



**GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD**

**FOURTEENTH FIVE-YEAR PLAN
(2022-2027)**

**WORKING GROUP ON
EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY:
REFORMS IN POLICY & ADMINISTRATION**

REPORT

**AGRICULTURE DIVISION
March 2022**

FOREWORD

Kerala is the only State in India to formulate and implement Five-Year Plans. The Government of Kerala believes that the planning process is important for promoting economic growth and ensuring social justice in the State. A significant feature of the process of formulation of Plans in the State is its participatory and inclusive nature.

In September 2021, the State Planning Board initiated a programme of consultation and discussion for the formulation of the 14th Five-Year Plan. The State Planning Board constituted 44 Working Groups, with more than 1200 members in order to gain expert opinion on a range of socio-economic issues pertinent to this Plan. The members of the Working Groups represented a wide spectrum of society and include scholars, administrators, social and political activists and other experts. Members of the Working Groups contributed their specialised knowledge in different sectors, best practices in the field, issues of concern, and future strategies required in these sectors. The Report of each Working Group reflects the collective views of the members of the Group and the content of each Report will contribute to the formulation of the 14th Five-Year Plan. The Report has been finalised after several rounds of discussions and consultations held between September to December 2021.

This document is the Report of the Working Group on “Ease of entrepreneurship in animal husbandry: Reforms in policy and administration.” The Co-Chairperson of the Working Group was Smt. Tinku Biswal IAS. Dr.R.Ramakumar, Member of the State Planning Board co-ordinated the activities of the Working Group. Sri.S.S.Nagesh, Chief, Agriculture Division was the Convenor of the Working Group and Smt. Kumari Sangeetha K.R., Deputy Director, Agriculture Division was Co-Convenor. The terms of reference of the Working Group and its members are in Appendix 1 of the Report.

Member Secretary

PREFACE

As part of formulation of the 14th Five Year Plan, the Kerala State Planning Board had constituted working groups of experts in all the major sectors. In Agriculture and Allied Sectors, 6 working groups were constituted viz Agriculture and Cooperation, Animal Husbandry and Dairy, Inland and Marine Fisheries, Forest and Environment, Water Resources and Regional Packages. To discuss and frame policies in each of these sectors, the working groups were further divided into 28 Expert Sub-Groups (ESG) with specific mandates.

Each Expert Subgroup held at least three meetings beside one focused group meeting before finalising the report. We, the Co-Chairs, place our deep appreciation and gratitude to all the esteemed members of the ESG for their valuable contributions in preparing the report. We are extremely grateful to Dr. V. K. Ramachandran, the Honourable Vice-Chairperson, Kerala State Planning Board, Dr. R. Ramakumar, Member, Kerala State Planning Board and Sri. S. S. Nagesh, Chief, Agriculture Division for their consistent guidance and suggestions in preparing the report. The drafting team put in commendable work in bringing together all the views and opinions of the members. We sincerely hope the recommendations in the report can lead to important changes in the public policy for the development of Animal Husbandry and Dairy sectors in the State.

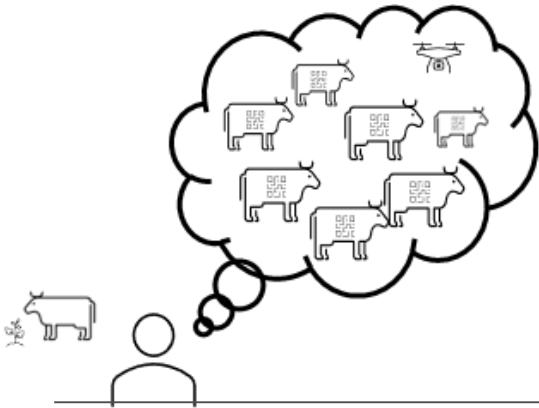
Smt. Tinku Biswal IAS
Official co-chairperson

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EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY: REFORMS IN POLICY & ADMINISTRATION

HIGHLIGHTS

- Improvement in entrepreneurship in the animal husbandry sector is a major tool to guarantee economic growth, women empowerment, increasing the employability of educated youth, and nutritional security.
- A broad framework is needed to measure the ease of entrepreneurship quantitatively for assessing improvement and sustainability in the area.
- Popularization of processed ready-to-eat livestock products, adherence to FSSAI and international standards, skilling, extending credit and budgetary allocation, streamlining of licensing procedures, promotion of start-ups, encouraging women entrepreneurship, etc. are some of the strategies that may be adopted.

EXECUTIVE SUMMARY

INTRODUCTION: Developing entrepreneurship in animal husbandry in Kerala should be based on a unique approach that should take into consideration the geographical, edaphic, demographic, and social peculiarities of the state. The livestock population trend in Kerala as per the Livestock Census 2019 shows a one percent increase in cattle population, a nine percent increase in goat population, and a twenty-five percent increase in poultry population. During the past five years, the milk and meat sectors are growing by about six percent, annually.

QUANTITATIVE FRAMEWORK TO ASSESS EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY: A broad framework is needed to measure the ease of entrepreneurship quantitatively for assessing improvement and sustainability in the area. Kerala Veterinary and Animal Sciences University has an already existing Directorate of Entrepreneurship which should be remoulded to act as State Livestock Entrepreneurship Facilitation Centre (SLEFC). Any person interested in starting a venture in any area about defined units should be allowed to register in the centre. The data from grass root level can be obtained and used by the university to deliver need-based research and reciprocal transfer of technology. The percentage of applicants converted into start-ups and later as an actual entrepreneur can be measured by Livestock Entrepreneurship Index. The different types of enterprises are classified, and the focal themes of the 14th FYP have been identified.

CONSTRAINTS TO THE FLOW OF ENTREPRENEURIAL CAPITAL INTO THE PROCESSING AND VALUE ADDITION SEGMENTS IN ANIMAL HUSBANDRY:

- Entrepreneurship is confined to dairy/poultry farming and marketing of raw milk/egg/meat, and value-added and processed ready-to-eat/drink livestock products need to be encouraged.
- Training, skill development, project preparation assistance, and product marketing assistance are few/ lacking.
- Lack of financial literacy among entrepreneurs
- License/permission conditions are stringent and difficult to navigate.
- Limited promotion for innovations, start-ups, and technology business incubation centers in livestock/production sectors.

Popularization of processed ready-to-eat livestock products, adherence to FSSAI and international standards, skilling, extending credit and budgetary allocation, streamlining of licensing procedures, promotion of start-ups, encouraging women entrepreneurship, etc. are some of the strategies adopted to overcome these constraints

SHORT-TERM, MEDIUM-TERM, AND LONG-TERM MEASURES TO IMPROVE THE EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY: Ease of entrepreneurship and modernising the approaches in entrepreneurship in animal husbandry needs to be well defined as short-, medium-, and long-term measures to prioritise the implementation of projects and reforms.

Short term activities: SWOT analysis, Demand Supply Assessment, Field study and

data analysis, empanelling of the project management unit, establishing SLEFC- DEC- PLEC-VEC framework, student facilitation, workshop on DPR preparation, state-level data bank of entrepreneurs, feed rationing system, capacity building, quality assured feed manufacturing units producing low-cost feed.

Medium-Term activities: Integration of engineering institutions, Entrepreneur Funding agency interactions

Long term goals: Development of SOP, Tie up with start-up mission, Formation of a white army, Marketing strategies

LEGAL AND ADMINISTRATIVE MEASURES TO BE ADOPTED AT DIFFERENT LEVELS OF GOVERNANCE INCLUDING LSGIS TO IMPROVE THE EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY: To fully utilize the potential of the animal husbandry sector including the dairy and food technology continuous monitoring of the ease of doing a venture related to the sector is essential. An innovative person with sufficient skill will be encouraged to take up the impactful business if sufficient handholding is ensured. Proper registration, easy licensing, and assured financial support will create an atmosphere of trust and entrepreneurship culture in this most promising sector. By utilising the participatory principle of extension, this framework can suggest the model of innovation to the imitating entrepreneur and encourage even a drone entrepreneur.

1. INTRODUCTION

Improving and sustaining entrepreneurship are the most crucial components in the planned development of any state to alleviate poverty, increase employability, and flatten the curve of inequality. The animal husbandry sector fits well into the scheme of this approach especially when it involves the poor and the marginalised. So, improvement in entrepreneurship in the animal husbandry sector is a major tool to guarantee economic growth, women empowerment, increasing the employability of educated youth, and nutritional security. Developing entrepreneurship in animal husbandry in Kerala should be based on a unique approach that should take into consideration the geographical, edaphic, demographic, and social peculiarities of the state. The demand for animal-sourced foods (ASF) is increasing. The livestock population trend in Kerala as illustrated in Table 1 is adopted from the Livestock Census 2019 shows a one percent increase in cattle population, a nine percent increase in goat population, and a twenty-five percent increase in poultry population. During the past five years, the milk and meat sectors are growing by about six percent, annually.

Table 1. Livestock population trend in Kerala

	2012 (lakhs)	2019 (lakhs)	Variance percent
Cattle	13.28	13.42	1.02
Buffalo	1.02	1.01	-0.71
Goat	12.46	13.59	9.07
Poultry	238.45	298.18	25.05
Total	277.34	336.54	21.35

Source: Livestock Census 2019

The demand for milk and milk products also shows a promising trend. The total requirement of milk in Kerala in 2019-20 was 33.22 lakh MT, but the supply was only 25.42 lakh MT deficiency of 4.65 lakh MT milk, this necessitated an import of 3.15 lakh MT. But in this modern era where man has moved on from the mere concept of food cloth and shelter to his overall wellbeing which includes mental health as well as his aesthetic tastes, the modern entrepreneurs in animal husbandry have a myriad of other opportunities too. The illustration given in Table 2 demonstrates an exponential appreciation in the monetary realisation when a dairy entrepreneur embarks upon innovation to address the growing needs of the modern population

Table 2. Appreciation of value by application of technology in the dairy product sector

Product	Milk Rs	Set Curd Rs	Flavoured Yoghurt Rs	Probiotic Yoghurt Rs	Frozen Probiotic Beverages
Price/100 ml	5	10	20	25	35
Appreciation	0	100%	300%	400%	600%

The crux of the problem is to innovate effectively in the animal husbandry sector. For example, even cosmetics are produced using ingredients sourced from milk of various species and many other animal by-products. In the post-COVID scenario, the tourism sector also is expected to grow and perform better. Already Kerala has opened its doors to world tourism. The concepts of farm tourism could garner greater impetus when extended to live animal farms too with a sound scientific underpinning.

Tools for encouraging and assisting entrepreneurship in the animal husbandry sector will be different from those employed in information technology or any other similar entrepreneurship activities, the main reason being the long-existing conventional approaches to entrepreneurship in animal husbandry. To improve the ease of entrepreneurship in animal husbandry a paradigm shift is required. Also, needed is more infrastructure and funding in this sector. The lack of proper inputs in the form of highly productive breeds of animals and the hurdles in the licensing system of farm units are creating significant hindrances in the entry of new entrepreneurs in the animal husbandry sector. Hence, this section on “Ease of entrepreneurship in animal husbandry: reforms in policy and administration” will give the details of the following.

1. Quantitative framework to assess ease of entrepreneurship in Animal Husbandry.
2. The constraints to the flow of entrepreneurial capital into the processing and value addition segments in Animal Husbandry.
3. Short-term, medium-term, and long-term measures to improve the ease of entrepreneurship in Animal husbandry.
4. Legal and administrative measures to be adopted at different levels of governance including LSGIs to improve the ease of entrepreneurship in animal husbandry.

2. QUANTITATIVE FRAMEWORK TO ASSESS EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

A broad framework is needed to measure the ease of entrepreneurship quantitatively for assessing improvement and sustainability in the area. The framework comprises a combination of five complementary measuring tools:

1. Innovations happening in animal husbandry production system and products of animal origin.
2. Capacity building of human capital in production, processing and service involving ventures related to animal husbandry.
3. Quality and quantity improvement in products of animal origin.
4. Environmental impact and level of welfare in production systems of animals and birds.
5. Marketability of animals, birds, animal products, and animal husbandry services.

In Kerala, presently, many agencies work in promoting animal husbandry ventures making it difficult to measure the ease of entrepreneurship or collection of reliable data about entrepreneurship. The state does not have a single entity for measuring, identifying, promoting, financing, and supporting animal husbandry entrepreneurship. So, there is a need for a facilitating centre that could act as a nodal agency of entrepreneurship. Different stakeholders involved in the animal husbandry department, dairy development department, Kerala Veterinary and Animal Sciences University, Poultry Development Corporation, Meat Products of India (MPI), MILMA, etc. can help in the input and output strategies of the centre synergistically. Kerala Veterinary and Animal Sciences University has an already existing Directorate of Entrepreneurship which should be remoulded to act as State Livestock Entrepreneurship Facilitation Centre (SLEFC). Any person interested in starting a venture in any area about defined units should be allowed to register in the centre. Graduates or educated youth with necessary skills in related technology or knowledge domain should be encouraged to register. The facility should avail help and support from K-DISC in ventures of interdisciplinary nature as well as ICT-oriented novel ventures in animal husbandry. The data from grass root level can be obtained by forming a network of primary/secondary stakeholders or a group of people trained for the purpose. As the data is finally linked to the university, need-based research and reciprocal transfer of technology are made possible in such a network.

The percentage of applicants converted into start-ups and later as an actual entrepreneur can be measured by Livestock Entrepreneurship Index. The total value of livestock entrepreneurship based on a total number of ventures registered multiplied by the capital invested will be the total Livestock Entrepreneurship capital. The yearly measurement of new capital can also be calculated as yearly entrepreneurship capital from the portal. The measuring tools will employ the data generated such as

1. Total number of livestock-based entrepreneurship ventures in Kerala.
2. Total number of innovations, identification of technologies
3. Number of start-ups.

4. Capacity building programs and their impact on business.
5. Periodic Random survey on entrepreneurship culture.
6. Total capital involved, the help of financial institutions, and government support.
7. Total animal units reared category-wise.
8. Monthly trend in case of livestock entrepreneurship.
9. District-wise, Block-wise, and Grama Panchayat-wise data on all animal husbandry ventures.

DEFINING ENTREPRENEURSHIP IN ANIMAL HUSBANDRY IN THE CONTEXT OF KERALA FOR ELUCIDATING THE FRAMEWORK

In a broad sense, all the self-employed ventures which provide remunerative returns directly or indirectly related to animals and birds and their products may be included as entrepreneurship in animal husbandry. But in a narrow and more precise sense, the innovative ventures must be demarcated and given thrust among all these ventures to inculcate an innovation ecosystem in the animal husbandry sector in Kerala. The Quantitative framework proposed will be able to measure the “livestockpreneurship” in both the broad and narrow senses. Based on the total capital input, each of these ventures must be first classified as small, medium, and large scale: <5 lakh, 5–25 lakh, and above 25 lakh.

CLASSIFICATION OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

The four major areas of entrepreneurship possible in animal husbandry include (1) Farming and breeding (2) Products of animal origin (3) Services (4) Inputs.

Farming And Breeding Units

The farming and breeding units to be measured/included in the framework can be cattle, buffalo, goat, pig, poultry, rabbit, pet animal ventures, and pet bird ventures in Kerala.

1. Cattle-based entrepreneurial venturers

- a. Dairy farms with heifers and calves producing milk and marketing cattle at all stages.
- b. Heifer rearing units or heifer parks with quality heifers for sale.
- c. Calf rearing unit and male calf rearing unit for sale of female calves and salvaged male calves.
- e. Dairy cow units integrated into farm-fresh concept and milk products.

2. Buffalo-based entrepreneurial venturers

- a. Calves for meat purpose in fallow land and integrated to agriculture.
- b. Buffalo units as part of dairy farms.

3. Goat-based entrepreneurial venturers

- a. Goat breeding units marketing kids.
- b. Broiler goat meat units specialised in quality chevon production.
- c. Goat milk and milk products marketing units.
- d. All-purpose caprine units.

4. Swine-based entrepreneurial ventures

- a. Swine breeding units specialised in piglet marketing.
- b. Pork meat production-oriented finisher units.
- c. Dual-purpose swine breeding and finisher units.

5. Poultry-based entrepreneurial ventures

- a. Broiler poultry units marketing broiler chicken and meat.
- b. Poultry layer units for egg production including backyard poultry units suitable to Kerala.
- c. Egger nurseries producing pullets or at 60-day old marketable poultry of various breeds.
- d. Small, medium, and large-scale hatcheries for quality day-old chick production
- e. Quail units for egg and meat.
- f. Turkey units for meat purposes.
- g. Duck meat and egg units in semi-intensive and small-scale system.
- h. Fancy poultry breeding and marketing linked to pet shops.

6. Rabbit-based entrepreneurial ventures

- a. Rabbits as breeding units marketing weaned bunnies.
- b. Rabbits units specialized in meat production.

7. Pet animal business ventures

- a. Dog breeding and marketing units.
- b. Cat breeding and marketing units.
- c. Guinea pig breeding and marketing units.
- d. Other exotic pets marketing units.

8. Pet shops

- a. Shops for marketing dogs and cats.
- b. Small Experimental Animal Breeding units under CPCSEA.
- c. Other pet animal breeding units with associated pet shops.
- g. Pet birds' shops.

Products Of Animal Origin

1. Milk products manufacturing and marketing units.
2. Meat products manufacturing and marketing units.
3. Egg products units.
4. Animal byproducts rendering, and utilization units specialised in specialised products.
5. Meat and egg products selling outlets.

Animal Husbandry Services

1. Private veterinary care and treatment units by veterinary graduates.
2. Animal Daycare centres.
3. Artificial insemination centres for ruminants.

4. Dog training centres.
5. Pet Spa and other related services centres.
6. Animal disease diagnostic centres and research laboratories.
7. Animal products and input quality control laboratories.
8. Farm tourism ventures integrated with animal/bird farms.

Animal Husbandry Input Centres

1. Ruminant feed manufacturing units.
2. Ruminant feed selling units.
3. Nonruminant feed manufacturing units.
3. Green fodder production units and fodder banks.
4. Silage making unit.
5. Haymaking units.
6. Straw business units.
7. Green fodder slips units.
8. Green fodder business.
9. Manure production units (organic: Animal leftovers and excreta).

FOCAL THEMES OF ANIMAL HUSBANDRY FOR THE 14TH FIVE-YEAR PLAN

Throughout this framework to ensure sustainability, certain focal points are to be given thrust in animal husbandry. The emerging zoonotic diseases threaten human existence on earth and hence state-of-the-art research is needed in zoonosis and its prevention. A lot of scope of research and development can be identified in that area, which will attract international scholars. In addition, quality products, value addition, and marketing will help to create more jobs and food security. Since science and technology in agriculture had played a vital role in the overall development of the third world, further research and skill development in the field of Food Science and Technology and foods of animal origin will be helpful for our faster sustainable development and food security of Kerala in line with the UN sustainable development goals. The establishment of three Centres of excellence with the following focal areas will generate innovations and technology.

1. Centre of excellence in animal health
2. Centre of excellence in climate-resilient livestock production
3. Centre of excellence in dairy, meat, and food technology

HIGHER EDUCATION AND INNOVATION CULTURE TO BACK UP EASE OF ENTREPRENEURSHIP

The higher education system in Kerala is poised for a transformation. The government of Kerala has asserted through the recent budget, its intentions to do everything possible for this much-needed transformation. Higher education is the key to Kerala's economic growth and prosperity and to our ability to compete in the global economy. A mere increase in the number of students enrolled in higher education will not suffice to generate employability for all. Quality education that too professional education is to be targeted. In professional education, we have witnessed the mushrooming of colleges, but with declining quality, unplanned linear growth that in turn leads to widening inequality in economic and social opportunities. So, not just the quantum of enrolment but creating an ecosystem for quality

higher education is the real challenge for the state. Ensuring day one competencies must be assured for each graduate. Knowledge, innovation, and technology are the three key factors that must be considered for futuristic development. That is why the creation of a research excellence and innovation ecosystem turns out to be a desideratum. Such an eco-system could be developed in universities only when the scholars and students are encouraged to peruse continued lifelong research

Establishment of Farm schools and formation of Farmer Producer Organisations for Innovation

Innovations can be tested and refined at farm schools run by progressive innovative entrepreneurs identified by LSGDs and finalised by SLEFC. At least one farm school is to be established in all the districts with remunerative support to these entrepreneurs. At least 100 FPOs in the animal husbandry sector must be established to scale up these innovations. In the dairy sector already dairy cooperatives work effectively, so thrust may be given to meat and egg production and processing sectors while forming and supporting FPOs. The formation of FPOs will also improve the chances of channelising central funds.

Structural Network Of Ease Of Entrepreneurship Framework

For efficient and smooth flow of activities through this framework seamlessly, policy and administrative reforms should be undertaken to create structural networking. Such a network for entrepreneurship, reciprocally connect SLEFC which aids in all the livestock entrepreneurship opportunities listed to all the institutions working in the animal husbandry department, dairy development department, Kerala Veterinary and Animal Sciences University, Kerala Livestock Development Board, Poultry Development Corporation, MILMA and MPI. So, all stakeholders can synergistically collaborate on this joint platform. At the state level, this centre can strive for identifying the most eligible entrepreneurs and skill mapping. The institutional framework should establish a real-time connection of SLFC to district level DEC which can also function as a project management centre with the mandate of helping in the DPR preparation. The panchayat level facilitating centre can also undertake many activities like a.) Maintaining an online platform on the funding agencies and procedures for the benefit of entrepreneurs. b.) Farm Licensing PLEC can act as a single-window system through an online application with a mobile app for easy access to all c. Single window system – Schemes available for entrepreneurs in different areas should be made through this online single window system. For the government scheme clearance system including a portal for applications, a separate app maybe developed.

3. CONSTRAINTS TO THE FLOW OF ENTREPRENEURIAL CAPITAL INTO THE PROCESSING AND VALUE ADDITION SEGMENTS IN ANIMAL HUSBANDRY

- Entrepreneurship in the livestock sector is mostly focused on dairy/poultry farming and marketing of raw milk/egg/meat. In addition to these, the popularization of value-added and processed ready-to-eat/drink livestock products is also encouraged.
- Training, skill development, project preparation assistance, and product marketing assistance are to be provided to new entrepreneurs, presently these facilities are few/lacking.
- Availing financial assistance for starting a new venture becomes a major obstacle for new entrepreneurs. Lack of awareness among the new aspirants about various state/central assistance programmes such as the National livestock mission, Atma Nirbhar Bharat, etc for promoting entrepreneurship.
- The difficulty of acquiring a license/permission for running a new livestock entrepreneurship project restricts many new entrepreneurs from launching new projects.
- Limited promotion for innovations, start-ups, and technology business incubation centers in livestock/ production sectors.

INTERVENTION/ POLICY AMENDMENT TO OVERCOME THE CONSTRAINTS

Popularization of processed ready-to-eat livestock products through public awareness campaigns, advertisements, etc. Strict implementation of FSSAI regulations for maintaining the quality of products and GMP to be followed for the production of milk/egg/meat to meet global standards. Usage of processed food for health programmes conducted by state/central governments will help the popularization of these products.

Each district centre must start a facilitation centre (collaborative) where new entrepreneurs will be provided with training/skill development (EDPs). Directorate of Entrepreneurship KVASU, KVKs, LMTCs, and Milma training facilities can be utilized and entrusted with these activities. Approaches like in-farm training, in-plant training, and farm schools can give sufficient exposure to new entrepreneurs before they start a new venture. E applications like the e-Gopala app can be used for marketing livestock/products.

Credit/loan facilitation centre at district headquarters where new entrepreneurs can be provided with information regarding various financial institutions providing loans. Kerala banks, primary co-operative societies, and nationalized banks can take a major role in providing loans to new entrepreneurs. Promotion of new viable projects can be done by giving interest subvention, credit guarantee schemes, extended repayment period, and a moratorium for repayment period for initial two years. Fund allotment must be given for scaling up of existing units. Budgetary allocation to animal husbandry/dairying should be increased to provide adequate financial assistance

A single window system for issuing the license and necessary certificates for new entrepreneurs

on a fast-track mode will attract new entrepreneurs in farming/processing units. Revision of laws regarding building permits, subsidized power, and land for lease will also facilitate starting of new ventures.

Start-ups in various livestock sectors like farming, satellite breeding units, meat and milk processing units and livestock marketing facilitation centers/consultancy units has to be promoted. Financial assistance must be provided for projects with priority to young unemployed youth and women. Successful projects must be provided with financial assistance for further scaling up and attempts are to be made to popularize success stories and to attract the imitators, fabians, and drones for further investing in similar projects. This also requires the redistribution of present staff in development departments to potential areas.

Women entrepreneurship may be introduced in rural areas to increase their economic and social status. An SPV- special purpose vehicle for animal husbandry entrepreneurship which will be very much appreciated by entrepreneurs. All entrepreneurial ventures should be linked with LSGD for ease of operation. E-Commerce and online marketing facilities in entrepreneurship must be strengthened. EDP & Trainers training will help in overcoming the gap in technology transfer. Incubation centres in every district can help the start-ups to get the initial handholding. Demonstration of model projects & hands-on training as envisaged in the previous chapter also helps in overcoming constraints.

4. SHORT-TERM, MEDIUM-TERM, AND LONG-TERM MEASURES TO IMPROVE THE EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

Ease of entrepreneurship and modernising the approaches in entrepreneurship in animal husbandry needs to be well defined as short-, medium-, and long-term measures to prioritise the implementation of projects and reforms.

SHORT-TERM ACTIVITIES TO BE IMMEDIATELY UNDERTAKEN FOR EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

1. SWOT analysis: The successful and unsuccessful farmers, fresh graduates, students, NRIs, field-level veterinarians, dairy officers and others concerned can brainstorm to unearth the strengths, weaknesses, opportunities, and threats in doing a business in animal husbandry in Kerala. So that the framework suggested can refine its activities concerning licensing, financial assistance, and legal aspects.
2. Demand Supply Assessment: A real assessment of the demand and supply of all animal-based products and services is still pending and that could be a short term activity to aid in entrepreneurship in our state.
3. Field study and data analysis on the present animal population system and geographical mapping with the aid of GIS software can help in vaccination status and disease outbreak management apart from getting on-hand data on animal husbandry-based entrepreneurship.
4. Empanelling of the project management unit. For project preparation, interested and qualified agencies can be empanelled immediately.
5. The SLEFC- DEC- PLEC-VEC framework which is envisaged here as the single window system and the required IT integration with mobile apps can be taken up immediately so that entrepreneurs need not worry about the Panchayat licensing or Pollution control board regulations etc again.
6. Student's facilitation: Attractive skilled technical groups can be moulded as entrepreneurs on the day of their passing itself and start enrolling at the portal established. (graduated students, veterinary, agriculture, dairy technology, poultry, vocational higher secondary can be made as entrepreneurs. Sufficient priority should be given to them in LSGD projects.
7. Workshop on DPR preparation. As these policy changes and state-level goals in animal husbandry must reach the implementing officers and panchayat authorities a workshop can be arranged with the help of KILA or IMG incorporating all.
8. State-level data bank of entrepreneurs in animal husbandry: In every new initiative data plays a vital role, similarly in all the entrepreneurs in the animal husbandry sector need to be well connected across the state so that they can have an exchange of creative ideas in this sector and the marketing, managerial and administrative strategies they are following individually can be shared each other. Also, sales and supply needs may be related and can be easily met if they are connected. So already existing models developed

and managed by the animal husbandry department of Kerala can be modified and can be modernised with adequate features which can include all the data of the entrepreneurs in the animal husbandry sector in the whole of Kerala. It is recommended to make it available in the public domain, so there will be a chance for sharing of the knowledge on modern technologies. So, there will be the transfer of technical knowledge from one farmer to another, which enhances the overall coordination and unity among the entrepreneurs in the animal husbandry sector.

9. Feed rationing system: As Kerala is a state with the most effective public distribution system, it is recommended to add the supply of livestock feeds through a new PDS (public distribution system) which can be implemented through cooperative societies which include cattle, poultry feeds. We can monitor it through a highly effective GPS-enabled software system through which the animal husbandry department can effectively report the needful entrepreneurs or farmers. It is recommended to implement a two-card system. One card with a 25% subsidy and the other with a 50% subsidy. Priority cards: This cardholder can get cattle feed with a 50% subsidy of at least 1.5kg feed/adult cattle/day and 0.75kg feed/calf/day. This may be extended to all large ruminants reared for production except calves enrolled in the special livestock policy of AIHD or dairy dept. or MILMA. Non Priority cards: This cardholder can get cattle feed with a 25 % subsidy for at least 1.5kg feed/adult cattle/day and 0.75kg feed/calf/day. This can be applicable for all large ruminants reared for production except calves enrolled in the special livestock policy of AIHD or dairy dept. or MILMA
10. Capacity building is an integral part of any entrepreneurship programmes that must be designed in such a way to reap benefit all who require it. Emphasis on market lead Production approach will favour sustainability
11. Because 70% of the recurring cost of most animal farms is on account of the feed cost, R&D institutions should support local level quality assured feed manufacturing units producing low-cost feed.

MEDIUM-TERM GOALS FOR EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

1. Integration of engineering institutions : Animal husbandry needs engineering and technological support for the development of farm mechanisation and modernisation, food technological solutions which are important but require time to innovate and hence be classified as a medium-term goal.
2. Entrepreneur Funding agency interactions: Banks and other institutions are ready to lend and hence they need a connecting instructional link with farmers which can also be a priority hence programmes and policies are to be chalked out for this linkage to the framework in the medium term.

LONG-TERM GOALS FOR EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

Development of SOP

All the different livestock-based entrepreneurship activities should have an SOP each to be readily available to any new entrepreneur

Tie up with start-up mission:

Start-up mission, KDISK, etc are also taking up the mission of improving employment status, and hence an MoU in this regard will be a welcome strategy in the long term so that many marketing and trading projects will benefit

Formation of a white army

Just like the green army Haritha Karma Sena etc. a labour pool is to be made available for animal husbandry activities. The only difference is the milking activity and animal heeding require specialized training for the skill development of workers/farm labourers. So, the formation of a white army may be considered a long-term strategy. The manifesto of the present government also envisages the establishment of dairy farms of 40-50 cows which require trained manpower to handle.

Marketing strategies:

Marketing strategies have to be developed as a long-term goal in branding, packing, market forecast, product presentation, new product development, etc. to finally improve the export potential of our state in terms of products of animal origin. Research and Development regarding the product have to be promoted. KVASU has to take up need-based R&D. Faculty should also improve their capacity to be able to develop standards for mechanization, phytosanitary measures, technology transfer, and export strategies to target the promotion of international markets. Capacity-building training at the national and international levels should be encouraged to find the real potential.

5. LEGAL AND ADMINISTRATIVE MEASURES TO BE ADOPTED AT DIFFERENT LEVELS OF GOVERNANCE INCLUDING LSGIs TO IMPROVE THE EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY

A rigid administrator and legal regulatory framework will adversely affect entrepreneurship. If opportunity costs and start-up costs are high, entrepreneurs will be reluctant to indulge in entrepreneurship. In such conditions, a rationale-potential entrepreneur will not pursue the opportunity and will not create value through a new product, process, or market. Considering this it is advisable that the regulatory framework may be designed in such a manner as to promote entrepreneurship in the sector. The regulatory framework includes the issue of licenses, permits, sanctions, all taxes, regulations, and other public rules and institutions affecting entrepreneurship

IMMEDIATE AMENDMENTS REQUIRED

As per Kerala Panchayat Building rules, rearing of 1000 birds, six animals, 20 cows, and 50 goats do not require any license. But the licenses of the pollution control board and fire and rescue forces are required for growing more than 101 hens. But in Kerala Panchayati Raj Farm Licensing Rules (rule 3) there is a discrepancy that for rearing more than 5 cows or 20 goats or 5 pigs or 25 rabbits and 100 poultry, farm license is required. This has to be amended.

Administrative Burdens For Entry And Growth Shall Be Removed:

The time needed for applying and getting a permit or license for new business registration to LSGD or filing taxes and financial statements for already existing firms to the Industries department and getting it approved shall be reduced. As of now, it will take months to get it approved. This shall be made more convenient for the entrepreneurs.

Institutions like Co-operative Societies, Banks, Kudumbashree, and Employment Guarantee Scheme should be included in the planning process itself. The employees of the animal husbandry or dairy departments should have a deep connection with all these institutions and with the people of the locality and the political system. They should be supported by R&D intuitions in finalizing projects outside their domain of expertise. Grama Sabhas should be made more participatory.

As far as possible integrated projects with subcomponents implemented by different production departments should give priority so that each year's plan addresses a larger issue of the Panchayat which in turn is in line with the state policy.

Banking Regulations

Banks and creditors will not provide as much money to entrepreneurial activities if they do not have significant claims to bankrupted assets. Governments can offer a variety of schemes to relieve the costs of bankruptcy, including debt relief schemes, restructuring,

and postponement of debt possibilities. Department relief schemes can be offered which can regulate the length, uncertainty, and cost of going bankrupt, thereby altering both direct and indirect costs arising as a result of bankruptcy. Safety, health, environment, and product regulation:

FSSAI regulations are important as they ensure that firms produce safe products without harming the environment or their employees. The regulation may, however, be a burden for firms as they might induce costs on the firm production but shall be imposed strictly by remunerative support because safe food manufacturing culture will in the long term favour marketability.

The negative impact of strict labour market regulations, such as high minimum wages and rigid firing regulations is counterproductive to effective employment. Secondly, limitations such as hiring and firing inflexibility can have severe impacts on a corporation trying to grow or develop a business culture, often through trial and error, that fits with the overall vision and strategy of the company.

Social and Health Security

Social security benefits, including health care, pensions, and unemployment benefits, can serve as entry barriers if they are reduced or eliminated as a result of becoming an entrepreneur. Social security policies that put entrepreneurs and wage-labourers on equal footing in terms of qualifying for benefits can neutralise any discrimination that could otherwise harm the number of potential entrepreneurs pursuing opportunities. In brief the system should be based on trust. Rather than the entrepreneurs being viewed as merely a businessman aiming for personal profits, he/she should be valued as the factor favouring public financial growth and social progression. As of now, the government departments are farmer-friendly, but they are not entrepreneurship friendly. The credit facilities may be relaxed to the extent that entrepreneurs can easily avail loans and financial benefits.

Tackling the Land Issue

Land reforms act and plantation acts may have to be revisited because big farms of animal husbandry need larger extend of land for fodder cultivation and mechanisation.

Easy Clearance & Fast Track

Issue temporary licensing for a particular period at the time of application by the single window system already explained earlier

Conclusion

To fully utilize the potential of the animal husbandry sector including the dairy and food technology continuous monitoring of the ease of doing a venture related to the sector is essential. An innovative person with sufficient skill will be encouraged to take up the impactful business if sufficient handholding is ensured. Proper registration, easy licensing, and assured financial support will create an atmosphere of trust and entrepreneurship culture in this most promising sector. By utilising the participatory principle of extension, this framework can suggest the model of innovation to the imitating entrepreneur and encourage even a drone entrepreneur.

APPENDIX -1

**PROCEEDINGS OF THE MEMBER SECRETARY
STATE PLANNING BOARD
(Present: Sri. Teeka Ram Meena IAS)**

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) – Constitution of Working Group on Animal Husbandry and Dairy sectors – Revised Proceedings - reg.

Read: 1. Note No. 297/2021/PCD/SPB dated: 27/08/2021
2. Guidelines on Working Groups
3. This Office order of even number dated 08.09.2021

ORDER No. SPB/342/2021-Agri(2) Dated:14.09.2021

As part of the formulation of Fourteenth Five Year Plan, it has been decided to constitute various Working Groups under the priority sectors. Accordingly, the Working Group on **Animal Husbandry and Dairy sectors** is constituted. For the smooth functioning of the Sectoral Working Group (SWG), it is decided to split the Working Groups into Expert Sub Groups (ESG). Hence the Working Group is categorized into Five Expert Sub Groups as indicated in the proceedings. The names of the members of the SWG are indicated under each ESG. The Working Group shall also take into consideration the guidelines read 2nd above in fulfilling the tasks outlined in the ToR for the Working Group.

1. PREPARING KERALA FOR A SURPLUS IN MILK PRODUCTION: A PLAN

Co - Chairperson

1. Dr P. Sudheer Babu, Registrar, KVASU
2. Mr. K. S. Mani, Chairman, MILMA

Members

1. Dr G. R. Jayadevan, Assistant Professor, Dairy Technology, KVASU
2. Dr Archana Chandran, Asst. Professor, Dairy Technology, KVASU
3. Ms Mini Ravindradas, Director, Dairy Development Department
4. Sri K Sasikumar, Joint Director, Dairy Development Department
5. Mr.Prakash, Joint Director (Rtd), Dairy Development Department
6. Ms V. S. Harsha, Assistant Director, Dairy Development Department
7. Dr Denny Franco, Assistant Professor, Agriculture Economics RARS, Ambalavayal, Wayanad
8. Mr K. R. Mohanan Pillai, Karthika, Kottara, Kollam - 691537
9. Dr B. N. Shaji, Assistant Director (Rtd), Animal Husbandry Department
10. Mr Biji. V. Easo, Joint Director(Rtd), Dairy Development Department

Terms of Reference

1. To assess Kerala's progress in increasing milk production over the past decade, and its sufficiency vis-à-vis the domestic demand for milk and milk products.
2. To examine the potential of Kerala to produce a surplus in milk production and suggest measures for policy preparedness.
3. To assess the extent of infrastructural and institutional requirements to meet the challenge of surplus milk production in Kerala.
4. To suggest measures to modernise the functioning of dairy cooperatives in Kerala.
5. To suggest specific measures for diversification of milk use into value added products.

2. INCREASING PRODUCTIVITY AND PROFITABILITY IN LIVESTOCK: CHALLENGES AND PATHWAYS

Co - Chairperson

1. Dr M. R. Saseendranath, Vice Chancellor, Kerala Veterinary and Animal Sciences University
2. Dr Jose James, Managing Director, Kerala Livestock Development Board

Members

1. Dr Patil Suyog Subhashrao IFS, Managing Director, Milma
2. Dr C. Latha, Dean KVASU
3. Dr P. T. Suraj, Associate Professor, Livestock Production Management, KVASU
4. Mr V. S. Padmakumar, Kerala Karshaka Sangham, Anitha Bhavan, Edavakkode, Sreekaryam
5. Mr Koshy K Alex, Deputy Director, Dairy Development Department
6. Dr K. Sindhu, Director, Institute of Animal Health and Biologicals, Palode
7. Dr Murali, Managing Director, Malabar Milk Union
8. Mr N. K. Subramanian, Naduvil Purakkal Veedu, Mullassery P.O, Thrissur
9. Dr Shajil, Assistant Director, Animal Husbandry Department
10. Dr Easwaran, Deputy Director (Rtd), Animal Husbandry Department
11. Dr Binu Prasanth, Assistant Director, Animal Husbandry Department

Terms of Reference

1. To assess the productivity in Kerala livestock sector over the past decade.
2. To suggest measures to improve Kerala's productivity in livestock farming to the levels of best performing states, including through better breeding, feeding and management.
3. To assess the demand and supply of fodder in Kerala and suggest measures to increase fodder production in the short-term and medium-term.

4. To suggest measures to increase investments in larger livestock farms in the State.
5. To suggest measures to improve the system of registration of all livestock in the State, especially dairy animals.

3. EASE OF ENTREPRENEURSHIP IN ANIMAL HUSBANDRY: REFORMS IN POLICY AND ADMINISTRATION

Chairperson

1. Ms Tinku Biswal, Secretary, Department of Animal Husbandry

Members

1. Dr A. Prasad (LPM, KVASU)
2. Dr Sajith Purushothaman, Assistant Professor, KVASU
3. Dr Syam Suraj (AP, DBM, KVASU)
4. Smt. Rejeetha, Deputy Director (IT), Dairy Development Directorate
5. Mr C. P.-Shyjan, Niranjana, Vayalambalam Temple Gate P.O, Kannur 670102
6. Dr. C.V. Thomas, Cherukarakunnel, Kalaketty P.O
7. Dr Pradosh, Assistant Director (Rtd), Animal Husbandry Department
8. Dr Selvakumar, Assistant Director, Planning, Animal Husbandry Department

Terms of Reference

1. To suggest a broad quantitative framework to regularly assess ease of entrepreneurship in animal husbandry in Kerala.
2. To identify the constraints to the flow of entrepreneurial capital into the processing and value addition segments in animal husbandry.
3. To suggest short-term, medium-term and long-term measures to improve the ease of entrepreneurship in animal husbandry.
4. To suggest legal and administrative measures to be initiated at different levels of governance, including LSGIs, to improve the ease of entrepreneurship in animal husbandry.

4. INCREASING MEAT PRODUCTION IN KERALA: THE ROLE OF PUBLIC POLICY

Co - Chairperson

1. Dr A. Kowsigan IAS, Director, Animal Husbandry Directorate
2. Dr B. Sunil, Prof & Head, Department of Livestock Products Technology KVASU, Mannuthy

Members

1. Dr.N.Ashok, Director of Academic, KVASU
2. Dr V. N. Vasudevan, Assistant Professor, Department of Livestock Products Technology KVASU, Mannuthy

3. Dr A. Irshad, Assistant Professor, Department of Livestock Products Technology KVASU, Mannuthy
4. Dr A. S. Bijulal, Managing Director, Meat Products of India
5. Mr A. Krishnaprasad, Chairman Brahmagiri Development Society, AIKS
6. Mr M. Sukumara Pillai, Plamoottil, Pathiyoorkkala, Keerikkad P.O. Alappuzha 690508
7. Dr Janakidas, District Epidemiologist, Animal Disease Control Project, Pathanamthitta
8. Dr T. R. Jayakrishnan, Veterinary Surgeon, Animal Husbandry Department
9. Dr Chandrababu, Veterinary Surgeon, Animal Husbandry Department

Terms of Reference

1. To assess the progress made in Kerala in increasing meat production over the past decade.
2. To assess the overall demand and supply of different types of meat in Kerala, and the level of dependence on inter-State trade.
3. To prepare a roadmap – a Meat Sector Strategic Plan (MSSP) – for increasing meat production in the next decade comprising production, processing and marketing of meat and meat products.
4. To suggest requirements of infrastructure and investment in the development of a value chain in meat, including aggregation, slaughtering, processing, integrated cold chains and retail outlets.
5. To suggest specific policy measures to prepare the State for better hygiene, quality and food safety in the meat sector.
6. To identify specific research gaps in the meat sector and suggest measures to improve the research-extension linkages.

5. THE POULTRY SECTOR IN KERALA: CHALLENGES TO GROWTH AND POLICY SUGGESTIONS

Co - Chairperson

1. Dr P. A. Peethambaran, Professor (Rtd) (KVASU)

Members

1. Dr P. Anitha, Professor & Head, Department of Poultry Science, KVASU, Mannuthy
2. Dr. Harikrishnan, Assistant Professor, Department of Poultry Science, Mannuthy
3. Dr R. Sudhi, Veterinary Surgeon, Animal Husbandry Department
4. Dr Binoj Chacko, Assistant Professor, KVASU
5. Dr Prakash T, Joint Director (Retd), Animal Husbandry Department
6. Dr Vinod John, Managing Director, KSPDC
7. Mr Mohandas, Panavilakom Veedu, Thirupuram P.O, Neyyattinkara -695133
8. Dr A Sajeev Kumar, Programme Officer, Animal Husbandry, Kudumbashree
9. Dr Sunil Kumar, Additional Director (Rtd), Animal Husbandry Department

Terms of Reference

1. To assess the progress made in Kerala in increasing chicken and egg production over the past decade.
2. To assess the overall demand and supply of chicken and egg in Kerala, and the level of dependence on inter-State trade.
3. To prepare a roadmap – as part of the Kerala Chicken Project – for increasing chicken and egg production in the next decade comprising production, processing and marketing.
4. To suggest requirements of infrastructure and investment in the development of a value chain in chicken and eggs, including production, aggregation, processing, integrated cold chains and retail outlets.
5. To suggest specific policy measures to prepare the State for better hygiene, quality and food safety in the poultry sector.
6. To identify specific research gaps in the poultry sector and suggest measures to improve the research-extension linkages.

Convener

Mr. S.S.Nagesh, Chief, Agriculture Division, State Planning Board

Co- Convener

Ms. Kumari Sangeetha K.R, Deputy Director, Agriculture Division, State Planning Board

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.

2. The expenditure towards TA, DA and Honorarium will be met from the following Head of Account of the State Planning Board "3451-00-101-93"- Preparation of Plans and Conduct of Surveys and Studies.

The order read as reference 3 is modified to this extent.

(Sd/-)
Member Secretary

Forwarded By Order


Chief,
Agriculture Division

To

The Members concerned

Copy to

PS to Vice Chairperson
PA to Member Secretary
CA to Member (Dr.Ramakumar.R)
Economic Advisor to VC
Chief, PCD,SPB
Sr. A.O, SPB
The Accountant General, Kerala
Finance Officer, SPB
Publication Officer, SPB
Sub Treasury, Vellayambalam
Accounts Section, File/Stock File