



**REPORT
ON
INDUSTRIAL POTENTIALITY SURVEY
OF
NORTH 24 PARGANAS
(WEST BENGAL)
2015-2016**



**MSME-DI, KOLKATA
GOVT. OF INDIA
MINISTRY OF MSME
111 & 112, B. T. ROAD, KOLKATA –108**

FOREWORD

Preparation of District Industrial Potentiality Survey Reports is a regular exercise of the Institute. The report of North 24 Parganas was accordingly published by the Institute during the year 2001-02. The survey was further undertaken during 2006-2007 and now in 2015-16 in the light of the present scenario of globalization and liberalization of trade practices. The report seeks to provide information in new areas for industrial exploitation and may be found useful by the prospective and existing entrepreneurs in taking investment decisions. Besides, promotional agencies both at the Govt. and non-Govt. level are expected to make use of the report in drawing their plan of action as to the industrial development of the district.

I hope the report will be found very useful by Promotional Agencies, Financial Institutions, Non-Govt. Organisations and above all the Micro, Small and Medium scale entrepreneurs of the district.

In preparing the report, necessary co-operation was obtained from various organizations such as DIC, Bureau of Applied Economics & statistics, Allahabad Bank, and other Govt. and non-Govt. organizations, I would like to keep on record my sincere thanks to all of them. I also appreciate the efforts put in by Mrs. Senjuti Dutta, Investigator who worked under the overall guidance of D.Banerjee, Assistant Director (Statistics) in order to bring out the report within the stipulated time.

Place- Kolkata.

Date-31st December, 2015.

(K.L.RAO)
Director.

CONTENTS

<u>Chapter No.</u>	<u>Subject</u>	<u>Page No.</u>
	District at a glance	4-7
	Map	8
I.	Objective, Scope & Methodology	9
II.	General Characteristics of the district	10-13
III.	Resources	14-24
IV.	Infrastructure for industrial development	25-35
V.	Present Industrial Structure	36-45
VI.	Planning for Industrial Development	46-50
VII.	Plan of action for Industrial Development	51-54
VIII.	Central & State Govt. Schemes, Incentives and Facilities	55-64
IX.	Sample Project Profiles	65-90

District At A Glance

District:- North 24 Parganas

(A) AREA, POPULATION AND LITERACY

1)	Geographical Area	: 4094 sq.km.
2)	2011 Census Total Population (Provisional)	: 10009781
	i) Male Population	: 5119389
	ii) Female Population	: 4890392
	iii) Urban Population	: 5732162
	iv) Rural Population	: 4277619
3)	Density of Population per sq. Km (in No.)	: 2445
4)	Sex Ratio per thousand person	: 960
5)	Total No. of Literates	
	i) Male Literates	: 4056046
	ii) Female Literates	: 3552647
	iii) Male Literacy rate	: 87.61
	iv) Female Literacy rate	: 80.34
	v) Rural Literacy rate	: 77.37
	vi) Urban Literacy rate	: 88.87
	vii) Literacy rate for the district as a whole	: 84.06

(B) Administrative Set Up

1)	District Headquarters	:	
2)	No. of Sub-Divisions	:	5
3)	No. of blocks	:	22
4)	No. of Mouzas	:	1581
5)	No. of Police Stations	:	35
6)	No. of Villages	:	1518
7)	No. of Panchayat Samities	:	22
8)	No. of Gram Panchayats	:	200
9)	No. of Municipalities	:	27

(C) AGRICULTURE AND ALLIED ACTIVITIES

1)	Gross Cropped Area	:	386.52
2)	Net Cropped Area	:	231.27
3)	Area under non-agricultural use	:	125.30
4)	Barren & Uncultivable Land	:	0.03
5)	Cultivable waste land	:	0.21
6)	Current fallow	:	25.12
7)	Fallow land other than current fallow	:	0.59
8)	Net irrigated area	:	189.89
9)	Area irrigated by tank	:	15.80
10)	Area irrigated by riverlift	:	4.07
15)	Area irrigated by Deep Tube Well	:	6.387

- 16) Area irrigated by Shallow Tube Well : 0.93
- 17) Major Crops : Rice, Jute,
Oilseeds,
Pulses,etc.

(D) FISHERIES

- 1) Net Water Area :60.15 (thous.Hect.)
- 2) Net Water Area under effective Fishery : 56.77 (thous.Hect.)
- 3) No. of persons engaged in profession :430570
of Pisciculture (approx)
- 4) Approximate Annual Production :1646579 qtl.

(E) INFRASTRUCUTRE

- 1) i) Total State Highway : 178 Km.
ii)Total National Highway : 100.94 Km.
- 2) No. of Sub-Stations (Power) : 9
- 3) No. of Bank Branches : 270
- 4) Lead Bank : Allahabad
Bank
- 5) C.D Ratio :19

(F) INDUSTRIES

1)	No of Large & Medium Industries	: 180
2)	No .of Registered Enterprises EM-II	: 15638
	(Since 2006-07 to 2014-15)	
3)	No. of Employment	: 141700
	(Since 2006-07 to 2014-15)	
4)	Udyog Aadhaar Memorandum(UAM)	
	Registration 2015-16 (Since October,15)	
	i) Micro	: 328
	ii) Small	: 60
	iii)Medium	: 1
	Total-	: 389



5 10 15 20 25 Kilometres



**BLOCKS, MUNICIPALITIES
NORTH 24-PARGANAS**

CHAPTER – I

OBJECTIVE, SCOPE AND METHODOLOGY

Objective :

Strategic propulsion towards balanced industrialization in an area underlines the need of preparing a comprehensive survey report identifying potential industries. With this objective a survey to identify a slew of new industries having scope for development in the district was undertaken during the year 2006-07 and the report was prepared accordingly. Now in the perspective of global changes taking place upon the impact of WTO, the report requires to be updated to focus on the most specific areas of industrialization.

Scope :

The report with a careful analysis of resources, infrastructures, and existing industries throws light on various parameters required for industrialization and thus enables promotional agencies both at the Govt. and Non-Govt. level, Financial Institution, Chamber of Commerce; trade Associations etc. to envisage policy decisions for upholding the process of industrialization in the district. The report provides first hand information with regard to new industrial possibilities to the budding entrepreneurs and also helps the existing entrepreneurs keep abreast of the changes taking place around the globe. It is hoped that the report will be of immense importance to the users.

Methodology :

The office of the Development Commissioner, Micro Small and Medium Enterprises, New Delhi has issued guidelines for preparation of this report. The latest guidelines have been followed for preparing this report.

Study data has been collected from two sources viz. primary and secondary sources, for preparation of this report. In the initial stage, questionnaires were prepared and dispatched to various Government and Semi- Government Departments like District Industries Centre, District Planning, Banks, Agriculture, Forest, Animal Recourse etc.

A separate questionnaire was also designed and 'Stratified Random Sample' method was applied for generation of primary data.

Finally, collected data has been compiled and analyzed in depth to prepare and shape the report.

CHAPTER-II

GENERAL CHARACTERISTICS OF THE DISTRICT

The district of North 24-Parganas with its administrative headquarters at Barasat comprises five Sub-divisions viz. Barasat, Barrackpore, Bongaon, Bashirhat and Bidhannagar. The district is bounded by Nadia district in the north, South 24-Parganas in the south, Bangladesh in the east and keeps the Hooghly district, the river Hooghly and Kolkata at the west. The district of North 24-Parganas has an international border with Bangladesh in the east spreading for about 230 Km. The district with an area of 4094 sq Km, has a population of 10009781 as per 2011 census and thus shows the highest density with 2445 persons per sq. Km. among all the districts in the State.

i) Location

The district lies between 23°15'22" and 22°11'6" latitude and 98°5' E and 88°20' E longitude. The geographical location of the district is shown in the table below:

Geographical location of the North 24-Parganas district

Name of the district	Latitude		Longitude	
	North	South	East	West
North 24-Parganas	22° 57' N	..	89° 06' E	..

ii) Climate & Rainfall

The district of North 24-Parganas lies just south of the tropic of cancer. So the climate of the district is normally hot and humid. Monsoon dominates during the period mid-June to mid-October because of the district's proximity towards the Bay of Bengal. Rainy seasons starts in the month of June and continues till the month of October. During the month of July and August, the rainfall is reported to be the maximum and varies from 150mm to 250mm. The winter stays for a short spell in the district. It starts from the month of December and continues up to mid-February. January is the coldest month, while May is the hottest. The temperature of the district varies from 9°C to 40°C. A table showing the average monthly rainfall and mean temperature of the district is furnished below:-

Month	Temperature		Rainfall (mm)
	Mean Max	Mean Min	
January	25	12	4
February	29	16	9
March	35	22	5

April	37	25	52
May	35	26	215
June	35	27	262
July	34	27	252
August	33	26	338
September	34	26	227
October	32	24	294
November	30	18	-
December	27	14	-

Source- District Statistical Handbook, 2013

iii) **Soil**

The district of North 24- Parganas falls within the new alluvium sub-region of the lower Gangetic Plain (Zone-III) and considered being most fertile for crop production. The soil type varies from sandy to clay sandy loam being the predominant ratio of high: medium: low land is 17:33:39. The soil of northern part of district is sandy, in the central middle part it is sandy with clay loam and in southern side it is clay loam. The physiographic structure of the district is mostly plain.

iv) **Rivers**

The main rivers of the district of North 24-Parganas are Ichhamati, Kalindi, Raimangal, Dansa, Borokalagachi, Benti, Haribhanga, Gaourchar, Bidyadhari, Hooghly, etc. Ichhamati is the longest among these rivers. It enters the district through Bagdah block in the north of the district from Nadia and flows south through Bangaon, Swarupnagar, Baduria, Bashirhat-I, Hasnabad and Hingalganj. This river flows into river Kalindi and Kalindi in turn flows into Raimangal. It indicates the borderline between India and Bangladesh during its course of flow from Bashirhat to Hingalganj. River Hooghly lies between Hooghly and North 24-Parganas district.

v) **Forests**

The district has no forest area as such except the Sunderbans Reserve Forests. The total area under reserve forest is 91.98 hectares covering 1.05% of the total geographical area of the district. Out of these 91.98 hectares, 63.00 hectares have been earmarked as Bhimbhuti Bhushan Wildlife Sanctuary. However, these forests being positioned in the largest delta of the world, has a major role to play in maintaining the ecological balance of southern part of the State.

vi) Administrative Set up

The district with an area of 4094 sq Km. has 5 Sub-divisions, 22 Blocks, 36 Police Stations, 22 Panchayat Samities, 200 Gram Panchayats and 27 Municipalities. The district headquarters is at Barasat. The details of administrative set up of the district are given in the following table:

Administrative units in the district

Sub-Divisions	Blocks	No of Samities	No. of Gram Panchaats	Municipalities
Bongaon Sub-Division	Bagdah	1	9	-
	Bongaon	1	16	-
	Bongaon(M)	-	-	1
	Gaighata	1	13	-
Barasat Sub-Division	Habra-I	1	7	-
	Habra-II	1	8	-
	Habra(M)	-	-	1
	Gobardanga(M)	-	-	1
	Ashokenagar-Kalyangarh(M)	-	-	1
	Barasat-I	1	9	-
	Barasat-II	1	7	-
	Barasat(M)	-	-	1
	Madhyamgram(M)	-	-	1
	Amdanga	1	8	-
	Deganga	1	13	-
	Rajarhat	1	6	-
	Rajarhat Gopalpur	-	-	1
Barrackpur Sub-Division	Kanchrapara (M)	-	-	1
	Halisahar(M)	-	-	1
	Barrackpur-I	1	8	-
	Naihati(M)	-	-	1
	Bhatpara(M)	-	-	1
	Garulia(M)	-	-	1
	North Barrackpur(M)	-	-	1
	Barrackpur(M)	-	-	1
	Titagarh(M)	-	-	1
	Kardah(M)	-	-	1
	Barrackpur-II	1	6	-
	Panihati(M)	-	-	1
	New Barrackpur(M)	-	-	1
	Kamarhati(M)	-	-	1
	Baranagar(M)	-	-	1
	Dum Dum(M)	-	-	1
	South Dum Dum(M)	-	-	1

	North Dum Dum(M)	-	-	1
--	------------------	---	---	---

Bidhannagar Sub-Division	Bidhannagar(M)	-	-	1
Basirhat Sub-Division	Baduria	1	14	-
	Baduria(M)	-	-	1
	Haroa	1	8	-
	Minakhan	1	8	-
	Swarupnagar	1	10	-
	Hasnabad	1	9	-
	Taki(M)	-	-	1
	Hingalganj	1	9	-
	Sandeshkhali-I	1	8	-
	Sandeshkhali-II	1	8	-
	Basirhat-I	1	7	-
	Basirhat-II	1	9	-
	Basirhat(M)	-	-	1
Total=5		22	200	27

Source- District Statistical Handbook, 2013
Bureau of Applied Economics & Statistics
Government of West Bengal

vii) **Income**

Income generated from the various sources is an indicator for assessing the degree of economic and commercial activities prevailing in the district. Though the economy of North 24-Parganas is basically agriculture based, the scope of generating additional income from various sources (for the State ex-checker) is limited to only secondary and tertiary sector. The table below will depicts the revenues collected from various sources of the district from 2010-2013

Sl No.	Sources	2010-11	2011-12(P)	2012-13(P)
1	Land Revenue	263922	425604	482619
2	Stamp Revenue & Registration Fees	331155	4241513	5899734
3	Excise Revenue	948861	381684	163930
4	Sales Tax	1251008	1484282	1614256
5	Taxes on Vehicles	1175780	1321772	1505730
6	Entertainment Tax	--	--	26220
7	Electricity Duty	3844609	337837	12005027
8	Agri.Income Tax	--	--	15
9	Professional Tax	187386	191383	193073
10	Other Tax	43840	68829	191635
11	Total	11046561	8452904	22082239

Source- District Statistical Handbook, 2013

CHAPTER-III

RESOURCES

Resources, comprising human and material, set the process of industrialization in a district. Resource analysis is, therefore, considered to be an important part of the whole exercise. Here, a spectrum of various resources available in the district under human and material segments is given below:-

A) HUMAN RESOURCE

Human resource assumes tremendous importance in expediting the process of industrialization the details of which are discussed below:-

i) Population

Population being the basic foundation of human resource is given due importance for analysis in its structural forms. The district of North 24-Parganas has a population of 10009781 as per 2011 census of which 5119389 are male and 4890392 are female. The sex ratio of the district is 96 females per 100 males. The composition of urban and rural population is reported as 5732162(U) and 4277619 (R) representing 57.26% and 42.73% respectively. The density of population per sq km. is 2445. The block wise distribution of population with area and density per sq km. is given in the following table :-

Area wise population with density in the district

Sub-Division / C.D.Block / M	Area(Sq.Km.) (2001)	Population (2011)	Density of population (per Sq. Km.)
Bongaon Sub-Division	838.17	1063028	1268
Bagdah	233.47	242974	1041
Bongaon	336.70	380903	1131
Bongaon(M)	24.70	108864	4407
Gaighata	243.30	330287	1358
Barasat Sub-Division	1002.48	2789611	11466
Habra-I	117.36	225200	1919
Habra-II	112.67	176490	1566
Habra(M)	22.68	147221	6491
Gobardanga(M)	10.36	45377	4380
Ashokenagar-Kalyangarh(M)	18.44	121592	6594
Barasat-I	104.97	294628	2807
Barasat-II	114.04	200918	1762
Barasat(M)	31.41	278435	8865

Madhyamgram(M)	21.32	196127	9199
Amdanga	139.27	191673	1376
Deganga	202.09	319213	1580
Rajarhat	72.90	189893	2605
Rajarhat-Gopalpur(M)	34.97	402844	11520
Barrackpur Sub-Division	334.51	3668653	10967
Kanchrapara(M)	9.07	120345	13268
Halisahar(M)	8.28	124939	15089
Barrackpur-I Barrackpur Cantonment (C.B.)	95.44	194333 17380	2218
Naihati(M)	11.55	217900	18866
Bhatpara(M)	30.42	383762	12615
Garulia(M)	5.38	85336	15862
North Barrackpur(M)	9.46	132806	14039
Barrackpur(M)	10.61	152783	14400
Titagarh(M)	3.24	116541	35969
Khardah(M)	6.87	108496	15793
Barrackpur-II	40.74	217171	5331
Panihati(M)	19.40	377347	19451
New Barrackpur(M)	17.17	76846	4476
Kamarhati(M)	10.96	330211	30129
Baranagar(M)	7.12	245213	34440
Dum Dum(M)	8.81	114786	13029
South Dum Dum(M)	13.54	403316	29787
North Dum Dum(M)	26.45	249142	9419
Bidhannagar Sub-Division	33.50	216609	6466
Bidhannagar(M) Nabadiganta Industrial Township	33.50	215514 1095	6466
Basirhat Sub-Division	1777.02	2271880	1278
Baduria	179.72	285319	1588
Baduria(M)	22.43	52493	2340
Haroa	152.73	214401	1404
Minakhan	158.82	199084	1254
Swarupnagar	215.13	256075	1190
Hasnabad	153.07	203262	1328
Taki(M)	15.54	38263	2462
Hingalganj	238.80	174545	731
Sandeshkhali-I	182.30	164465	771
Sandeshkhali-II	197.21	160976	816
Basirhat-I	111.84	171613	1534
Basirhat-II	127.42	226130	1775
Basirhat(M)	22.01	125254	5691
District Total 2011	4094.00	10009781	2445

Source- District Statistical Handbook, 2013

ii) Literacy

A high degree of literacy forms the educational base of a community. The higher the rate, the greater will be the consciousness among the people. But the district of North 24-Parganas is yet to attain cent percent literacy rate. The literacy rate in the district is 84.06% while literacy rates among male and female stand at 87.61 % and 80.34 % respectively. The block wise and Municipal town wise literacy rate in the district is shown in the following table:-

Sub-Division / C.D.Block / M	Male	Female	Total
Bongaon Sub-Division	85.09	75.78	80.57
Bagdah	80.31	69.95	75.30
Bongaon	84.27	74.84	79.71
Bongaon(M)	93.03	86.26	89.70
Gaighata	86.89	77.51	82.32
Barasat Sub-Division	88.03	81.64	84.90
Habra-I	87.11	78.94	83.15
Habra-II	84.77	77.14	81.05
Habra(M)	92.99	86.90	89.98
Gobardanga(M)	94.46	89.07	91.80
Ashokenagar-Kalyangarh(M)	94.85	89.10	91.99
Barasat-I	84.42	78.44	81.50
Barasat-II	81.50	73.60	77.71
Barasat(M)	92.22	86.96	89.62
Madhyamgram(M)	92.69	86.46	89.60
Amdanga	84.09	77.07	80.69
Deganga	82.84	76.32	79.65
Rajarhat	87.25	78.78	83.13
Rajarhat-Gopalpur(M)	92.15	87.18	89.69
Barrackpur Sub-Division	91.96	86.09	89.09
Kanchrapara(M)	93.98	86.08	90.06
Halisahar(M)	92.15	84.20	88.36
Barrackpur-I	89.98	81.64	85.91
Barrackpur Cantonment (C.B.)	92.74	83.99	88.47
Naihati(M)	91.18	83.79	87.51
Bhatpara(M)	88.76	80.18	84.74
Garulia(M)	90.74	82.58	86.87
North Barrackpur(M)	95.87	91.91	93.90
Barrackpur(M)	91.63	85.74	88.76
Titagarh(M)	85.43	73.91	80.13
Khardah(M)	96.20	92.50	94.37
Barrackpur-II	88.33	80.54	84.53
Panihati(M)	94.02	89.82	91.92
New Barrackpur(M)	96.07	91.95	93.99
Kamarhati(M)	90.24	84.93	87.67
Baranagar(M)	93.69	89.00	91.41

Dum Dum(M)	93.08	90.86	91.99
South Dum Dum(M)	94.25	89.92	92.09
North Dum Dum(M)	93.15	88.79	91.00
Bidhannagar Sub-Division	91.73	86.52	89.16
Bidhannagar(M)	91.72	86.50	89.14
Nabadiganta I.T.S.	93.55	91.52	92.73
Basirhat Sub-Division	80.56	70.55	75.67
Baduria	82.13	75.22	78.75
Baduria(M)	85.16	78.61	81.95
Haroa	78.13	67.75	73.13
Minakhan	77.20	65.17	71.33
Swarupnagar	81.78	73.13	77.57
Hasnabad	76.34	66.36	71.47
Taki(M)	87.41	78.49	83.05
Hingalganj	84.24	69.17	76.85
Sandeshkhali-I	78.09	63.80	71.08
Sandeshkhali-II	79.12	62.46	70.96
Basirhat-I	75.86	68.18	72.10
Basirhat-II	81.69	74.73	78.30
Basirhat(M)	90.51	84.15	87.35
District Total	87.61	80.34	84.06

Source- District Statistical Handbook, 2013

iii) Occupational Pattern

Occupational pattern of the population largely influence the economic activities being pursued by the people in a district. As per 2011 Census 35.71 lakh persons are recorded as total workers constituting 35.68 % of the total population . The breakup of total workers under various categories is given in the following table :-

Distribution of main workers in North 24-Parganas district

Category	Male	Female	Total
Cultivators			
Rural	253053	18300	271353
Urban	13454	3251	16705
Total	266507	21551	288058
Agricultural Labourers			
Rural	481805	84775	566580
Urban	27596	4863	32459
Total	509401	89638	599039
Household Industry Workers			
Rural	40335	45513	85848
Urban	41099	28815	69914
Total	81434	74328	155762
Other Workers			
Rural	517600	116745	634345

Urban	1570247	324173	1894420
Total	2087847	440918	2528765
Total Workers :			
Rural	1292793	265333	1558126
Urban	1652396	361102	2013498
Total	2945189	626435	3571624

Source- District Statistical Handbook, 2013

B) MATERIAL RESOURCES

Like human resource, material resources are equally important to expedite the process of industrialization. Material resources generally consist of agriculture, forest, livestock, etc. and these are discussed below:

i) **Agriculture**

Agriculture being the primary sector plays a significant role in building up economic base of a district and its productivity in turn counts upon the land utilization pattern, cropping pattern, agriculture marketing etc. Here all these factors are analyzed for the district in the following paragraphs.

a) **Land utilization**

Land is one of the most precious rather limited resource of an economy. The importance of land in the context of productivity depends on the pattern of its utilization which varies from season to season depending upon its location, influence of nature and also the initiative taken by the actual users. The land utilization pattern in North 24-Parganas is given below:

Utilisation of Land in N 24 Parganas 2012-13

(Thousand hectares)

Reporting Area	386.52
Forest Area*	-
Area under Non-agricultural use	125.30
Barren & unculturable land	0.03
Permanent pastures & other grazing land	-
Land under misc.tree groves not included in Net area sown	4.00
Culturable waste land	0.21
Fallow land other than Current fallow	0.59
Current fallow	25.12
Net area sown	231.27

b) Cropping Pattern

The district having a well balanced cropping system contributes significantly in generating income and employment for the people who are by and large dependent on agriculture sector. The major crops of the district are paddy, jute, pulses, oil seeds, potato, etc. The details of some major crops with their average annual production and area covered during 2010-2013 are given in the following table:-

Production of Principal Crops in N 24 Parganas

Area in thousand hectares
Production in thousand tonnes

Crops	2010-11		2011-12		2012-13	
	Area	Production	Area	Production	Area	Production
Rice	223.7	606.6	221.5	597.5	217.5	649.1
Wheat	7.4	19.7	7.2	20.3	7.2	19.9
Other Cereals	0.1	0.4	0.2	0.5	0.2	0.5
Total Cereals	231.2	626.7	228.8	618.3	224.9	669.5
Pulses	7.8	7.1	9.6	9.4	12.0	9.6
Total Food grains	239.0	633.8	238.4	627.7	236.9	679.1
Oilseeds	45.6	63.3	50.9	55.0	57.2	77.7
Jute(C)	50.2	955.0	56.7	1019.5	47.4	754.3
Potato	9.2	331.3	7.0	205.6	6.4	205.2

C) Agricultural Marketing

Agricultural marketing encompassing various stages enables the produce to reach the ultimate consumers from growers. The farmers wholesalers, retailers, transporters, storage-owners, etc are involved in these activities. Economic development of rural areas depends to a great extent on the agricultural marketing system available in that area. Thus, agricultural marketing plays an important role for development of far-flung areas of the district.

Because of its proximity to Kolkata Metropolis, all the marketable surplus of agricultural produce of the district finds their market in Kolkata. Since the district is well connected with Kolkata by surface transport as well as by water transport, there is practically no constraint to marketing of surplus agricultural produce like potato, vegetables, fruits, etc.

In the present system of marketing of agricultural produce in North 24-Parganas district, the channel through which the entire marketing operation takes place is designed and controlled by the private traders in their own interest taking the advantage of poverty

and ignorance of cultivators who are not organized. The traders or middlemen collect agricultural produce from weekly hat or from the agricultural land and bring them to Kolkata market mainly. Sealdah by rail or road. The purchasing price of the traders from the growers depends on the bargaining power of the traders because there is no storage system of vegetables in the district and the duration of freshness of vegetables is very short. Due to these reasons, the growers cannot argue strongly for a fair selling price and thus are deprived of their reasonable price.

Considering all these matters, the district authority has taken up some programmes. Under these programmes, setting up of proper storage facilities, development of transportation system, grading, construction of market link road, market intelligence, processing and preservation of fruits and vegetables, development of hats and markets, market regulation etc. are in operation in the North 24- Parganas district.

II) Irrigation

The district , despite being an agrarian one , does not have proper irrigation system as to contribute to the total yield of various agricultural produce of the district. The district quite often falls prey to the vagaries of nature and thus its production oscillates from time to time. However ,a vast area is irrigated by conventional irrigation like tanks, DTWs, STWs, etc. The details of which are depicted in the table below.

Year	(Thousand hectares)									
	Area irrigated by									
	Govt Canal	Tank	HDTW	MDTW	LDTW	STW	RLI	ODW	Others	Total
2010-11	7.50	0.83	6.77			1.24	3.77	-	7.54	27.65
2011-12	7.50	14.55	6.54			135.52*	3.99	-	..	168.10
2012-13	7.50	15.80	6.08	0.257	0.05	0.93	4.07	-	155.20	189.89
# Excluding Private Sources										
* Including "Others"										
Note : HDTW =		High capacity Deep Tubewell								
MDTW =		Middle capacity Deep Tubewell								
LDTW =		Low capacity Deep Tubewell								
STW =		Shallow Tubewell								
RLI =		River Lift Irrigation								
ODW =		Open Dug Well								

Source- District Statistical Handbook, 2013

iii) Horticulture

Horticulture activity in the district generally centers around mango, banana, papaya, and citrus fruits cultivation. About 21,000 hectares of land comes under horticultural activity of the district and annual production covering all the varieties are around 3.68 lakh MT. Banana is considered to be the major horticulture produce in the district followed by mango, papaya and jackfruit. The annual production of various horticultural produce along with area covered under the activity is shown in the following table :-

Year wise various kinds of fruits shown with area and production in the district

Name of Fruits	Area (Thousand hectares)			Production (Thousand tonnes)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Mango	6.95	7.10	7.20	81.59	83.39	83.45
Banana	6.28	6.40	6.65	136.96	152.60	162.00
Pineapple	0.09	0.08	0.04	1.93	1.66	0.72
Papaya	2.15	2.07	1.98	67.12	64.61	60.45
Guava	0.90	0.95	0.97	13.75	13.85	13.95
Jackfruit	1.34	1.36	1.38	18.09	18.10	19.50
Litchi	0.71	0.71	0.71	6.97	6.80	6.90
Mandarin Orange	-	-	-	-	-	-
Other Citrus	1.19	1.19	1.18	10.44	10.41	10.20
Sapota	0.26	0.27	0.26	1.97	1.94	2.50
Others	0.49	0.80	0.85	4.27	7.00	8.50
Total	20.36	20.93	21.22	343.09	360.36	368.17

As regards vegetables, the district enjoys a comfortable position. Winter, rainy and summer vegetables grow substantially Cauliflower, cabbage, tomato, brinjal, ladies finger being the major produce are reported to be found surplus during peak season, though not sufficient enough for industrial exploitation. The table below will show that annual production of summer, rainy and winter vegetables together comes toward 10.95 lakh MT in the district and hardly generates adequate surplus for industrial exploitation

Year wise various kinds of vegetables shown with area and production in the district

Name of Vegetables	Area (Thousand hectares)			Production (Thousand tonnes)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Tomato	3.84	3.92	4.00	84.03	102.80	107.25
Cabbage	4.56	4.85	5.00	118.49	140.00	144.45
Cauliflower	4.76	4.98	5.10	121.48	138.00	139.35
Peas	1.19	1.28	1.31	10.84	11.70	12.10
Brinjal	6.60	9.91	10.06	101.08	185.40	201.30
Onion	1.13	1.31	1.41	15.43	18.20	20.20

Cucurbits	8.38	8.40	8.45	111.63	116.77	116.90
Ladies Finger	5.05	5.01	4.84	71.81	70.70	69.86
Radish	0.32	1.95	1.96	3.71	30.40	30.55
Others	37.04	29.55	29.43	298.50	262.10	253.25
Total	72.87	71.16	71.56	937.00	1076.07	1095.21

iv) Pisciculture:

a) Project on Mud Crab culture in Sundarban areas of North 24 parganas.

This project has been taken up by the West Bengal State Fishermen's Cooperative Federation Ltd. (BENFISH) in order to culture crab and fattening of crab through forming Cooperative Societies. Implementation of the project (Phase-I) has been completed. This project earned foreign exchange by export of crab as the same has good market abroad. 6 nos. Primary Kankra Mach Chas Samabaya Samitis have been included in the Project. Sanction of the 2nd Phase of the Project has been received for Rs.321.18 lakhs from NCDC, New Delhi which will be implemented shortly.

b) Fish Processing Unit At Salt Lake

Benfish has set up a modern Fish Processing Centre at Salt Lake for processing of raw fish and preparation of various fish fried products. This project has created employment to 200 unemployed youth. This unit has obtained certificate of ISO 9001 and HACCP which responded well among consumers.

These projects would create opportunities of self employment to the rural fisherwomen with proper scientific guidance of State Fisheries Extension Wing. Besides, it will fetch foreign exchange by way of exports.

Particulars of Pisciculture in the Blocks of North 24 Parganas for the year 2012-13

Sl. No	Name of Block	No. of Govt. Scheme operated	Expenditure (' 000 Rs.)	Assistance to needy fishermen (' 000 Rs.)	Net area available for pisciculture (hect.)	Net area under effective pisciculture (hect.)	No. of person engaged in the profession	Approx. annual production (qtl.)
1	Bagdah	8	1337	1337	2577.66	2319.89	38906	67276.81
2	Bongaon	8	1707	1707	2458.27	2212.44	57685	64160.76
3	Gaighata	8	883	883	2415.24	2173.72	12497	63037.88
4	Habra-I	5	263	263	922.54	876.41	20750	25415.89
5	Habra-II	10	596	596	864.25	824.84	18675	23920.38
6	Barasat-I	6	269	269	772.80	734.16	16808	21290.64
7	Barasat-II	5	219	219	2897.54	2752.76	15874	79830.04
8	Amdanga	6	367	367	957.67	909.79	17430	26383.91
9	Deganga	6	281	281	1722.30	1636.18	30088	47449.22
10	Rajarhat	8	1517	1517	1260.96	1197.91	4648	34739.39

11	Barrackpur-I	10	950	950	1901.37	1806.30	12554	52382.70
12	Barrackpur-II	9	993	993	310.22	294.71	5785	8546.59
13	Baduria	8	777	777	4504.56	4279.33	27805	124100.57
14	Haroa	5	471	471	9124.85	8668.61	18468	251389.69
15	Minakhan	6	401	401	6789.95	6450.46	17638	187063.34
16	Swarupnagar	6	401	401	3100.25	2945.24	31955	85411.96
17	Hasnabad	10	797	797	2375.78	2257.00	20439	65453.00
18	Hingalganj	6	461	461	1186.03	1126.73	12243	32675.17
19	Sandeshkhali-I	5	375	375	6031.77	5730.18	11413	166175.22
20	Sandeshkhali-II	5	483	483	2868.47	2725.04	12346	79026.16
21	Basirhat-I	5	231	231	1291.67	1227.09	11205	35585.61
22	Basirhat-II	6	305	305	3820.86	3629.81	15358	105264.49

iv) Sericulture

Sericulture activity in the district is a non-traditional one. Farmers are not much aware about sericulture. But at present farmers are taking interest in sericulture because the annual earnings from main crops like paddy, jute, etc. is decreasing gradually and farmers are facing various difficulties in cultivating their traditional crops whereas sericulture is a profitable cultivation and almost all members of a family except children can be absorbed in sericulture activities. Also, Dept. Of Sericulture, Govt. of West Bengal has undertaken various development programmes in association with NABARD and UBI to encourage the farmers to take up sericulture as a full time occupation.

Production in sericulture industry in the district

Year	Cocoons production (M.T.)	Value (Thousand rupees)
	Mulberry	Mulberry
2010-11	1.90	507.64
2011-12	1.05	284.70
2012-13	0.72	195.60

v) Forests

The district is not rich enough to generate adequate forest resources for industrial exploitation. It has only 93.70 hectares of land under forest.

vi) Livestock resources

Discussion with the people engaged in livestock business reveals that the district is not adequately endowed with the livestock population to meet the demand of the district. A large number of cattle and goats are imported for organized expansion and development to meet the district's increasing requirement.

The category wise live stock population in the district is given in the following table.

Estimated Number of Live-stock and Poultry in the Blocks of North 24-Parganas for the year 2012-13

Sl. No.	Name of Block	Live-stock					Number Poultry Birds
		Cattle	Buffaloes	Sheep	Goats	Others	
1	Bagdah	44283	69	-	37160	1175	86063
2	Bongaon	43417	19	-	39230	338	75565
3	Gaighata	42435	33	38	34434	648	64671
4	Habra-I	29788	446	5	20576	496	75413
5	Habra-II	29947	726	80	19395	346	59839
6	Barasat-I	19378	554	113	22584	45	46531
7	Barasat-II	22935	1983	554	26310	391	93465
8	Amdanga	18238	75	-	20956	317	87655
9	Deganga	44662	6	1420	43728	224	167250
10	Rajarhat	15023	82	112	11256	-	48421
11	Barrackpur-I	16444	2182	-	10794	1084	32391
12	Barrackpur-II	37586	25291	50	18783	5114	80228
13	Baduria	35358	-	-	35627	682	111841
14	Haroa	18500	-	1826	19664	505	82689
15	Minakhan	17435	6	5462	22756	1463	97604
16	Swarupnagar	38819	-	5	39606	248	84217
17	Hasnabad	25499	16	2301	27631	735	13957
18	Hingalganj	28525	31	7294	34299	1440	82108
19	Sandeshkhali-I	15331	-	5566	2483	4152	87903
20	Sandeshkhali-II	22058	3	15996	28872	2532	29586
21	Basirhat-I	19448	-	26	22462	198	56688
22	Basirhat-II	21341	27	-	22232	179	19966

vii) Dairy development programme/poultry farming/piggery

Under the Integrated Animal Development Programme of the district, the Directorate of Animal Resource Development has taken up various programmes for increasing production of animal husbandry products like milk, meat and eggs. The total milk production is around 470 thousand MT in the district. Poultry farming has also assumed tremendous importance with gradual fragmentation of land holdings among the farmers and escalating unemployment problem in the district. The total egg and milk production are around 3367lakhs and 481 thousand tonnes respectively in the district. However, these are very inadequate to meet the district's demand.

viii) Mineral resources

The district is devoid of any mineral resources barring some minor minerals like sand, clay, etc. and those are presently being used for manufacturing bricks, earthen-wares, clay dolls, etc.

CHAPTER-IV

INFRASTRUCTURE FOR INDUSTRIAL DEVELOPMENT

Infrastructure is a prime requisite for industrial development and is generally divided into two categories viz. (1) Physical Infrastructure and (2) Social production; social infrastructure builds up entrepreneurship among the people to generate employment opportunities.

Hence, infrastructural facilities available in the district of North 24- Parganas are discussed under different heads, being the pre-condition for undertaking any new industrial venture.

A) PHYSICAL INFRASTRUCTURE

i) Land

Land is unquestionably the most valuable constituent of infrastructure needed for setting up an industrial unit. So availability of land at reasonable price facilitates industrial development of an area. The district of North 24-Parganas despite being an agrarian one has some blocks with cultivable waste land, residual areas and vested land, which can be used for industrial accommodation.

ii) Factory Accommodation

Availability of factory accommodation in the form of industrial sheds and/or plots is one of the most important pre-requisites for starting any new industrial venture. This is more relevant in the case of small scale industries as this type of industries cannot afford enough capital for acquiring suitable factory accommodation. The provision of suitable industrial sheds/plots at concessional rate is considered to be very relevant in any industrial development programme initiated by Govt. /Promotional Agencies.

In view of the above objective, the State Govt. has undertaken various development programmes to provide accommodation to the industrial units in the district of North 24-Parganas. State Govt. has set up Ashoknagar Industrial Estate and Salt Lake Electronic Estate in the district with a view to accommodation MSE Units and electronic units respectively. The details of these industrial areas are discussed below:-

S. No.	Name of Ind. Area	Land acquired (In hec.)	Land developed (In hec.)	No of Plots	No of allotted Plots	No of Vacant Plots	No. of Units in Production
1	Ashoke Nagar I.E	4.68 acre	4.68 acre	25	22	3	21
2	Manikan-cha Jewellery Park Salt Lake, SEZ	47840 Sq.ft	47840 Sq.ft	-	-	-	-
3	Salt lake Electronics Complex,	150 acre	150 acre	-	-	-	-
4	Toy park at Salt Lake	2.28 acre	2.28 acre	-	-	-	-
5	Light Engg. Park, Salt Lake	2.25 acre	2.25 acre	-	-	-	-
6	Light Engg .Park, Dum Dum	1.45 acre	1.45 acre	-	-	-	-
7	Naihati Industrial Park	97.38 acre	97.38 acre	-	-	-	-

Ashoknagar Industrial Estate

Ashoknagar Industrial Estate was commissioned in 1988. It is located at Ashoknagar. The total area of the Estate is 4.68 acre. Units of Chemical and Engineering Industrial Units are concentrated here. The estate is within 3 Km. of Ashoknagar Railway Station. West Bengal Small Industrial Corporation is running this Estate.

Rishi Bankim Shilpaudyat at Naihati

West Bengal Industrial Development Corporation (WBIDC), the nodal agency of the State Government, responsible for promoting industrialization in the State, is setting up an Industrial Park over 97.38 acres at Naihati, North 24 Parganas for non- polluting industrial manufacturing units. The location of the said industrial park is bound by road on one side and railway line on the other side. The region's well established connectivity with domestic as well as international markets offers accessibility to numerous sourcing options for development of industries in the region.

Salt Lake – Electronic Estate

To accommodate the electronic industrial units in the State, the State Govt. has built Salt Lake Electronic Estate, which is also known as Salt Lake Electronic Complex. It has been built up in the sector IV & V of Salt Lake City. West Bengal Electronic Industry Development Corporation Ltd (WBEIDC) is the nodal agency functioning for development and promotion of Electronic Industries in the State. WBEIDC has provided plots to 87 large, medium and small scale units and established 18 companies so far. It is India's first fully integrated Electronic Estate and unique facility estate for electronic units in the pollution free urban peripheries of Kolkata. The state offers the following facilities:

- 1) Technical & commercial support and uninterrupted power supply are being made available.
- 2) An additional area of 150 acres of land has been proposed to be acquired to accommodate the new entrepreneurs.
- 3) WEBEL's Standard Design Factory (SDF) Building is situated in the heart of the Estate. Entrepreneurs in the Electronic trade can be assisted from SDF in respect of their design. SDF has an international gateway switching and software Technology Park housed in the premises. It is a stand-alone facility rarely found elsewhere.
- 4) The proximity of multi-nationals like Siemens, PEICO, NICCO, RPG Enterprises, TCS, CMC, Hindustan Cables, Videsh Sanchar Nigam Ltd. Etc is an added advantage.
- 5) Videsh Sanchar Nigam Ltd. Provides State-of-the-art-communication facilities, Video Conferencing, Voice-Mail and E-Mail.

Apart from WEBEL group and its associates, many national and international companies like Philips India Ltd. Godrej Co Ltd., MMTC, RDH Technologies (P) Ltd. Gestetner India Ltd. Eldyne Electronic (P) Ltd., Hensi Mekin (P) Ltd., Philip Carbon Block Ltd., Hindustan cables, Sinter Keramons & Composite (P) Ltd., Non- Destructive Test Appliances (P) Ltd., TCS, Simton Electro Optics (P) Ltd., Chloride Industries Ltd., Cimsys Research India(P) Ltd., CMC, RS Software India (P) Ltd. Hamilton Research & Technology (P) Ltd., Scientific Timesharing System (P) Ltd., Andrew Yule & co. and Duncan's Soft Ltd. Have set up their manufacturing/assembling units in the field of electronic software and hardware industry.

Rajarhat IID Centre

The proposed Rajarhat IID Centre is to be located within the limits of Hatiara and Ghuni Mouzas under Rajarhat block on 50 acres of land. It is situated 15 km. north of Kolkata City and 3 km. away from Netaji Subhash Chandra Bose International Airport. VIP road passes through the block and a good number of Micro & Small units have been set up on both sides of the road. The Centre would be suitable for building of the premises under IIDC including the MSE units projected to come up and other infrastructural facilities like road, power, water, market, tele-communication, banks, post etc would be available.

Habra IID Centre

Habra IID Centre is proposed to be set up in Asrafabad and Haria Mouza in Banipur area on more than 60 acres of land. The proposed center is well connected with NH-34 and board-gauge railway line. The potential market around Habra, Ashoknagar, Bangaon and the hinterland of Barasat would generate scope for agro based and allied, food processing, textile based, engineering and chemical based industries in the area. The built centre is likely to fulfill the demand of the MSE units, for land, shed, power, water etc. would be available.

Apart from the areas mentioned above, some places at Ganganagar, Habra Barasat, Bashirhat, Bangaon, Barrackpore and Kanchrapara have been identified for developing industrial growth centers where accommodation for MSME units will be available.

The State Govt. has plans to set up Industrial Complex/Estates at the following places in order to extend infrastructural facilities to the MSME sector.

- 1) Banspal Mouza at Ashoknagar
- 2) Nilganj road near Keventer Agro Industries
- 3) Industrial Estate at Barasat

There are about eight (8) Private Industrial Estates in the district. Accommodation for SSI units is available in these private estates. Some of the estates are:

- 1) Kamarhati Industrial Estates, Ambika Mukherjee Road, Kamarhati
- 2) Dhakshindari Industrial Complex, Dakshindari/Lake Town
- 3) Agarpara Industrial Estate, Agarpara
- 4) Priyanath Midya Road, Belghoria
- 5) Ghoshpara Industrial Area, Baranagar, etc.

There is another industrial estate in Baranagar Municipality. It is run by Rehabilitation Industries Corporation Ltd.(RIC), a Govt. of India Undertaking which needs immediate renovation and modernization.

iii) **Water**

Both surface and ground water are available throughout the district. Except Sunderban area of the district, inland water is available from canals, rivers, beds etc. As Sunderban areas are nearer to the Bay of Bengal, these areas contain saline ground water. However, ground water is available throughout the district. Major part of agriculture irrigation is done by this ground water. Due to over exploitation of ground water, arsenic has been found in 18 blocks out of 22 blocks in the district. But most of the present industrial units are exploiting this ground water in such a natural equilibrium that it prevents comparatively heavier saline water from entering towards land.

iv) **Power**

Power is another important input for industrialization of an area. The power requirements of the district are being met by West Bengal State Electricity Distribution Company Limited (WBSEDCL) and Calcutta Electricity Supply Corporation (CESC). The supply zones of CESC are mainly confined to the suburban clusters of Kolkata while the remaining part of the district is served by WBSEDCL.

The network of electricity supply in the district except Sunderban area is satisfactory. In Sunderban area, the supply is comparatively inadequate, as the area is riverine. Efforts have been made to provide power both through electric supply and non-conventional sources like solar panel, windmill, Bio gas plant, etc. in the district. They are (a) North 24-Parganas Distribution Circle at Barrackpore and (b) Bidhannagar Distribution Circle at Bidhannagar. There are 4 Sub-Stations and 7 O&M Sub-Stations under the jurisdiction of North 24- Parganas Distribution Circle covering 27 Police Stations in the

district. Status of supply of power under North 24-Parganas Distribution Circle is shown in the table below:

Status of supply of power under North 24-Parganas Distribution Circle

Name of the Sub-Divisions	Name of the Police station	Name of O&M Divisions	Name of O&M Sub Divisions	Name of Supply Stations
Barrackpore	Barrackpore Titagarh Khardah(part) Nimta(part) Airport(part) Rajarhat(part)	Barrackpore	Barrackpore Totagr Sodepur Aurobindon agar	Barrackpore Titagarh Jafarpur Rahara Pansila Sodepur Agarpara Aurobindonagar
	Noapara(part) Jagatdal Naihati Bijpur	Naihati	Shyamnagar Bhatpur Gouripur Halisahar Kanchrapara	Shyamnagar Bhatpara Athpu Kankinara Naihati Halisahar Dculpara Kanchrapara Kampa
Barasat	Barasat Khardah(part) Deganga Haora Amdanga	Barasat Habra	Barasat Habra	Barasa Madhyamgram Nabapally Barachampa Habra
Barishhat	Bashirhat Swarupnagar (part) Hingalgunj Sandeshkhali Baduria Minakhan Hasnabad	Habra	Bashirhat	Bashirhat Swarupnagar(part) Hingalgunj Sandeshkhali Baduria Minakhan Hasnabad
Bangaon	Bangaon Gaighata Gopalnagar Habra Bagdah	Habra	Bangaon Habra	Bangaon Gaighata Gopalnagar Habra Gobardanga Ashoknagar

The biggest Thermal power generation plant, having capacity of 500 MW under Calcutta Electric supply corporation is in Titagarh , North 24-Parganas.

List of Supply Stations in North 24 Parganas (SS)

Sl.No	SS name	Capacity (KVA)
1	Jirat	400
2	New Town AA3	220
3	Ashoknagar	132
4	Barshirhat	132
5	Mahishpota	132
6	Barasat	132
7	Titagarh	132
8	Salt Lake	132
9	Rajarhat AA1	132

v) **Railways**

For rapid industrial growth adequate communication system plays a vital role. A good network of railways is a part of adequate communication system. The network of railways in the North 24 Parganas is to some extent satisfactory. Hasnabad in Sunderban area is connected with Sealdah in Kolkata Metropolis by rail via Bashirhat and Barasat . Apart from this, Bangaon and Naihati are also connected by rail with Sealdah. Bangaon-Sealdah line passes by Habra and Barasat and Naihati-Sealdah line touches the industrial base of Barrackpore, Sodepur etc. Besides, the above railway lines, Bangaon is connected with Ranaghat in Nadia district by rail. So there are four broad-gauge rail lines in Sealdah-Hasnabad, Sealdah-Bangaon, Sealdah- Naihati (main line) and Bangaon-Ranaghat lines. Metro rail is also available from Dum Dum junction which is located on the northern border of the district.

vi) **Road**

Roads are another important means of communication which help rapid industrialization of an area. A good network of road communication is important for quick movement of men and materials. There is good network of roads in the major parts of the district except in the riverine Sunderban area. However, emphasis has been laid in construction of new roads and up gradation of existing ones in the riverine Sunderban areas. Further, the roads along both sides of the rivers are being linked with bridges in many places. There are three National Highways i.e. NH-2, NH-34 and NH-35 and three State Highway i.e. SH-1 and SH-2 and SH-3 passing through the district.

National Highway

NH 2	7.94
NH 34	33.6
NH 35	59.4
Total	100.94

State Highway

SH 1	1. Bongaon - Chakdah (0 - 16) 2. Chakdah - Blrohi via NH- 34 (0 - 0) 3. Birohi - Madanpur - Kalyani (16 - 30) 4. Kalyani - Barrackpore (30 - 57) 5. Barrackpore - Kolkata (57 - 75) 6. Garia - Mathurapur - Kulpi nh (75 - 135)
SH 2	1. Bankura - Khatra (0 - 30) 2. Khatra more - Taldangra - Thenchuria (30 - 52) 3. Chenchuna - Bishnupur (52 - 76) 4. Bishnupur by-pass (76 - 81) 5. Bishnupur - Kotulpur - Arambagh (81 - 117) 6. Kotulpur- Arambagh (117 - 135) 7. Arambagh - Pursurah - Champadanga (135 - 156) 8. Champadanga - Tarakeswar - Baidyabati (156 - 196) 9. Baidyabati - Uttara para (196 - 214) 10. Uttara para - Dakshineswar - Dunlop - Bkp (214 - 226) 11. Barrackpore - Barasat (226 - 239) 12. Barasat - Basirhal - Hasnabad (239 - 301) 13. Hasnabad - Chaital - Maiancha (301 - 323)
SH 3	1. Krishnagar - Hanskhah - Dattafulia (0 - 32) 2. Kholapota - Sikra - Kulingram via SH 2 (0 - 0) 3. Bongaon - Gaighata via NH 35 (0 - 0) 4. Dattafulia - Bagda - Bongaon (32 - 68) 5. Gaighata - Maslandpur - Kholapota (68 - 102) 6. Sikra - Kulingram - Haroa (102 - 118) 7. Haroa - Lowhati - Kaikhali (118 - 147) 8. Kaikholi - Ultadanga via VIP (147 - 155) 9. Uliadanga - Dhapa Via Em By-Pass (155 - 164) 10. Dhapa - Bhangar - Minakhan - Bansanti - Gosaba (164 - 260)
Total	178 Km.

vii) Road Transport

The district of North 24 Parganas has a good road transport system. All Sub-divisional towers, industrial area, even most of the Gram Panchayats are well connected with the district headquarters, Barasat; as well as Kolkata City by bus roads. Besides, bus roads a number of places are connected by metalled roads on which auto-rickshaws, trekkers, taxi, etc./ are available . Buses, Mini buses, Express buses, Deluxe buses, Chartered buses etc. ply on these roads at regular frequency. Apart from these, for goods transportation, trucks, mini trucks etc. are available from all important places of the district. All important roads are connected with Kolkata City and other parts of the country by trucks. As such, there is no constraint faced by the road transport system in the district.

**Length of Roads maintained by different agencies in the Blocks of
North 24-Parganas for the year 2012-13**

Sl. No	Name of Block	P.W.D.		Zilla Parishad		Gram Panchayat & Panchayat Samity		Pradhan Mantri Gram Sadak Yojana	
		Surfaced	Un-surfaced	Surfaced	Un-surfaced	Surfaced	Un-surfaced	Surfaced	Un-surfaced
1	Bagdah	52.00	-	25.00	-	18.80	502.30	21.00	-
2	Bongaon	87.00	-	1.94	4.97	845.00	55.00	30.00	-
3	Gaighata	..	-	4.70	4.97	511.00	355.00	6.02	-
4	Habra-I	41.50	-	11.70	1.00	41.00	154.00	-	-
5	Habra-II	53.00	-	12.90	3.00	2.10	120.00	-	-
6	Barasat-I	44.80	-	11.97	2.00	159.00	184.00	-	-
7	Barasat-II	47.00	-	27.97	11.90	42.00	155.00	4.88	-
8	Amdanga	46.00	-	10.50	63.00	122.00	70.00	-	-
9	Deganga	60.00	-	5.00	-	230.00	72.00	11.33	-
10	Rajarhat	53.00	-	8.90	-	167.00	93.00	-	-
11	Barrackpur-I	42.30	-	61.50	-	160.50	201.45	30.50	-
12	Barrackpur-II	28.50	-	3.20	-	76.50	59.00	1.50	-
13	Baduria	75.00	-	10.00	-	185.00	110.00	10.00	-
14	Haroa	40.00	-	5.35	-	-	107.00	8.06	-
15	Minakhan	26.00	-	2.00	-	2.50	150.00	-	-
16	Swarup-nagar	68.00	-	19.02	-	62.00	300.00	9.00	-
17	Hasnabad	39.00	-	6.00	-	32.00	51.00	-	-
18	Hingalganj	43.00	-	23.00	-	643.00	268.00	14.22	-
19	Sandes-hkhali-I	45.00	-	3.80	-	383.00	148.00	-	-
20	Sandesh-khali-II	25.00	-	-	-	6.00	172.00	-	-
21	Basirhat-I	21.40	-	7.20	-	46.00	48.00	-	-
22	Basirhat-II	24.00	-	9.70	-	167.50	..	-	-

In Sunderban areas, metalled roads have been constructed and buses, auto-rickshaws etc. are plying regularly.

viii) Air Transport

There is an International Airport at Dum Dum by the name of Netaji Subhash Chandra Bose International Airport. It is about 15 Kms away from Barasat and 10 Kms from Kolkata City. Both national and international flights are available from this Airport. Goods loading and unloading facilities are also available. Besides this Airport in the district, there are two airstrips at Barrackpore and Kachrapara.

ix) Water Transport

Water transport plays an important role in the riverine Sunderban area for transportation of goods and passengers. Steamers, Launches, developed boats (valvati), boats, etc. are available as means of transportation. There are a number of water routes to ply launches on a regular basis. To connect the roads on both sides of the rivers, ferry services are available at all important places. As the all rivers are fed by the tidal water of Bay of Bengal, the rivers are full of water throughout the year. So, there is no constraint on the movement of vessel in the rivers. In the Sunderban area, the major part of the transportation system depends on the waterways.

B) SOCIAL INFRASTRUCTURE

i) Entrepreneurship

Development of industries particularly small scale industries of an area depends, among other things, on the quality and type of entrepreneurship available in the area. Entrepreneurship on the other hand depends on the willingness of the local people to adopt an industrial venture as their profession. Entrepreneurship involves risk. But most of the educated people prefer white collar jobs. Although there are not sufficient job opportunities to absorb all the unemployed youths in the district. Moreover, the Sunderban area of the district is economically backward and there is no large or medium scale industrial unit. But there is a good scope for promoting village industries in this area. For the last few years, Central & State Govt. Organizations viz. MSME DI, District Industries Centre, etc. are providing Entrepreneurship Development Training to the educated unemployed youths from time to time and more youths of the district are coming forward to set up industrial units as their profession. It is expected that more educated youths of the district will come forward as entrepreneurs to foster industrial growth in the district.

ii) Market Potential

For healthy growth of industry in a district, availability of market for finished products in the district as well as areas adjoining the district or elsewhere is most essential. It is more essential for SSI units because of their limited capacity for marketing potential. Although some special items find their market throughout the country, most of the SSI units depend on local markets for marketing of their products. Market potential also depends on the size of the local population and their purchasing power, living standard etc.

The district has 5 Sub Divisions and 22 CD blocks. It is revealed during visits to the blocks and important commercial centers that the district enjoys a comfortable position in respect of market potential. Further, the proximity of Kolkata market has enlarged the aggregate size of the consumer market. Barasat, Barrackpore, Sodepur, Dum Dm, Bangaon, Bashirhat, Habra, Naihati, etc. are the main markets of the district.

Apart from above, the district has two I.C.Ps at Haridaspur(Petrapole) near Bangaon and Ghojadanga near Bashirhat. The products can be exported to Bangladesh through these I.C.Ps. The I.C.Ps, Haridaspur is tapped with NH-35 and I.C.P, Ghojadanga is linked by the metalled road, I.C.P, Haridaspur is more important for international trade than I.C.P Ghojadanga.

ii) Lending Institutions

Easy availability of credit at the right time is one of the most important pre-requisites for any industrial activity. It is, therefore, essential to have a good network of financial institutions in the district for meeting the financial requirements of the industries. There are as many as 270 branches of commercial banks and other banks in the district. There is also a specialized branch of Allahabad Bank for SSI sector at Champadali More of Barasat. Allahabad Bank is the lead bank of the district. The block wise number of bank branches located in the district is shown in the table below :-

Block wise bank branches in the North 24-Parganas district 2012-13

Sl No	Name of the Blocks	No of Bank Branches
1	Bagdah	9
2	Bongaon	23
3	Gaighata	16
4	Habra-I	13
5	Habra-II	12
6	Barasat-I	14
7	Barasat-II	12
8	Amdanga	14
9	Deganga	12
10	Rajarhat	17
11	Barrackpur-I	19
12	Barrackpur-II	17
13	Baduria	15
14	Haroa	6
15	Minakhan	8
16	Swarupnagar	14
17	Hasnabad	10
18	Hingalganj	6
19	Sandeshkhali-I	5
20	Sandeshkhali-II	6
21	Basirhat-I	11
22	Basirhat-II	11
Total		270

CD RATIO

Lead Bank	CD Ratio June 2014	CD Ratio June 2015 (Amount in crore)		
		Deposit	Advance	CD Ratio
Allahabad Bank	19	76224.45	14399.68	19

Source: Statistical Handbook, 2013

iii) Technical Skill & Training Facilities

Easy availability of skilled personnel is another important social infrastructure for the growth of industry. For manufacturing activities and the production of quality products, availability of adequate number of skilled labours is very vital for speedy development of an area. As per the Live Registers of five employment exchanges located at Barrackpore, Dum Dum, Barasat, Bashirhat, and Bangaon in the district of North 24-Parganas.

Apart from this, there are a number of technical, educational and training institutes in the district. Among these institutes, the main institutions are Multi Disciplinary Training Centre(MDTC) at Birati, Jagadish Chandra Polytechnic at Berachamoa, Jagadish Chandra Community Polytechnic at Berachampa, Junior Technical School at Chotta Jagulia, Ramakrishna Mission Training Centre at Barrackpore, Ramakrishna Mission Silpapith at Belghoria, MSME DI near Bonhoogly, Regional Testing Centre(RTC) at Bonhoogly, Electronics & Development Centre near Kamarhati Municipality, District Industries Centre at Barasat, etc.

CHAPTER-V

PRESENT INDUSTRIAL STRUCTURE

The district has established a commendable position in the industrial Map of West Bengal since pre-independence period. However, the socio-economic factors that emerged after the partition of Bengal in the post-independence period have sometimes stood against the natural pace of industrialization of the district thereby exerting heavy pressure on its economy. The whole process of industrialization experienced by the district over the years covering Large and Medium, Small Scale, Handicrafts, Handlooms and Khadi & Village Industries reveals a clear picture as discussed below

I) Large & Medium Industries

There are about 180 Large and medium units in the district and are mostly located in Barrackpore industrial region. These units are in the group of Jute, cotton textile and engineering sector. The jute industry alone provides employment to about 1 Lakh people both directly and indirectly, though it now suffers from sickness due to obsolete technology. The engineering sector on the other hand, makes the backbone of industrial economy of the district. The other industries like food products, paper and paper products, defence items, electrical & electronic items, drugs and pharmaceuticals, etc. are spread over the regions of Dum Dum, Titagarh, Naihati, Kanchrapara, Barasat, Baranagar and Sodepur are conspicuously present in the district. Further, with gradual flow of investment in IT sector, more hardware and software units are coming up at Saltlake Electronics Complex of the district.

It is found, that the growth of Small Scale Industries over the last three years has not been progressive. It is somewhat erratic and stunned owing to a number of reasons like non-availability of requisite infrastructure facilities, staggered flow of bank credit and above all shyness among the entrepreneurs to undertake new industrial ventures. However, discussions with the promotional agencies like DICs, Banks, District Planning Board, etc. revealed that various pragmatic steps are being taken by them to motivate the people having entrepreneurial skill for setting up SSI units at different blocks of the district.

Some major Large Scale Industries / Public Sector undertakings in 24 Parganas(N)

Sl.No	Name of the unit
1	Siemens,
2	Pepsico,
3	Nicco,
4	RPG Enterprises,
5	TCS,
6	CMC,
7	Hindustan Cables
8	Videsh Sanchar Nigam Ltd
9	Philips India Ltd.
10	Godgrej Co. Ltd.,

11	MMTC,
12	Gestetner India Ltd.
13	Eldyne Electronic (P) Ltd,
14	Hensi Mekin (P) Ltd.,
15	Philips Carbon Block Ltd
16	Sinter Keramons & Composite (P) Ltd.,
17	Supreme Industries Ltd.,
18	Sicon Agencies (P) Ltd.,
19	Stone India Ltd.,
20	Germinds (P) Ltd.,
21	Non-Destructive Test Appliances (P) Ltd.,
22	Simton Electro Optics (P) Ltd.,
23	Chloride Industries Ltd.,
24	Cimsys Research India (P) Ltd.,
25	Hamilton Research & Technology (P) Ltd.,
26	Scientific Timesharing System (P) Ltd.,
27	Andrew Yule & co.
28	Dancans Soft Ltd.
29	Down Stream iunits of HPL (9 units)
30	Surya Food Farms Pvt.Lyd
31	Jute Mills (4 units)

Major Exportable Items

Engineering goods, plastic based items, Jute & Jute diversified products, Foods and Beverages, Tobacco, Cotton Textiles, Hosiery and Garments, Wood products, leather products, Rubber & Plastic products, Chemical products, Basic metal products, Electrical machinery etc are the major exportable items of the district from the above units.

Some Major Industrial Parks in North 24 Parganas

i) Manikanchan Jewellery Park at Salt Lake:

Manikanchan has been built by West Bengal Industrial Development Corporation (WBIDC) to provide modern accommodation to the entrepreneurs of Gems & Jewellery. It was inaugurated by Union Commerce Minister on 18-11-2003 and got approval as Special Economic Zone. As Special Economic Zone, the Park will enjoy some special facilities like financial and non-financial facilities, in-house custom clearance etc. It is the first Special Economic Zone for Gems & Jewellery in the country. Total area of 5,50,000 sq.ft. with 2 Standard Design Factories (SDF) and a Common Facility Building(CFB) are the major features of this park.

The 6-floor Common Facilities Building with 47840 sq. ft. is designed in the shape of a diamond. The standard design factory is a 7 storied building with 141800 sq. ft. of space.

The Park has a comprehensive infrastructure - a custom office for in-house clearance, a bank, strong room, canalizing and export promotion agencies, exhibition/conference hall, a special secure CAD-CAM design centre for the use of manufacturers in the Park and special security. Tariff rates for power and water are significantly lower than in other growth centers. It is promoted by WBIDC. An authority headed by Development Commissioner will administer the Park and provide facilities under a separate Act.

ii) Special Economic Zone, Salt Lake Electronics Complex:

Electronic Complex in Salt Lake located on 150 acres of land is a green pollution free zone which is less than 15 kms. off the international airport. A considerable number of IT professionals work in this complex that provides the “walk-in-wired” infrastructure of Kolkata Software technology Parks and infrastructures created by private investors including the State-of-the Art Infinity Building. Salt Lake has over 2 million sq. ft. of built-up office space with 250000 sq. ft. in Standard Design Factory and 65000 sq. ft. in the STP-II.

iii) Toy Park :

Toy Park is located at Salt Lake. It is about 15 kms. away from Kolkata Port and 15 minutes journey from the international Airport at Dum Dum. The park is spread over 2.28 acres of land. 24 modules in a six-storied Standard Design Factory (SDF), with a total built up area of 78,768 sq. feet has been constructed and booked in the first phase. Each module offers an area of 3,282 sq. feet. A three storied common facility building has been constructed in the Park. In the second phase, another SDF along with a children park will be constructed. The park is developed by WBIDC

Medium Scale Enterprises

Some Major Medium Industries in North 24 Parganas

Sl.No	Name of the unit
1	Pulsar Rubber Co. Mfg. Pvt. Ltd.
2	Sree Durga Fibre Products Pvt. Ltd.
3	Avishek Projects Pvt. Ltd.
4	Amit Exports Pvt. Ltd.(I)
5	Amit Exports Pvt. Ltd.(II)
6	Amit Exports Pvt. Ltd.(III)
7	Bajjnath International Paper Pvt. Ltd.
8	RDH Technologies (P) Ltd.
9	RS Software India (P) Ltd.,

Major Exportable Item

Readymade Garments, Jute Diversified products

Vendorisation / Ancillarisation of the Industry

Development of ancillary units depends upon the establishment of new industrial units mainly large scale/medium scale sector. It is already stated that about 180 large/medium scale units have been set up in the district, in addition to 63 electronic units in Salt Lake Electronic Complex. Most of the large scale units viz. jute mills, engineering units, textile mills, etc. came up in the district during the British period and procure huge quantity of their requirement from the MSE sector. Hence, the process of ancillarisation can be started by setting up units in the following areas:-

- 1) Corrugated paper boxes for packing
- 2) Card board boxes for packing of Hosiery products and leather shoes
- 3) Bobbin for jute & textile mills
- 4) Polyethene pouch for milk
- 5) Printing of Polyethene bags
- 6) Jute & textile machinery parts
- 7) Electronic parts
- 8) Tin container for paints and varnish
- 9) Parts for engineering items
- 10) Basic drug
- 11) Glass bottles
- 12) Plastic containers for paints & varnish
- 13) Railway wagon parts

Service Enterprises

Potential areas for service industry

Though Small Scale Service & Business Establishment (SSSBE) like printing, tailoring, dry cleaning, batteries charging etc. are found working, it is gathered that there is still enough scope of these activities in the district. Activities like pathological laboratories, offset printing, beauty parlour, fabrication and engineering job work, etc. have enormous scope for exploitation. However, these establishments are suggested to be set up at places where the degree of urbanization is maximum.

The district is industrially advanced and highly urbanized. Salt Lake City Complex and Electronic Complex are located within the district.

i) IT Park, Salt Lake – Sector V:

The State Govt. has identified the Information Technology Sector as a priority sector and earmarked Sector-V of Salt Lake City as the hub of IT units. The IT hub at Sector-V of Salt Lake is India's first fully integrated Electronic Complex spread over 150 acres of green pollution free area near Airport. The Govt. has also evolved a package of fiscal incentives and regulatory support for encouraging development of high end technology in the hardware and software sector as well as R&D support relating to the same.

ii) Cold Storage

Some major Cold Storages in North 24 Parganas

Sl No	Name & address of coldstorage	Capacity MT	Sector	Commodity
1	B. S. Seafood Pvt. Ltd., 12/1 Jessore Rd	150	Pvt	Marine Products
2	Basirhat Mahakuma Samabay Himghar Ltd.,	4000	Co-op	Multipurpose
3	BENFED Ltd. (Coldstorage Unit)	4986	Co-op	Multipurpose
4	Bengal Marino (P) Ltd., C/o Samabay Himghar	90	Pvt	Marine Products
5	Monali Seafood Pvt. Ltd., Sukanta Nagar,	150	Pvt	Marine Products
6	Petropol Coldstorage	57	Pvt	Multipurpose
7	Uttar 24-Parganas Krishi Samabay Himghar	10245	Co-op	Multipurpose

Micro and Small Scale Industries

Small Enterprises are also flourishing like other enterprises. Availability of agro products in the district and availability of infrastructure, proximity of Kolkata metropolis are encouraging the Small Entrepreneurs to set up units in the district. Thus, both resources based units like food products and demand based units have been set up.

There are many existing engineering industry, plastic based industry and jute industries in the 24 Parganas district. Electronics Complex has been set up at Bidhan Nagar. Besides the above Industries, Food Products, Beverages, Tobacco, Cotton textiles, Wool, Silk & Synthetic Fibre Textiles, Hosiery & Garments, Wood Products, Leather Products, Rubber & Plastic products, Chemical products, Basic Metal Industries, Electrical Machinery, Jute Diversified items, Transport Equipments etc. are also there present in the district.

There is scope for micro and small enterprises in the fields of Metal products, Rubber & Plastic products, Food Product, Mineral Products, Hosiery garments, Paper product and printing, Machinery parts etc.

Potential Places for developing Industries are Habra, Barasat, Ashoknagar, Salt Lake City, Bongaon, Naihati, Madhyamgram, Duttapukur, Dum Dum, Birati, Halisahar, Panihati, Baranagore, Bhatpara, Sodepur, Ichapur, Kaikhali, Kamarhati etc.

Years	No of Regd. Units	Employment	Inv in Plan & Machinery (in Lakh)
2006-07	980	6781	16004.71
2007-08	2374	22049	17459.96
2008-09	1880	13456	11363.00
2009-10	1422	15134	8670.05
2010-11	1297	13525	8822.93
2011-12	1722	19583	11110.05
2012-13	1595	13682	12287.87
2013-14	1629	16336	12844.02
2014-15	2638	20007	14810.31
2015-16 (Upto Sept.)	101	1147	1398.1315
Total	15638	141700	114771.0315

Entrepreneurship Memorandum- Part-II registered since 2007-08 to 2015-16 are given below:-

Number of Small Scale Industrial Units Filed Entrepreneur Memorandum to the Directorate of Micro and Small Scale Enterprises in North 24 Parganas District

Ministry of Micro, Small and Medium Enterprises (MSME) has notified the Udyog Aadhaar Memorandum(UAM) under the MSMED Act, 2006 vide gazette notification [SO No. 2576(E)] dated 18-09-2015 in order to promote ease of doing business for MSMEs.

Prior to the introduction of the Udyog Aadhaar, to obtain MSME or SSI Registration, filing of Entrepreneur Memorandum-I (EM-I) and Entrepreneur Memorandum-II (EM-II) was necessary. With the introduction of Udyog Aadhaar, the process of obtaining MSME registration has been drastically simplified. Filing of UAM can be done online at udyogaadhaar.gov.in and it replaces filing of EM-I&II

Udyog Aadhaar Memorandum(UAM) registration in respect of Hooghly district since September, 2015 is given below.

Year	Micro	Small	Medium	Total
2015-16 (Since October, 2015)	328	60	1	389

Prime Minister's Employment Generation Programme (PMEGP) has been announced on 15th August, 2008 and launched in place of REGP Scheme. PMEGP is a credit-linked subsidy programme launched by Ministry of MSME in 2008-09 for creation of employment in both rural and urban areas of the country.

Objective of the Scheme

- i)** To generate continuous and sustainable employment opportunities in Rural and Urban areas of the country
- ii)** To provide continuous and sustainable employment to a large segment of traditional and prospective artisans, rural and urban unemployed youth in the country through setting up of micro enterprises.
- iii)** To facilitate participation of financial institutions for higher credit flow to the micro sector.

Total No. of PMEGP Beneficiaries in the district of North 24 Parganas

Year	No. of Units	Margin Money (In Lakhs)	Sanctioned Amount (In Lakhs)	Under CGTMSE Scheme
2012-13	8	24.10790	74.19	6
2013-14	10	21.61094	29.92	-

III) Khadi & Village Industries

Khadi and village industry is one of the important economic sectors for upliftment of rural people in our country. This sector has the unique capacity to generate employment opportunities in rural areas at a low capital cost. With the introduction of new Khadi and village industries policy, a wide range of industrial activities have come within its purview. To make further progress, the Khadi & Village Industries Board (KVIB) is rendering adequate assistance to the village people by arranging various trainings and providing financial assistance to them for setting up micro enterprises. In North 24-Parganas district, concentration of khadi & village industries like bee-keeping, pottery, palm gur, cane & bamboo products, muri, leather chapalls and shoes, conch-shell products, readymade garments, kantha stitch sari, embroidery, etc. can be found in various blocks. Details of concentration of these activities are shown in the following table :-

Name of the Product	Name of the Block	Name of the Group
Jute Product (File, Folder, Shoes, Purse, Bag)	Barasat-1	Ankur-SHG
		Nibedita SHG
	Barrackpore-2	Sabitree SHG
		Bellivara SHG
		Baba Tarak Nath SHG

	Deganga Block	Uttirna jute Cluster
Hand Embroidery (Saree,Salwar,Tops,)	Barasat-1	Tara SHG
		Amarsangi SHG
		Aradhana SHG
	Basirhat-II	Ekta SHG
		Mitali SHG
		Progati SHG
		Dishari SHG
		Pratibha SHG
		Nairana SHG
		Tajmahal SHG
		Sanchita SHG
	Barasat-II	Jagaran SHG
		Matree SHG
		Mukti SHG
		Indira SHG
		Surjyodaya SHG
Hand Embroidery (Saree,Salwar,Tops,)	Habra-I	Gayatri SHG
		Falguni SHG
		Sonali swanirver Gosti
		Panchadeep SHG
		Prerna SHG
		Abesh SHG
	Deganga Block	Chanchal SHG
		Sopan Kantha switch Cluster
	Baduria	Uttaran SHG
		Janakalyan SHG
		Shonali Swapna SHG
	Haroa	Al Amin Swanirver Gosti
Terracotta	Barasat-I	Bonhishika
		Karunamayee SHG
		varati Swanirver Dal
		Sabitree SHG
Food Products(Spices. Ghee, Jelly, jam, Pickels,)	Habra-I	Sarada Mohila SHG
		Appayon SHG
		Khadija SHG
	Basirhat - I	Grameen swanirver dal
		Kathur Uttar Para swanirver dal
		Kasmir Tantusree swamber Gosti

Horticulture	Deganga Block	Dandirhat Mohila Nursury Unnoyon
		Nutan Surjya SHG
Paddy Production	Gaighata	Dharampur Paddy Cluster

IV) **Handicrafts**

The nature and volume of handicraft activities prevailing in the district is very much commendable. A large section of rural population is actively engaged in handicraft activities and they are spread over almost all the blocks of the district. The category wise number of handicraft units in the district as on 31.03.2005 is shown in the table below:-

Category wise number of handicrafts units in the district

SI No	Category	No. of units
1	Kantha Stich	350
2	Embroidery	350
3	Terracotta	25
4	Cloth doll	10
5	Sola Craft	250
6	Chikon embroidery	350
7	Conch shell	450
8	Bamboo & cane craft	125
9	Artistic clay modeling	250
10	Jute Handicrafts	75
11	Mat	250
12	Miscellaneous	15
Total		2500

Source: DIC, North 24-Parganas.

It is found from the above table that there has been maximum concentration of handicraft activities in the preparation of conch shell products with 450 units in this trade. Next to this trade, comes kantha stich, embroidery and chikon embroidery with 350 units in each trade followed by sola craft, clay modeling, mat, etc. Besides, there are more than 2000 families engaged in various other handicraft activities and they are spread over all the blocks of the district.

V) **Handloom Industries**

Unlike the districts of Malda, Murshidabad, Nadia and Bankura, the district of North 24-Parganas has not made much headway in this sector. The handloom activities in the district have been limited to only weaving of gamcha, lungi, gauge bandages, coarse sari, etc.

There are more than 15000 looms providing employment to about 20,000 persons in the district. These looms are generally spread over the blocks of Bashirhat, Baduria, Swarupnagar, Habra and Gaighata in the district.

Problems

The district is regarded as an industrially advanced district of the State. However, a large number of industrial units are either found closed or suffering from acute sickness due to improper marketing facilities, inadequate capital base, poor management system, etc. Besides, with the passage of time the units could not modernize their plants to compete globally. The above stated problems have further been compounded with the recalcitrant attitude on the part of commercial banks in disbursing loans to the needy units causing the flow of funds to dry up.

CHAPTER-VI

PLANNING FOR INDUSTRIAL DEVELOPMENT

The primary objective of conducting Industrial Potentiality Survey for any district is to identify suitable candidate industries which are considered viable for being set up in MSME sector of the district. With a view to select those industries, factors like infrastructure, resource, market, etc. have been analyzed in the previous Chapters. Besides, the team after having protracted discussion with various promotional agencies like District Industries Center (DIC), Banks and different local bodies, has suggested the following items having scope for development in the MSE sector.

A) Resource Based Industries

a) Agro-based Industries

1. Mini rice mills
2. Jute diversified products
3. Jute particle board
4. Handmade paper from waste jute
5. Tomato sauce and other tomato product
6. Pickles and chutneys from mango and mushroom
7. Dehydration of mushroom
8. Potato wafers and chips
9. Vegetable preservation and processing
10. Coconut broom stick
11. Coir products
12. Rice bran oil
13. Ayurvedic medicine from neem, haldi, tulsi, etc.
14. Potato powder/starch
15. Jute ply
16. Spice grinding(turmeric & chili)
17. Noodle and macaroni products
18. Rice products, i.e. flake, puffed rice and parched rice

b) Mineral-based Industries

1. Semi-mechanized clay bricks
2. Tile making

c) **Livestock-based industries**

1. Animal glue
2. Dairy farm
3. Paneer, ghee, butter, etc.
4. Hatchery units
5. Shuttle clock
6. Double toned processed milk
7. Chilled milk
8. Ice-cream and Ice candy

B) **Demand Based Industries**

a) **Food & Allied Industries**

1. Fish feed
2. Cattle feed, poultry feed and piggery feed
3. Semi-mechanized bakery
4. Prawn feed
5. Sweetmeat
6. Confectionery
7. Biscuits
8. Ice plant
9. Cold storage

b) **Textile Products including Hosiery**

1. Hosiery cotton fabric than
2. Hosiery products
3. Sanitary napkin
4. School bag
5. Readymade garments
6. Jeans pant and shirts

c) **Wooden products**

1. Flush door
2. Wooden furniture and electrical accessories
3. Fishing boat

d) **Paper products**

1. Craft paper
2. Corrugated paper
3. Tissue paper conversion
4. Card board box
5. Handmade paper
6. Paper cup and saucers

e) **Leather and rexin products**

1. Leather footwear
2. Leather fancy bags
3. Rexine bags
4. Industrial hand gloves
5. Cemented chappals

f) **Rubber products**

1. Rubber moulded products
2. Automobile gaskets
3. Hawai chappals
4. Tyre retreading, vulcanizing etc.

g) **Plastic and fibre glass products**

1. Fibre glass crate and other products
2. Molded plastic items
3. Plastic conduit pipes
4. Disposable plastic cups and plate
5. Plastic containers by blow molding

h) **Chemical and chemical products**

1. Laboratory for testing of water, soil, fish, pathology, etc
2. Nylon yarn and rope
3. Expanded polystyrene
4. Polyethylene granules
5. Rigid PVC film
6. Polyethylene film and bags
7. Paints and varnish
8. Polymer products
9. Polyethylene pipes and fittings
10. PVC pipes
11. HDEP pipes
12. Low cost PVC, shoes and chappals
13. Batik painting/printing
14. Tie & Dye
15. Distilled water

16. Disposable syringe
17. Pharmaceutical formulation

i) **Glass & ceramic products**

1. Fuel briquetting
2. Hollow cement block, cement jalli, manhole cover, etc
3. Terracotta glazed pottery
4. Ceramic novelty and art ware
5. Cement tub
6. Pressure electrical insulators from porcelain

j) **Mechanical and Metallurgical**

1. Sheet metal fabrication/Engg. Job work
2. Mfg of agricultural machinery parts(tractor, pump set, etc)
3. Gate and grills
4. Steel furniture
5. Mfg. of cycle and rickshaw parts
6. Rickshaw assembly and repairing
7. Builders hardware
8. Steel trunk and boxes
9. Auto servicing, repairing and painting
10. Scooter and three wheeler servicing and repairing
11. Bus & truck body building
12. Brush(all types)
13. Artificial Jewellery (aluminum and brass)
14. Anodized imitation/artificial ornaments from aluminum sheets/wires
15. Silver ornament
16. Agricultural implements
17. Soft solder
18. Pressure die casting
19. Non-ferrous foundry
20. Solar panel
21. Umbrella assembly

k) **Electronics**

1. Electronic weighing scale
2. Electronic fan regulator
3. Electronic choke for tube light
4. Electronic starters for motor
5. Electronic toys
6. Colour & B/W TV set
7. STD/ISD booth
8. Photocopy
9. TV, radio and tape repairing
10. Electronic motor(single face)
11. Loud speakers, PA amplifier, microphone, etc
12. Electronic turners for TV
13. UPS system, servo controlled voltage stabilizers and float charges
14. Electronic overhead protection unit
15. Solid state voltage stabilizers
16. Personal computer(PC), micro processed based system
17. Data processing unit.

l) **Electrical**

1. Exhaust fan, air circular fan and ceiling fan
2. PVC cables
3. AC/DC generator
4. Electrical overhead accessories for P&T and Rail
5. Rechargeable flash light(all types)
6. P7T cables like dropped wires
7. Miniature lamps
8. HT/LT panel
9. Converters/Inverters
10. Tube light fittings
11. Aerator machine (fan)

m) **Miscellaneous**

1. Prawn processing plant
2. Ice flake plant
3. Fishing net

CHAPTER-VII

PLAN OF ACTION FOR INDUSTRIAL DEVELOPMENT

Before suggesting any plan of action for industrial development, SWOT (strengths, weakness, opportunities and threats) analysis is done for every district keeping in mind its usefulness and importance, since every place of an economy is not bestowed with unmixed blessings. Hence, the SWOT analysis for the district of North 24-Pargans has become inevitable and is given below:-

Strengths

- i) There is a well established network of electric power with more than 96% of the total mouzas being electrified.
- ii) Industrial areas are being developed at various places of the district.
- iii) Almost all the blocks are served by a good network of banking system making it easy for the prospective entrepreneurs to avail required financial assistance.
- iv) Road infrastructure is well developed with various roads and bridges ensuring connectivity with Highways and National Highways.
- v) With an outstanding telecom network, the district enjoys through landline and mobile connectivity comfortable communication system next to Kolkata.

Weakness

- i) The district shares a long stretch of border with Bangladesh causing illegal migration, which affects the socio-economic factors.
- ii) Agriculture being the mainstay, people of rural and semi-urban areas are somewhat reluctant to explore new industrial ventures.
- iii) The district lacks proper data backups. Hence, the budding entrepreneurs are found somewhat skeptic to take investment decisions.
- iv) Incidence of sickness in MSE sector is found to be very high, new entrepreneurs seem apprehensive of investing in any new project.

v) Cultural backwardness sometimes stands in the way of accelerating the process of industrialization.

Opportunities

- i) Existence of some large and medium units and availability of some basic agriculture produce help in the growth of various other ancillary industries.
- ii) With an airport of international repute along with close proximity to Kolkata and Haldia Port, the investment proposals have become more lucrative in the district.
- iii) Continuous thrust on the development of industrial sites at different places will enable the entrepreneurs to attain economies of scale.
- iv) Vast reserve of unemployed persons ensures availability of skilled labour to entrepreneurs.
- v) The development of industrial sector will influence the overall development of the region thereby improving the standard of living of the population.

Threats

- i) There is a possibility of socio economic imbalance due to unplanned residential outgrowths.
- ii) A large part of the district being riverine , is prone to flood during rainy season.
- iii) Poor maintenance of sewerage systems in urban and semi-urban areas by the local bodies dampens the business environment.
- iv) Unorganized markets both for raw materials and final products lead to the practice of unscrupulous trade practices.

Hence, after developing this snap shot, an attempt has been made in this Chapter to suggest a few actions which could be undertaken by the promotional agencies for development of small scale industries- an area where employment opportunities can be created at a reasonably low capital investment.

The district of North 24 Parganas has a unique advantage of being contiguous to the highly urbanized Metropolis of Kolkata. Due to this advantage a good number of large and medium scale industries have been established in the

district. The main industrial concentrated areas are Barrackpore Sub-division and some pockets of Barasat Sub-Division . Among the large and medium scale engineering units, chemical units, glass and ceramic units, National Tobacco Co. industries are scattered all over the district except in Sunderban areas. However, the evolution of SSI units and artisan based industries in the Bangaon and Bashirhat Sub-Division and major part of Barasat Sub-division is not upto the desired extent. This is due to lack of knowledge about the advantages and support given by the State Central Govt. Departments for setting up MSE units and artisan based units and also shyness of local entrepreneurs in taking investment decision. To meet the challenge of the problems confronting proper growth of MSE units and village industries, various motivational programmes may be taken up for creation of first generation entrepreneurs and also motivating the existing entrepreneurs for other industrial ventures, which is expected to accelerate the pace of industrial growth in the district.

1) **Entrepreneurship Development Programme (EDP)**

The inherent shyness of the youth of the district acts as a barrier to creation of new entrepreneurship, as a result of which the people of the area are more inclined towards traditional activities like agriculture, horticulture, pisciculture, animal husbandry, etc. So, entrepreneurship development programme may be organized on a regular basis and at different places giving priority to Bangaon and Bashirhat Sub-Division and semi-urban/rural areas of Barasat Sub-Division to create first generation entrepreneurs.

Like entrepreneurship development programmes, being organized by DIC , MSME, WEBCON, Financial Institutions, various other trainings on the same line may be conducted by KVIB, Handloom & Handicraft Departments to encourage the youth of the rural areas to become self reliant. It is also felt that proper emphasis should be given in these areas by the concerned authorities concerned for promotion and development of artisan based industries.

2) **Seminar**

Seminar is a tool to make the people fully aware about various development that are taking place in the industrial sector of the country and also to make them familiar with the facilities and break up support offered by State and Central Govt. As Such, it is suggested that the State Level Concerned Authorities may organize Seminars in different blocks of the district at regular intervals to disseminate industrial and technical information to the people of the district.

3) **Intensive Industrial Campaign**

Intensive industrial campaign is a method by which various promotional agencies associated with the development of industries particularly for MSME sector can be brought under a single roof. Through interaction, this type of campaign enables the entrepreneurs to keep themselves aware of tech-economic viability of a project, registration procedure, source of finance, etc. Such type of campaigns may be organized in different corners of the district to foster the growth and development of MSE units.

4) **Industrial Exhibition**

Participation in the exhibition & fairs to explore the marketing channels and also to attract the buyers for the goods produced will give exposure to the general people about the range, variety and quality of items produced in MSME sector. Though on many occasions the artisans and craftsmen of the district are participating in exhibitions and fairs organized at the State level, it has been felt that more emphasis may be given on organizing these exhibitions and fairs at the district and block level for better representations by them.

5) **Study Tour**

Study tour is yet another process by which entrepreneurs can acquaint themselves with variety of products and modern technology involved in manufacturing various products. It is also one of the essential components to develop entrepreneurship. Such type of Study Tours may be arranged as a part of the entrepreneurship development programme.

CHAPTER-VIII

ANNEXURE - I

Govt. Schemes and Subsidies

CENTRAL & STATE GOVT. SCHEMES INCENTIVES AND FACILITIES

(A) Public Procurement Policy for goods produced and services rendered by Micro and Small Enterprises (MSEs) be procured by Central Ministries/ Departments/Public Sector Undertakings(PSUs).

The Cabinet has approved the Public Procurement Policy for goods produced and services rendered by Micro and Small Enterprises(MSEs) be procured by the Central Ministries/Departments/Public Sector Undertakings(PSUs) to be notified under Section 11 of the Micro, Small and Medium Enterprises Development(MSMED) Act, 2006. The Policy is applicable w.e.f. 1.4.2012.

The MSEs, including the khadi, village and coir industries, constitute an overwhelming majority of this sector, contributing significantly to the gross domestic product, manufacturing output and exports. In the overall production/value chains, however, MSEs are highly susceptible to volatile market conditions. To address this inherent problem, many countries in the advanced world have put in place public procurement policies to support MSEs and to ensure a fair share of market to such entities. Under the existing dispensation in India, the Government guidelines provide for support in marketing of MSE products through a variety of measures such as price preference, reservation of products for exclusive purchase from MSEs, issue of tender sets free of cost, exemption from payment of earnest money, etc. In practice, however, most of these facilities are not being provided to the MSEs by the Government Departments/CPSUs, etc.

The main features of the Public Procurement Policy for MSEs are:

- i) Every Central Ministry/Department/PSU shall set an annual goal for procurement from the MSE sector at the beginning of the year, with the objective of achieving an overall procurement goal of minimum 20 per cent of the total annual purchases of the products or services produced or rendered by MSEs from the latter in a period of three years.
- ii) Out of 20% target of annual procurement from MSEs owned by SC/ST entrepreneurs. However, in the event of failure of such MSEs to participate in the tender process or meet the tender requirements and the L1 price, the 4%

- sub target for procurement earmarked for MSEs owned by SC/ST entrepreneurs will be met from other MSEs.
- iii) At the end of 3 years, the overall procurement goal of minimum 20% will be made mandatory. Non-conforming Departments will be required to provide reasons for the same to be Review Committee set up under the Policy
 - iv) The participating MSEs in a tender quoting price within the band of L1+15% may also be allowed to supply a portion of the requirement by bringing down their price to the L1 price, in a situation where L1 price is from someone other than an MSE. Such MSEs may be allowed to supply up to 20% of the total tendered value. In case of more than one such MSE, the supply will be shared equally.
 - v) Every Central Government Ministry/Department/PSU will report the goals set with respect to procurement to be met from MSEs and the achievement made thereto in their respective Annual Reports.
 - vi) The Central Ministry/Department/Public Sector Undertaking will continue to procure 358 items from MSEs, which have been reserved for exclusive purchase from them.
 - vii) For enhancing the participation of SCs/STs in the Government procurement the Central Government Ministry/Department/PSUs will take necessary steps including organizing special Vendor Development Programmes, Buyer-Seller Meets etc.
 - viii) Given their unique nature, Defence armament imports will not be included in computing the 20% goal for M/o Defence. In addition, Defence Equipments like weapon systems, missiles, etc. will remain out of purview of such policy of reservation.
 - ix) A Committee has been constituted under the chairmanship of Secretary(MSME), inter alia, to review the list of 358 items reserved for exclusive purchase from MSEs on a continuous basis and for monitoring and review of the Public Procurement Policy for MSEs. In addition, a 'Grievance Cell' would be set up in the Ministry of MSME for redressing the grievances of MSEs in Government procurement.

The policy will help to promote MSEs by improving their market access and competitiveness through increased participation by MSEs in Government purchases and encouraging linkages between MSEs and large enterprises.

(B) Central Govt. Incentives and subsidies:

Govt. of India is the authority to make acts, policies, various developmental schemes and programs for overall development of MSME sectors. It rolled out the Micro, Small and Medium Enterprises Development (MSMED) Act-2006 on 2nd Oct., 2006 with a view to simplify the previous act, providing better service and assistances to MSME sector, gathering up-to-date data of the sector for immediate action and overall speedy development of MSMEs in the country. The Govt. implements these acts, scheme and programs through a network of govt. and semi govt. promotional agencies like MSME-DI, SIDBI, NSIC, KVIC, Coir Board, etc. However, major incentives and subsidies are provided by DC, MSME and MSME-DI highlighted in brief in following paragraphs:-

Office of Development Commissioner operates a number of schemes for the MSME sector. At a glance these are:-

National Manufacturing Competitiveness Programme (NMCP) Schemes -

The Government has announced formulation of National Competitiveness Programme in 2005 with an objective to support the Small and Medium Enterprises (SMEs) in their endeavor to become competitive and adjust the competitive pressure caused by liberalization and moderation of tariff rates. The components of the scheme are :

- Marketing support/assistance to MSMEs(Bar Code).
- Support for entrepreneurial and managerial development to SMEs through Incubators.
- Enabling Manufacturing Sector to be competitive through Quality Management Standards and Quality Technology Tools(QMS/QT).
- Building awareness on Intellectual Property Rights for MSMEs(IPR).
- Lean Manufacturing Competitiveness Scheme for MSMEs(LMCS).
- Setting up of Mini Tool Room & Training Centers under PPP Model(MTR).
- Design Clinic for Design Expertise to MSME sector(Design Clinic).
- Scheme for Technology and Quality Upgradation Support to MSMEs(TEQUS).
- Marketing Assistance & Technology Upgradation scheme for MSMEs.
- Promotion of ICT in Indian Manufacturing Sector(ICT)

1) Micro & Small Enterprises Cluster Development Programme (MSE-CDP)

DC(MSME) launched MSE-CDP for holistic development of selected MSEs clusters through value chain and supply chain management on co-operative basis.

2) Credit Linked Capital Subsidy Scheme for Technology Upgradation

The Scheme was launched in October, 2000 and revised w.e.f. 29.09.2005. The revised scheme aims at facilitating Technology Upgradation of Micro and Small Enterprises by providing 15% capital subsidy (12% prior to 2005) on institutional finance availed by them for induction of well established and improved technology in approved sub-sectors/products. The admissible capital subsidy under the revised scheme is calculated with reference to purchase price of Plant and Machinery. Maximum limit of eligible loan for calculation of subsidy under the revised scheme is also been raised Rs. 40 lakhs to Rs. 100 lakh w.e.f. 29-09.2005

3) Credit Guarantee Scheme

Collateral free loans upto a limit of Rs.50 lakhs - for individual MSEs.

4) ISO 9000/ISO 14001 Certification Reimbursement Scheme -

Incentive Scheme of Reimbursement of expenses for acquiring Quality Management System (QMS) ISO 9000 certification/environment management (EMS) ISO 14001 certification to the extent of 75% or Rs.75,000/- whichever is lower.

- For individual SISIs/Ancillary/tiny/SSSBE units

- The scheme offers funding upto 75% in respect of to and fro air fare for participation by MSME Entrepreneurs in overseas fairs/trade delegations. The scheme also provide for funding for producing publicity material (upto 25% of costs) Sector specific studies (upto Rs. 2 lakhs) and for contesting anti-dumping cases (50% upto Rs. 1 lakh) - for individual MSMEs & Associations.

5) NATIONAL AWARDS

These awards are given away to small scale entrepreneurs for encouraging and motivating them for efficient management of their small scale units, their modernization with a view to upgrading the quality of their produce, higher productivity, increasing their share both in the domestic/export markets, innovation and bringing about technological improvements.

The awards are given on the basis of the recommendations by State/UT level Selection Committee and the final selection by the National Level Selection Committee.

The scheme envisages three National Awards (first, second and third) and one special recognition award to an entrepreneur. The national awards carry, besides a trophy and certificate, a cash award of Rs. 25,000/-, Rs. 20,000/- and Rs. 15,000/- respectively. The special recognition award given to an entrepreneur in each State/UT carries, besides a trophy and certificate, a cash prize of Rs. 10,000/-. In 1993, a special prize at par with first National Award was introduced to honour an outstanding women entrepreneur and also an outstanding SC/ST entrepreneur. The awards are given for every calendar year

STATE GOVT.'S POLICIES & INCENTIVES

West Bengal MSME Policy 2013-18

(North 24 Parganas District is under Group-B Zone)

(1) FISCAL INCENTIVES CAPITAL INVESTMENT SUBSIDY.

- For new Micro & Small Enterprise in Zone C & D
 - Micro enterprise Zone D – 40%
 - Small enterprise in Zone D – 30%
 1. Subject to a ceiling of Rs 50 Lakh for Small Enterprise.
 2. 20% additional subsidy on admissible subsidy for all enterprises wholly owned by women, SC/ST and minority community entrepreneurs.
 - c) These entrepreneurs will also get incentive for setting up of units in Zone A & B as follows:
 - Micro Unit – 15%
 - Small Unit – 10%
 - d) This incentive would be in addition to what the units get from GoI under any other scheme.

(2) INTEREST SUBSIDY ON TERM LOAN

Micro & Small Enterprise

- Subvention of 6% for all units and 7.5 % for units set up in the C and D Zone districts for 5 years.

Medium Enterprise

- Zone D – 25% of total Term Loan Interest subject to ceiling of Rs. 175.00 Lakh per year for 7 years.

(3) ELECTRICITY DUTY

Micro & Small Enterprise

- 50% waiver for 5 yrs for Zones A & B & 75% for Zones C & D.
- The units set up in any zone and wholly owned by women, SC/ST and minority community entrepreneurs will be eligible for 100% waiver for 5 years.

Medium Enterprise

- Zone D – 100% waiver of electricity duty on the electricity consumption for 5 years and 75% waiver from the sixth year upto tenth year subject to maximum

of Rs. 50.00 Lakh per year or Rs. 2.5 Crore in 5 years.

(4) POWER SUBSIDY

Micro & Small Enterprise

- Subsidy of Rs. 1.50 / Kwh for units in Zone C & D

For 5 years; subject to a ceiling of Rs 20 Lakh per annum for small enterprises and Rs 30 Lakh for medium enterprises.

(5) INCENTIVE FOR ENERGY EFFICIENCY

Micro & Small Enterprise

- 50% re-imbursement of the cost of energy audit undertaken by an certified agency to be available after implementation of the recommendations.
- 25% reimbursement of the cost of installations for energy conservation as per energy audit subject to a ceiling of Rs 2 Lakh.

(6) STAMP DUTY & REGISTRATION FEE

Micro & Small Enterprise

- 100% for units in Zone D,

Medium Enterprise

- B, C & D Zone refund @ 75% of Stamp Duty.

(7) ENTRY TAX

- Reimbursement of ET on plant and machinery available after beginning of commercial production by the unit.

- Reimbursement of ET on procurement of raw materials for the initial 3 years.

VAT Micro, Small & Medium Enterprises

- Zone D – 90% VAT refund paid for 8 years or 75% of fixed Capital Investment whichever reached earlier.

(8) CST

Total refund for 3 years from the date of commencement of commercial production.

(9) WATER CONSERVATION / ENVIRONMENT COMPLIANCE

Micro & Small Enterprise

- Assistance upto 50% or Rs 2 Lakh maximum for water conservation/ pollution control measures.

(10) CLUSTER DEVELOPMENT

- Support upto Rs. 10 crore for common infrastructure such as road, power etc for each micro and small industrial cluster in Zone D.

- Undertake measures in collaboration with the industry to provide 10 million skilled HR over a period of 5 years.

(11) STANDARD QUALITY COMPLIANCE

Micro & Small Enterprise

- 50% of cost upto a maximum of Rs. 5 lakh for obtaining certification / accreditation like ISO-9000, ISO-14000, ISO-18000, Social Accountability Standards, OEKO-TEX etc.

(12) WORK FORCE WELFARE ASSISTANCE

- Reimbursement of 100% in 1st year & 75% in next remaining years expenditure incurred towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) as follows: Zone B-5 yrs., Zone C-7 yrs., Zone D-9 yrs.

(13) GI / PATENT REGISTRATION

- State Government will provide consultancy and facilitation services for identification and registration of Geographical Indicators (GI) of items.
- Reimbursement of 50% of expenditure for obtaining patent registration subject to a maximum of Rs. 5 lakh.

(14) GRADED SLABS OF INCENTIVES

The districts of the state have been divided into 4 Zones for differential treatment under this Policy. Considering the needs of inclusive growth, the policy provides additional incentives for investment in backward regions of the state.

Zone -A:

Kolkata Municipal Corporation area, all Municipal areas of North 24 Parganas, all municipal areas of South 24 Parganas, all municipal areas of Howrah.

Zone - B:

District of Hooghly, North 24 Parganas (excluding municipal areas and Sunderban areas, South 24 Parganas (excluding municipal areas and Sunderban areas), Howrah (excluding municipal areas), Siliguri Municipal Corporation, Municipal corporation/municipal areas of Paschim Medinipur, Purba Medinipur, Burdwan & Nadia.

Zone -C:

District of Burdwan (excluding Municipal Corporation/municipal areas), Purba Medinipur (excluding Municipal corporation/municipal areas), Nadia (excluding Municipal Corporation/municipal areas), Murshidabad, Malda, Jalpaiguri and Darjeeling (excluding Siliguri Municipal Corporation)

Zone -D:

District of Birbhum, Purulia, Bankura, Paschim Medinipur (excluding Municipal Corporation/Municipal areas), Uttar Dinajpur, Dakshin Dinajpur, Cooch Behar and

Sunderban areas of South and North 24 Parganas districts. Conditions/eligibility of the units for availing incentives /financial assistance under this policy.

- Modern /Hi-tech plant & Machinery to be installed that conform to the standard productivity.
- Unit will have to strictly observe requisite pollution control compliances.
- Regular Energy Audit is to be conducted and standard energy efficiency to be ensured wherever applicable.
- Unit will have to follow/maintain labour laws.
- Unit will have to commit to remain in production for at least 5years from the date of commercial production.
- A unit defaulting in payment of any government dues / FI dues will not be eligible for assistance under this policy

Negative List

The following manufacturing activity will not be considered for Subsidy

- 1) Sponge Iron Factory
- 2) Bricks (excluding Fly Ash/Sand Line/Refractory)
- 3) Bought Leaf Tea Processing Factory

ANNEXURE - II

- ❑ **MSME-DI, Kolkata** - Training/Technical guidance/approval of schemes/ Testing facilities at MSME-TC, Kolkata.
- ❑ Allahabad Bank (Lead Bank), N24 Parganas providing finance to the small scale entrepreneurs
- ❑ WBFC provides finance to MSEs/assistance to sick industries
- ❑ Zilla parishad, N24 Parganas is extending all sorts of help in promoting MSE units in the district through various schemes
- ❑ WBSIC Ltd. Provides accommodation in industrial estates/marketing/raw materials
- ❑ NSIC Ltd. Provides marketing/higher purchase of machinery/single point registration/equipment leasing
- ❑ Small Industries Development Agency provides single window service to SMEs including approval of schemes.
- ❑ West Bengal Pollution Control Board provides regulatory NOC and consent
- ❑ Ministry of Food processing Industries (Fruit & Vegetable) provides FPO Licence to Fruit and Vegetable processing unit.
- ❑ West Bengal State Electricity Distribution Company Limited (WBSEDC) provides industrial connection.

Step by step procedure for setting up of small scale industry

- Selection of product after through market survey
- Selection of site
- Selection of name of the proposed SMEs, production process & machinery
- Purchase of land/arrangement of rented accommodation
- Partnership deed(if so)
- NOC, Trade License for office and factory from Municipal, Panchayat, Authority
- Inviting Quotation of machinery from reliable manufacturer/supplier of M/c.
- Scheme/Project report preparation and submission to DIC for approval
- Application for issuing EM & Application for power connection from WBSEB
- Obtaining recommendation for priority in power support from DIC
- Preparation for layout of plant and machinery in the work side
- Loan application to WBFC/Bank through DIC
- Application for No Objection Certificate/License to West Bengal Pollution Control Board as may be applicable.
- Application to Sale Tax Authorities for provisional certificate on Sale tax concession
- Application for conversion of land to BLLRO if required
- Obtaining sanction of loan from WBFC/Bank
- Application for margin money to DIC
- Placement of order for machinerics through financial institutions
- Construction of sheds
- Machinery installation, power connection and labour recruitments

- Market linkage
- Application for state incentive to DIC on machinery investment
- Application for permanent registration to DIC
- Production returns to be submitted on regular basis to DIC

Address of District Industries Centre, North 24 Parganas

District Industries Centre(DIC), North 24 Parganas
2, Barrackpore Road,
P.O. Nabapally, Barasat,
Dist. 24 Parganas (North.)
Phone : (STD-033) 2542-7861 / 7862 / 7863

CHAPTER-IX
SAMPLE PROJECT PROFILES

(1)

Manufacturing Of Solar Photovoltaic Home Lighting System

To manufacture or assemble a SPV/HLS there are some requirement. These are as follows:

- a) Solar Photovoltaic Module (37 Wt.)
- b) Battery (12V/40 AMP.H)
- c) Luminary-9W
- d) Charge controller
- e) Wires & cables

The wires which comes from SPV Module is joined with charge controller. Two other wires which comes from charge controller is joined with battery. Two other wires which comes through charge controller is joined with switch board and it goes to luminaries.

STANDARD AND QUALITY CONTROL

The SPV/HLS will be produced as per customers requirement and satisfaction.

POLLUTION CONTROL ANR REQUIREMENT

There is no any health hazard during the manufacturing process of Solar Photovoltaic Home Lighting System, because the product is assembled by components. However, NOC may be obtained from component authority at the time of registration.

POWER REQUIREMENT

Power requirement is 1 KW.

ANNUAL MANUFACTURING TARGET

It is proposed to manufacture 20 pieces of Solar Photovoltaic Home Lighting System per month.

TECHNICAL ASPECTS

Fixed Capital:

i) Land & Building --- 2000 Sq.ft. (Rented)	Rs. 2000/-
ii) Plant & machinery :-	
1. Tools & Tackles	Rs. 21,500/-
2. Winding Machine	Rs. 12,000/-
3. Electrical Operation Drill Machine	Rs. 2,376/-
4. Spray Painting with compression	Rs. 10,435/-
5. Varying Volt Metre & Ammeter	Rs. 10,612/-
6. Oscilloscope (50 MHZ)	Rs. 26,500/-
7. Lux Meter	Rs. 1,950/-
8. Micro Meter(2)	Rs. 3,600/-
9. Installation & Electrification	Rs. 6,500/-
10. Transportation	Rs. 1,500/-
11. Insurance	<u>Rs. 2,200/-</u>
Total:-	Rs. 99,173/-

OTHER FIXED ASSETS

Sl.No.	Description	Nos.	Rate(Rs.)	Value(Rs.)
1	Working Table	4	2,500	10,000
2	Wooden Rack	2	3,000	6,000
3	Steel Almirah	1	3,200	3,200
4	Wooden Tools	8	250	2,000
5	Preliminary & preparatory expenses	-	-	50,000
6	Telephone	-	-	2,000
Total :				73,200

TOTAL FIXED COST :- Rs. 99,173/- + Rs. 73,200/- = **Rs. 1,72,373/-**

WORKING CAPITAL PER MONTH:

Man power requirement-

Sl.No.	Description	Nos.	Rate(Rs.)	Value(Rs.)
A	Manager- cum- Accountant	1	2,000	2,000
B	Supervisor	1	2,500	2,500
C	Skilled Worker	2	1,500	3,000
D	Unskilled Worker	2	1,400	2,800
E	Halper	1	1,000	1,000
	Perquisites15%	-	-	1,695
Total:				12,995

Raw material per month-

Sl.No.	Description	Nos.	Rate(Rs.)	Value(Rs.)
1	SPV Module(37Wt.)	20	6,250	1,24,000
2	Battery12V/40AmpH	20	2,200	44,000
3	Luminary-9W	20	1,550	31,000
4	Charge controller	20	900	18,000
5	Wires & cables	20	950	19,000
Total:				2,36,000

Utilities per month-

1. Electricity = Rs. 800/-
 2. Water charge = Rs. 50/-
- Total:-Rs. 850/-**

MISCELLANEOUS EXPENSES PER MONTH

Sl.No	Description	Value(Rs.)
I	Rent	2,000
Ii	Maintenance	200
Iii	Advertisement	500
Iv	Tax & insurance	200
V	Transportation	1,000
Vi	Consumable stock	2,000
Vii	Travelling expenses	1,500
vii	Printing& Stationary	500
Total:		7,900

Total Working Capital Per Month:-

Rs. 12,995/-

Rs. 2,36,000/-

Rs. 850/-

Rs. 7,900/-

Total:-Rs.2,57,745/-Working Capital for 3 Months: Rs.2,57,745/- X 3=**Rs. 7,73,235/-****Total Capital Investment:-**

Fixed Capital = Rs. 1.72,373/-

Working Capital for 3 Months = Rs. 7,73,235/-**Total:-Rs. 9,45,608/-****FINANCIAL ANALYSIS****A. Cost of Production per annum:**

Sl.No	Description	Value(Rs.)
I	Total Working capital per Annum	30,92,940
li	Depreciation on Plant & Machinery @ 10 %	9,917
lii	Depreciation on Fixed Assets @ 20 %	4,640
Iv	Interest on capital Investment (75%) @ 12.5%	88,651
Total:		31,96,148

B. Total Sales:

Sl.No.	Description	Nos.	Rate(Rs.)	Value(Rs.)
A	Solar Photovoltaic Home Lighting System	240	14,200	34,08,000

C. Profit Per Annum:-

Total Sales – Cost of Production = Rs.34,08,000 /- - Rs. 31,96,148/-

= Rs.Rs. 2,11,852/-**D. Profit Ratio:-**

$$\frac{\text{Profit Per Annum} \times 100}{\text{Total Sales}} = \frac{\text{Rs. 2,11,852} \times 100}{\text{Rs. 34,08,000}} = 6.2 \%$$

E. Return on Capital Investment:-

$$\frac{\text{Profit Per Annum} \times 100}{\text{Total Capital Investment}} = \frac{\text{Rs. 2,11,852} \times 100}{\text{Rs.9,45,608}} = 22.4 \%$$

F. Break Even Point:

Sl.no	Description	Value(Rs.)
I	Total depreciation	14,557
li	Total Interest	88,651
lii	40% of Salary & wages	62,376
iv	40% of Misc. Expenditures	37,920
Total:-		2,03,504

B.E.P :-

$$\frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Profit}} = \frac{\text{Rs. 2,03,504} \times 100}{\text{Rs.2,03,504} + 2,11,852}$$

= 49 %

Corrugated Paper Board And Box

QUALITY SPECN. : **AS PER CUSTOMER'S SPECN.**

PROJECT COST: **Rs. 50,31,800/-**

INTRODUCTION:

Corrugated Paper board are extensively used in manufacture of suitable boxes for packaging of different industrial products and consumer goods. These boards are prepared from craft paper. Some of the products like crockery, electronic items, automobile components, glassware, cigarettes, pharmaceutical products, chemical products, biscuits, soaps and cosmetics, hosiery and toys, rubber and rubber products, refrigerator, air coolers, etc. require proper type packaging in corrugated fibre boards. Corrugated paper board cartoons are preferred to other packaging materials due to their inherent advantages.

MARKET POTENTIAL:

Corrugated paper board boxes are light in weight, easy to handle, to transport and can be easily printed. With the steady rise in industrial production in the country, the demand for corrugating boxes, cartoons of different size are also continuously increasing. These boxes also find market in the rural areas for packaging of consumer and industrial products. About ten small scale units are engaged in manufacture of Corrugated board box out of which two units are manufacturing Corrugated paper board

BASIS AND PRESUMPTIONS:

1. The estimates are drawn for a production capacity generally considered technoeconomically viable for a model type of manufacturing activity.
2. The information supplied is based on a standard type of manufacturing activity utilising conventional techniques of production and optimum levels of performance.
3. The costs in respect of land and building, machinery and equipment, raw materials and the selling prices of the finished products, etc. are those generally obtaining at the time of the preparation of the project profiles and may vary depending upon various factors.
4. Whereas some names of manufacturers/suppliers of machinery and equipment, raw materials etc. are indicated at the end of the profile these are by no means exclusive or exhaustive.
5. Calculation has been based on single corrugated sheet pasted with one sheet of craft paper i.e. two ply sheets.
6. Eight working hours per day and 300 working days per annum have been considered for preparation of the project.
7. 12% rate of interest has been considered on the total capital investment.

8. 10% of the total paper board production has been utilised for making corrugated boxes.

IMPLEMENTATION SCHEDULE:

- | | | |
|----|--|----------------|
| 1. | Preparation of project report and regn. with DIC | 1 month |
| 2. | Arrangement of finance | 4 months |
| 3. | Procurement of land | 2 months |
| 4. | Construction of shed | 2 months |
| 5. | Procurement of machinery | 2 months |
| 6. | Recruitment of staff | ½ month |
| 7. | Procurement of raw material and trial run | <u>½ month</u> |
| | | 12 months |

PROCESS OF MANUFACTURE:

1. Corrugated paper board:

Two paper reels are run together on Corrugated machine. One layer of paper becomes corrugated after passing through the heated fluted rolls and the other is brought in contact with the former having been glued at the tips. These two get pasted together and are wound in rolls, the resulting roll is now, known as single face or 2-ply corrugated paper. By cutting this roll with board cutter and gluing the corrugated size on pasting machine, double face or 3rd ply of paper over it. This board is kept under a sheet pressing machine for sometime for setting of the wet glued sheets. Similarly board-to-board can be pasted to form thicker board i.e. 5 ply, 7 ply and 9 ply, etc.

2. Corrugated paper boxes:

The process of manufacture consists of following operations.

1. Slitting/longitudinal cutting.
2. Creasing.
3. Slotting.
4. Flap or corner cutting.
5. Stitching.

QUALITY STANDARD:

As per customer's specification.

MOTIVE POWER REQUIREMENT: 60 H.P.

PRODUCTION CAPACITY (PER ANNUM):

QUANTITY

465 MT

VALUE

Rs. 84,63,000/-

POLLUTION CONTROL:

No pollution is caused during the operations in this industry. However, care should be taken for proper storing and dumping of waste pieces of materials coming out during different operations. No Objection certificate should be procured before commencement of project.

FINANCIAL ASPECTS:**Land: 10,000 Sq.ft****own****Building: 3,500Sq.ft****own****Machinery and Equipment:**

Sl.no.	Item	No.	Value in Rs.
1.	Heavy duty type high speed single face corrugating machine with one set of narrow flute rolls, heated, counting meter, self loading metalised reel stand, glue roll, 2 winding and 3 winding shafts with motor and starter complete size 62"	two	Rs.15,00,000
2.	Board cutting machine heavy duty fitted 2 nos. with foot operated dab, front lock guide, hand operated complete size 48" x 65" with one real stand, light model	two	60,000
3.	Sheet pasting machine size 75" complete with motor and starter	two	1,20,000
4.	Rotary scoring creasing and cutting machine with 4 scores, 4 creasers and 2 cutters power driven motorised with 2 HP motor with starter size 42"	two	3,00,000
5.	Sheet pressing machine size 65"x75"for 3 ply/5 ply/7 ply	two	1,20,000
6.	Board cutter, light model with foot optd.dab. front back guides hand optd. 42"x62"	two	54,000
7.	Vertical bending m/c.heavy duty foot optd. 42"	One	30,000
8.	Eccentric slotting machine provided with 3 slotting and 1 corner cutting knife beads (slot depth 12' in 65" and 18" in others) size 65"	one	1,50,000

9.	Combined Rotary creasing cutting and slotting machine manually chain feeding provided with 4 sets of creaser – 2 sets of Trimming cutter, 3 sets of slotting knife and 1 set of corner cutting die 85"	one	2,75,000
10.	Thumb cutting machine, foot optd. @ ¼" diameter	two	40,000
11.	Stitching machine round and flat wire, motorised with ¼ HP motor 20" arm	one	25,000
12.	Testing equipments., metric scales, measuring tapes, thickness gauge, etc.		30,000
13.	Transportation, Electrification and installation charges @ 20%		2,70,400
14.	Misc. hand tools/jigs/fixtures		5,000
15.	Office furniture		30,000
	Total		30,09,400

PRE-OPERATIVE EXP.

1.	Preparation of project profile	500
2.	Telephone connection	2,000
3.	Sale tax Registration.	3,000
4.	Travel expenditure.	3,000
5.	Electric connection, water supply arrangement	50,000
5.	Other misc. exp.	<u>8,000</u>
		Rs. 66,500

FIXED CAPITAL INVESTMENT:

Rs. 30,09,400/- + Rs.66,500/- = Rs.30,75,900/-

WORKING CAPITAL ANALYSIS:

A. Staff and labour payment:

1.	Manager	one	10,000
2.	Skilled worker	eight	40,000
3.	Unskilled workers	eight	24,000
4.	Accountant cum storekeeper	one	4,000
5.	Watchman cum peon	one	<u>3,000</u>
			Rs. 81,000

B. Raw material:

Kraft paper	70 MT @ 12,000/MT	8,40,000
Adhesives	4 MT @ Rs.6,000/MT	24,000
Stitching wire, clips,etc.	100 kg. @ Rs.25/kg	<u>2,500</u>
		Rs. 8,66,500

C. Utility:

Electricity 4500 KWH @ 4.50	20,250
Water	<u>200</u>
	Rs.20,450

D. Other Expenditure:

1. Transport and travelling	8,000
2. Repair & maintenance	1,000
3. Telephone	500
4. Taxes & levies	<u>500</u>
	Rs. 10,000

WORKING CAPITAL PER MONTH:

$$A + B + C + D = \text{Rs.9,77,950/-}$$

TOTAL CAPITAL INVESTMENT:

Fixed capital	Rs.30,75,900/-
Working capital for 2 months	<u>Rs.19,55,900/-</u>
	Rs.50,31,800/-

Cost of production:

Depreciation on machinery @ 10%	2,70,400
Depreciation on office furniture @ 20%	6,000
Recurring expr. Per annum	1,17,35,400
Interest on total cap. Investment @ 12%	<u>6,03,816</u>
	Rs.1,26,15,616

TURNOVER PER ANNUM:

Assuming 3% loss in paper during processing, total amount of corrugated box can be produced = 814 MT

1. Corrugated paper box & board	814 MT@ Rs.18,000/MT
	Rs.1,46,52,000/-

Profit:

Rs. 1,46,52,000- 1,26,15,616 = Rs.20,36,384/-

Net Profit ratio:

$$\frac{\text{Profit}}{\text{}} \times 100 = 14\%$$

Turnover

Rate of Return:

$$\frac{\text{Profit}}{\text{}} \times 100 = 40.4\%$$

Total Capital Investment**BREAK EVEN ANALYSIS:**

Fixed cost:

Depreciation on machinery @ 10%	2,70,400
Depreciation on office furniture @ 20%	6,000
Interest on total cap. Investment @ 12%	6,03,816
Tax and levies	6,000
40% of salary	3,88,800
40% of other expr. Except taxes	<u>45,600</u>
	Rs. 13,20,616

$$\text{B.E.P.} = \frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{profit}} = \frac{\text{Rs. } 13,20,616 \times 100}{\text{Rs. } 33,57,000} = 39.3\%$$

ADDRESSES OF MACHINERY SUPPLIERS:

1. M/s. ACME Machinery Co.(P) Ltd., Unit No.b-3, Ground floor, Royal Industrial Estate, Naigaum Cross Road, P.O.Box No.7146, Wadala, Mumbai-400032. Tel. 91-22-4606345, 4606784, 4146345, 4146928.
2. M/s Micro Mechanical Works, 601, Delta, Hiranandani Gardens, Powai, Mumbai-400076. Tel.5704446-7-8-9.
3. M/s.Paper Corrugating Machines, (Natraj Machinery Pvt. Ltd.), 1062, Bartan Market, Sadar Bazar, Delhi-110006. Tel.3624864, 3612993.

(3)**P.V.C. & H.D.P.E. Conduit Pipe****CAPITAL INVESTMENT:** Rs. 20,72,850/-**INTRODUCTION:**

P.V.C. Conduit pipes are used for wiring of electric cables on walls, in household electrification. H.D.P.E. pipes are used for the same purpose for concealed wiring. Nowadays 80% of total area of West Bengal is electrified and electric energy is surplus. In remote villages, small towns construction activities are rapidly spreading in every corner and demand of conduit pipe and HDPE pipes are also increasing in tune with it.

BASIS AND PRESUMPTION:

1. The unit will run on single shift basis and 300 days per annum.
2. The factory shed and land has been taken on monthly rental basis.
3. The rate of machinery or raw material may vary from place to place and from time to time.
4. The rate of interest on total capital investment has been taken as 13%.
- 5.

IMPLEMENTATION SCHEDULE:

Preparation of project profile and registration with D.I.C.	1 month
Availability of finance	3 months
Procurement of machinery and erection	1 month
Recruitment of staff and trial run	<u>1 month</u>
	6 months

TECHNICAL ASPECTS:**A. PVC/HDPE compound formulation:**

<u>Item</u>	<u>Parts by wt.</u>
i) PVC Resin/HDPE granules	100
ii) Stabilizer (non toxic)	5
iii) Primary plasticizer	1.5
iv) Secondary plasticizer	5
v) Internal lubricant	3
vi) External lubricant	4
vii) Epoxy plasticizer	1.5
viii) Pigment base	3
ix) Pigment	As required.

B. Processing:

The basic material which on polymerization produces P.V.C. pipes is poly vinyl chloride and for HDPE Black pipes is High Density Poly Ethylene. PVC in resin form is hard and rigid. The rigidity can be controlled by controlling the percentage of plasticizer at the time of compounding. Production of rigid PVC pipes is based on plasticizing and homogenizing PVC compound and then passing the compound through an extruder. The hot molten PVC compound is extruded through a circular slit. Circular slit governs the size of pipes to be extruded. Different dies are used for manufacturing different size of pipes. Same process may be adopted for making HDPE pipes. An inline motorized cutting device is provided for cutting the pipes into required sizes.

QUALITY SPECIFICATION:

The following IS specification should be followed for quality production.

IS:2509/1963: Rigid non-metallic conduits for electric installation

PRODUCTION CAPACITY:

Quantity: 54 MT of PVC and 54 MT HDPE Conduit pipes.

Value: Rs. 54,54,000/-

UTILITY: Approx. electric power consumption P.M. 3000 KWH.

POLLUTION CONTROL:

In manufacture of Rigid PVC/HDPE pipes there is no in process pollution. However, wastage of scrap should be stored properly. Laboratory attendants should be provided with gloves, masks to handle the chemicals in the process of compound making.

ENERGY CONSERVATION:

Electric power is the major requirement for manufacture of PVC/HDPE pipes. Awareness should be created among workers to reduce the unnecessary power consumption. Use of specific capacity Motor and timely maintenance also helps in this regard.

FINANCIAL ASPECTS:**Land and Building:**

- a) Land :15 Decimal own
- b) Building and Shed:
- i) Work Shed : 1500 sq.ft. @ 300sq.ft Rs.4,50,000/-

B. Machinery:

- | | | | |
|------|---|-------|-------------------|
| i) | 50 mm screw dia extrusion plant | 1 no. | Rs.4,95,000 |
| ii) | 3" granular extruder machine | 1 no. | Rs.2,00,000 |
| iii) | Heavy duty scrap Grinder | 1 no. | Rs. 50,000 |
| ii) | High Speed Mixture unit with 7.5 HP Motor | 1 no. | <u>Rs. 50,000</u> |

Rs.7,95,000

Escalation 5% Rs. 59,750

T.F.I. 10% Rs. 79,750

Rs.9,14,250

Installation Rs. 50,000**Rs.9,64,250**

- C. **Electrification:** Rs.2,00,000

(Internal wiring, security deposit to CESCO, Panel Board and Service line)

- D. (i) Pre-operative expenses Rs.20,000

(travelling, telephone connection, sales tax, etc.)

- (ii) Furniture and fixture Rs. 30,000

Rs.2,50,000

Total Fixed Capital:

Machinery - Rs.9,64,250

Electrification - Rs.2,00,000

Pre-operative expenses & furniture Rs. 50,000**Rs.16,64,250/-**

Fixed capital	-	Rs. 16,64,250/-
---------------	---	-----------------

Working Capital	-	<u>Rs. 4,08,600/-</u>
		Rs. 20,72,850/-

Means of Finance

Promoter contribution @ 5%	Rs. 1,03,642
Bank finance @ 95%	Rs.19,69,207
Subsidy provided by KVIC/KVIB/DIC@35%	Rs. 7,25,497

Cost of production:

Recurring expenditure	-	Rs.45,19,200
Depreciation on shed @ 5%		Rs. 22,500
Depreciation on machinery @ 10%-		Rs. 96,425
Depreciation on furniture @ 20% -		Rs. 6,000
Interest on capital investment@ 12%		<u>Rs. 2,48,742</u>
		Rs.48,92,867/-

Turn Over:

PVC Pipe 54 MT @ 50/- per kg	-	Rs.27,00,000/-
HDPE Pipe 54 MT @ Rs.53/- per kg.	-	<u>Rs.29,70,000/-</u>
		Rs.56,70,000/-

Profit:

Turn over – Cost of production	=	Rs. 7,77,133/-
--------------------------------	---	-----------------------

Net Profit ratio:

<u>Profit x 1000</u>	=	14%
Turn over		

<u>Rate of Return:</u>	<u>Profit x 100</u>	=	37%
------------------------	----------------------------	---	------------

B.E.P.

Depreciation on shed @ 5%	Rs. 22,500
Depreciation on machinery @ 10%-	Rs. 96,425
Depreciation on furniture @ 20% -	Rs. 6,000
Interest on capital investment@ 12%	<u>Rs. 2,48,742</u>
40% salary	Rs. 3,00,000/-
40% of other expenditure	<u>Rs. 36,000/-</u>

Rs. 7,09,667/-

B.E.P. Fixed Cost x100 = 7,09,667 X 100 = **48%**

ADDRESSES OF MACHINERY SUPPLIERS:

1. M/s.DGP Windsor (India) Ltd., Regd. Office: E-6, U-2 Road, Wagle Industrial Estate, Thane-400604, Maharashtra.

Branch office: P-157, CIT Scheme, VII-M, Ist floor, Near Ultadanga, VIP Road Crossing, Kolkata-700054.
2. M/s.Brimco Plastic Machinery Corporation (P)Ltd., Plot No.55, Govt. Kandivili Ind.Estate, Charkop, Kandivili (W), Mumbai-400057.
3. M/s.Neptune Plastic & Metal Industries, 16, India Exchange Place, Kolkata-700001.
4. M/s.Shree Intertrade Pvt. Ltd., 4, Shree Satsang Society, Near Old Railway Crossing, Maninagar (East), Ahmedabad-380008, Gujarat.
5. M/s.Golden Engg.Works, 87997, Shidipura Crossing, Rani Jhansi Road, New Delhi-110005.
6. M/s.R.S.Mech Engineers (Regd.), Ganesh nagar, St.No.3, Link Road, Opp. Transport nagar, Industrial Estate-A, Ludhiana-141003, Punjab.

ADDRESSES OF RAW MATERIALS SUPPLIERS:

PVC Resin:

1. M/s.Sri Ram Chemical Industries, Sri Rampura, Kota, Rajasthan.
2. M/s. National Organic Chemical Industries Ltd., Sandoz House, Dr.A.Besant Road, Worli, Mumbai-400001.
3. M/s.Chemplast, Dhun Building, 175/1, Mount Road, Madras-2.
4. M/s.Plastic Resin & Chemicals Ltd., Bharat Insurance Building, 15-A, Nariman Circle, Mumbai-400001.

(4)

Computrised Paint Mixing
(Plastic paint, Enamel Paint, Weather Coat, Distemper etc)

CAPITAL INVESTMENT: **Rs. 8,15,200/-**

INTRODUCTION:

Paint is an indispensable merchandise in modern civilisation. Use of organic surface protective coating is the ultimate choice in preserving wooden, steel furniture and household articles from corrosion and degradation. Apart from the purely protective action, paints, varnishes and lacquers by their decorative effect greatly increase or the interior of a room. For wall painting, lime colours, steel, tin, fixtures, synthetic enamel paints are used. In this project different colour enamel paints will be mixed as per computerized formulation to get specific colour paint.

BASIS AND PRESUMPTION:

1. The project is based on single shift basis and 300 working days per annum.
2. Minimum labour payment has been considered in preparation of the scheme.
3. All the prices in respect of machinery, raw material are taken as per those prevailing during preparation of the scheme.
4. The rate of interest on total capital investment has been considered as 12%.

IMPLEMENTATION SCHEDULE:

- | | |
|---|----------------|
| 1. Preparation of project profile and registration with DIC | 1 month |
| 2. Arrangement of finance | 3 months |
| 3. Machinery procurement and electrification | 2 months |
| 4. Raw Material purchase and trial run | <u>1 month</u> |
| | 7 months |

TECHNICAL ASPECTS:

Different colour enamel paints are purchased and mixed in computerized shaker according to the specific formulation and then packed in tin and plastic packets. If required suitable solvent or drier may be mixed to improve the quality of the formulation.

Motive Power Requirement: 4 Kwh.

QUALITY CONTROL:

As per customers specification .

POLLUTION CONTROL:

Workers must be provided with gloves, masks to handle chemicals. Attention should be given for disposal of waste and sewage. The unit should get No objection Certificate from State Pollution Control Board Authority.

ENERGY CONSERVATION:

Use of specific motor, repairing of machinery in time will definitely help to conserve electrical energy. More over workers should be given awareness to minimise electricity consumption.

FINANCIAL ASPECTS:

Land & Building :1000 sq. ft.

Own

MACHINERY:

S.no.	Specification	No.	Rate	Value
1.	Vertical Gyro Shaker MS cap. 500 lit. with trolley (with 1.5 HP motor)	1	50,000	50,000
2.	Fluid management system with computer, scanner with necessary accessories and software	1	1,50,000	1,50,000
3.	Platform weighing machine	1	10,000	10,000
4.	Storage barrels (HDPE) 1000 lit. cap.	3	4,000	12,000
5.	Misc. tools, containers, etc.	LS	--	10,000
6.	Analytical balance, oven, other testing equipt.	1 each	-	10,000
7.	Office furniture	L.S.	-	10,000
8.	Electrification and installation			10,000
				2,62,000

PRE-OPERATIVE EXPENDITURE:

Project profile preparation	500
Sales tax registration.	4,500
Packaging material preparation	<u>10,000</u>
	15,000

FIXED CAPITAL INVESTMENT: = Rs.2,62,000 + 15,000 = 2,77,000/-

WORKING CAPITAL ANALYSIS:

To prepare 1000 litre synthetic enamel paint, 1000 ltr. plastic paint, 1000 ltr. Distemper cum weather coat

1.	Synthetic White, Blue, Red, yellow, gray, green, black etc pigment(colorant)	1,000 kg.	100/kg	1,00,000
2.	Plastic paint base/enamel base/distemper base	2000 kg.	200/kg	4,00,000
3.	Packing material	LS		5,000
				5,05,000

UTILITY:

Electricity	1000 KWH @ Rs.6/unit	Rs. 6,000/-
Water		Rs. <u>200/-</u>
		Rs.6,200/-

STAFF AND LABOUR PAYMENT (Per month):

1.	Manager	1		Self
2.	Skilled labour	2	5,000	10,000
3.	Unskilled labour	2	4,000	<u>8,000</u>
				18,000

OTHER EXPENDITURE:

Advertisement	1000
Stationery	1000
Travel/transport	5000
Telephone	1000
Other misc. exp.	<u>1000</u>
Tax, etc.	
	9,000

Working capital Per Month

= 3,70,000 + 1,800 + 9,000 + 9,200 = **Rs.5,38,200/-**

Total Capital Investment:

Fixed capital	2,77,000
Working capital for (one month)	<u>5,38,200</u>
	8,15,200

Cost of Production:

Working capital per annum	64,58,400
Depreciation on machinery @ 10%	24,200
Depreciation on furniture @ 20%	2,000
Rate of interest on capital Investment @ 13%	<u>1,05,976</u>
	65,90,576

Turnover (Per Annum):

Synthetic enamel paint 12 ton@Rs.150/-kg	Rs.21,60,000/-
Plastic paint 12 ton@Rs.250/kg	Rs.30,00,000/-
Distemper cum weather coat 12 ton. @ 150/ltr.	<u>Rs.18,00,000/-</u>
	Rs.69,60,000/-

Profit = Rs.69,60,000.- – Rs.65,90,576 = 3,69,424/-

Net Profit Ratio = $\frac{\text{Profit} \times 100}{\text{Rs.69,60,000.-}}$ = 5%

Turnover

Rate Of Return = $\frac{\text{Profit} \times 100}{\text{Rs.69,60,000.-}}$ = 45%

BREAK EVEN ANALYSIS:**Fixed cost:**

Depreciation on machinery @ 10%	24,200
Depreciation on furniture @ 20%	2,000
Rate of interest on capital Investment @ 13%	1,05,976
40% salary per annum	86,400
40% other expr.	<u>43,200</u>
	2,61,776

BREAK EVEN POINT:

$\frac{\text{Fixed cost} \times 100}{\text{Rs.69,60,000.-}}$ = **41.5%**

Fixed cost + profit

ADDRESSES OF MACHINERY SUPPLIERS:

- 1 M/s.Keshab Machinery (P) Ltd., Bose Park, P.O.Sukchar, 24-Parganas North.
- 2 M/s.Durgapur Engg. Co.Ltd., 33/1, Netaji Subhas Road, Marshall House, Calcutta-700001.
- 3 M/s.Kusum Engg. Works Ltd., 25, Swallow Lane, Calcutta-700001.
- 4 M/s.Sabarwal Metal Industries, 61, Industrial Estate, Kalpi Road, Kanpur-12.
- 5 M/s.Amic Industries (P)Ltd., 10, B.T.Road, Calcutta.

ADDRESSES OF RAW MATERIAL SUPPLIERS:

M/s.Calcutta Mineral Supply Agency (P)Ltd.,

Old China bazar Street, Calcutta-1.

M/s.Advance Chemicals, 22, Bonfield Lane, Calcutta.

M/s.Camaco., Jessore Road, Calcutta-55.

M/s.Waldie & Co.Ltd., Calcutta.

M/s.Beck & Co.(India) Ltd., Pimpri, Pune-18.

M/s.Travancore Titanium Products, Trivandrum, Kerala.

(5)**Recycled Plastic Granules**

PROJECT COST : Rs. 24,83,500 /-

INTRODUCTION:

Articles made from Plastic materials are widely used in every sphere of life. It is known that the thermoplastics like polystyrene, polyethylene, polyethylene terephthalate (PET), acrylic, PVC cellulose acetate/butyrate etc. are very common nowadays and lots of articles are being manufactured from these materials.

The raw materials with the exception of a few are available in the country. The machinery both hand operated and automatic are also available indigenously which shows a significant increase in demand of plastic goods among the consumers.

The injection molding technique is simple. It can be termed as the melting of plastic material conveying of the molten material into a cool mould die of a desired shape and size where it takes the shape of the mould cavity and finally removal of the molded part. The product is then polished mechanically. So the outline of the injection molding technique is quite simple. It may be mentioned here that the production capacity of an automatic machine is much more than hand operated machine and the production cost will therefore be automatically less in the earlier case.

In this project waste HDPE, LDP, PP are collected, cut into small pieces and then processed by using granulator to produce recycle plastic granules. These granules are mixed with virgin material to produce plastic item.

with 70% of virgin raw material. Moreover such unit is converting the waste to wealth.

BASIS AND PRESUMPTION:

1. The scheme is based on single shift basis and 300 working days per annum.
2. Minimum labour charge has been considered in prepared the scheme.
3. 80% maximum capacity utilisation has been considered.
4. 20% of the raw material may be wasted during processing of the product.
5. The rate of machinery, raw materials are based on Calcutta local market price but it may vary from town to town and time to time.
6. 12% rate of interest has been considered for total capital investment.

Implementation Schedule:

Preparation of profile and regn. With DIC	1 month
Availability of finance/sanction of loan	3 months
Machinery and raw material procurement	1 month

Recruitment of staff and trial run

1 month

6 months

TECHNICAL ASPECTS:

The plastic waste are collected and separated to different category. Different category waste is cut into pieces after washing with water . The small cut pieces are melted and granulated by using automatic granulator machine.

POLLUTION CONTROL:

There is no such harmful effluent coming out of this factory. But dumping of wastage may create problem. Proper attention should be given to dump the scrap. The unit should obtain No Objection Certificate from the State Pollution Control Board. Workers must be provided hand gloves and masks during operation.

ENERGY CONSERVATION:

Workers should be aware of unnecessary utilisation of electricity.

Motive power requirement : 50 KW.

FINANCIAL ASPECTS:

Land : 5,000 sqft

Own

Shed 1,000 sqft @Rs. 200/-

Rs. 2,00,000/-

Shed MACHINERY AND EQUIPMENT:

S.no.	Specn.	No.	Rate	Value
1.	100 mm reprocessing PP/HM. HDPE granule machine complete	1	7,50,000	7,50,000
2.	18" scrap grinder with 20 hp. motor	1	1,50,000	1,50,000
3.	50 kgs. Agglomerator machine with 20 hp. motor	1	1,50,000	1,50,000
			Total	10,50,000
	CST @ 5%			52,000
			Total	11,02,000

PRE-OPERATIVE EXPR.

Project profile	500
Travel and transport	10,000
Office furniture	20,000
Telephone	<u>2,500</u>
	33,000

FIXED CAPITAL INVESTMENT:

$$= 2,00,000 + 11,02,000 + 33,000 = \text{Rs. } 13,35,000/-$$

WORKING CAPITAL ANALYSIS:**A. Staff and Labour:**

Manager	1	20,000
Skilled labour	3	24,000
Unskilled	3	18,000
Watchman cum peon	2	8,000
Accountant	1	<u>10,000</u>
		80,000

B. Raw material: (To produce 20 MT plastic granules)

Waste plastic (LDP,PP, HDPE Pvc.) 25 MT. @ 40/kg. Rs. 10,00,000

C. Utility:

Electricity	8000 KWH @ 6/unit	48,000
-------------	-------------------	--------

D. Other Misc. expenditure:

Telephone	2,000
Advertisement	12,500
Stationary	1,000
Repair & maintenance	3,000
Misc. expenditure	<u>2,000</u>
	20,500

WORKING CAPITAL P.M.

$$= A + B + C + D = 11,48,500/-$$

CAPITAL INVESTMENT:

Fixed capital	13,35,000
Working capital (1 month)	<u>11,48,500/-</u>
	24,83,500/-

MEANS OF FINANCE

Promoter contribution @ 5%	1,24,175
Bank finance @60%	14,90,100
Subsidy @35%	8,69,252

COST OF PRODUCTION (PER ANNUM):

Depreciation on machinery and dies @ 10%	1,05,000
Depreciation on shed @ 5%	10,000
Depreciation on furniture @ 20%	4,000

Recurring exp. Per annum	1,37,82,000
Interest on cap. Invt. @ 13%	<u>1,93,713</u>
	1,40,94,713

TURNOVER :

LDPE, HDPE, PP, PVC granules 240 MT@ 62/kg. Rs. 1,48,80,000/-

Profit Analysis:

Net profit	=	7,85,287	
Net profit ratio	=	$\frac{\text{Profit} \times 100}{\text{Turnover}}$	= 5.2%
Rate of return	=	$\frac{\text{Profit} \times 100}{\text{Investment}}$	= 32%

BREAKEVEN ANALYSIS:

Fixed cost (Per annum):

Depreciation on shed @ 5%	10,000
Depreciation on furniture @ 20%	4,000
Interest on cap. Invt. @ 13%	1,93,713
40% salary	3,84,000
40% other exp.	<u>98,400</u>
	6,90,113

BREAK EVEN POINT:

$$= \frac{\text{Fixed cost} \times 100}{\text{fixed cost} + \text{profit}} = 46 \%$$

ADDRESSES OF MACHINERY SUPPLIERS:

1. M/s.KUMAR ENGINEERING WORKS. 48,B. MUKTARAM BABU STREET, KOLKATA.

