

Annexure – II

BEST PRACTICES IN DAIRY

DEVELOPMENT THROUGH EMPOWERMENT OF SHG DAIRY WOMEN, CHITTOOR BMCU - A CASE IN POINT

If one is set to know the reality, like it is and as it is, then It becomes important to know how it (BMCU)came to be what it is . Evolution that took place in response to the changes in the environment, be it economic liberalization policy, or political or institutional needs to be understood for evolving effective strategies that could help overcome the current crisis .

The Problem:

The Chittoor Dairy, which was established in 1969 with 6000 litres. per day, reached to the capacity of 2.5 lakh litres per day in 1989-1990. The huge surplus milk was converted in to milk powder and the dairy could not sell the milk powder due to slump in the prices in the country. The dairy could not pay the farmers milk bills and the dairy went into loss making unit and finally was closed down on 31-08-02. **Genesis**

of BMCU:

Due to liberalization policy for privatization, number of private milk dairies started procuring milk from villages. Their number in the district increased from 16 to 37 from the year 1999-2000 to 2004-05. Due to continuous drought years owing to crop failures, more and more farmers started keeping cows for their livelihoods and started selling milk to Private Dairies. The Private Dairies joined together and formed in to a syndicate and exploited the milk producers by paying Rs. 5 to 7 per litre from 2000 to 2005. In absence of competition from public sector/ district milk co-operative unions, private dairies exploited the farmers with out enhancing the milk price till 2005. Only after DRDAs intervention in the form of establishment of BMCU, the private dairies revised the procurement price of milk and enhanced to Rs.6 and 7 subsequently during 2006. The milk producers of the district who got vexed with the Private dairies,

approached the district authorities seeking help to get remunerative price for milk supplied.

The Approach:

The district authorities sought intervention of the National Dairy Development Board (NDDB), which established the Balaji dairy with the assistance from state government. In order to help the women SHG dairy members / village organizations, DRDA launched a detailed study for creating market infrastructure. After understanding the problem, DRDA decided to establish two Bulk Milk Coolers at Gangavaram and V. Kota on pilot basis with a capacity of 3000 litres per day. Each Bulk Milk Cooler costed around 9.5 lakhs and it was assisted by DRDA to Mandal Mahila Samakhyas of Gangavaram and V.Kota. There was an understanding between Balaji dairy and Mandal Mahila Samakhyas for supplying milk to Balaji dairy after cooling to 4°C, for which they will get 25 paise per litre. At present, total 5700 litres per day are supplied to Balaji dairy every day from both the BMCUs.

Agreement :

A tripartite agreement is reached on the mutually agreed terms and conditions among the DRDA, Balaji dairy and Zilla Mahila Samakhya. The project director DRDA arranged meeting with the institution of poor represented by chair persons of Mandal Mahila Samakhyas(MMS), general managers of Balaji dairy and co-ordinated various activities. Negotiations were facilitated on milk price, chilling charges, transport charges, roles and responsibilities of the VO, MMS, Balaji dairy and DRDA. DRDA and Balaji Dairy jointly conceived the idea and evolved establishment of Two Bulk Milk Coolers for better remunerative price, by collecting milk from villages around 8 to 9 km radius of BMCUs. MMS is a society which over sees the functioning of BMCU, recruitment and capacity building of the all women dairy staff members. It is the executive committee represented by elected members i.e. the sarpanches of the village organizations(VO). VO is registered co-operative under A.P.MACS act of 1995, .Registrar of co-operative does not have control on this co-operative. As per the terms, the BMCU is expected to procure milk from the VOs and chill the milk 4°C for

supplying it to Balaji Dairy, BMCUs inculcated the habit of procuring clean and good quality milk through Milk Producers and the individual milk testing was practiced. This public private partnership market intervention dovetailing institutions of poor with institutions of market / technology received accolades all over from academicians and policy makers.

How it worked :

For giving better remunerative price before establishing BMCUs the Balaji Dairy and DRDA jointly formed milk producer's institutions(MPIs) around 8 to 9 km radius in 23 to 27 villages. Milk is collected from these villages through small Tempos in stainless steel Milk Cans. A flat rate of Rs. 1.35 is paid for a litre of milk to the Mandal Mahila Samakhya by the APDDCF. Village organization gets forty paise and another 45 paise is spent on transportation of milk from Village Organisation to BMCU(Mandal). BMCU allows rupees 3 per kilometer to auto trolley usually carrying 10 cans (44 lit each) of milk. It is also reported that out of Rs 1.35, fifty paise is kept aside to make payment to milk producers, in case of delay for APDDCF. As per agreement, it is the responsibility of APDDCF to transport milk from BMCU(Mandal) to Central Dairy. The reagents, chemicals and detergents supplied by APDCF free of cost. The Milk samples from each milk producer and from each village are collected and tested at BMCU . Payment is made as per the fat and SNF in the milk, through cheque to the Milk producer's institutions from Balaji Dairy. The Mandal Samakhya's are spending nearly Rs.18,000/- per month expenditure on each BMCU for Salaries, Electricity, Water, Rent, Diesel, Stationery and Chemicals. Income per month is Rs. 22,500/- @ 25 paise per litre for 3000 litres as cooling charges from Balaji Dairy. An amount of Rs. 5000/- is received per month after selling individual sample milk. Total income will be Rs. 22,500/- + Rs.5000/- = Rs. 27,500/-. Nearly 9,500/- surplus amount is received for Mandal Mahila Samakhya. Out of which Rs. 1000/- to Rs. 2000/- is kept apart for maintenance of the BMCU and rest of the amount is kept as reserve fund for future expansion. By supplying good quality milk to the BMCU, community learnt that good quality milk will fetch them good price.

At village:

Milk collection is done by palamitras and paid four percent of commission on the quantity of milk collected. Payment is done @ Rs. 230 per kg.fat to the milk producers with effect from 1.6.2007. Prompt payment every fortnight through bank cheques to MPIs and cash distributed to the milk pourers by the MPIs leaders at the village. Nearly (October 2005) 1189 milk producers in 48 villages under two BMCUs have been benefited at the rate of Rs. 1.50 to 2.00 rupees per litre extra when compared with the private dairies payment.

At BMCU / Mandal level

Five Mandal Samakhya/VO/Women SHG members are employed and Managing each BMCU. One Computer Operator, One Tester and Three Helpers are employed in each BMCU. Balaji Dairy deployed one field supervisor for milk procurement work for each BMCU, as field supervisor. Management committee is formed with Mandal Samakhya Leaders and two Executive Members to over see the functioning and Management of BMCUs. Assistant Procurement Manager in the respective BMCU area would supervise the functioning of the BMCU.

Limitations

The major limitations of the approach is that it is able to serve the villagers within the radius of 10km of the BMCU that is having access through the road connectivity. Beyond this distance the transportation cost are limiting the margin of profit. However the interior villages far from BMCU (Mandal Head Quarters) whether or not connected with roads could not be served.

Impact:

On an average, rupees 1.50 to 2.00 per litre milk is received by the milk producers. On an average each milk producer is getting Rs. 225/- to Rs. 300/- extra per month by supplying milk to BMCUs. Milk Producers are getting prompt payment every fortnight as per the quality of milk i.e., fat and SNF when compared with he Private

Dairies. With the result income levels have increased and quality of life in the family has also improved, and they are able to pay the loan installments regularly and recoveries have improved in SHGs.

Milk producers learnt the principle behind supplying clean and good quality milk for better price with more transparency. Quality of milk has improved and bacterial load of the milk got reduced considerably and BMCU milk is suitable for making good milk products for exports and chance for getting premium price for milk have increased ..Milk Producer's faith has increased in Milk producer's institutions since they are formed and owned by the SHG Members. After seeing the first two fortnight payments made by the Balaji Dairy in the beginning of BMCUs establishment more and more milk producers joined MPIs and got benefited, the pourers reached to 550 to 600 per BMCU from 154(Gangavaram) and 220(V.Kota) in March, 2005. By calculating @ Rs.1.60 paise per litre extra income received from Balaji Dairy for 12.17 lakh litres milk supplied by the Milk Producers has come to s. 19.47 lakhs in 8 months time for Two BMCUs. This amount was equivalent to the investment made by DRDA., for establishing Two Bulk Milk Coolers at V.Kota and Gangavaram in the month of March, 2005.

Replication in other Mandals of the District:

The replication of the BMCUs in 19 Mandals is contemplated after experiencing the initial successes of BMCUs at Gangavaram and V.Kota Mandal and the Hon'ble Chief Minister accepted the proposal during the Rajiv Nagar Bata visit on 14-07-2005. Consequently, in all, 19 BMCUs were established and are in operation in Chittoor District. As on November 2006 a total of 43,000 litres is collected every day from these 19 BMCUs with the average price of Rs. 8.70 per litre of milk paid to the producer as against the average price of Rs. 6.0 per litre of milk paid to the producer during the year 2005 in the District.

Replication Across the State

The initial success of the above pilot project prompted the state government for establishment of BMCU in all the 9 district milk unions registered under A.P.MACS act 1995 with such partnership and market interventions the modalities of which are

given. A flat rate of Rs.1.35 per litre is paid to the Mandal Mahila Samakhya by APDDCF as per the tripartite agreement among DRDA, Zilla Mahila Samakhya and APDDCF. Of this, 0.45 paise is spent on transportation of milk from village organization to BMCU at Mandal headquarters. BMCU allows Rs.3 per/km for auto trolley usually carrying 10 cans (44 litres capacity) of milk. It is also reported that paise 50 is kept aside as reserve to make payment to the milk producers in case of delay by APDDCF. As per the agreement the responsibility to transport from BMCU to central dairy is by APDDCF. The reagents, chemicals and the detergents are to be supplied by APDDCF. At village organization level paise 30 is spent for payment of salary to the Paid Secretary. The system of SMART Card using the digital technology facilitated easy milk bills preparation and found to be highly efficient with less cost (saving paper cost).

Growing satisfaction at the openness and transparency rendering community learn that every individual milk is tested and paid as per the quality without exploitation by shortages and sour milk. More transparency is maintained in the system. Every fort-night milk bills are paid on or before 5th and 20th of every fort-night with out fail.

Annexure - III

**NATIONAL INSTITUTOF RURAL DEVELOPMENT
Rajendranagar, Hyderabad 500 030**

“ A Study on Improvement in Rural Livelihoods
through Dairy Farming in Andhra Pradesh”
Schedule for Farmer

Date of Visit -----

1. Name (in full) ----- S/o -----
2. Village----- Mandal----- District-----
3. Family particulars :

S. No	Name	Age	Relation	M/F	Education*	Occupation**	Income /annum
			Self				

* 1). Illeterate 2). Read & write 3). Graduate and above

** a). farming b).Non-farm c). Labour

4. (i) Land holding (Acres): a).Irrigated ----- b).Rain fed----- c) Total -----
(ii) Category : BF /Medium F/ SF / MF / AL (Tick)

5. Cropping Pattern (including fodder crops) :

S.No.	Name of the Crop	Kharif		Rabi		Summer	
		Area (acres)	Yield (q / acre)	Area (acres)	Yield (q / acre)	Area (acres)	Yield (q / acre)
1.							
2.							
3							
4							
5							
6							
7							
8							

6. Size of Livestock holding :

Type of animal	No.	Yield lit/d
Indigenous Cows		
a. In milk b. In dry c. Young Stock	M F	
CB Cows		
Buffalos		
a. In milk – Local Grdated b. In dry – Local Grdated c. Young Stock – Local Grdated	M F M F	
Bullocks – Buffalo Cattle		
Bull - Buffalo Cattle		
Others		
1. Sheep		
2. Goat		
3. Poultry		

7. Average Stock sales per annum :

	Adults		Young Male		Young Female	
	No. (M/F)	Value (Rs.)	No.	Value (Rs.)	No.	Value (Rs.)
CB cows						
Indigenous cows						
Buffalo – Local Graded						
Sheep						
Goat						
Poultry						

8. If stock of animals reduced (other than sales) give the specific reasons :

- | | |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |

9. Breeding efficiency :

Sl. No.	Particulars	CB Cow	Indigenous cow	Local Buffalo	Graded Buffalo	If any
b.	Age at 1 st calving					
c.	Lactation number					
d.	Stage of lactation					
e.	Yield on the day of visit (lit/day)					
f.	Peak yield (lit/day)					
g.	Calving interval					
h.	Dry period					
i.	Pregnant /NP on the day of visit					
j.	No. of Services/concept					
k.	No. of reproductive treatments per calving					
l.	Length of last lactation in months					

10. Feeding pattern :

10 (a). Feeding Regime :

Type of animal	Concentrate (Kg/day) / cakes (GNC)	Green fodder * (Kg/day)	Dry fodder (Kg/day)
CB Cows			
a). Lactating			
b). Dry			
Indigenous cows			
a). Lactating			
b). Dry			
Local Buffalo			
a). Lactating			
b). Dry			
Graded Buffalo			
a). Lactating			
b). Dry			
Bull			
Bullock			

* If green fodder cultivated : Type of fodder ----- area (in acres) ----- yield -----
 Cost of cultivation -----

(b) Frequency of Feeding vitamin and mineral mixture (Tick)

- i) Always ii) sometimes iii) Occasionally iv) Never

If Yes, (provide details of source and cost)

c) Whether sent for grazing? Yes / No

If Yes, How many hours ? -----hrs.

e) Whether you have community grazing lands in your village - Y/N

If yes, (status and management aspects) _____

f) Whether fodder banks are existing in your village Y/N ?

If yes details -----

g) Provision for animal shed : Yes / No :

If yes, details

Expenditure : -----; How old it is -----

Type : Asbestos / RCC/ Trenched structure

Distance from house: ----- kms.

Hygiene / Cleanliness :

11) Perception on community mobilization :

Activity	Feasibility (Yes / No)	If yes details	Reasons
Maintaining Community Grazing lands			
Community milking machines			
Feed preparation unit/chaff – cutting or other mineral mixes			
Community milk products manufacturing house			
Collective milk marketing			
Marketing through Bulk milk cooling units			
Community medicines replacement depots			
Gobar collection and community gober gas plant			
Others (specify)			

12. Animal Health

a. Exotic	Frequency of Treatment per year	Avg. cost / Treatment /animal	Frequency of Vaccinations	Average Cost
CB				
Desi				
Buffalos				
Sheep				
Goat				
Others				

b. Breeding services – Whether Natural /AI

If AI with which breed -----

Cost per AI -----

Are you satisfied with AI services ? : Yes / No

Reasons : 1. _____
2. _____

c. Name the vaccines given last year: 1. _____ 2. _____
3. _____ 4. _____

d. Common diseases encountered in order of occurrence in last 3 years

- 1.
- 2.
- 3.

e. Level of adoption and awareness :

No.	Name of practice	Aware /not aware	Using/ Not using	Reasons
	1 Chaff cutter			
	2 Milking machine			
	3 Bulk cooler at village level			
	4 Cream separator			
	5 Para meter			
	6 Teat dip			
	7 Washing udder before milk			
	8 Cleaning of shed			
	9 Balanced feeding			
	1 Vacc			

0	ination			
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f. Average Animal mortality in last 3 years :

Type of animal	Number	Loss in value	Reasons
Dairy animals			
Bulls & Bullocks			
Sheep & Goat			
Others			

13. Vulnerability reduction in small farmers economy / livelihood through animal rearing :

- Is it true, livestock rearing reduces vulnerability ? : Y/N
- Is it true, in dairy developed areas farmers suicides are less ? : Y/N
- Is it true, dairying provides sustainable livelihoods ? : Y/N
- Is it true, dairy based families faces stresses and shocks ? Y/N
- Is it true, integrated farming only provides sustainable rural livelihoods ? Y/N
- Is it true, commercial agriculture increased suicidal rate in AP ? Y/N
- During drought, to what extent the livestock rearing rduces vulnerability ?
 a). Greater extent b). Some extent c). Nill

14. Extension Services :

a. Details of training :

Type Training	Duration	By whom	Effectiveness *

* a). Effective fully b). Effective to some extent c). Nill

b. Future training needs felt by you? _____

c. Extension

Do you get required timely information related to dairy farming ? : Y/N

If yes, by whom -----

How often (Tick) : Quarterly / Monthly / Forth nightly / Weekly

15. Marketing of milk

a. Av. Milk retained for consumption lit/d -----

b. Av. Marketed milk lit/d -----

c. Av. Total produced Lit /day _-----

d. Reasons for low consumption of milk/products :

- 1.
- 2.
- 3.

e. Place of market -----

f. Distance from village-----kms.

g. Price per litre -----

Animal	Rate/Lit	DCS	Private	Others
Cow				
Buffalo				

h. Whether milk holiday declaring and its frequency in a year _____

i. Whether milk is rejected based on quality -----

j. Frequency of payment : Weekly / Fortnoughtly / Monthly / Quarterly

16. Infrastructure available at village :

a. Veterinary dispensary : Y/N

b. Proximity to the village _____ km

c. DCS : Y/N

d. Proximity to the village _____ km

e. If yes, (Tick) Items - AMCU / Physical testing of fat % / BMCU / Milking machine / Chaff cutter

17. Farmers perceptions:

a. Choice of milch animal : Exotic /CB, /Local/ Buffalo

b. Reason -----

c. Preferene for ploughing : Animals / Sharing animal / Tractors

d. Reason : _____

e. Preferene for draft animal : Local / CB/ He-buffalo / Female Buffalo / Female Cow

f. Choice of breeding : AI /natural

g. Reason-----

h. Choice of vet.services : VAS (Govt. Doctor)/DCS/Lay inservinata/private agency like BAIF/JK Trust

Reason _____

d. Consumer preference (a) Cow milk (b) Buffalo milk

e. Choice of milk market – District Milk union / Private dairy /Vendor (Middleman) / Dercetly by Self

f. Reason _____

18. Credit details:

a). Loans details :

Type of loan	From banks	from	Money	From	Other	Purpose
--------------	------------	------	-------	------	-------	---------

				SHG	lenders	relatives/ friends	source s	
	Coop. bank	RRB	CB					
Year of loan								
Amount in Rs.								
Rate of interest								
Repayment period								
Subsidy in Rs.								
Amount Outstanding (Rs.)								
Gold loan								

b. Rescheduled amount of loans in Rs..... for Years

c. Whether you are a defaulter ? Y/N

d. Measures for removal of rural indebtedness

.....
.....

	Animals	Crops
	Y/N	Y/N

19. Insurance – whether insured ?
 If yes with whom
 If yes cost of insurance ? Rs.
 Opinion on Insurance claim settlement - satisfactory / unsatisfactory

20. Souce-wise Income details per annum :

- a. Livestock
 Sale of milk : lit. Amount (Rs.).....
 Sale of dung : kgs Amount (Rs.).....
 Sale of skin/hide : No. Amount (Rs.).....
 Sale of others ----- Amount (Rs.).....
 Drought power No. of days Amount (Rs.).....
 Sale of stock as per item no. 7 of this schedule (Rs.)
 Sale of milk products : Products (kg) Amount (Rs.).....
- b. Income from crop producton : Amount (Rs.).....
 c. Income from from wages : Amount (Rs.).....
 d. Other Income : Amount (Rs.).....

Total annual family Income (a+b+c+d) : Amount (Rs.).....

21. Employment Generation:

Activity	Time spent (in hours)	Who engaged (self, Wife, Children, parents, Hired labour) specify
Livestock		
Cleaning of shed		

Collection of fodder/grass		
Feeding/watering of animals		
Cleaning of animals		
Milking of animals		
Grazing of animals		
Marketing /sale of milk		
Crop production		
Wages		
Any other activity /specify		

22. Utilization of income details (Rs/annum) :
- Food _____
- Non food _____
- Asset Creation (specify) _____
- Alcohol consumption _____

23. Contribution to Agriculture :

(i) Utilization of dung:

S.No.	Used for	Quantity (quintal)
1	Manure	
2	Vermicompost	
3	Gobar Gas Plant	
4	Any other specify	

(ii) Utilization of Draught animals

S.No.	Used for	Days	Rate
1	Own purpose		
2	Hiring out		
3	Sharing		
4	Recreational Purpose		

24. Social Development :

	Increased	Decreased	No change
Migration			
School drop outs/child labour			
Infant Mortality			
Malnutrition			
Indebtedness			
Farmers suicides			
Alcoholism			
Domestic violence/wife beating			
Interaction with Govt./bank officials			
Family Planning			
Sanitation			

Toilets/Chula using			
Adult education			
Housing			
Assets/durables purchased			
Participation in village development activities			
Others (specify)			

24. Why do you prefer dairy farming ? why not other activities ?

- 1.
- 2.
- 3.

25. Important problems faced in dairy farming ?

- 1.
- 2.
- 3.

26. What measures were taken-up to solve above problems by you ?

- 1.
- 2.
- 3.

27. What collective measures were taken-up to solve above problems by the villagers?

- 1.
- 2.
- 3.

28. Whether any belief systems exists in dairy farming relating to cow/Bull ?

- 1.
- 2.
- 3.
- 4.

Schedule for Milk Union

1. Name and address of milk union:

2. Details of dairy cooperatives (DCs) :

- a. No. of DCS registered
- b. Of above functional DCs
- c. No. of women DCs registered
- d. Of above functional women DCs
- e. Total no. of members of DCs
- f. Of above milk procuring members

3. Milk collection and other details

Union District DCS

- a) Milk procured per annum
 - 2005-06
 - 2004-05
 - 2003-04
- b) Avg. Milk procured per day
 - 2005-06
 - 2004-05
 - 2003-04
- c) Avg. milk procured/ member
 - 2005-06
 - 2004-05
 - 2003-04
- d) AIs done
 - 2005-06
 - 2004-05
 - 2003-04
- e) Calves born
 - 2005-06
 - 2004-05
 - 2003-04
- f) Avg. Vaccinations per annum
 - HS
 - FMD
 - RP
- g) Avg. no. of fodder kits/slips supplied/ annum.
- h) Other services like

- Trg. Programmes
- Film shows
- Demonstrations
- Fertility lamps
- Clean milk production programme

4. Milk pricing by the union
 Fat % Rate of milk /lit.

5, Infrastructure details of union:

Capacity	% of capacity Utilization
----------	------------------------------

- Milk Processing Plant
- Milk Chilling plants
- Feed plants
- BMCUs
- AMCUs
- Refes vans
- Any other specify

6. Sales of Milk and Milk products by Union:
 Litre or Kg Rate

Local Outside the District

- a. Liquid sales
- b. Ghee

- c. Khoa/peda
- d. Butter
- e. Milk powder
- f. Flavoured milk
- g. Others specify

7. Organisational Structure

8. Operation cost per litre

9. Perceptions of union:

- a. Why farmers prefer dairy farming in your district ?
- b. Whether dairy is sole income source for farmers or supplementary source in %
- c. During the period of drought, how the animals are maintained by farmers?
- d. Strategies followed by union during drought ?
- e. Does the union feels because of dairy, farmers did not feel the drought effect ?
- f. Positive factors for development of dairy in the area?
- g. Negative factors for development of dairy in the area?
- h. Do you feel because of dairy, is there any social development ?

Increased Decreased No
change

- Income
- Employment
- School dropouts
- Malnutrition
- Creation of assets
- Incidence of diseases
- Domestic violence
- Alcoholism

- i. What factors were responsible for development of dairy particularly in Chittoor / Prakasam district (even though it is a drought prone district)?

NATIONAL INSTITUTE OF RURAL DEVELOPMENT
Rajendranagar, Hyderabad-500 030

SCHEDULE FOR DEPARTMENT OF ANIMAL HUSBANDRY

1. Name and Address of
 District Animal Husbandry Office :

2. Live stock Population as per 2003 Census

Particulars	District	State
Cattle		
Bullocks		
Sheep		
Goat		
Poultry		
Pigs		

3. Milk Production and other details during last 3 years

a) Milk Produced per annum

	District		Blockwise				
	Cow	Buffalos					
2005-06							
2004-05							
2003-04							

b) Als done

	District		Blockwise				
	Cow	Buffalo					
2005-06							
2004-05							
2003-04							

c) Calves born

	District		Blockwise				
	Cow	Buffalo					
2005-06							
2004-05							
2003-04							

d) Average Vaccination per annum

	District	Blockwise
HS		
FMD		
RP		

e) Average No. of fodder kits/slips supplied/annum:

	Kits	Sappings
2005-06		
2004-05		
2003-04		

f) Other services like

	2005-06	2004-05	2003-04
Trg. Programmes			
Film Shows			
Fertility lamps			
Clean Milk production programme			

4. Five Year Plans & Achievements

	District					
	Targets			Achievements		
	Milk	Egg	Meat	Milk	Egg	Meat
X Plan						
IX Plan						
VIII Plan						
VII Plan						

5. Milk Pricing

S.No.	Type	Rate of Milk(Rs./ltr.)	Remarks
1	Cow Milk (4.5% fat)		
2	Buffalo Milk (6.5% fat)		

6. Infrastructure available in the district

a.	Veterinary Hospitals	--	--
b.	.Veterinary Polyclinics	--	--
c.	Cattle/Buffalo breeding farms	--	--
d.	.Sheep & Goat breeding Farm	--	--
e.	Pig breeding Farm	--	--
f.	Liquid nitrogen plants	--	--
g.	Semen production centres	--	--
h.	Frozen semen banks	--	--
i.	AI Centre	--	--
j.	Feed analytical lab	--	--
k.	Disease investigation lab	--	--

7. Organisational Structure

8. Perceptions Department of Animal Husbandry

- a. Why farmers prefer dairy farming in your district?
- b. Whether dairy is sole income source for farmers or supplementary source in %
- c. During the period of drought, how the animal are maintained by farmers?
- d. Strategies followed by DAH
- e. Does the DAH feels because of dairy, farmers did not feel the drought effect?
- f. Positive factors for development of dairy in the district?
- g. Negative factors for development of dairy in the district?

- h. Do you feel because of dairy (during the period from the day you took up dairying up till now), is there any social development?

	Increased	Decreased	No Change
Income			
Employment			
School Dropouts			
Malnutrition			
Creation of assets			
Incidence of diseases			
Domestic Violence			
Alcoholism			

- i. what factors contributed for development of dairy particularly in Chittoor District / Prakasam District (Even though it is a drought prone district)?