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Technical Vetting Report

AGRI BUSINESS

COMMERCIAL LAYER UNIT UNDER ENVIRONMENTALLY CONTROLLED HOUSE

M/S. RIYA DIYA AGRO FARMS LLP (CAPACITY: 2,00,000 LAYER BIRDS)

BRANCH: SME BRANCH ADITYAPUR (06726)

This report pertains to the technical feasibility study conducted for the financing of new poultry layer unit of capacity 2,00,000 layer birds of M/s Riya Diya Agro Farms LLP located at Vill. Baranata, Chakulia, Pubi Singbhum, Jharkhand - 832301

Methodology

The undersigned adopted the following methodology for conducting the technical study:

1. Visit the farm site along with the promoters of the proposed unit.
2. Holding discussion with Chief Manager and RMSME (SME branch Adityapur)
3. Study the DPR submitted by the promoter's on the status of project and other businesses of the proprietor.

The observations/report may be presented for perusal as hereunder: -

Location of the Farm:

- Proposed farm is located at Vill. Baranata, Chakulia, Pubi Singbhum, Jharkhand – 832301 which is approx. 90 kms away from SME branch, Adityapur.
- No pollution making unit is located nearby.
- This area is not flood affected area.
- The climate is suitable for layer farming.
- All the requirements to establish a layer farm is available in and around the area.

Remarks: The proposed Location is having ideal climatic condition for establishment of Poultry Layer Unit. Land leveling and boundary wall construction is already started by the promoter. Branch officials/ sanctioning officials **should verify all the land documents acquired for construction of poultry unit along with other civil constructions before processing the loan.**

A. Technical aspect:

Poultry egg and meat are important sources of high-quality proteins, minerals and vitamins to balance the human diet. Specially developed breeds of egg type chicken are now available with an ability of quick growth and high feed conversion efficiency. Depending on the farm-size,



layer (for eggs) farming can be main source of family income or can provide subsidiary income and gainful employment to farmers throughout the year. Poultry manure has high fertilizer value and can be used for increasing yield of all crops.

India has made considerable progress in egg production in the last three decades. High quality chicks, equipment, vaccines and medicines are available. Technically and professionally competent guidance is available to the farmers. The management practices have improved and disease and mortality incidences are much reduced. Many institutions are providing training to entrepreneurs. The improved layer population has increased from 35 million in 1961 to 260 million in 2019. The egg production in the same period has increased from 2,340 million to 42380 million. The per capita egg availability at present is 41 eggs; while as per ICMR recommendations about 182 eggs per person per year are required to balance the common vegetarian diet. Increasing assistance from the Central/State governments and poultry corporations is being given to create infrastructural facilities so that new entrepreneurs take up this business. Layer farming has been given considerable importance in the national policy and has a good scope for further development.

Selection of Chicks:

Purchase improved strain of one day old healthy egger type chicks from a reputed hatchery. Usually 2-5% extra chicks are supplied.

Proposed/ Prevailing: The Day Old chicks (DOC) of Skylark Bovans White breed which are lay egg upto 100 wks of age are proposed to be purchase from Bihar and Jharkhand.

Comment: Before purchasing day old chicks the promoter must ensure that the chicks will be supplied from reputed hatchery and fulfill the following above points.

Housing:

Select well raised land for poultry sheds. Land with hard rock is more suitable. Avoid water logging and flooding near the sheds. Provide separate sheds for growers and layers. Ensure adequate facility for water, electricity, approach road, supply of chicks, feed, veterinary aid and nearness to market for sale of cull birds and eggs. Obtain training/experience in layer farming before starting a farm. You should be prepared to stay on the farm and have constant supervision. Provide adequate floor space per bird. BIS specifications for construction of poultry sheds are available.

Space Requirement Data

Age	Floor space		Feeding space (inches)	Watering space (inches)	Height of feeders & waterers	Litter depth (inches)
	(sq.ft./bird) DL	CS				
0-8 weeks	0.5	0.25	2.0	0.6	1.5	3
9-16 weeks	1.0	0.55	2.5	0.8	2.5	4



17-100 weeks	2.0	0.80	3.0	1.0	5.0	6
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Construct sheds in such a way that the end walls face East-West direction and the side walls face North-South direction, so that rain water will not enter the sheds. Provide strong roof and hard flooring. Raise plinth of the shed at least one feet above the outside ground level. Provide 3 to 4 feet overhang of the roof to avoid entry of rainwater inside the shed. Provide at least 50 feet distance between two sheds in the same sector and about 150 ft between growing and laying sector. Provide adequate light and ventilation and comfortable housing conditions during all seasons (cool in summer and warm in winter). Construct sheds in such a way that predators (cats/dogs/snakes) will not enter the shed. Avoid entry of rats by constructing rat proof civil structures. Keep the shed clean and free from flies/mosquitoes etc. After every batch of growers/culled birds is disposed off, the dirty litter material and manure should be removed, walls and floors should be cleaned, white washed with lime and disinfected with 0.5% malathion or DDT insecticide spray. If deep litter system is followed, always use dry and clean litter material (sawdust, paddy husk, etc.). Spread 4" layer of litter on the floor, keep clean/disinfect brooding, feeding and watering equipment and then introduce chicks in the house. The litter material should be always kept loose and dry. Stir the litter twice a week. Any wet litter/droppings etc. should be removed and replaced with fresh/clean dry litter. If cage system is followed, ensure that droppings are spread with lime powder or 10% malathion spray twice a month to prevent menace of flies. The droppings under the cage can be removed after 6 months.

Proposed/ Prevailing: According to project report submitted by the promoters the birds are reared under cage system of rearing under environmentally controlled housing system.

Feeding of Birds

Use high quality balanced feeds. Starter feed (upto 8 weeks of age), grower feed (9 to 16 weeks of age) and layer feed (17 to 100 weeks of age) manufactured by reputed institutions/companies should be used. BIS feed formulae and specifications are available. With proper knowledge/ experience, the feed can be prepared on the farm. Feed requirements of birds are shown below

Average growth rate and feed requirement for Breeder egg type chickens

Age in weeks	Average weight of bird (gms.)	Cumulative feed in kgs. Per 1,000 birds
4	275	650
8	590	1900
12	850	3400
16	1100	5000



20	1300	7000
24	1550	10000
30	1600	14500
40	1700	22000
60	1700	37000
80	1700	52000
100	1700	67000

Store the feed in clean, dry, well ventilated room. A wet feed may bring fungus infection. Use properly designed feeders and control the rats to avoid feed wastage. Provide adequate feeding space per bird. More space is required as the bird grows in age. Keep proper records on feed consumption per bird for each batch. About 7 kg. feed upto 20 weeks and 67 kg. feed from 21 to 100 weeks of age is required. Excess consumption may be due to feed wastage, rats, low temperature of shed or poor feed quality (low energy feed). Too low feed consumption may be due to disease condition, low quality/unpalatability of feed, high temperature in poultry shed.

Proposed/ Prevailing: The unit has proposed to construct its own in house 5-6 tons per hour Mash Feed Plant having 60-90 days storage capacity silos to take advantage of even changing price of feed specially the maize the main ingredient of poultry feed.

Comment: The feed ingredients required for Poultry layer feeds are available in local market of Jharkhand and Bihar. It is advisable to construct the in house feed mixing plant and silos where capacity of the farm is more than 20000 layer birds to reduce the feed cost of the unit.

Watering of Birds

Always give fresh and clean drinking water. Water should be always available at birds. Use properly designed watering equipment. Provide adequate watering space per bird. Always keep water-pots clean. Avoid birds entering inside pots. Provide cool water during summer. Store the water in tanks that are not exposed to hot sun in summer.

Comment: To manage a successful layer farm quality of the water is very much important. Therefore, the unit must submit the ground water quality report from appropriate authority to the branch before sanctioning the loan.

Disease Prevention/Control

Clean sanitary conditions of poultry sheds and equipment, balanced feed, fresh clean water, healthy chicks are essential to prevent diseases. Avoid entry of visitors to farm, especially inside the sheds. If visitors come, ask them to dip their feet in a disinfectant solution, wash and clean



hands and to wear apron/boots provided by the farm. Use proper vaccination schedule. Use high quality vaccines purchased from reputed manufacturers. Keep vaccines in cool, dry conditions away from sunlight. Any left-over vaccine should be properly disposed off. Vaccines should not be used after their expiry date is over. Any dead bird should be immediately removed from the shed and sent to laboratory for post-mortem examination or buried/burnt suitably away from the poultry sheds. The waste of farm should be suitably disposed off. Different workers should be employed in brooding and laying sheds. Any bird showing advanced signs of a disease should be removed from the shed and culled. It can be sent to laboratory for diagnosis. Birds showing advanced signs of a disease should be shown to a qualified veterinarian and suitable medication/treatment be given as per his/drug manufacturers recommendations. Poultry manure, if infected, can spread disease, from one batch to another. Keep the litter dry, remove it after flock is sold and dispose the manure properly and quickly. Keep proper records on mortality and its causes and the treatment given to birds. Dates of vaccination for each flock should be properly recorded. Rats are important carriers of poultry disease. Avoid rats. Use suitable rat poisons/rat traps. Many poultry medicines can be given in drinking water. When medication is to be given, remove the waterers in poultry sheds on the previous evening. Next morning give medicine in measured quantity of water, so that entire medicine will be quickly consumed and there will be no wastage of medicines. Mild infection of disease may not cause mortality but it will reduce growth. Keep sample record of body weight for growers, mortality rate and egg production. Study the possible causes, if weight is low or egg production is low and take steps to improve the management of the subsequent batches. A Constant vigil and analysis of records/results is necessary to keep up the efficiency in farming.

Comment: A well-equipped veterinary Sub Centre is situated at Chakulia which is approx. 8 kms away from the proposed site. Apart from this the promoter will appoint one Veterinary doctor for daily look after the birds.

Lighting Management: The duration of light should be 16 hours per day, but not beyond 17 hours. No advantage is obtained by exceeding this limit. The amount of light given to the flock in one day should never be less than that given the day before. A decreasing day length can prematurely cause hens to go out to production. One 40 watt electric bulb is sufficient for 200 sq.ft. area.

Comment: As the promoter is proposed to construct environmentally controlled shed for layer birds, therefore, this aspect will be easily taken care by the promoter.

Waste Management: Poultry waste is one of the major pollutants if not properly disposed. It is mandatory to concentrate on the following poultry farm waste products which are mainly responsible for the environmental pollution:

- Poultry feather
- Poultry offal

- Poultry litter/manure

Therefore waste management has played a very important role in successful poultry farming.

Proposed/prevaling: This aspect is covered in the DPR submitted..

Comment: Before starting the unit, the promoter **must take necessary permission from the pollution control board and Panchayat of the village where the unit is proposed to establish.**

B. Managerial Aspect:

Name of the unit: M/S. Riya Diya Agro Farms LLP

M/S. Riya Diya Agro Farms LLP is a Limited Liabilities Partnership firm. The details of the partners are as follows:

1. Name	Mr. Durga Madhav Dagara
Experience	Mr. Durga Madhav Dagara, is a resident of 5 & 6 Durga Niwas, Hume Pipe Road, Sakchi, Jamshedpur, Jharkhand- 831001. He is a commerce graduate and having more than 20 years of experience as a contractor of civil construction like roads, bridges and water resources infrastructure along with iron ore mining as an entrepreneur and director of multiple companies. He has experience in rearing goat, poultry and fish in traditional way of rearing.
2. Name	Mrs. Kajal Dagara
Experience	Mrs. Kajal Dagara, W/O. Mr. Durga Madhav Dagara, is a commerce graduate and always played an active role in her husband's business

Remark: The partners of the unit have sufficient knowledge about the various poultry business. Apart from this person with technical and managerial abilities will be recruited on permanent basis by the applicant to look after the daily activity of the farm.

C. Economical Aspect:

Marketing:

Proposed / Prevailing: The demand of egg is very high in the local market. So, proposed unit can easily sell its product. The promoter proposed to sale egg in entire Jharkhand state and West Bengal.

Comment: The egg have a huge demand in the market. As per data in 2018 there is a gap of approx. 77% between the production and domestic market consumption of egg in Jharkhand state. Therefore, no problem is anticipated regarding the marketing of egg. Before sanctioning the loan the branch official/sanctioning authority must ensure that the promoter will provide proper marketing arrangement for marketing of egg.

D. Financial Aspect:

Loan Facility: Agricultural Term Loan and Agriculture Cash Credit

Means of Finance/Funding of Project:

For Term Loan and Cash Credit (As per DPR submitted):

For Term Loan	
Land Dev/Building/ Other Civil Works	Rs. 11.72 crs.
Plant & Machinery	Rs. 8.66crs.
Electric Installation	Rs. 0.41 crs.
Furniture & Fixture	Rs. 0.06 crs.
Security Deposit	Rs. 0.02 crs.
Others	Rs. 1.42 crs.
Working Capital Margin	Rs. 1.66 crs
Total	Rs. 23.95 crs.
Promoter's Contribution	Rs. 10.03 cr.
Term Loan	Rs. 13.92 cr.
Working Capital requirement	Rs. 3.40 cr.
BG	Rs. 0.20 cr.
Total loan requirement	Rs. 17.52 cr.

Rate of Interest: The project has loan amount of Rs. 17.52 cr. So CRA rating must be done by the sanctioning authority based on their latest projected balance sheet.

Security: Primary: Hypothecation of assets created out of Bank finance.

Collateral: Equitable Mortgage of landed property and any other approved security.

Remarks: Equitable mortgage of landed property other than agriculture land and third party guarantees or surrendered value of life insurance policy/NSCs/FDs is good for loan amount may be explored, if possible.

Moratorium Period: 18 months (one year six months) from 1st disbursement of loan.

Repayment: To be repaid within 9 years including a gestation period of 1 year 6 months in 90 equal monthly instalment + interest.

Documentation: As applicable to AHIDF and ACC

Disbursement:

In phases manner depending on the progress of work.

Disbursement will be by way of

- (a) cheque(s)/ credit to contractor's account for shed construction and subject to submission of vouchers/receipts and utilization certificate and after verification of the progress of work by the Branch Official(s) to their full satisfaction before disbursement of each subsequent instalment.
- (b) Cheque(s) to the supplier(s) of chicks, other equipment and feeds etc. Payments for the suppliers to be made on the basis of quotation prices.

Utilization certificate along with vouchers must be obtained before each disbursement.

Insurance: The birds and other assets (poultry sheds, equipment) may be insured. Wherever necessary the risk/mortality fund may be considered in view of insurance.

Financial Parameter:

Remarks: Before sanctioning the loan, the sanctioning authority must study the financial parameters before arriving at a final credit decision.

SWOT ANALYSIS:

Strength:

1. The promoters are high net worth individuals, mines owner, civil contractor and experience businessmen
2. The climatic condition of the area is ideal for layer farming
3. The farm will be constructed with modern automated equipments.
4. Availability of both skilled and unskilled labour.

Weakness:

1. The promoters are new to this type of livestock business.
2. Ever changing Govt. rules and regulations.
3. Highly competitive business, but not a challenge for quality production.

Opportunities:

1. There is always a huge gap between demand and supply of egg in Jharkhand. In Jharkhand, table eggs are mainly coming from Andhra Pradesh, UP and Bihar. Therefore, there is a sufficient scope for marketing of eggs produce by this farm.

Threats:

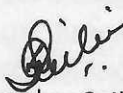
1. Change in Govt. Policies over time
2. Outbreak of pandemic disease like bird flu.

Conclusion:

In view of the foregoing, the project of Commercial layer unit, to be located at Vill. Baranata, Chakulia, Pubi Singbhum, Jharkhand – 832301 is **considered to be technically feasible and economically viable**. In case a credit decision is taken in favour of the unit, disbursements should be made on actual cost being incurred on civil construction, installation of plant & machinery and misc. fixed assets, purchase of chicks, feeds and other related equipments based on bills /contracts /supply orders with the suppliers, as the assessed cost of the some of the machinery / misc fixed assets is based on un-negotiated quotations as well as market enquiries. Branch/sanctioning authority shall ensure that:

1. Sufficient collateral security against the loan.
2. End use of funds.

The project may be considered for finance at a fair banking risk. The project is found technically feasible and economically viable.


(Dipankar Saikia)
Farm Sector- Technical Officer