## Volume-I

## **Summary Report**

of

## **Pre-investment Feasibility Study**

on

"Development of Dairy Industry in North Eastern Region"

Study Commissioned by

North Eastern Development Finance Corporation Ltd. Guwahati

Study Conducted by Genesis Fintec limited,

May 2003

# EXECUTIVE SUMMARY TITLE OF STUDY

## PRE INVESTMENT FEASIBILITY STUDY ON "DEVELOPMENT OF DAIRY INDUSTRY IN NER

The study of dairy industry in North Eastern region was commissioned by NEDFi with definite objectives. These objectives may be divided into immediate objectives and wider objectives as under-

#### **IMMEDIATE OBJECTIVES**

- o To examine the techno-economic viability of taking up dairy development projects in different locations of the NE Region.
- To provide basic information together with the location specific data on project parameters to prospective Entrepreneurs, Investors, Financial Institutions, Government Agencies etc. regarding business opportunities in the dairy sector in different States of the NE Region.
- o To provide above information in such a way that these would form the basis for preparation of DPR by Domestic and International Investors

#### WIDER OBJECTIVES

- Economic development of the NE Region through generation of direct and indirect employment opportunities in Dairy Sector.
- Facilitating prospective entrepreneurs to invest in the region in following Activities:
  - Dairy Farming
  - Milk Processing Units
  - Other entrepreneurial Units

#### Overall Summary of Projects for 8 North Eastern States.

The following table 5.1 gives an overall summary of all the projects that have been envisaged as potentially feasible in the concerned 8 States. The table indicates not only the number & capacity of each type of project, but also the Investment required for setting up those Units.

The projects that have been identified and considered are as follows:

- Commercial dairy farms with 10 cattle
- Commercial dairy farms with 25 cattle
- Rural dairy farms with 2 cattle
- Rural dairy farms with 5 cattle
- Milk processing plants
- Cattle feed compounding plants
- Ice cream plant
- Sweet manufacturing Unit
- Artificial insemination (A.I.) centers

**Overall Summary of Projects for 8 North Eastern States** 

						Cran Sa			,		101 til E								
			inachal adesh		sam		nipur	_	alaya	Miz	oram	Naga	aland	Sik	kim	Trip		To	otal
Sl. No.	Projects	No. of Unit s	Invsmt . (in crore s)	No. of Units	Invsm t. (in crore s)	No. of Units	Invsm t. (in crore s)	No. of Units	Invsm t. (in crore s)	No. of Unit s	Invsm t (in crore s)	No. of Units	Invsm t. (in crore s)	No. of Unit s	Invsm t (in crore s)	No. of Units	Invsm t (in crore s)	No. of Units	Invsmt. (in crores)
1. Commercial Dairy Farms																			
	10 Cattle	51	2.20	593	21.70	83	4.25	97	3.64	167	7.06	129	6.41	5	1.84	150	6.00	1275	53.1
	25 Cattle	-	-	289	24.16	-	-	67	5.76	-	-	23	2.67	-	-	33	3.04	412	35.63
2	Rural Dairy F 2 Cattle	2354	12.38	53870	198.3	1905	14.08	6160	25.14	230	13.92	1307	90.21	85 5	3.28	10918	50.94	9143	408.2 6
	5 Cattle	313	3.60	7183	59.01	254	3.97	821	7.17	308	4.05		25.56	11 4	0.94	485	4.85	1122	109.1 5
			1					'					ı						
3.	Milk Processi ngPlants (with capacityin lpd)	1	-	8 (10,00 0)	14.19	1 (10,00 0)	1.76	(5,000	1.20	-	-	-	-	-	-	(5,000)	1.21	11	18.36
4.	Cattle Feed Compoundi ngPlants (with capacityin MT/day)	-	-	4 (8)	1.98	-	-	-	-	-	-	-	-	-	-	-	-	4	1.98
5.	Ice Cream Plants (with capacityin lpd)	-	-	3 (1,000)	4.07	-	-	-	-	-	-	-	-	-	-	-	-	3	4.07
6.	A.I Centres	27	0.47	350	6.19	25	0.44	13	0.23	2	0.03	14	0.24	9	0.15	50	0.88	490	8.63
7.	Sweet Manufacturi ngUnit (with capacityin lpd)							1 (1250	0.18			1 (500)	0.08			1 (500)	0.08	3	0.34
		T	otal fun	ds (in Rs	. Crores	s) requir	ed for se	etting up	the pro	oposed	units ir	ı 8 Nor	th East	ern St	ates				639.5 2

### o State-wise identification of prospective districts and list of viable projects:

The preceding paragraph 6.1 and its table gave an overall summary position of the identified projects. The following tables give details of different projects identified in various districts of the 8 identified North Eastern States.

#### **ARUNACHAL PRADESH**

#### A. DAIRY FARMS:

District	COMMERCIA	AL DAIRY FARM	RURAL DAIRY FARM			
	No. of units of cattle strength 10	No. of units of cattle strength 25	No. of units of cattle strength 2	No. of units of cattle strength 5		
Papumpare	17	_	315	42		
West Siang	4	_	203	27		
West Kameng	<u>'</u>	_	41	5		
Dibang Valley	2	-	93	12		
Lower Subansiri	5	-	421	56		
Changlang	2	-	194	26		
Tirap	10	-	680	91		
Upper Subansiri	11	-	407	54		
Total Number	51		2354	313		
Investment required per Project (Rs)	4,32,000	-	52,603	1,15,008		
Total Investment required in State(Rs in Crores)	2.20	-	12.38	3.60		

- **B. MILK PROCESSING PLANTS Nil**
- C. CATTLE FEED COMPOUNDING PLANT Nil
- D. ICE CREAM PLANT Nil
- E. SWEET MANUFACTURING UNIT- Nil
- F. A.I CENTRES:

Name of District	No. of Centers @ one forevery 15,000 cattle
Tawang	1
West Kameng	1
East Kameng	2
Lower Subansiri	2

Name of District	No. of Centers @ one forevery 15,000 cattle
West Siang	3
East Siang	7
Dibang Valley	1
Lohit	5
Changlang	3
Papun-pare	1
Upper Siang	1
Total Number	27
Investment required per Center (in Rs lacs)	1.77
Total Investment required in State(in Rs Crores)	0.47

## **ASSAM**

## A. DAIRY FARMS:

District	FARM	AL DAIRY	RURAL DAIRY FARM		
	No. of units of cattle strength 10	No. of units of cattle strength 25	No. of units of cattle strength 2	No. of units ofcattle strength 5	
Bongaigao n	9	-	466	62	
Barpeta	52	-	4238	565	
Kokrajhar	8	-	659	88	
Kamrup	63	218	1051	1402	
Goalpara	18	-	1362	182	
Darrang	18	-	2339	312	
Sonitpur	29	8	3456	461	
Nagaon	147	-	7802	1040	
Karbi	-	-	-	-	
Anglong Jorhat	33	9	2076	277	
Golaghat	-	-	20	3	
Sibsagar	32	-	2132	284	
Dibrugarh	21	11	1676	224	
Tinsukia	34	8	1757	234	
Cachar	26	25	4051	540	
North Cachar Hills	-	-	-	-	
Karimganj	15	-	1293	172	
Hailakandi	12	-	939	125	
Dhubri	50	10	4135	551	
Lakhimpur	-	-	-	-	
Dhemaji	-	-	-	-	
Nalbari	13	-	3306	441	
Marigaon	13	-	1651	220	
Total Number	593	289	5387 0	7183	
Investment					
required per project (Rs)	3,66,00	8,36,000	36,79 8	82,161	
Total Investment required in State (in Rs Crores)	21.70	24.16	198.1	59.01	

### **B. MILK PROCESSING PLANTS:**

Deman d	District	Location	Major Towns	Capacity	No. of Units
Zone			demand zone	of Unit	
A	Dhubri	On	Bilasipara		
		NH31 between	Chapar		
		Dhubri andKokrajhar	Dhubri		
			Gauripur		
	Kokrajhar		Mankachar		
			Others		
			Kokrajhar	10,000	1
В	Bongaigaon	On	Bongaigaon		
		NH31 between Sorbhog	12 011 211 211 111 1 1		
	Barpeta	&Bongaigaon	Barpeta		
			Barpeta Road		
			Howli		
				10,000	1
C	Kamrup	One plant on NH37-	Guwahati		
		G'hty to Morigaon	North Guwahati		
		route closer to milk	Rangia		
	Coolnoro	pockets in Morigaon	Gaalmara		
	Goalpara		Goalpara Others		
	Darrang	One plant of 10000	Kharupatia		
	Durrang	lpd onNH 37 – G'hty	Teliamura		
		to Loch			
		route close to milk	Udaipur		
		pockets in northen	Others		
	Nalbari	part of Kamrup.	Nalbari		
				10,000	2

B. MILK PROCESSING PLANTS (Contd.):

ema n d Zone	District	SSING PLANTS (Contd.):  Locati  on	Major Towns indemand zone	Capacity of Unit	No. of Units
D	Sonitpur	On NH52 in the vicinity of	   Dhekiaiuli		
D	Sompar	Tezpur	Biswanath Chariali		
			Rangapara		
			Tezpur		
	Nagaon		Lanka		
	i tuguon		Lumding		
			Lumding Rly		
			Nagaon		
			Nagaon	10,000	1
E	Jorhat	O NH27	Jorhat	10,000	1
L	Joinat	On NH37	Mariani		
	Golaghat	_betweenJorhat	Golaghat		
	Golagilat	&Sibsagar	Others		
	Sibsagar	-	Sibsagar		
	Siosagai		Sonari		
			Soliali	10,000	1
F	Dibrugar	On NH 37 on	Dibrugarh	,	
	h	way	Duliajan Town		
		fromDibrugarh to	Naharkatiya		
			Namrup		
	Tinsukia		Digboi		
			Digboi Oil Town		
			Doom Dooma		
			Makum		
			Margherita		
			Tinsukia		
				10,00	1
G	Cachar	Near Silchar on	Silchar	0	
G		NILLE2			
	Karımga nj	betweenSilchar &	Karimganj		
		Karimganj	Others		
	Hailakan		Hailakandi		
	di			10,00	1
				0	1
vestm	ent require	ed per Project (in Rs lacs)			177.40
tal In	ve <del>stment r</del>	equired in State for 8 Proje	ects (in Rs Crores)		14.19

## C. CATTLE FEED COMPOUNDING PLANT:

Project Location	Targeted market	Capacity	No. of Units	Investmen t
				Required

Kamrup	Goalpara, Nalbari,	8 MT / day	3	148.8
	Barpeta, Bongaigaon,	OR 1 MT/		9
	Darrang, Kamrup,	hour		
	Marigaon			
Jorhat	Golaghat, Sibsagar, Jorhat,	8 MT / day	1	49.63
	Dibrugarh,	OR 1 MT/		
	Tinsukia.	hour		
Total Investn	1.98			

## D. ICE CREAM PLANT:

Project Location	Targeted Urban Market	Capacity (in lpd)	No. of Units
Guwahati	Dhubri, Kokrajhar, Bongaigaon,Barpeta, Kamrup, Goalpara, Darrang, Nalbari(As well as Meghalaya)	1,000	1
Jorhat	Sonitpur, Nagaon, Jorhat, Golaghat, Sibsagar, Dibrugarh, Tinsukia(As well as Nagaland)	1,000	1
Silchar	Cachar, Hailakandi, Karimganj (As well as Manipur, Mizoram & Tripura)	1,000	1
Investment Re	135.8 1		
Total Investme	4.07		

## E. SWEET MANUFACTURING UNIT- Nil

DISTRIC T	No. of Centers @ one for every 25,000 cattle
GOALPARA	11
KOKRAJHAR	14
DHUBRI	17
BONGAIGAON	12
BORPETA	21
NALBARI	14
KAMRUP	13
MARIGAON	14
NA-GAON	25
DARANG	19
SONITPUR	19
GOLAGHAT	13
JORHAT	20
SIBSAGAR	13
DHEMAJI	14
LAKHIMPUR	19
DIBRUGARH	12
TINSUKIA	19
KARBI ANGLONG	15
N.C. HILLS	3
CACHAR	21

HAILAKANDI	9
KARIMGANJ	15
TOTAL	350

Investment required per Center (in Rs lacs)	1.77
<b>Total Investment required in State (in Rs Crores)</b>	6.19

## **MANIPUR**

#### A. DAIRY FARMS:

Deman dZone	District	COMMERCIAL DAIRY FARM		RURAL DAIRY FARM	
		No. of units of cattle strengt h10	No. of units of cattle strengt h25	No. of units of cattle strengt h2	No. of units of cattle strengt h5
A	Imphal West  Imphal Eas t,Thoubal, Bishnupur	81	-	113	152
В	Senapati	-	-	10	1
С	Tamenglong	-	-	65	9
D	Churachandpur	-	-	540	72
Е	Chandal	2	-	151	20
F	Ukhrul	-	-	-	-
	Total	83	-	190 5	254
Investme (in Rs)	Investment required perproject (in Rs)		-	73,916	1,56,41 5
Total Inv required State (in	vestment in Rs. Crores)	4.25	-	14.08	3.97

### **B. MILK PROCESSING PLANTS:**

District	Locatio n	Major Towns in demand zone	Capacity of Unit	No. of Units	
Demand Zone A	Imphal West, around Imphal city	Imphal			
	ппрпагсиу	Lilong	10,000	1	
		Thongkho			
		ng			
		Bishnupur			
		Moirang			
		Nambol			
Investment requ	176.14				
<b>Total Investmen</b>	Total Investment required in State (in Rs Crores)				

#### C. CATTLE FEED COMPOUNDING PLANT - Nil

- D. ICE CREAM PLANT Nil
- E. SWEET MANUFACTURING UNIT Nil

### F. A.I CENTRES:

Distric ts	No. of Centers @ one for every 25,000 cattle
Imphal	7
Senapati	6
Bishnupur	2
Tamenlong	1
Churachandpur	1
Ukhrul	2
Thoubal	4
Chandel	2
State Total	25
Investment required per Center (in Rs lacs)	1.77
Total Investment required in State (in Rs Crores)	0.44

## **MEGHALAYA**

## A. DAIRY FARMS:

District	COMMERCIAL DAIRY FARM		RURAL D	AIRY FARM
	No. of units of cattle strength 10	No. of units of cattle strength 25	No. of units of cattle strength 2	No. of units of cattle strength 5
East Khasi Hills	51	19	1513	202
West Garo Hills	17	-	1067	142
East Garo Hills	10	-	491	65
West Khasi Hills	-	-	1321	176
Jaintia Hills	15	-	1305	174
Ri-bhoi	-	48	-	-
South Garo Hills	4	-	463	62
Total	97	67	6160	821
Investment required per project (in Rs)	3,76,000	8,61,000	40,82 0	87,442
Total Investment (in Rs Crores)	3.64	5.76	25.14	7.17

## **B. MILK PROCESSING PLANTS:**

Deman d zone	District Identifie d for the Plant		Major Towns in demand zone	Capacity of Unit	No. of Units
A	East Khasi Hills	connecting Nongpoh (Ri-Bhoi) with Shillong (EastKhasi Hills).	Cherapunjee, Madanrting, Mawlai, Nongmynsong, Nongthymmai, Pynthorumkhrah, Shillong andShillong Cantt. etc	5,000	1
Investment required per Unit (in Rs lacs)					120.83

Total Investment rec	mired in	State	(in Rs	Crores)

### C. CATTLE FEED COMPOUNDING PLANT - Nil

### D. ICE CREAM PLANT - Nil

## E. SWEET MANUFACTURING PLANT:

Any location beside NH-40 and between Barapani Industrial Area and Khanapara	Targeted Markets Shillong, Guwahati	No. of Units with capacity of 1,250 lpd (250) kg sweets/day)Unit
in Ri-Bhoi district of Meghalaya		
<b>Investment required per Unit (in Rs I</b>	18.85	
Total Investment required in State (in Rs Crores)		0.18

## F. A.I CENTRES:

DISTRIC T	No. of Centers @ onefor every 15,000 cattle
East Khasi Hills	1
Ri-Bhoi	1
West Khasi Hills	2
Jaintia Hills	2
East Garo Hills	2
West Garo Hills	4
South Garo Hills	1
Total	13
Investment required per Center (in Rs lacs)	1.7 7
Total Investment required in State (in Rs Crores)	0.2 3

## **MIZORAM**

## A. DAIRY FARMS:

District	COMMERCIAL DAIRY FARM	RURAL DAIRY FARM	
	No. of units of cattle strength 10	No. of units of cattle strength 2	No. of units of cattle strength 5
Aizwal	93	811	108
Lunglei	26	409	55
Champhai	13	234	31
Kolasib	13	143	19
Serchip	10	127	17
Saiha	9	200	27
Mamit	3	140	19
Lawngtlai	-	236	32
Total	167	2300	308
Investment require d	4,23,000	60,534	1,31,590
per project (in Rs)			

Total	7.06	13.92	4.05
Investme			
ntrequired in			
State (in Rs Crores)			

- **B. MILK PROCESSING PLANTS Nil**
- C. CATTLE FEED COMPOUNDING PLANT Nil
- D. ICE CREAM PLANT Nil
- E. SWEET MANUFACTURING UNIT Nil
- F. A.I CENTRES:

DISTRIC T	No. of Centers @ one for every10,000 cattle
Aizwal, Kolasib, Mamit, Serchhip & Chamhai	1
Saiha and Lawngtlai	1
Total	2
	1 ==
Investment required per Center (in Rs lacs)	1.77
Total Investment required in State (in Rs Crrores)	0.03

## **NAGALAND**

#### A. DAIRY FARMS:

District	COMMERCIAL DAIRY FARM		RURAL DAIRY FARM	
	No. of units of cattle strength 10	No. of units of cattle strength 25	No. of units of cattle strength 2	No. of units of cattle strength 5
Dimapur	9	23	1788	238
Kohima	51	-	2347	313
Wokha	6	-	287	38
Mokokchung	18	-	1608	214
Tuensang	22	-	3753	500
Zunheboto	8	-	614	82
Mon	10	-	1932	258
Phek	5	-	746	99
Total	129	23	13,075	1,742
Investment required pe	4,97,000	11,63,000	68,992	1,46,72
project (in Rs)	( 41	2.67	00.21	25.50
Total Investment required in State (in Rs Crores)	6.41	2.67	90.21	25.56

#### **B. MILK PROCESSING PLANTS - Nil**

## C. CATTLE FEED COMPOUNDING PLANT -Nil

- D. ICE CREAM PLANT Nil
- E. SWEET MANUFACTURING UNIT:

Any location beside NH-36 and in		No. of Units with capacity of 500 lpd (100 kg sweets/day)
Investment required per un Total Investment required is	8.59 0.08	

DISTRIC T	No. of Centers @ one forevery 10,000 cattle
Kohima	3
Dimapur	5
Mon	1
Wokha	1
Phek	1
Zunheboto	1
Makokchung	1
Tuensang	1
Total	14
Investment required per Center (in Rs lacs)	1.7 7
Total Investment required in State (in Rs Crores)	0.2 4

## **5.2.7** <u>SIKKIM</u>

## A. DAIRY FARMS:

District	COMMERCIAL DAIRY FARM	RURAL DAIRY FARM		
	No. of units of cattle strength 10	No. of units of cattle strength 2	No. of units of cattle strength 5	
East South	4	106 403	14 54	
North	-	51	7	
West	-	295	39	
Total	5	855	114	
Investment required pe rProject (in Rs)	367,000	38,304	82,721	
Total Investment required in State (in Rs Crores)	0.18	3.28	0.94	

- B. MILK PROCESSING PLANTS Nil
- C. CATTLE FEED COMPOUNDING PLANT Nil
- D. ICE CREAM PLANT Nil
- E. SWEET MANUFACTURING UNIT-Nil

Name of District	No. of Centers @ one forevery 15,000 cattle
East	3
West	3
North	1
South	2
Total	9
Investment required per Center (in Rs lacs)	1.7 5
Total Investment required in State (in Rs Crores)	0.1 5

## **5.2.8 TRIPURA**

Summary Report

#### A. DAIRY FARMS:

District	COMMERCIAL DAIRY FARM		RURAL DAIRY FARM	
	No. of units of cattle strength 10	No. of units of cattle strength 25	No. of units of cattle strength 2	No. of units of cattle strength 5
Wesr Tripura	96	33	5472	243
North Tripura	27	-	2059	91
South Tripura	17	-	1975	88
Dhalai	10	-	1412	63
Total	150	33	10918	485
Investment required pe rproject (in Rs)	4,00,000	9,20,000	46,655	99,968
Total Investment required in State(in Rs lacs)	6.00	3.04	50.94	4.85

## **B. MILK PROCESSING PLANTS:**

Location	Major Towns in demand zone	Capacity of Unit	No. of Units
On NH42etween Udaipur	Udaipur Belonia	5,000	1
&Belonia	Sabroon		
	Mathabari		
Investment required per Unit (in Rs lacs)  Total Investment required in State (in Rs Crores)			
	On NH42etween Udaipur &Belonia equired per Unit (in	On NH42etween Udaipur &Belonia  Sabroon Risyamukh Barpathari Mathabari	On NH42etween Udaipur &Belonia  Sabroon Risyamukh Barpathari Mathabari  required per Unit (in Rs lacs)

## C. CATTLE FEED COMPOUNDING PLANT - Nil

### D. ICE CREAM PLANT - Nil

#### **E. SWEET MANUFACTURING UNIT:**

Locatio n	Targeted Markets	No. of Units with capacity of 500 lpd
		Summary Report
	2.	
	2	

		(100 kg sweets/day)
Agautala	Agantala	1
Agartala	Agartala	1
Investment requir	ed per unit (in Rs lacs)	8.35
Total Investment	required in State (in Rs Crores)	0.08

DISTRIC T	No. of Centers @ one for every 15,000 cattle
West	26
South	11
Dhalai	5
North	8
TOTAL	50
Investment required per Center (in Rs lacs) Total Investment required in State (in Rs Crores)	1.77
Total Investment required in State (in Rs Crores)	0.88

Summary Report