming and its prevalence in Karnataka during the later part of green revolution resulted in the near stagnant levels of productivity in many crops. The farmers were into

debt trap owing to the high cost of farming as these crops demanded more external inputs such as chemical fertilizers, pesticides and water. Cost of cultivation increased drastically thereby, declining the net income. These factors led to increased instances of farmer suicides. Many farmers of Karnataka felt that they are fighting a losing battle with the 'high yield variety fertilizers-pesticide package' of Green Revolution and realized that

Organic Farming is the only alternative at this juncture. They were convinced that the only way is to return to the traditional sustainable way of cultivation without harming the ecosystem. Thus, organic farming, a system with the broad principle of 'live and let live', is recognized as the best sustainable production system, which promises and enhances agro eco-system health, including biological cycles and soil biological activity with higher

productivity and profitability through policy interventions to give focused attention towards. Strengthening supply chain components, getting consumers connected to the farmers directly, supporting the existing marketers and also encouraging the new entrants to the organic and millets marketing fold. Hon'ble Chief Minister, Government of Karnataka, in the annual budget of 2015-16, announced that, to strengthen and consolidate the gains made through Savayava Bhagya Yojane, the Government would provide support for certification process, establishing farmers, federations and developing marketing linkages. To facilitate systematic marketing of organic produce, 14 Regional Federations of Organic Farmers Associations have been established in the state. The funds are proposed to assist these federations to take up organic produce collection, grading value addition, processing, packaging, brand development and marketing apart from consumer awareness programme and related activities.

IMPORTANT OF THE STUDY:

This Journey has created huge market opportunity for the farmers to expand area under organic farming as more and more public are convinced about the health and nutrition benefits of organics and millets. It is time to explore this opportunity for the benefit of farmers of the state. The policy is aimed at integrating backward-forward linkages more effectively to suit the current dynamic market conditions and consumer preferences towards health consciousness. The ultimate objective of the policy is to provide farmers an organised market for their producer and to popularize organic foods and millets as "Super Foods".

STATEMENTS OF THE PROBLEM

Development countries are already producing a wide range of organic products and many are thriving well. However most of them are faced by a number of constraints such as, lack of technical knowledge for example: which type of products to grow, which markets and distribution channels to choose, competition market access etc.,. The consequences of the conversion process and externalities of organic farms may be very changing since they depend on many factors such as the social economic and environmental context of exploitation, the climate and topography of the land, the production system under study the regulation on course, the availability of inputs and prices the development of organic industry and the consumers behaviour. In order to deal with these uncertainties, researchers have conducted studies that have evaluated the conversion of different conventional farming systems to the former one for dairy goats and dairy cattle.

REVIEW OF LITERATURE:

Daniel T Wolde and Berhan Tamir (2016) in their article "Organic Livestock Farming and the Scenario in the Development Countries: Opportunities and Challenges:state that. Alongside the advancement of scientific researches to enhance productivity of agriculture with the scarce resources the world has today, agricultural scientists had begun long ago to reveal the limitations of intensive agricultural practices and sought deeply the solutions which can potentially keep and satisfy the growing world population need in terms of food that is derived from farm animals. In this regard, they are trying to answer the question of quality-conscious consumers who are increasingly seeking environmentally safe, chemical-residue free and healthy foods, along with product traceability and a high standard of animal welfare. Thus, this study intends to explore and discuss about organic livestock farming and the condition in the developing countries including the opportunities and challenges.

A.J. Escribano and M. Escribano (2015) in their "*the Contribution of Organic Livestock to Sustainable Rural Development in Sensitive Areas*" Stated that, Organic production may contribute positively to rural development. However, there is a gap of knowledge with regard to the livestock sector that the present work is aimed at filling by means of a multidisciplinary and participatory approach. The results suggest that 'fully organic' holdings (organic farms that sell products as organic) have the highest potential to contribute to the rural development in the area under study.

Saima Siddique et.al (2015) in their article "Organic Farming: the return to Nature" Stated that, Organic farming is a modern and a sustainable form of agriculture that provides consumers fresh natural farm products. Organic farming works in synchronization with nature rather than against it. This objective is achieved by using techniques to improve crop yields without harming the natural environment as well as the people who live and work in it. Organic agriculture offers an exclusive amalgamation of environment-friendly practices, which require low external inputs thereby contributing to increased food availability. Organic farming has a very positive influence especially on birds, insects, weeds, wildlife, and soil flora and fauna. Conventional farming is capital intensive, which requires more manufactured inputs and energy as compared to knowledge-and labour-intensive organic farming.

Alfredo J. Escribano (2015) in their article "*Organic livestock Farming – Challenges, Perspectives and Strategies to increase its contribution to the Agri-food System's Sustainability – A Review*" Stated that, the Livestock sector is of great importance for the sustainability of rural economics and may ecosystems: however, it also has a high environmental impact. Due to the growing demand for animal products, there is a need to design new livestock production systems that allow the combination of food security and sustainability. Within this context, organic livestock may be a useful strategy to achieve such a pivotal goal. However, there is a lack of studies that integrate the existing knowledge, specifically in organic livestock, and integrating the main aspects implied in its practice (its externalities and challenges). The present work aims to fill this knowledge gap, providing strategies and insights that will help stakeholders and policy makers to improve the sustainability of both the organic sector itself and that of the whole food system.

Bhuvana, N., 2Krishnamurthy, B. & Gopala, Y.M. (2015) the growing popularity of organic farming in the State made Government of Karnataka had to out with the novel idea of developing an 'organic village through Organic farming village programme. As a first step towards promotion of organic farming as per the policy, Organic village Programme was initiated since 2004-05 under which model organic villages of about 100ha, are being developed one in each district. With the success of the programme, the state government felt it necessary to extend this programme to taluka level from 2006-07 onwards.

OBJECTIVES OF THE STUDY:

The main objectives of organic farming provide was to establish and maintain to create a sustainable agro-ecological system based on local resources.

- To study the organic farming provides in Karnataka State.
- To examine livestock products is fundamental to the organization of agricultural production in Karnataka an overview.
- To study the Livestock and Poultry Production and Livestock population of Karnataka
- To examine the Financial Achievements of Poultry Development in the study area

HYPOTHESIS:

- Organic farming creates local employment opportunities and local marketing available for organic farm products.

METHODOLOGY:

These are the source containing data which have been already collected by other researchers the secondary sources consists of readily available materials, statistical statements and reports whose data may used by researcher for his/her studies. Secondary data sources like newspapers articles, Journals and websites.

KARNATAKA ORGANIC FARMING POLICY 2017

The State government launched the 'Karnataka Organic Farming Policy 2017', in order to enable the next level of development in Organic Farming. The Government decided to reform the organic farming in to the mainstream and transform agriculture in Karnataka into a sustainable remunerative occupation enabling production of nutritious food by promoting eco-friendly organic farming and marketing systems. The policy strategies included organic farming in mainstream agriculture, focus on region and season specific crops to increase farm output and income, added as beneficiaries under various strategies, adoption of group centric approach in production, handling and marketing of organic produce, diversified farming for maximizing production, productivity and farm income and promotion of Neutral Cereals. The policy also focus on conservation and management of soil and water and agri-ecosystem, improve supply chain and infrastructure for post harvest, simplification and authentication, enforce quality control, branding, labelling and packaging of organic produce.

PESTICIDE CONSUMPTION:

Pesticide Consumption use of plant protection chemicals (insecticides and pesticides) remained more or less stagnant and the technical grade material used hovered around 2433 tonnes (except in 2018-19) despite the expansion in the area covered which increased from 63 lakh ha in 2013-14 to 107 lakh ha in 2018-19 (Table 1).

Table 1 Use of Pesticides and Total area covered

Year	Area Covered (Lakh Ha)	Technical Grade Material (Tonne)
2013-14	63	2815.105
2014-15	49	1923.25
2015-16	83.5	2266.632
2016-17	95	2273.214
2017-18	98	2282.192
2018-19	107	2433.598

Source: GOK, Statistical Abstract of Karnataka, Various issues

The above table shows that the use of pesticides for the plant protection remained more or less stagnant and technical grad. Materials increased from 2815.105 in 2013-14 to 2433.598 tonnes in 2018-19 and the area covered which increased from 63 lakh hecters in 2013-14 to 107 lakh hecters in 2018-19.

Table 2 Livestock Population of Karnataka

Particular	Livestock Census			
	1997	2003	2007	2017
2013-14	108	95	105	148
2014-15	44	40	43	58
2015-16	129	117	157	179
2016-17	26	30	24	35
2017-18	307	284	329	420
2018-19	214	244	424	874

Source: GOK, Economic Survey, 2016-17

As per 19th livestock census, the above share of Karnataka live stock and poultry statistics shows the table in 2003 to 1.05 in 2007 and decreased in 2012 to 0.9 respectively. The population of Buffaloes decreased from 0.40 in 2012. The total livestock was increased from 2.83 in 2003 to 2.90 in 2012. As per the 19th census poultry statistics was increased from 2.44 in 2003 to 5.34 in 2012.

LIVESTOCK AND POULTRY PRODUCTION:

In Buffalos milk production India ranks first in the world, similarly in Cow milk Production India took second rank and during 2017-18, Karnataka State Ranks 11th among India States. The production of milk in the state was 7.13 million metric tonnes during the year 2017-18. The production of the major livestock products namely, Milk, Meat, Wool and Eggs.

Table 3 Livestock Poultry Production

Item	Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Milk	000 tonner	5113	5448	5718	5997	6123	6344	6562	4859
Meat	Tonnes	123910	139553	166059	169894	181312	196600	209012	160417
Wool	Tonnes	7129	7779	8020	7755	8821	8191	6588	2663
Eggs	No in Crores	307	347	368	412	439	476.51	506.72	348.01

Source: Economic Survey of Karnataka 2016-17 and 2017-18

The above table shows that details of the production of Major livestock production namely milk produced 50113 tonnes during 2010-11 and 475.6 tonnes produced 5.113 tonnes during 2010-11 and 475.6 tonnes produced 5.113 Tonnes during 2010-11 and 475.6 tons produced in 2017-18, the produced in 2017-18, the production of wool from 7129 tonnes to 2633 in 2017-18. In 2010-11 the production of eggs increased from 307 crores to 348.01 in 2017-18.

POULTRY DEVELOPMENT:

State of Karnataka has 156.70 million layers and 275.60 million broilers producing 412.30 million eggs and 81828 tonnes of chicken meat respectively. There are 24 poultry farms functioning under the Department of AH&VS for development of Poultry in the State. The Major developmental activities are breeding and rearing of Giriraja parent stock and supply of day old chicks to the farmers. During 2017-18, 894 farmers were trained in poultry rearing and 379658 Giriraja chicks were produced. During 2018-19 up to the end November-2018, 210 farmers were trained in poultry rearing and 272810 eggs and 183911 chicks were produced.

The budgetary allocation for the year 2017-18 was Rs.566.00 lakh of which expenditure incurred was Rs.563.61 lakh. Budget allocation for the year 2018-19 is Rs.654.00 lakh and the expenditure incurred in Rs.453.00 lakh up to the end of November-2018.

Table 4 Financial Achievements of Poultry Development (Rs. In lakh)

Year	Plan			Non Plan		
	Amount Sanctioned	Amount Released	Amount Spent	Amount Sanctioned	Amount Released	Amount Spent
2010-11	20.00	20.00	19.82	90.87	90.87	90.87
2011-12	24.75	24.75	24.73	94.50	94.50	94.50
2012-13	46.00	46.00	46.00	145.56	145.56	145.56
2013-14	26.00	26.00	26.00	215.00	215.00	215.00
2014-15	36.00	36.00	26.00	225.00	225.00	225.00
2015-16	124.00	124.00	122.89	251.00	151.00	151.00
2016-17	130.00	130.00	128.81	311.00	311.00	311.00
2017-18	750.00	562.50	375.00	Merged with Plan		

Source: Economic Survey of Karnataka 2014-19

The table shows that financial achievement of poultry. The plan scheme under KCPF sanctioned 20 and spend 19.82 (Rs in Lakhs) during 2010-11 then increased the sanctioned amount of 750.00 (Rs in lakhs) and spent 375.00 to achieve financial development of poultry in 2017-18.

Under non plan scheme of under KCPF SANCTIONED 90.87 (Rs in lakhs) and spent 90.87 in 2010-11 and merged with plan scheme during 2017-18.

KARNATAKA MILK FEDERATION:

The Karnataka Cooperative milk federation has been formed on co-operative basis which has three tier systems. 1) Milk cooperative societies at primary level. 2) Cooperative unions at district level. 3) Federation at State level. KMF is an Organization implementing dairy development activities in the state under "operation flood" this organization has the responsibility of providing remunerative price and market to the rural milk producers of the state and supplying pure milk and milk products to the consumers.

Table 5 Livestock Poultry Production

Sl. No.	Item	Units	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 upto Nov-2018
1	DCS Registered	No	696	614	441	554	461	525	708	262
2	DCS made functional	No	752	705	481	751	552	558	786	275
3	Member Enrolled	No	80608	70878	38299	68853	48367	65627	64894	35865
4	Milk Procured	Lakh/Tonnes	15.68	71.92	18.86	21.42	23.75	23.91	25.85	18.67
5	Animal Treated	Lakh	0.54	0.27	0.3	0.15	0.05	0.02	0.03	0.12
6	Animals inseminated	Lakh	24.78	27.5	27.85	30.86	30.86	34.46	35.73	20.99
7	Animals examined for pregnancy	Lakh	17.09	20.37	20.58	22	25	26.53	26.65	17.45

Source: Economic Survey of Karnataka 2015-16 and 2018-19.

The above table shows that progress on dairy development from during the year 2011-12 the number of dairy co-operative societies registered in Karnataka decreased from 696 to 2622 in 2011-12 (up to November-2018) and 2018-19. The number of 752 dairy co-operative societies from functioning decreased from 752 to 275 in 2018-19 and also members are decreased from 80608 in 2011-12 to 35865 in 2018-19. The production of milk from dairy development increased from 15.68 in 2011-12 the animals treated were decreased from 0.54 lakh to 0.12 during 2018-19 (upto November-2018). During 2011-12 the animals examined for pregnancy were increased from 17.09 to 17.45 during 2018-19 (up to November-2018)

FISHERIES IN KARNATAKA:

Fisheries has attained as an important sector contributing to fish production besides source of foreign exchange earner. Fish being one of the sources of quality protein, use of fish as food helps in eradication of malnutrition among rural population. The vase marine, brackish water and inland

freshwater resources are the source of fish production in the State Karnataka State has 320km long coast line along with 27000Sq.km continental shelf area, 5.65 lakh hectares of various inland water resources and has vast scope for fisheries development. The brackish water area of 8000 hectares also provides also provides good scope for shrimp/fish culture. There are about 9.61 lakhs fishermen in the state of which 3.28 lakh which 3.28 lakh fishermen in marine and 6.33 lakh fishermen in marine and 6.33 lakh fishermen are in inland who are involved in various fisheries activities. Karnataka is in 6th position in marine fish production and 8th position in inland fish production when compared to fish production in the country. The total fish production during 2018-19, is 3.31 lakh tones.

Table 6 Details of Fish Production in Karnataka (in lakh fry)

Year	Marine	In land	Total
2010-11	340571	186008	526579
2011-12	347383	199053	546437
2012-13	357325	168241	525566
2013-14	357358	197952	555310
2014-15	389822	223419	613241
2015-16	411762	168828	580590
2016-17	399000	156000	555000
2017-18	414348	188171	602522
2018-19	231696	99479	331175

Source: Department of fisheries upto November-2018

The above table shows the annual fish production during 2010-11 marine fish production from 389822 metric tonnes to 231696 metric tonnes in 2018-19, during 2010-11 inland production from 186008 in 2018-19.

Table 7: Details of fishing boats operation in Karnataka

Year	Motorized boats	Traditional boats	Total
4434	8434	8997	21865

Source: department of Fisheries, Economic survey of Karnataka 2018-19

Above table shows the details of fishing boats operating in Karnataka during 2018-19 4434 mechanized boats, 8434 motorized boats and 8997 traditional boat were operating in Karnataka's

Table 8: The budget allocation for the department from the year 2015-16, 2016-17, 2017-18 and 2018-19 are as follows (Rs. In lakhs)

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Allocation	19324.44	20041.40	19214.26	26789.00	27224.50	34636.81	24834.00

The above table shows that the budgetary allocation for fishery from the year 2012-13 was 19324.44 lakh of which expenditure to 24834 lakh in 2018-19.

ADVANTAGES OF ORGANIC FARMING

Following are the mentioned below advantages of Organic Farming.

1. No Poison is Always Great

Organic Farming does not use any type of harmful chemicals to keep pests away, unlike the majority of industrial farming. They use all natural methods that do not harm the consumer or the environment that they are grown in. herbicides. Pesticides and artificial growth hormones are all forbidden on an organic farm.

2. Closely Regulated

In order for a food to be labelled as organic, the entire process of which is was created is thoroughly investigate. The organic food industry is internationally regulated, which means that organic means the same standards where followed, no matter where in the world it was make. This helps the consumers to know that they are truly getting what they think that they are.

3. Better Taste and more nutrition

Fruits and vegetables that are organically raised have a much better taste than other mechanically farmed ones. This is due to the fact that they are given a much longer time to develop and are not pumped with artificial things. The sugar structures in these crops have more time to mature and develop in to a tasty and nutritious product.

4. Cost are Lowered

There is a deep stigma around anything organic that it had to have cost an arm and a leg to cultivate. This is actually the opposite of the truth. When you cut out the time that is spent to farm organic crops, the actual costs are minimal. These farmers do not have to shell out large amounts of money for expensive chemicals and massive amounts of water, unlike industrial farmers.

5. The Environment Doesn't Suffer

Another thing that benefits from the use of organic farming is the environment in industrial farms; the chemicals that are used are seep into the ground and contaminate the soil and local water sources. Humans, animals, and plant life are all affected negatively by this. With organic farming, there are no pollution occurs either.

DISADVANTAGES OF ORGANIC FARMING

1. It's a whole lot more work

It takes a whole lot of hard work to successfully grow crops organically. There is a high amount farmer interaction time with their crops. Whether it is to ensure that the plants remain pest free in an organic way, or to act as weed prevention, the time required is significantly higher than plants and crops produced industrially.

2. The consumer pays the Price

Organic foods in the supermarket are infamously higher than others. This is one of the biggest reasons that people do not fully support the use of organic farming. And not nearly enough people are enjoying the great benefits that it could bring. For example, a pound of non organic red peppers cost right around \$2.76, while a pound of organic red peppers run a whopping \$5.89! That's double the price.

3. Cross breeding Happens

GMO crops, also known as genetically modified crops, are plants whose DNA structure has been altered. These seeds, once planted, create GMO crops. These crops then produce seeds and the pattern continues. It is very difficult to truly tell if an organic seed has not been affected by GMO's in anyway. This cross breeding could completely wipe out the idea of organic and non GMO crops very soon.

OTHER DISADVANTAGES:

- Organic food is more expensive because farmers do not get as much out of their land as conventional farmers do. Organic products may cost up to 40% more.
- Production costs are higher because farmers need more workers.
- Marketing and distribution is not efficient because organic food is produced in smaller amount.
- Food illness may happen more often.

- Organic farming cannot produce enough food that the world's population needs to survive. This could lead to starvation in countries that produce enough food today.

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