DETAILED PROJECT REPORT FOR ESTABLISHMENT OF GOATERY UNIT



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Introduction

In West Bengal, contribution of Agri. and allied sectors to state GDP is increasing very slowly because there is potentials in some of the agri. allied sectors like rearing of live stocks specially Goat, cow, poultry and aquaculture specially inland fisheries but the fact is that those sectors are not taking up to the extent it should be. Present population the state is approximately 10.02 crore and Population of ABC District is 57.97 lakh (almost 6% of the state population). It is noted that unlike live stocks, other allied sectors is quite organized and growing through cooperatives under the control of respective state federation but in case of live stocks and poultry, there is as such no presence of cooperatives. These are the sectors which may be taken up by rural farmers apart from their farming activities for uplifting their livelihood through cooperatives.

XYZ Goat Rearing Cooperative Society Ltd., ABC District, West Bengal, has been recently registered under WB State Cooperative Societies Act. It has not yet started its operation. There are 20 members in the society. All of them are having long experience in rearing live stocks like goats and cows etc. They are rearing goats in less numbers and due to lack proper marketing channels and unawareness of scientific method rearing, they could not fetch right price to make it sustainable. They only get the price which is decided by local butchers. However demand for chevon (goat meat) is tremendous not only in the district also in the state. Now, they would start rearing goats of locally available breed i.e. Black Bengal Goat.

Each member would contribute ₹1.00 lakh towards share capital contribution for the rearing unit. Total share capital is ₹20.00 lakh. Remaining would be arranged in the form of loan and subsidy.

2. Project Objectives

- Up-liftment of rural livelihood;
- Strengthening of human resources for overall development of small ruminants through cooperative;

- Developing a skill-pool of Cooperatives for taking up small ruminant development projects;
- Orientation of Federation in future development to develop organized small ruminant sector in an integrated manner;

3. Business Methodology

Each member would be provided a flock of 100 does and 4 bucks. For rearing goats, members would be provided financial assistance through the cooperative for creation of infrastructures like small shed with straw thatching, concrete flooring and net fencing etc. Feed concentrates and medicines would also be provided by the cooperative. Veterinary aids would be provided by Block Veterinary hospital/ clinic.

Healthy goats would be procured by the cooperative and distributed to the members. All the members would be imparted a hand hold training while rearing goats. At the maturity, animals (does & kids) would be marketed by the cooperative only. Farmers would be given fixed wages/ salary and commission based on body weight of goat and hygiene practices adopted. Selling price would be decided by the Board of the Cooperative to earn maximum profit.

4. Cost components for each member

Total goats – a) Bucks – 4 (₹5000/- per buck)

b) Does – 100 (₹4000/- per doe)

(₹ in lakh)

S. No.	Items	Cost
1	Civil construction	2.65
2	Equipment & machinery (Chaff cutter/feeding trough/water supply & others)	0.72
3	Cost of animals	4.20
4	Insurance of animals(Rs. 250/- per buck & Rs. 200/- per doe)	0.21
5	Vety. Aids & medicine, fodder cultivation (2 acres), supplementary	0.66
6	Labour charges (wages- 2 labours & Rs. 300/- per person)	1.44
	Total cost	9.88

Apart from the above, for technical know-how and awareness of goat rearing practice in scientific way, rearers would be imparted training in PQR Cooperative Research and Training Centre.

5. Means of Finance

S. No.		(₹ in lakh)
1	Loan (70%)	6.92
2	Subsidy (20%)	1.97
3	Member's contribution (10%)	0.99
	Total project cost	9.88

6. Security for loans

Mortgage of land and building of the society as well as personal guarantee of members of the Society would be provided as security to avail loan. Since sale of animals would be done after attaining proper weight, moratorium of one year in repayment of principal may be provided.

7. Resources

- a) Land The society owns land of 2.25 acres located 500 mtr. away from Panskura main market. The land is full of vegetation and is suitable for goat rearing.
- b) **Building & other civil works** One building of 3000 sq. ft (L-60 ft * W-50 ft) would be constructed with roof of straw thatch and four 3 ft high walls and net fencing upto the roof.
- c) Equipment & machinery One chaff cutter is required for chopping straw and grass for animal feeding. Feeding trough for each animal is required. Pipe line for water supply is to be installed.

8. Heath care for goats

Goats are relatively easy to take care of, and sanitary housing, good quality pasture, nutritious food, and plenty of sunshine will greatly help to reduce health problems. Goats need to have their hooves trimmed every four to six weeks. This

is very important because neglect of hooves can lead to lameness and infection. Hoof trimming is a simple procedure that your veterinarian can teach you. Hoof trimmers are available through farm supply stores or catalogs. During your daily contact with your goats, always be on the lookout for any physical or behavioral changes. Symptoms indicating illness include loss of appetite, limping, listlessness, labored breathing, diarrhea, discharge from the eyes or nose, and abnormal body temperature. If any of these symptoms occur, consult your veterinarian immediately.

9. Insurance

All the animals would be tagged for identification and insured also to protect member from any kind of financial losses in case of death of animals.

10. Vaccines

Goats are vaccinated for rabies, tetanus, and clostridium (CTD). The rabies vaccine can be hard on goats, therefore the other vaccinations would be given at least one month before or after the rabies vaccine. Vaccination would get done by Veterinary doctor on schedule basis.

11. Common Health Issues of Goats

Upper Respiratory Infections., Coccidiosis, Other Internal Parasites like Lungworms and Barber pole etc., Bloat/Grain Poisoning, Abscesses, Caseous Lymphadenitis (CL), Caprine Arthritis and Encephalitis (CAE).

12. Association with Department of Animal Husbandry and Block Livestock Development Officer (BLDO)

Veterinary assistance and other technical assistance would be taken from the office of Block Livestock Development Officer. The Society would be in touch with Veterinary Doctor posted in that area.

13. Green fodder cultivation

Green fodder provides natural way of nutrients for goats and plays major role in live stock growth and health. Green fodder cultivation cuts the cost of feed. Produced green fodder can be made into silage and used for future specially in the dry summer season. Cultivation cost and maintenance of green fodder is also low. Area of 2 acres would be used for cultivation of green fodder like legume crops, grass crops, cereal based crops and tree based crops. Cost of cultivation of green fodder is ₹4000/- per acre. Surrounding areas of the Panskura town are dominated by agricultural activities, thus, there is no shortage of green fodder.

14. Demand and Market

Total population of the district is more than 57 lakh. Area of the Society itself having population more than 8 lakh is a good market. The district capital gets supplied from area of the Society. Other major towns of surrounding districts are located within the range of 35 km. Both are also good market for goat meat. There is a significant gap between demand and supply. Specially during festive and marriage seasons, there is huge shortage of meat.

15. Sale of goats and marketing strategy

ABC main bazaar and railway station market are two big markets in the area. Footfalls in these two markets are huge and demand for goat and goat meat is more than current supply. Specially there is huge demand in festive seasons like Durga puja, bakhrid and others. The society has good linkages with local hotels, restaurants and butchers. In case of large scale production, the society has plan to sell the animals in State capital market which may boost the business of the society. Goats would be procured from the rearer members on schedule basis. In future, society may open retail shop for providing hygiene goat meat to local consumers. It may help the society to grow its business.

16. Transport facility

ABC and area of the Society is well-connected by road as well as railway. National Highway is passing through the town and directly connected with Kolkata metro. ABC railway station is one of the largest stations in the district and has dedicated tracks for goods wagon.

17. Procurement of animals

A team would be constituted for bulk procurement of animals of good quality at reasonable rate. The team would consist of officials from Animal Resource Department, Co-operation Department and Secretary of the Society or officials of the Society authorized by the Board of the Society.

18. Implementation of the Project

Under the guidance and close observation of State Animal Resource Department and Co-operation Department, the Society would implement the project within specified timeline to avoid any cost escalation. Chairman of the Society would report to Assistant Registrar (Cooperation) fortnightly regarding development in the project and report would be reviewed at department level.

19. Implementation Schedule

On receipt of the sanction from NCDC towards the project, the same would be completed step by step within the following time schedule

Activities	Time for	Time for completion
	commencement	
Identification of land	Within one month from	15 days
for construction	the date of receipt of	
	sanction	
Civil construction	Within 7 working days	One month
	from the date of receipt	
	of funds	
Other basic amenities like	Within 15 working days	-

electricity supply etc.	from the date of receipt	
	of funds	
Equipment & machinery	Within 7 working days	15 days
(Chaff cutter/feeding	from the completion of	
trough/water supply &	civil works	
others)		
Procurement of animals	Within 15 working days	15 days
	from the completion of	
	civil works	
Procurement of fodder	Before procurement of	-
	animals	
Vety. Aids & medicine,	Timely basis by Animal	-
supplementary	Resource Department	

20. Techno-economic parameters for estimating financial viability (For 100+4 unit)

S. No.	Particulars	Unit cost (₹)
1	Cost of animal including transportation charges	
	Bucks (unit cost)	5000
	Does (unit cost)	4000
2	Age at first lambing (month)	10-12 months
3	Kidding percentage	85%
4	No. of kidding per year	1.5
5	Sex ratio	50 50
6	Kidding interval (months)	8
7	Mortality	
a.	Adults	5%
b.	Kids	10%
8	Culling rate among does (3rd year onwards)	20%
9	Replacement of bucks	Every 2 years
10	Cost of green Fodder cultivation (2 acres)	8000
11	Concentrate Feed	
a.	Doe (60 feeding days) in kg/day	6.75
b.	Buck (60 feeding days) in kg/day	7.50
c.	Kid (30 feeding days)in kg/day	3.75
12	Veterinary aid per animal per year	25
13	Insurance premium per animal per year	5%

14	Sale price of animals	
	Male Kids	4,200
	Female kids	3700
	Culled does	3,500
	Culled bucks	4000
15	Sale of Gunny bags (₹/bag) (13.3 bags / tonne)	10
	Assumed manure is used for fodder cultivation and remaining is sold on lump sum basis	30000/ year

21. Feasibility

The cash flow analysis of the project has been shown based on above mentioned techno-economical parameters. The IRR and DSCR of 100+4 unit have been worked out as shown in annexures.

22. USP of the project

Since the area is dominated by farming activities and farming community mainly use cow dung (compost) as manure, it would help the rearers to rear their animals organically. So, organic meat in niche market can be promoted and marketed and rearers can fetch premium price for it.

TECHNICAL PARAMETERS

	TECHNICAL PARAIVIETERS	
	No. of Bucks	4
	No. of Does	100
A.	Production Traits	
	Age at Maturity (Months)	10-12 months
	Kidding interval (Months)	8
	Kidding percentage	85%
	Twinning percentage	60%
	No. of kiddings per year	1.5
	Sex ratio	01 01
	Mortality(%) Adults	5%
	Kids	10%
	Saleable age of kids (months)	08 - 09 months
	Culling of does (% per year) from second year onwards	20
B.	Expenditure norms	
	Space requirement (st.per head)	
	Buck	20
	Doe	10
	Kids	5
	Cost of construction (Rs.per sft)	100
	Cost of equipment (Rs.per adult animal)	30
C.	Cost of Animal	- 00
<u> </u>	a) Buck	5000
	b) Does	4000
D.	Cost of Feed & Fodder	1000
	a) Cost of green fodder cultivation (Rs./acre)	4,000
	b) No. of acres	2
	Concentrate feed	
	a) Adult does (one month before breeding and one month after kidding i.e. per	6.75 kg per
	kidding)	month
		7.5 kg per
	b) Bucks (two months per breeding season)	month
	c) Kids (for 30 days)	3.75 kg per kid
	Cost of conc. Feed (Rs./kg)	11
	Labour (No.)	2
	Labour wages (Rs.per day)	200
	Insurance (as percentage of the cost of breeding stock)	5%
	Veterinary aid (Rs./adult/year)	25
	Water, electricity and other misc. expenses (Rs./adult)	20
E.	Income norms	
	Sale price of Mail kids (Rs./kid)	4200
	Sale price of Female Kids (Rs./kid)	3700
	Sale of culled does (Rs./doe) @ 20% from third year onwards	3500
	Sale price of culled Buck (Rs./buck) @ 25% from third year onwards	4000
	Income from manure is not assumed as it is used on the own farm	
	Sale of Gunnyu bags (Rs./bag) (13.3 bags / tonne)	10
F.	Repayment norms	
	Repayment period (years)	6
	Grace Period (years)	1
	Interest rate(%)	12%

UNIT COST FOR (100 + 4) GOATERY PROJECT

S.N.	Items	Nos.				Rate		Amount
	CAPITAL COST							
A.	CIVIL CONSTRUCTION							
1	Shed for Does	100	Nos.	20	sq. ft	100	per sq. ft	2,00,000.00
2	Shed for Bucks	4	Nos.	10	sq. ft	100	per sq. ft	4,000.00
3	Shed for kids	122	Nos.	5	sq. ft	100	per sq. ft	61,200.00
4	Office-cum-Store	0	Nos.	0	sq. ft	0	per sq. ft	-
B.	WATER SUPPLY							
1	Dugwell / Tube well					LS		60,000.00
C.	EQUIPMENT AND MACHINERY							
1	Chaff cutter					LS		12,000.00
D.	COST OF ANIMALS							
1	Buck	4	nos.			5000	per does	20,000.00
2	Does	100	nos.			4000	per buck	4,00,000.00
	RECURRING EXPENDITURE							
E.	INSURANCE							
1	Buck	4	nos.			250	per does	1,000.00
2	Does	100	nos.			200	per buck	20,000.00
F.	OTHERS							
1	Veterinary aid	104	nos			25	per goat	2,600.00
2	Fodder cultivation	2	acres			4,000	per acre	8,000.00
3	Supplementary				. ,			
a.	Does	100	nos	6.7	kg / month	60	days	40,200.00
b.	Bucks	4	nos	7.5	kg / month	60	days	1,800.00
C.	Kids	122	nos	3.75	kg / month	30	days	13,770.00
8	Labour wages	2	no.	200	per day	12000	per month	1,44,000.00
9	Total Cost							9,88,570.00
10	Member contribution@10% of total cost							98,857.00
11	Bank loan @70% of total cost							6,91,999.00

FLOCK PROJECTION CHART

Sl. No.	Particulars			Ye	ar				
SI. NO.	raruculars	_	=	Ш	IV	٧	VI	100 100 68	IV
	Kidding Nos.	1	2	1	2	1	2	1	2
A.	Opening Stock - Adult Bucks	4	4	4	4	4	4	4	4
	Adult Doe purchased stock	100	100	100	100	100	100	100	100
B.	Birth during the year						C		
	Male Kids	68	136	68	136	68	136	68	136
						1			
	Female Kids	68	136	68	136	68	136	68	136
C.	Mortality								
	Male Kids	7	14	7	14	7	14	7	14
	Female Kids	7	14	7	14	7	14	7	14
			Ì		*				
D.	Sale during the year								
	Male Kids	61	122	61	122	61	122	61	122
	Female Kids	61	122	61	122	61	122	61	122

ECONOMICS OF GOAT FARMING

S.N.	Particulars			Yea	rs				
		1	2	3	4	5	6	7	8
	Investment	9,88,000							
1	Income								
a)	Sale of animals								
	Sale of adult Buck	-	-	4,000	-	4,000	-	4,000	-
	Sale of adult Doe	-	-	70,000	1	70,000	1	70,000	-
	Sale of Male Kids	-	2,57,040	5,14,080	3,20,000	5,14,080	3,20,000	5,14,080	3,20,000
	Sale of Female Kids	-	2,26,440	4,52,880	2,80,000	4,52,880	2,80,000	4,52,880	2,80,000
b)	Sale of gunny bags	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
c)	Sale of manure	15,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
	Total income	25,000	5,23,480	10,80,960	6,40,000	10,80,960	6,40,000	10,80,960	6,40,000
2	Expenditure							4	T
a)	Green fodder cultivation cost	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
b)	Feed cost								
	Bucks	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
	Does	40,200	40,200	40,200	40,200	40,200	40,200	40,200	40,200
	Kids	13,770	13,770	13,770	13,770	13,770	13,770	13,770	13,770
c)	Medicines/Vet. charges	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600
d)	Insurance	21,000			21,000			21,000	21,000
e)	Misc.(Electricity charges etc.)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
f)	Labour wages	1,44,000	1,44,000	1,44,000	1,44,000	1,44,000	1,44,000	1,44,000	1,44,000
g)	Depreciation	37,300	33,030	29,268	25,951	23,024	20,440	18,156	16,137
	Total Expenditure	2,73,670	2,48,400	2,44,638	2,62,321	2,38,394	2,35,810	2,54,526	2,52,507
	Gross Profit	(2,48,670)	2,75,080	8,36,322	3,77,679	8,42,566	4,04,190	8,26,434	3,87,493
	Interest on term loan	83039.88	83039.88	71177.04	59314.2	47451.36	35588.52	23725.68	11862.84
	Principal installment	0	98857	98857	98857	98857	98857	98857	98857
	Net profit	(3,31,710)	93,183	6,66,288	2,19,508	6,96,257	2,69,744	7,03,851	2,76,773
	salvage value								1,33,693.13
	Cash flow for debt	(2,11,370)	3,08,110	8,65,590	4,03,630	8,65,590	4,24,630	8,44,590	5,37,323
	service								
	DSCR	-2.55	1.69	5.09	2.55	5.92	3.16	6.89	4.85
	Average DSCR	3.53		7					
	Cash flow for IRR	(11,99,370)	3,08,110	8,65,590	4,03,630	8,65,590	4,24,630	8,44,590	5,37,323
	IRR	43%							

REPAYMENT SCHEDULE

Particulars	Year									
	1	2	3	4	5	6	7	8]	
Principal Outstanding	6,91,999	6,91,999	5,93,142	4,94,285	3,95,428	2,96,571	1,97,714	98,857		
Interest due	83,040	83,040	71,177	59,314	47,451	35,589	23,726	11,863		
Principal Repayment	0	98,857	98,857	98,857	98,857	98,857	98,857	98,857		
Total Repayment	83,040	1,81,897	1,70,034	1,58,171	1,46,308	1,34,446	1,22,583	1,10,720		
Gross Profit	(2,48,670)	2,75,080	8,36,322	3,77,679	8,42,566	4,04,190	8,26,434	3,87,493	=	
Net Profit	(3,31,710)	93,183	6,66,288	2,19,508	6,96,257	2,69,744	7,03,851	2,76,773		
Debt Service Coverage	(1.99)	1.97	5.34	2.76	6.08	3.27	6.94	3.61		
Ratio (DSCR)										
Average DSCR	2.90								_	
Internal Rate of Return	-									
Depreciation	1	2	3	4	5	6	7	8		
	10%	10%	10%	10%	10%	10%	10%	10%		
	depreciation									
building @ 10%	265000	238500	214650	193185	173866.5	156479.85	140831.865	126748.679	114073.810	
depreciation_building (a)	26500	23850	21465	19318.5	17386.65	15647.985	14083.1865	12674.8679		
	15%	15%	15%	15%	15%	15%	15%	15%		
equipments @ 15%	72000	61200	52020	44217	37584.45	31946.7825	27154.7651	23081.5504	19619.317	
depreciation_equipments (b)	10800	9180	7803	6632.55	5637.6675	4792.01738	4073.21477	3462.23255		
total depreciation (a+b)	37300.00	33030.00	29268.00	25951.05	23024.32	20440.00	18156.40	16137.10		
				▼				salvage	133693.128	