

INDUSTRIAL POTENTIALITES
OF
BOUDH DISTRICT

March – 2001

Prepared by:

Sri R.K. Jena, IES,
Deputy Director (E.I.)

Sri R.L. Choudhury, IEB
Asst. Director (E.I.)

Sri B.B. Panigrahi, SIPO (E.I.)



Government of India
Ministry of SSI & ARI
Small Industries Service Institute,
Vikash Sadan, College Square,
Cuttack-753003
Orissa

FOREWORD

Every year Small Industries Service Institute, Cuttack under the Ministry of SSI & ARI, Government of India is undertaking the Industrial Potentiality Survey for selected districts in the State of Orissa and brought out publication of the survey as per the guidelines of Development Commissioner (SSI), Ministry of SSI & ARI, Government of India, New Delhi. Under its Annual Action Plan 2000-2001, the district of Boudh has been taken up for the survey including other districts of the State. The Industrial Potentiality Survey Report covers various aspects like the present industrial scenario of the district, availability of surplus resources, problems & prospects in the district for industrial development with a special emphasis on scope of setting up small scale industries etc.

The Industrial Potentiality Survey Report focuses on the physical and geographical features, natural and human resources and the present status of infrastructure like roads, communication, water electricity, banking including other financial & technical institutions, industrial estates, growth centers etc, as these are sine-quo non of the pace of industrial development in an area and also beneficial for both existing and prospective entrepreneurs. Considering the above factors and the available sector-wise surplus resources in the district and demand factor, the potential industries have been identified which could be promoted in the coming years for an all round development of the district.

The above report will be of immense use not only to the existing and prospective entrepreneurs but also the various central and state government organisations, banks and financial institutions, promotional agencies who are looking after the development aspects of different sectors. The report provides useful information which may enable different institutions to have a detailed idea of the industrial potentialities of the district in the State of Orissa and the scope of setting up of new industries especially in the small scale sector in rural and semi urban areas. The prospects of ancillarisation in the SSI sector has also been explored, considering the consumption pattern of the mother plants i.e. medium and large industries established in the district.

I hope that this Industrial Potentiality Report will be an effective tool to the existing and prospective entrepreneurs, financial institutions and promotional agencies while planning for investment in the small scale sector in the district.

The report can also be used as a reference material both by consultants and professionals attached to various government and non-government organizations for their day to day work.

Finally, I wish to place on record my appreciation for the concerted and dedicated efforts made by Shri R.K. Jena, Deputy Director (E.I.) and Shri R.L. Chowdhary, Assistant Director (E.I) to prepare this report with the assistance of a team of officers of this Institute. I also wish to put on record my appreciation for Shri B.B.Panigrahi, Small Industry Promotion Officer (E.I) for his sincere effort in making field visit in different parts of the district in collecting the relevant information/data and in assisting, compiling and bringing out this report for the benefit of entrepreneurs and professionals in the State.

Dated. March 2001
(CHANDAN SAHA)
DIRECTOR

CONTENTS

FOREWORD

INTRODUCTION

BOUDH DISTRICT AT A GLANCE

DISTRICT PROFILE

RESOURCE ANALYSIS

INFRASTRUCTURE FOR INDUSTRIAL DEVELOPMENT

PRESENT INDUSTRIAL STATUS

SCOPE OF NEW INDUSTRIES

PLAN OF ACTION FOR PROMOTION OF INDUSTRIES

CONCLUSION

INTRODUCTION

Budhraj, the ex-state merged with Orissa State in 1948 and became a separate district on 2-1-1994 with its headquarter at Boudh after being separated from **Boudh-Kandhamal** district. The district is situated on the bank of river **Mohanadi and tel**. The District consists of only one Sub-division i.e. Boudh and three Blocks viz. Boudh, Harbhanga and Kantamal with district headquarters at Boudh. It extends over an area of 3444.70 sq.km. with forest constituting 127 sq.km.

The mainstay of people of the district is agriculture and this continues to be practiced in traditional method. The district has a net cultivable area of 89,000 ha. Comprising 26% of the geographical area, which is one of the lowest in the State. The yield rate of the district is also not encouraging like many other districts of the state. As most of the people of the district are dependent on agriculture and allied sectors, the per capita income is very low.

Agriculture is the predominant activity and paddy is the major crop of the district. Besides, vegetable, pulses, cereals and oil seeds are also grown in most parts of the district. The cash crop in the district are onion, groundnut, potato, tomato and sugarcane. Due to continuous drought and uneven rainfall there has been no significant improvement in crop production despite the sincere efforts by all concerned agencies.

The literacy level in the district is low in comparison to other districts. And particularly, the scheduled tribe population who live in remote hill areas, the literacy level is very low.

Scope and Objective:

The scope of the study is limited to the revenue district of Boudh in respect of small scale industrial sector and related activities. The year 1999-2000 has been taken as the status year of development in the report. The study has the following objectives.

- To explore the natural and human resources including the skill.
- To explore the available infrastructure for industrial development.
- To evaluate the existing industrial activities of the district in utilizing the resources and catering to the local demand.
- To identify some of the viable projects in small scale sector which can come up in the district in the ensuring years basing upon the locally available surplus resources and the demand factors.

Methodology:

The study has been conducted by this Institute as per the instruction of the Development Commissioner (SSI). Ministry of SSI and ARI, Government of India, New Delhi under its Annual Action Plan 2000-2001 to promote SSIs and rural industries. Selection of the district has been done in consultation with different promotional agencies involved in the process of industrialisation.

A team of officers of this Institute has collected primary information by visiting District Level offices, and Growth Centres of the district. Detail discussions have been held with the officials of Govt. Departments including industries, Agriculture, Forest, Horticulture, Employment Exchange, Mining, Veterinary, Fisheries, District Statistical and Planning Offices, etc. A number of discussions have been held with financial institutions like OSFC, Lead Bank, BANARD, the entrepreneurs, Industrial Associations and their views and comments have been incorporated in the report to support this study.

Keeping the above factors in view, the report was drafted and discussed among the officers of Economic investigation Division and other technical divisions of this Institute to arrive at the conclusion in identifying the scope of new industries in the district and to bring it into final shape.

CHAPTER-I

BOUDH DISTRICT AT A GLANCE

S.No.	Name of the Source	Number	Area in Hectares
A	Administrative set up	Unit	Magnitude
1	Total Geographical Area @ % of State Area	Sq.k.m%	3444.70 1.99
2	Sub-Divisions	No.	1
3	Tahasils	No.	2
4	C.D. Block	No.	3
5	Town	No.	1
6	Municipality	No.	-
7	N.A.C.s	No.	1
8	Police Station	No.	6
9	Gram Panchayats	No.	58
10	Village a) @) Inhabited b) Un-inhabited	No.	1156 1101 55
11	Fire Station	No.	2
12	Assembly Constituencies	No.	1
13	Parliamentary Constituency	No.	1
B	Population-2001 Census :		
1	Total Population		373.038
	a) % of State Population	%	1.02
	b) Male Population	No.	187,947
	c) Female Population	No.	185,091
	d) No. of Females per 1000 males	No.	985
2	Scheduled Caste Population a) % of SC Population	No. %	62,377 19.64
3	Scheduled Tribe Population a) % of S.T. Population	No. %	41,022 12.92
4	Urban Population a) % of Urban Population	No. %	15,458 4.87
5	Rural Population	No.	302.164
6	Density of population per sq.km.	No.	120
7	% of literacy a) Male literacy b) Female literacy c) S.C. literacy i) S.C. male literacy ii) S.C. Female literacy d) S.T. literacy i) S.T. Male literacy ii) S.T. female literacy	% % % % % % % % %	58.43 76.86 39.78 29.74 48.13 10.94 28.88 4841 9.30

S.No.	Name of the Source	Unit	Number
B.	Decennial Growth Rate (1991-01)	%	+17.45
C.	Occupational Pattern (1991 Census)		
1	Total workers	No	1,47,856
	a) Main workers	No	1,20,675
	b) Marginal workers	No	27,181
2	Cultivators	No	62,628
3	Agricultural labourers	No	39,205
4	Non-workers	No	
5	Livestock, forestry, fishing, hunting, plantation, orchards & allied activities	No	1,757
6	Mining & quarrying	No	28
7	Manufacturing, processing, servicing & repair in : Household Industry Other than H.H. industry	No No	5565 1252
8	Construction	No	243
9	Trade & commerce	No	2893
10	Transport, storage & communication	No	533
11	Other services	No	6571
12	% of main workers to district total population	%	37.99
13	% of districts main workers to state main workers	%	1.16
14	% of agricultural labourers to main workers	%	51.90
15	% of agricultural labourers to main workers	%	32.48
16	% of total workers to total population %	%	29.68
D.	Land utilisation pattern (Area in '000 hect.)		
1)	Total geographical area	Sq.km	3444
2)	Forest Area	Sq.km	1277.17
3)	Misc. Trees, crops & groves	Hect.	19,000
	Permanent pasture	Hect.	17,000
	Cultivable waste	Hect.	7,000
	Land put to non-argil Use	Hect.	29,000
	Barren & uncultivable land	Hect.	40,000
	Current fallow	Hect.	13,000
	Other fallow	Hect.	32,000
	Net area sown	Hect.	76,000
	Cultivated land	Hect.	95,142
	a) High land		56,000
	b) Medium land		21,000
	c) Low land		11,610
12	Percentage of net area sown to geographical area	%	25
13	Yield rate (Q/H)(1998-99)		17.13

S.No.	Name of the Source	Number	Area in Hect.
E.	Irrigation in Hect.		
1	Medium I.P.	01	20215
2	M.I.P.	47	11478
3	L.I.P.	155	1385
4	Dugwell	3721	
5	Others	-	965
F	Forest (Area in sq.kms) (1999-2000)		
1	Forest land under control of forest department	Sq.km.	1.02
	a) Unclassified forest (forest deptt.)	Sq.km.	983.33
	b) Reserved forest		
2	Forest land under control of revenue dept.	Sq.km.	43.48
	a) Demarcated protected forest	Sq.km.	-
	b) Undemarcated protected forest	Sq.km.	149.34
	c) Other forest under Revenue deptt.		
3	Total forest area	1277.17	

S.No.	Name of the Source	Number
G.	Fishery (1999-2000)	
1	Quantity of fish produced (MT)	1,543,99 MT
2	Value (in Rs.)	54 lakhs
H	Animal Husbandry (1995)	
1	Cattle Cross Breed Indigenous	4,835 2,27,045
2	Buffaloes	35,609
3	Sheep	59,027
4	Goat	69,612
5	Pig	3,053
6	Poultry	1,96,763
7	Dogs	N.A.
	No. of veterinary Institutions & personnel in the District as on 31-3-99):	
1	No. of veterinary hospitals & dispensaries	7
2	No. of VAS/Addl. VAS	10
3	No. of Livestock Aid Centres	26
4	No. of L.I.s & Veterinary technicians	26
5	No. of A.I. Centres	21
6	Normal Livestock Aid Centres	12
7	Chilling Plant	1

S.No.	Name of the Source	Number
I.	Industry:	
1	No. of Industrial Estates	Nil
2	No. of Large & Medium scale industry	Nil
3	a) No. of SSI units set up (during 1999-00) b) Total Investment (Rs. in lakhs) c) Total employment (in no.)	26 27.07 90
4	1) No. of cottage industries set up 2) Investment (Rs. in lakhs) 3) Employment	11 2.75 22
5	Total no. of SSI units as on March 2000 Investment (Rs. in lakhs) Employment	269 289.52 888
J	Education:	
	a) Primary School	
	i) Number	554
	ii) Enrolment (000 nos)	38
	iii) Teachers	1416
	b) Middle Schools	
	i) Number	126
	ii) Enrolments (000 nos)	10
	iii) Teachers	316
	c) Secondary School	
	i) Number	46
	ii) Enrolment (000 nos)	6
	iii) Teachers	468
	d) College for general education	
	i) Number	11
	ii) Enrolment (000 nos)	8
	iii) Teachers	185
K.	Medical & Public Health in nos	
1	Dist. Hqrs. Hospitals	1
2	Sub-divisional & other Hospitals	2
3	Community Health Centres	Nil
4	Primary health Centres (Nos)	10
5	PHC/Mobile Health units	3
6	Beds in hospital	70
7	Ayurvedic Hospitals & Dispensaries	10
8	Homeopathic Hospitals & Dispensaries	4

S.No.	Name of the Source	Number
L	Infrastructure (As on 31-3-99):	
L	No. of commercial Banks	04
1	No. of Branches	26
2	Total deposits (Rs. in lakhs)	4196
3	C.D. Ratio (%)	86
4	No. of post offices	118
5	% of villages Electrified (1998-99)	48.61(562 out of 1156)
6	No. of telegraph offices (Nos)	08
7	No. of telephone exchange (No.)	12
8	Length of different types of roads in the district as on 31-3-2000 (kms.)	
M.	National Highways	Nil
1	Express Highways	Nil
2	State Highways	224
3	Major District roads	57
4	Other district roads	29
5	Forest roads	256
6	Gram panchayat roads	3745
7	Classified village roads	41
8	P.S. Roads	290
9	Village roads	468
10	Railway route length	Nil
11	No. of railway stations	Nil
12	Minerals	
N.	Name of the Mineral/Ore	Reserved
1	Calc Tuffa	25386 Tonnes
2	Lime kankar	8450 Tonnes

CHAPTER-II

DISTRICT PROFILE

2.1 Location:

The district of Boudh is situated on the riverbank Mahanadi and Tel. It is bounded in North by Sonepur District on the east by Nayagarh District and on the South and West side by Kandhanal District.

2.2 Administrative Set up:

The district consists of only one Sub-Division i.e. Boudh and three Blocks, viz. Boudh, Harbhanga and Kantamal with district headquarters at Boudh. There is no Municipality area in the district. There is 1 NAC, 6 Police Stations, 58 Grampanchayats and 1101 inhabited revenue villages. There are 2 Fire Stations and 1 no. of Assembly Constituency in the District.

2.3 Population:

The district's total population is 3,73,038 as per 2001 census. This constitutes 1.02% of state's population. Out of total, male population is 1,87,947 and female population is 1,85,000. The number of rural people are 3,02,000 consisting of 95% of the total population. SCs are 62377 and STS are 41022 in number. Percentage of literacy is 58.43%. Density of population per sq. km. is 120 and sex ratio is 985 females per 1000 male. Tribal population consists of 13% in the district. The working population is 1,26,428 out of which cultivators are 63,000 and agricultural labourers are 39,000 and remaining 24428 are rural artisans allied agricultural workers and other workers. The district is having only 39.8% working population, which is a major draw back for development.

2.4 Soil:

Most part of the district has black alluvial soil. The revering blocks of Kantamal, Boudh and Harbhanga is full of black alluvial Soil which is most fertile due to deposit of salt. Out of 3 Blocks, 2 blocks have plane lands and one block has got mixture of plane and hilly ranges. The soil of the district has high moisture retention capacity. The soil is quite rich for growing paddy, pulses, oil seeds and sugarcane.

Climate and Rainfall:

The climate of this district is sub-tropical, hot dry in summer, cold dry in winter, cool and humid during rainy season. In summer the mercury rises upto 45^o C, in winter it falls to 10^o C. December is the coldest month in the year and May is the hottest month.

The rainfall is erratic with uneven distribution resulting very frequently either in drought or in flood condition. The monsoon breaks in the middle of June and completely ends in mid October, causing heavy downpour in July and August. The normal rainfall of this District is 1626 mm. The month wise rainfall of the district is given at the end of this Chapter.

CHAPTER – III

RESOURCE ANALYSIS

The district has got similar characteristic features like that of state. The district is also endowed with both natural resources as well as human resources. No doubt, the availability of these resources play an important role in the economic development of an area. So it invites the attention of different agencies both in private as well in Government sector for taking efforts for accelerating the pace of development. The district of Boudh is rich in agricultural, forest, mineral and other resources. After the creation of the present district and opening up of new district level offices, concerted efforts have been made for overall development of the district with proper utilisation of available resources.

Human Resources:

The importance of Human resource now a days got the lime light for initiating developmental activities, may it be in agriculture, or in service sector or in industrial activities. In this age of information technology, it is the human resource, which occupies the driver's seat in the vehicle of Development for creation of sufficient opportunities for technical education and training for proper development of human resource.

Population:

In the table below, the population of the district along with its different characteristics has been compared with the state as well as the country.

Table-3.1
Comparative statistics on population (as per 2001 census)

S.No.	Development of Indicators	Boudh	Orissa	India
1	Total population (in lakh nos)	3.73	367.06	10270.15
2	Growth Rate of population (1991-01)	+17.45	15.94	21.34
3	% of Literacy	58.42	63.61	65.38
	Male literacy	76.86	75.95	64.13
	Female literacy	39.78	50.97	39.29
4	% of S.C. Population	19.64	16.20	16.40
5	% of S.T. Population	12.92	22.21	8.00
6	% of S.C. Literacy	29.74	36.78	
7	% of S.T. Literacy	28.88	22.31	
8	Density of Population	120	236	324
9	Females per 1000 males	985	972	933

(i) Literacy: Literacy now a days is being defined in constitutional term as “A person is literate if only he can read and write in any one of the recognized constitutional languages”. But the present definition of literacy may not be relevant in the context of I T revolution presently embracing our country. This may be redefined in terms of computer knowledge or basic knowledge on I T. Only time will tell when it is going to happen the literacy rate in the district is

58% which is lower than the State average of 63%. The male literacy is 76.86% and female literacy is 39.78%. The S.C. literacy rate is 29.74% out of which S.C. male literacy is 45.13% and S.C. female literacy is 10.94% which is very low. The S.T. literacy is 28.88% out of which S.T. male literacy is 48.41% and S.T. is precariously low which is not a good indication. There is a saying that if a man is literate then one person becomes literate. But if a woman is literate then a generation will become literate. So taking this factor into consideration, there is an urgency to improve the Women literacy in the district to involve the Women in all activities of the district. Education is the backbone of a Society. In no way should education be neglected.

The district of Boudh is predominantly having an undeveloped, traditional and rainfed agriculture sector. Most of the people i.e. about 80% depend on agriculture and allied activities either as cultivators or agricultural labourers. Collection of forest products is also a major activity among the scheduled tribes. As this district is industrially backward one so the non-farm sector is neither developed nor diversified in the district.

The table below gives a numerical reflection of the occupational pattern of the district.

Table 3.2
Occupational Pattern of Boudh District (1991 Census)

Srl No.	Category of workers	Nos.	% to main workers
1	Total workers	1,47,856	-
2	Marginal workers	27,181	-
3	Main workers	1,20,675	100.00
4	Cultivators	62,628	51.89
5	Agricultural Labourers	39,205	32.48
6	Livestock, Forestry, Fishing, hunting, plantation, orchards and allied activities.	1,757	1.45
7	Mining and Quarrying	28	0.02
8	Manufacturing, Processing, Servicing and Repairing in House hold industry Non-house hold industry	5565 1252	4.61 1.03
9	Construction	243	0.20
10	Trade and Commerce	2893	2.39
11	Transport, Storage and Communication	533	0.44
12	Other Services	6571	5.44
13	Non-workers	1,69,766	-

Source:- D.S.O. Hand book, Boudh, 1997.

The table above indicate the predominance of the primary sector i.e. people employed in farm sector. Out of main workers, above 80% people are engaged in the primary sector either as cultivators or as agricultural labourers or in other related activities. So this implies that the agricultural sector is over crowded and as a result of which the marginal productivity from agriculture is very low. So there exists surplus labour force which can be siphoned off without affecting the productivity. The working force engaged in manufacturing, processing, servicing and repairs both comprising household and non-household industry is less i.e. 5.64%. This indicates that non-farm sector is not much diversified. The other vital sector next to manufacturing is trade and commerce in which only 2.39% of total working force is engaged. This dismal growth of trade and commerce in the district implies the low development and performance of the core sectors of the district. The concentration of more than three-fourth of the total working force in the primary sector implies undiversified economic structure of the district. So the occupational pattern of the

district is skewed towards primary sector. It clearly reveals an unbalanced and therefore an unstable economy due to the lack of mobility of labour force from agriculture to secondary and tertiary sectors. So the problem of unemployment and underemployment is spreading its tentacles day by day. So the feasible solution to the problems lies with the development of non-farm sector with emphasis on SSI sector. It is not that non-farm sector will develop at the cost of farm sector. Agriculture and Industry are complimentary to each other.

Unemployment:

The problem of unemployment is now a days a growing concern. This problem of unemployment exists in various forms in various degrees. For example in agricultural sector or so to say in primary sector of the economy there is large scale of disguised unemployment. This problem of unemployment is so widespread and gigantic that it is not at all easy to quantify the magnitude. The main thrust of all our Five-Year Plans is to provide employment opportunities for eradicating poverty and decreasing inequality in the income among various sections of the people. The problem of unemployment can be redressed better by creating opportunities for self-employment by development and promotion of SSI sector by which additional employment opportunities also can be created. Unemployment particularly educated unemployment is posing a severe threat towards the society. The tables below give statistical reflection of the magnitude of unemployment in the district.

Table 3.3
Employment seekers in the live register during the last 3 years in Boudh district.

Category of person	During 1997			During 1998			During 1999		
	Male	Female	total	Male	Female	Total	male	Female	Total
Matriculate	2165	339	2504	2086	341	2427	2393	435	2828
Intermediate	818	163	981	886	211	1097	1086	295	1381
Graduate	384	128	512	386	127	513	468	148	616
Skilled workers	357	58	415	345	75	420	409	101	510
Diploma Holders	5	1	6	5	1	6	1	1	4

Source: District Employment Exchange, Boudh

N.B: Post Graduates and Technical Graduates are not registered in these Exchanges.

Employment in the Organised Sectors of the District during last three years

Name of the establishment	During 1997			During 1998			During 1999		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central Government	10	-	10	-	-	-	-	-	-
State Government	184	66	250	8	1	9	24	25	49
Quash Government	-	-	-	2	-	2	-	-	-
Local bodies	-	-	-	-	-	-	-	-	-
Private Sector	-	-	-	1	-	1	-	-	-
Grand Total	195	66	261	10	1	11	24	25	49

Source: District Employment Exchange, Boudh.

The picture of the district as demonstrated from the tables, that the educated unemployment is continuously increasing. And this problem can only be tackled through promotion and development of small scale industries. Concerned agencies to develop their skill to run the small scale industries. The Small Industries Service Institute, Cuttack along with its two Br. SISIs located at Rourkela and Rayagada under the Ministry of SSI and ARI, Govt. of India has been conducting various types of training in different places to the educated unemployed youths to improve their skill and knowledge base to set up some ventures in the non-firm sector. The following are some of the Self-employment ventures introduced by the Govt.

Swarnajayanti Gram Swa-Rozgar Yojana (SGSY):

The Swarnajayanti Gram Swarozgar Yojana (SGSY) has been implemented in the district since April'99. This is a holistic programme covering all aspects of Self-help Groups, training, credit, technology, infrastructure and marketing. SGSY is funded by the center and states in the ratio at 75:25.

2. Prime Minister's Rojgar Yojana (PMRY):

The PMRY was announced by the Prime Minister in 1993 to provide self Employment Opportunities to more than 1 million educated unemployed youth of the country by setting up of 7 lakh micro enterprises. It is related to the setting up of the self-employment ventures through industry, service and business. The details of this programme can be made available from District Industries Centres of each district.

3. Urban Self-Employment Programme (USEP):

Government of India launched the Scheme for urban poor for gainful self-employment. Urban poor women in-groups can be assisted under the scheme.

In addition to these, there are several other programmes being implemented by the Government mainly with an objective to accelerate the pace of employment creation.

So unless the employment opportunities are created at a greater rate, it will be difficult to have a dent on the increased unemployment scenario in the district.

So unless the employment opportunities are created at a greater rate, it will be difficult to have a dent on the increased unemployment scenario in the district.

A Material Resources:

Availability of natural resources is a pre-condition for the economic development of an area. It has been observed, in the past that more the natural resources an area is having, the better the Scope for development. The country like Japan is one of the burning examples for this. From recent Govt. of India survey it has been found that the per capita income of Orissa is the lowest in the country despite having plenty of material resources, which is paradoxical situation. The case of Boudh district is also similar. There are many reasons for this type of paradox. Let us have a look in to the material resources available in the district of Boudh.

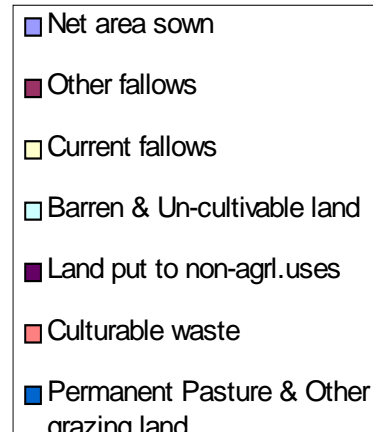
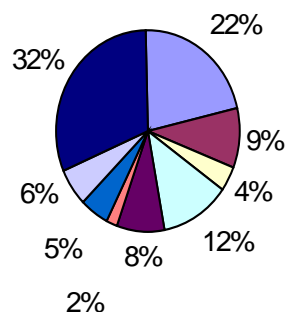
i) Agriculture:

As observed from the occupational pattern of the district, the district economy is predominated by agriculture i.e. primary sector. And agriculture is carried on through traditional methods. As agriculture is the backbone of the economy, this needs to be modernised and all necessary steps should immediately be taken to increase its productivity. There are various aspects of agriculture, which should be looked into separately.

- 1) **Land Utilisation:** Land is the resource base for agricultural production. Besides producing food and other crops, grass lands and forestland also provides space for development of basic infrastructural facilities like houses, buildings, roads, airports and many others. So due to its multiplicity of use, land becomes more and more scarce day by day, due to pressure of

Land Utilisation Pattern in Boudh District (in Hect.) during 1998-

99



ever increasing population. So this calls for the steps to be taken for increasing the productivity of land. Now let us see the land utilisation pattern of Boudh district.

Table-3.5
Land utilisation pattern of Boudh District in Hect, (1998-99)

S.No.	Category of land	Area Hect.	% to total geographical area
1	Forest area	1,12,000	32.46
2	Misc. Trees, crops, groves not included in net area sown.	19,000	5.50
3	Permanent pasture and other grazing land	17,000	4.92
4	Cultivable wastes	7,000	2.02
5	Land put to non-agricultural uses	29,000	8.40
6	Barren and uncultivable land	40,000	11.59
7	Current fallow	13,000	3.76
8	Other fallow	32,000	9.27
9	Net area sown	76,000	22.02
	Total geographical area	3,45,000	100.00

The above table reveals that there is availability of unused land like barren and uncultivable and current fallow etc. which could be used, if industrial activities picks up in this district.

2) Cropping pattern: As per the occupational pattern and resources available the agricultural sector plays a vital role for development of the district economy. The district enjoys a favorable physiography owing to its natural drainage. The northern region of entire Boudh district and narrow low traces of hilly bents of southern region with better drainage system are suitable for development of agricultural production in the district. The North Mahanadi Coastal alluvium is the largest paddy growing area whereas the low lands in other undulating in central and Southern regions a number of crops are grown besides Plantation and horticulture. The catchment of the Mahanadi and its tributaries is low lying area of the district affected by high flood. Due to wide variation of soil type topography and climatic condition, this district is ideal for plantation of horticultural crops. The main crops of the district are paddy, maize, mung, Biri, Arhar, Groundnut, cotton, vegetables and fruits, etc. The details of cropping pattern are given in the following tables.

Table 3.6
Area and production of different crops in Boudh district during the year
1998-99 (including Khariff and Rabi)

Sr. No.	Name of the crop	Area in thousand hectares	Production in thousand tonnes	Yield rate in kg. / hectares
1	Rice	59.27	55.41	935
2	Wheat	0.12	0.18	1500
3	Maize	1.15	1.51	1383
4	Ragi	0.23	0.10	435
5	Jawar	-	-	-
6	Bajra	-	-	-
7	Millets	0.26	0.09	350
Total cereals		61.03	57.37	940
1	Mung	11.11	3.82	344
2	Biri	3.17	1.35	426
3	Kulthi	12.24	2.94	240
4	Cow pea	5.49	1.92	350
5	Arhar	3.75	3.19	850
6	Gram	0.23	0.08	360
7	Field Pea	0.13	0.07	500
8	Lentil	-	-	-
Total pulses		36.12	13.37	370
1	Food grains	97.15	70.74	728
2	Groundnut	0.41	0.45	1098
3	Sesamum(Til)	3.26	1.04	319
4	Castor	0.12	0.12	1000
5	Sun flower	0.26	0.31	1179
6	Nizer	0.21	0.06	270
7	Mustard	1.84	0.45	247
8	Linseed	0.26	0.07	250
9	Soyabean	-	-	-
10	Safflower	2.65	0.95	358
Total Oil seeds		6.36	2.50	393
1	Jute	-	-	-
2	Mesta	0.40	0.92	415
3	Sunhemp	0.03	0.08	450
4	Cotton	0.36	0.31	148
Total Fibers		0.79	1.31	299
1.	Sweet Potato	0.30	2.44	8133
2.	Potato	0.05	0.34	6869
3.	Onion	0.85	9.19	10812
4.	Other vegetables	3.41	32.11	9461
Total Vegetables		4.61	44.08	9562
1.	Chilli	1.02	0.82	804
2.	Coriander	0.32	0.14	438
3.	Garlic	0.21	0.65	30
4.	Turmeric	-	-	-
5.	Ginger	-	-	-
Total condiments and spices		1.55	1.61	1039
1.	Sugarcane	0.94	59.22	63000
2.	Tobacco	0.03	0.01	450

Source: Directorate of agriculture and Food Production, Orissa.

NB: The production figures from Sr. No. 27 to Sl. No. 29 are given in thousand bales.

Table –3.7

Area under H.Y.V crops during 1998-99 (Area in '000 hect)

Rice	21.54
Wheat	0.12
Maize	0.56
Jowar	-
Bajra	-
Total	22.22

Source: DAFP, Orissa

Table-3.8
Cropping Intensity (1998-99) Area in '000 hect.)

Net area sown	76
Gross cropped area	114
Cropping Intensity in %	150

Source: DAFP, Orissa.

The District Administration is adopting various strategies relating to consumption of fertilizer, use of improved agricultural implements, HYV seeds, pesticides and insecticides including various soil conservation measures and proper flow of credit, etc.

Size of land holdings

The productivity of a land depends upon the size of holding. The holding of land should be of economic size” which allows to use of all factors of production optimally, there by optimising the level of output. But in any case the ever-increasing population puts a continuous pressure on land thereby making it more and more fragmented which in turn adversely affects the productivity. The smaller and fragmented pieces of land stands as a hurdle for the use of modern and sophisticated techniques of production. Now this can be better understood from the statistical representation of the size of land holding of the district given below:

Table-3.9
Class-wise no, and area of operational holdings of Boudh
District for the year 1990-91

Sr. No.	Class in hectares	All Social Groups					
		Number			Area		
		Rural	Urban	Total	Rural	Urban	Total
1.	Below 0.02	635	4	639	10	NA	10
2.	0.02-0.5	32,790	452	33,242	9,006	103	9,109
3.	0.5-1.0	31,212	140	31,352	23,004	102	23,106
4.	MARGINAL (1+2+3)	64,637	596	65,233	32,020	205	32,225
5.	1.0-2.0	31,293	136	31,429	44,343	181	44,524
6.	SMALL	31,293	136	31,429	44,343	181	44,524
7.	2.0-3.0	14,659	47	14,706	34,852	116	34,968
8.	3.0-4.0	4,665	24	4,689	15,933	78	16,011
	SEMI MEDIUM (5+6)	19,324	71	19,395	50,785	194	50,979
9.	4.0-5.0	3,015	7	3,022	13,118	35	13,153
10.	5.0-7.5	2,071	28	2,099	12,301	147	12,448
11.	7.7-10.0	877	2	879	7,308	11	7,319
12.	MEDIUM (7+8+9)	5,963	37	6,000	32,727	193	32,920
13.	10.0-20.0	442	3	445	5695	41	5736
14.	20.0& above	76	-	76	2179	-	2179
15.	LARGE (10+11)	518	3	521	7874	41	7915
	Total	1,21,735	843	1,22,578	1,67,749	814	1,68,563

Source: DSO Hand book, Boudh.

This Data reflects for undivided phulbani district, as Boudh was a part of it before 1994.

Agricultural Marketing:

Better and improved network of markets for selling agricultural products helps to better up the economic status of the farmers. Some times it is happening that the farmer gets very low price for his products, which is below the remunerative price. The small and marginal farmers due to the scarcity of finance and non-availability of proper credit facilities are exploited by the middlemen. The Credit and Marketing Cooperative Societies play important roles in agricultural marketing. These credit Marketing Cooperative Societies provide marketing support for the agricultural products besides taking care of the transportation, storage, processing and sale of final products. The goal of the cooperatives is to build a self managed, self-regulated and self-reliant institution formed for the socio-economic development of the society. Now let examine this in the context of Boudh district.

Table-3.10
Performance of Agricultural credit Cooperative Societies in different Blocks of Boudh district (Rs. in lakhs)

S.No.	Year/Block	Number of Societies	Membership (No).	Working Capital	Loan advanced	Loans overdue	Loans outstanding
1	2	3	4	5	6	7	8
1	Boudh	15	21,471	148.60	36.21	68.61	68.61
2	Harbhanga	12	18,271	118.16	26.39	56.58	56.58
3	Kantamal	15	19,558	141.27	27.76	62.18	62.18

Source: D.S.O Hand Book, Boudh

Table-3.11
Performance of Wholesale and Primary Consumer Cooperative Societies in different Blocks an urban areas of Boudh district (Rs. In lakhs)

Year/Block	No. stores	No. of Branches	Membersh ip (no. in 000)	Paid up capital by Govt.	Value of purchase	Value of sales	Profile (+)or loss(-)
1994-95	4	-	1	0.04	1	1	-
1995-96	5	5	2	0.04	2	2	-
1996-97	4	3	1	0.04	3	1	N.A
Boudh (NAC)	4	3	1	0.04	3	1	N.A

Source-D.S.O. Hand Book, Boudh

Table-3.12
Regional and specialised Commodity Marketing Cooperative Societies in different Blocks and Urban areas of Boudh district. (Rs. in lakhs)

Year/Block	No. of Societies	Members hip (no.)	Share capital State Govt.	Working Capital	Business Turn over	Profit of loss.
1	2	3	4	5	6	7
1994-95	1	402	12.26	90.48	-	-0.07
1995-96	1	402	12.26	94.48	-	-0.07
1996-97	1	402	12.26	94.48	-	-0.07
Boudh	1	402	12.26	94.48	-	-0.07

Source-D.S.O Hand Book Boudh.

Irrigation:

Despite the fact that the agriculture being the backbone of our economy, still it depends upon the vagaries of the monsoon which is getting highly irregular day by day. There has been continuous efforts on behalf of the govt. to save the crops from these uncertainties. The percentage of irrigated loan has not increased significantly. The total geographical area of Boudh district is about 3444 sq. km. The irrigation potential in the district have been created for 42,321 ha. Which

is 44% of the net sown area. The importance of irrigation in agriculture needs no mention particularly in Boudh district where the main occupation of the people is agriculture. Since minor irrigation holds the key to boost agricultural production and productivity, the inflow of credit to this activity needs to be stepped up. The district offers good potential for minor irrigation development in respect of both ground water and surface water. The ground water had been exploited to the extent of 3.7% of utilisable recharge. As the district is situated on the bank of river Mahanadi and Tel, a large number of Dug wells are feasible in the district. The following table gives a picture of irrigation potential created in the district.

Table-3.13
Source-wise Irrigation facilities in the district of Boudh. (Area in '000 ha.)

Sources of Irrigation	Area in ha. in Kharif	Area in ha. In Rabi
Major Irrigation	-	-
Medium Irrigation	19.87	2.04
Minor Irrigation	9.37	0.96
Lift Irrigation	5.11	3.07
Dug wells (in nos.)	1364	1364
Other wells (in nos.)	965	965
Total	-	-

Source: Directorate of Agriculture and Food production.

The financial institutions have been providing various incentives to enhance the credit flow to irrigation sector. As per the 1994 study group report on the estimation of ground water resources for the state, the level of ground water utilisation is 4.97%. The Regional office of NABARD has prepared a four-year banking plan for the state to enhance the utilisation of ground water for irrigation purposes. The plan has been launched in all the districts with effect from 1998-99 and will be completed in 2001-2002. Agriculture Department in the district has installed drip irrigation system in 20 acres of land in their farm. The present level of exploitation is approximately around 20%. All the blocks of the district are categorised as white, which shows that there is tremendous scope for enhancing the minor irrigation potential in all the blocks of the district.

There are two types of minor irrigation systems namely M. I. (flow) and M. I. (lift) functioning under Minor Irrigation sector.

The picture will be more clear if we go through the following tables:

Table-3.14
Crop-wise irrigated Area in Boudh District during 1998-99

Name of the Crop	Area in '000 ha.	
	Kharif	Rabi
Rice	22.48	1.27
Wheat	-	0.12
Maize	-	0.04
Ragi	-	0.01
Total Cereals	22.48	1.44
Arhar	-	-
Mung	-	0.17
Biri	-	-
Other pulses	-	-

Total Pulses	-	0.17
Groundnut	-	0.23
Mustard	-	0.22
Other Oilseed	-	0.26
Total oil seeds	-	0.71
Potato	-	0.05
Other Oilseed	0.36	2.27
Total vegetables	0.36	2.32
Total fibers	-	-
Total spices	0.10	0.79
Sugarcane	-	0.94
Tobacco	-	0.03
Total Irrigated Area	22.94	6.40

Source: Orissa Agricultural Statistics, 1998-99.

It is observed from the above table that the irrigation potential created in the district is not satisfactory. The concerned authorities both Government as well as private sector should come forward to improve the situation. So following suggestions are made in this regards.

- 1) Proper coordination among different implementing agencies of irrigation scheme.
- 2) There is a need to have one Ground water and Investigation team exclusively for the district of Boudh. This will accelerate the ground water development work in the district.
- 3) There is need to have subsidy-oriented schemes like DPAP and million wells programme on a larger scale.
- 4) DRDA should encourage community irrigation projects
- 5) Sprinkler and drip irrigation system should be popularized by Agriculture and Horticulture Departments. Demonstration programmes should be organised for this by the Governments.
- 6) There is a need to electrify the remaining villages to create scope for installation of electric pump sets. Further wherever electricity is available there is a need to improve the availability of power for the farm sector as well as timely energisation of pump set already installed.

Horticulture:

The agro-climatic condition of the district is very conducive for fruit cultivation like mango, banana, lime, guava, pineapple, amla, papaya and has the distinction of producing almost all types of horticultural crops. However, these are still cultivated on traditional lines. Adequate linkage with marketing as well as setting up of agro processing facilities will give a substantial value addition to these produce. The potato cultivation on Mahanadi sand undertaken in earlier years by some farmers with the help of Horticulture Department was a success which can be repeated in coming years. The following tables give clear-cut outlines about vegetables and fruit production in the district of Boudh.

Table-3.15
Production of Vegetables in the district of Boudh during last 3 years
(Area in hect. & Prodn. In MT)

S.No.	Name of the Veg. Crops	1996-97		1997-98		1998-99	
		Area	Prodn.	Area	Prodn.	Area	Prodn.
1	Brinjal	3445	43300	3525	43530	3530	44121
2	Cabbage	940	15181	945	25610	940	25121
3	Cauliflower	829	10487	829	11465	836	11579
4	Okra	2350	21079	2365	21450	2360	21560
5	Potato	149	1.68	60	680	63	923
6	Onion	879	9165	505	1515	850	9190
7	Tomato	1110	13350	1100	13200	1110	13386
8	Peas	120	1015	125	1035	130	1099
9	Other veg.	4250	44324	4200	43008	4150	40462
10	Sweet potato	260	2225	275	2200	303	2439

Source: Directorate of Horticulture, Bhubaneswar.

Table-3.16
Production of Fruits in the district of Boudh during last 3 years

S.No.	Name of Crops	1996-1997		1997-98		1998-99	
1.	Mango	804	3690	898	3829	1044	2908
2.	Banana	155	1717	183	1972	215	1829
3.	Guava	117	665	117	597	141	722
4.	Citrus	207	811	207	1085	212	1859
5.	Coconut	89	5	89	6.8	89	89
6.	Sapeta	5	17	5	161	5	14
7.	Litchi	18	5	17	5	26	5
8.	Pine apple	12	165	12	161	12	193
9.	Ber	3	3	7	13	7	13
10.	Papaya	367	4764	408	6881	423	6907

Source: Directorate of Horticulture, Bhubaneswar.

Considering the availability of above horticultural resources and further augmentation of these by all modern inputs and practices, various industries basing on these items can be promoted, some of which have been highlighted in the Chapter on scope of industries.

(iii) Sericulture: There is one Assistant Director, Sericulture Office at Phulbani which is in charge of Boudh district. Farmers education programme are conducted throughout the district by the extension staff of the department. Apart from the district office of Sericulture, there are primary Tassar & Mulberry CO-operatives at the block level. However, in Boudh district, there is not much production of Sericulture Crops. The table below reflects the production of Tassar Cocoons in the district.

Table-3.17
(Production in No. & value in Rs.)

1966-97		1997-78		1998-99	
Production	Value	Production	Value	Production	Value
NA	16,620	311908	18360	33240	1620

Besides this, there are 1200 acres of Mulberry plantation in the district.

Forest: out of the total geographical area of 345000 ha. in the district, the area under forest is 112000 ha. Which is 32.46% of the total area. The present forest areas however is subjected to continuous denudation due to increased dependence of local inhabitants on forest resources and commercial exploitation. Preservation of existing forest cover, creation of farm forestry on Government & Private Waste land are, therefore, of utmost importance for eco-sustainability. Against this background, it may be observed that the wasteland existing in the district can be used for farm forestry with species like eucalyptus, teak, bamboo, etc. The table below gives an impression of the forest coverage in Boudh district.

Table-3.18
Classification for forest area in the district of Boudh (1999-00). Area in sq. km.

S.No.	Type of Area	Area in sq.km.
1	Geographical Areas	3444
2	Total forest area	1277,17
3	Reserve Forest	983.33
4	Unclassified forest	1.02
5	Demarcated protected forest	43.48
6	Undemarcated protected forest	-
7	Other forest under Revenue Department	249.34

Source: Economic Survey, Government of Orissa.

The percentage of forest coverage in the district is only 2.19% of State's forest coverage. The important forest products of the district are sal seed, mahua flower, kendu leaves, bamboo, siali leaves, siali fibre, genduligum, myrobolum, Tassar cocoons and many others.

The production & value of different forest products of the district are given in the following table.

Table-3.19
Production & value of different forest produce in the district of
Boudh during last 3 years. (Value in Rs.)

Product	1996-97		1997-98		1998-99	
	Production	Value	Production	Value	Production	Value
Timber	80.019 Cum	2,62,198	199.467 Cum	6,36,87 7	366,470 Cum	16,36,531
Fire wood	497.15 Cum	36,675	219.6 Cum	16,200	347.7 Cum	25,650
Bamboo- I.S.B	10148.332 S.U.	53,98,85 9	6890.842 S.U.	36,65,92 9	4750.748 S.U.	29,26,463
Comm.B.	200.00 S.U.	84,089	140.668 S.U.	59,082	128,428 S.U.	58,435
Siali leave	47771 Chaki	508	37748 Chali	560	43233 Chaki	616
Myrabolan	34.09 M.T.	1,542	1.763 M.T.	1,118	0.032 M.T	1,230
Cleaning nut	0.100 M.T.	1,514	N.A.	-	N.A.	
Gendullgu m	0.100 M.T.	55,612	-do-	-	-do-	
Babul & other gum	0.600 M.T.	7,588	-	-	-do-	
Nuxvomic a	1.225 M.T.	28,530	-do-	-	0.547 M.T.	41,771
Siali fiber	29,910 Kera	37,425	-	-	5677 kera	54,795
Sal seed	72.2 M.T.	7,520	33 MT	14,400	37.00 M.T.	19,250
Tassar Co coon.	Prodn. Figure not available.	16,690	3,11,900 No. or 194 kahan 18 pana 17 Ganda	18,360	20 Khana 20 khana 3 Pana Ganda Or33240 No.	1620

Source: DFO, Boudh

There is also immense production of Herbal product like Amla, Badada, etc. in the district, which can be industrially exploited. In Boudh district alone about 32,000-qtls/ year of Kendu leaf production is there out of 6 lakh qtls. in the state of Orissa. This is graded and processed leaf. Considering the huge production of bamboo, there is good scope for small paper mills also. There is good scope for timber based business. Procuring timber & processing it into ply board, etc. can be done. Siali leaves are plentifully collected from this district. Siali leaf plants are also having good demand. So there is lot of scope for forest based industries in the district, some of which has been highlighted in the chapter on scope of industries.

(IV) Fisheries: The district has got very good potential for development of fisheries. Out of 2087 ha. water area under revenue, G P and irrigation tanks, 1514 ha. water area is suitable for fish farming. Besides, river Mahanadi and other rivers like Tel, salki, Bagh, etc. are flowing in the district. Catching of fish in these rivers is common practice throughout the year. The FFDA has started functioning in the district from April 1998. The FFDA is assisted by Fishery Extension office and Fisheries demonstrators at block level. The department has one hatchery at Boudh for

the district. This fish seed farm at Boudh is used for artificial breeding of Fish, Fry and Finger lings.

The following table gives an idea about the availability of fish in the district.

Table-3.20
Production of Fish in the District Boudh during 1st 3 years.

Year	Quantity in MT	Value (in Rs.)
1997-98	1760.85	61,00,000
1998-99	1387.49	48,50,000
1999-2000	1543.91	54,00,000

Source: O/O Asstt. Director, Fishery cum- FFDA, Boudh.

Table-3.21
Seed Production of Spawn and Fry in Boudh district.

Year	Spawn (in lakh no.)	Fry (in lakh no.)
1998-99	169.00	29.55
1999-00	240.00	42.98
2000-01	547.00	46.00

Source: O/O the Asst. Director, Fishery-cum-FFDA, Boudh.

The Fishery Department, district of Boudh supplies spawns to other districts as the nursing capacity of Govt. farm is 180 lakh nos. in double cropping.

Fishery is one of the major activity selected under Swarna-Jayanti-Gram-Sworojgar-Yojana (S.G.S.Y). Under this scheme of self-employment, 12 hect. of water area for Pisciculture has been selected with a project cost of Rs. 2.95 lakhs.

There is no problem in marketing of fish as internal demand can absorb the total production of fish.

Live Stock Resources: Animal Husbandry is one of the most important Sub-sectors of agricultural economy and plays an important role in the rural economy by providing gainful employment particularly to the small/ marginal farmers, women and agricultural labourers. This sector provides milk, egg, milk products, wool, hides & skin, hooves and manure, etc. which can be industrially used as raw materials

The following tables give statistical outline of the live stock resources of the district.

Table-3.22
Live stock resources in Boudh District as on 1995(nos. in '000)

Category	Indigenous	Improved	Total
Cattle	227.0	4.9	231.9
Male	116.6	1.9	118.5
Female	110.4	3.0	113.4
Buffalo	35.2	0.4	35.6
Male	19.6	0.3	19.9
Female	15.6	0.1	15.7
Sheep	59.0	-	59.0
Male	22.4	-	22.4
Female	36.6	-	36.6
Goat	69.6	-	69.6
Male	30.0	-	30.0
Female	39.6	-	39.6
Pig	3.0	-	3.0
Male	1.4	-	1.4
Female	1.6	-	1.6
Poultry	119.0	4.1	203.1
Layers	43.9	0.7	44.6
Others	155.1	3.4	158.5

Source: Directorate of Animal Husbandry, Orissa, Cuttack.

Table-3.23
Live stock density in the district of Boudh.

Category	Density
Live Stock	116
Cattle	67
Buffalo	10
Sheep	17
Goat	20
Pig	1
Poultry	59

Source: directorate of Animal Husbandry, Orissa, Cuttack.

Table-3.24
Milk production in Boudh district.

Category	Milk production in '000 MT	Average yield/ animal/ Day (in kg.)
Indigenous Cow	3.6	0.344
C.B. Cow	0.4	1.225
Buffaloes	2.5	1.550
Total	6.5	--

Source: Directorate of Animal Husbandry, Orissa Cuttack

Table-3.25
Egg production in Boudh district.

Category	Egg production (in million nos.)	Average Yield/Bird year (in nos.)
Desi Bird	3.0	72
Improved Bird	0.09	151
Duck	0.2	-

Table-3.26
Meat production in Boudh district.

Category	Meat production in MT
Bovine	-
Sheep	393
Goat	165
Pig	13
Poultry	56
Total	627

Table-3.27
Availability of veterinary personnel and Institutions in Boudh District)
1999-2000)

S.No.	Item	No.
1.	Veterinary Hospitals and Dispensaries	7
2.	No. of Assistant Surgeons/ Addl. VAS	10
3.	Live stock aid centres	26
4.	L.I. / Veterinary technicians	39
5.	A.I. Centres	21
6.	Normal Live Stock Aid Centres	12

Source: O/O the C.D.V.O. Boudh.

It is found from the above statistics that the consumption of the animal products is very low in comparison to other districts of developed states and other states of the country. So there is a good scope to improve the production for local consumption. In this direction, the Animal Husbandry Department has taken steps to increase the supply of eggs, meat by implementing 20-point programme on this sector. Under PMRY the beneficiaries are also encouraged to start some activities in this sector. Soil conservation department is also promoting goatery and poultry units by distributing cash and different components/items.

So there is a concerted effort to increase the production in this sector through different Government sponsored programmes as well as by Motivating Private Personnel.

1) Mineral Resources:

In the district of Boudh there is some reserve of Mineral Resources which can be used as raw material to start some industries. The minerals like graphite, quartz, lime kanker, mica, zeolite, manganese baryl, etc. are found in the district. The mineral like graphite have been reported at some locations of Ambagaon, Badpal, Sandhupal, Kantamal Tahasil. And deposits of lime kanker are confined to Boudh and Kantamal Tahasil. Mica deposit is found in Manmunda P.S. of Boudh

district. The riverbed of Mahanadi stretching from Krishna Mohan pur to Manmumda over a distance of about 90 kms. is reported to possess precious and semi precious stones. And deposit of Granite suitable for decorative stones are mainly found in Boudh Tahasil only. There are four mining lease for quartz and one mining lease for graphite existing in the district. Out of which two quartz mines are working.

The following table will reflects the mineral deposits in Boudh district.

**Table-3.28
Mineral reserves in Boudh district. (in Tonnes)**

Srl. No	Name of the mineral / ore	Reserve in quantity
1	Calc Tuffa	25386
2	Lime kanker	8450
3	Graphite	N.A.
4	Manganese	N.A.

Source: Office of the Mining Officer, Phulbani Circle, Phulbani.

The river bed of Mahanadi stretching from Krishna Mohanpur to Manimunda is reported to possess valuable stones like Garnet, Cat's Eye, Zircon, Peridot, Chryso Beryl, Aquamagine, Rubby, Diamond, Corundum, Blue shapphire and Chalcedemy, etc. Deposits of granite suitable for decorative stone are found mainly in Boudh Tahasil. The following table outlines the production and dispatch of these minor mineral which are used as decorative items also.

**Table-3.29
Production and dispatch of Ores and Minerals (Quorts) in Boudh District**

Year	Production in M.T.	Dispatch in M.T.
1996	9653.000	11303.000
1997	4352.000	2190.000
1998	3946.000	6591.634
1999	4647.000	4683.602
2000	6396.500	6221.755

Source: O/O the Mining Officer, Phulbani Circle.

**Table-3.30
Production & dispatch of decorative items in Boudh district.**

Year	Production in Cub. Mtrs.	Dispatch in Cub. Mtrs.
1996	252.000	642.000
1997	948.000	925.000
1998	-	104.981
1999	-	73.304
2000	1993.207	2319.844

Source: O/O the Mining Officer, Phulbani Circle, Phulbani.

CHAPTER-IV

INFRASTRUCTURE FOR INDUSTRIAL DEVELOPMENT

Availability of sufficient resources is not the only condition for economic development on an area unless it is accompanied by appropriate infrastructural facilities. That is why the Second Five year Plan (1956-61) laid the foundation for industrial development of the country through infrastructure development. In the Second Five Year Plan, the emphasis was overwhelmingly on heavy and basic industries with a view to build a strong base for future industrial development at a faster rate. So the strategy adopted was rapid economic development through the development of capital goods industries. Thus the Second Plan brought about a substantial diversification in the industrial structure of the country. And thus emphasis has been given in all the subsequent Five Year Plans realising the importance of industrialisation for the economic development of the country. And particularly during the Seventh Five Year Plan it was recorded that "there was to be a coordinated approach to the functioning of different sub-sectors of infrastructure and bringing about improvement in each sub-sector". So promotion of industry in a particular area is determined to a considerable extent by availability of infrastructural facilities in that area. In the district of Boudh, before we go for potential industries it needs to analyse the strength of the supportive infrastructure for industrial development.

Infrastructure can be categorised as (A) Physical Infrastructure and (B) Social Infrastructure.

1) Physical Infrastructure:

- 1) **Land:** The industrialization in a particular area depends upon the availability of surplus land to be devoted for development of industries. and the availability of land can be assessed from the land utilisation pattern of the district as given below:

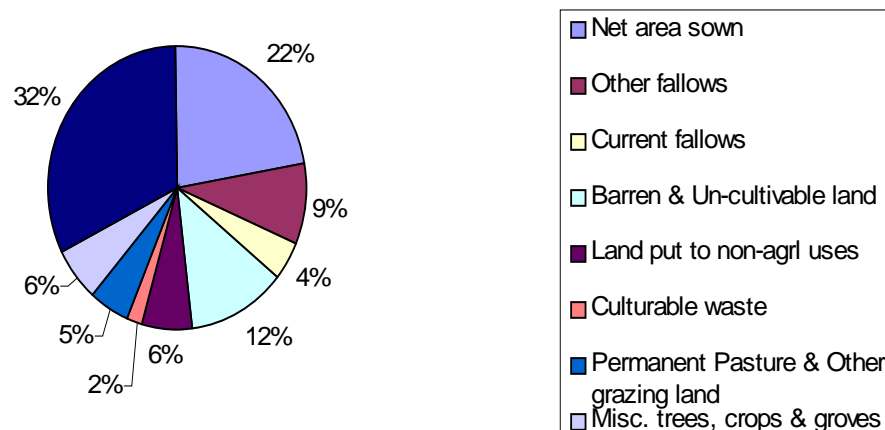


Table-4.1
Land utilisation pattern of Boudh District during the year 1998-99

Sri. No.	Category of land	Area (in '000 Hect.)	% to total geographical area
1.	Total Geographical Area	3,45,000	100.00
2.	Forest Area	1,12,000	32.46
3.	Misc. Crops, Trees an Groves	19,000	5.50
4.	Permanent Pasture	17000	4.92
5.	Cultivable Waste	7000	2.02
6.	Land put to non-agricultural use	29000	4.40
7.	Barren and uncultivable land	40000	11.59
8.	Current Fallow	13000	3.76
9.	Other fallow	32000	9.27
10	Net area sown	76000	22.02

Source: DSO Hand book, 1997

From the above table it is observed that the district has got sufficient surplus land which can be used for industrial development. So there will be no scarcity of land for this purpose.

Of late, there is resentment and protest by the environmental bodies if an industry is set up in other than barren ad uncultivable land. So from the above table it reveals that there is ample space for industrial sights in the district.

- 1) **Factory accommodation:** At present there is no industrial shed built in the district. But as observed above, there is sufficient surplus land to be diverted for industrial development. However, the Government has proposed to establish Industrial Growth Centres at Brundaban and Manmunda.
- 2) **Water:** Although agriculture suffers due to lack of irrigation facilities, yet there is potentiality of water to be exploited for any type of use. In addition to water from river, ponds, medium irrigation projects, there is plenty of availability of ground water also. As already mentioned the level of ground water exploitation is very low as per the 1994-study group report. So there will be no scarcity of water for industrial use in the district. The river Mahanadi and Tel are also flowing through the district

Power: It goes without saying that energy is the basic requirement to start an industrial activity and also increasing the productivity of agriculture. So the economic achievement in any country is and measure of energy generated and utilised there. There is positive correlation between the per capita consumption of energy and the per capita income l a country. So energy or power is an important ingredient as well as an index of economic development. Now a day the most important source of power used by small scael industries is electricity in the state of Orissa. The transmission and distribution of power i.e. Electricity was with GRIDCO but the distribution function of GRIDCO was separated in November 1997 to four distribution companies and the district of Boudh comes under the jurisdiction of Southern Electricity Supply Company Ltd.

Table-4.2
Villages electrified and electrical pump sets energised in Boudh District as on 31-3-1998

Item	Unit	Magnitude
Villages electrified	No.	Magnitude
Electrical pump sets energised		
OLIC	No.	179
Private	No.	439
Total	No.	618

Source: DSO Hand book, Boudh.

Electrification of villages in Boudh district is lagging behind in comparison to other district of the State. Out of total 1156 villages, only 562 villages are electrified. At present electricity is being supplied to the district from Hirakud Hydro Power Project through Bolangir sub-station.

- 1) **Railways:** There is no Railway line passing through the district at present. However, a new Railway line has been proposed to be built from Khurda to Bolangir via-Bailway line has been proposed to be built from Khurda to Bolangir via-Boudh and preliminary works have already started for this. The nearest Railway station of the district is Bolangir, which is 100 kms. from the district headquarter.
- 2) **Roads:** In the absence of rail linkages in the district roads are the major means of transportation. Roads are the basic infrastructure necessary for the building up of an economy. The economy significance of roads for agriculture and industry is well understood. All weather road connectivity to every village is necessary for improving the quality of life and economic conditions in rural areas. Road connectivity has been identified as one of the basic minimum necessities for development of agriculture, industry in particular and rural economy in general. So the Government have been according high priority to this sector. Roads quicken the movement of man and material of area so helping to increase the turnover of the industries. It also creates an attitude of competition Now let us observe the net work of roads in the district.

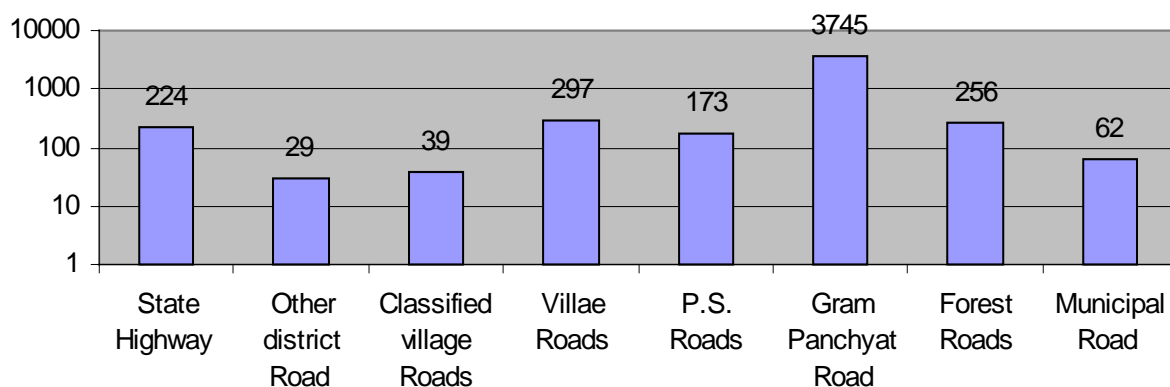
Table-4.3
Length of different types of Roads in Boudh district as on 31-03-2000 (in kms)

Srl.	Category of Roads	Length
1.	National Highway	Nil
2.	Express Highway	Nil
3.	State Highway	224
4.	Major district road	Nil
5.	Other district road	29
6.	Classified Village Road	41
7.	Village Roads	297
8.	P.S. Roads	173
9.	Gram Panchyat Roads	3745
10.	Forest Road	256
11.	Municipal Road	62
Total		4827

Source: Economic Survey, Govt. of Orissa.

So the net work of roads needs to be improved further for speedier economic development of the district. However, a new Express Highway connecting Khurda to Daspalla via-Boudh has been proposed to be undertaken during this Five Year Plan. After completion of this project, it will give a boost to the transportation sector and consequently to the general economic activity of the district.

Length of Different type of Roads in Boudh Distrhct (in km.)



Road Transport: The faster the road transport, quicker the movement of man and material which has a positive impact on economic growth. The ambitious programme of industrial development, can be successful with the help of road transport as the movement of raw materials and finished products will be faster. So both production and distribution are dependent on the availability of road transport facilities. The road transport status in the district can be observed from the number of different motor vehicles playing in the district. However, the statistics for Boudh district is not available independently. The table below reflects the figures available from Phulbani R.T.O. covering Boudh an dPhulbai districts.

Table-4.4
Number of Motor Vehicles Registered under Phulbani R.T.O.

Srl.	Vehicles	No. registered up to the end of 1996-97
1	Motor cycles, scooters and Moped	4367
2	Three wheelers Auto Rickshaw	51
3	Jeeps and Station Wagons	536
4	Private Cars	124
5	Taxies	23
6	Contract Carriages	24
7	State carriages	150
8	Trucks and lorries	483
9	Petrol and water carriers	-
10	Tractors and Traillors	595
11	Miscellaneous Vehicles	167
	Total	6, 520

Source: D.S.O Hand Book, Boudh.

- 1) **Air Transport:** There is no air transport facility in the district. The nearest airport is Bhubaneswar which is 245 kms away from the district Hqrs, Boudh.
 - 2) **Water Transport:** there is no water transport facility in the district. Paradeep Port is the available spot for this provision which is about 365 kms on road from the district Hqrs.
- B. Social Infrastructure:** The importance of entrepreneur has been widely acclaimed for the vital role it plays in shaping the economy of developing and under developed regions. Its role in small scale industries in particular is more significant as its total performance depends upon the efficiency of the entrepreneur. Entrepreneurship combines all the attributes of a manager, a financier, a production man a sales executive and in individual respect he is above them all. It is the quality of entrepreneurs which keeps the wheel of the venture moving right from the stage of its conception to the sale of the product by exercising tenacity determination, enthusiasm and resolve. In fact, it is the pivot around which the success of an unit rotates. It signifies harnessing a new idea, instrument or concept of market organisation. Now let us analyse it in the context of Boudh district. So far as the development of entrepreneurship is concerned, the district is far behind compared to neighbouring districts. The local DIC at Boudh and some other promotional agencies have conducted some entrepreneurship development programmes in the district but this has not made any visible impact on the attitude of the people. So there is a need to conduct motivational programme for promotion of SSIs. So all these agencies like DIC, SISI, NABARD, SIDBI and NGOs are working for promotion and development of SSIs in the district. All the promotional agencies should combine their efforts to achieve the single goal for creating an awareness among the target group to come forward for setting up of new ventures in the SSI sector which is the need of the hour to solve all the problems of the society.
- 1) **Market Potential:** The market potentiality of a product is the most important criteria before deciding to go for its production. Three things like cost, quality and delivery system of a product makes a difference with its competitor. Now a days advertisement also plays a crucial role in marketing a product. The entire production process should have a direct customer orientation. The manufacturer should understand the needs and desire of the customer. In the present liberalised and competitive era where there is free movement of goods and services without barrier, the entrepreneur has to see the prospects through an integrated approach. In this scenario the small industries in particular may have to face various challenges from others. So far as the district of Boudh is concerned there is a need for development of marketing infrastructure like better roads, railways to send the locally produced goods to different areas. In this district there is one Regional Marketing Cooperative Society namely Boudh R.M.C.S. Ltd. This is totally defunct condition and to be brought under rehabilitation programme in order to bring it under operation. The Industrial activities mentioned earlier are operating in a lower ebb. The consumer goods and other product demanded in the district are met by the producer of other parts of the state as well as outside the state. If local producers with due care for quality and price deliver the goods then it will be easily acceptable to the consumers. So this district is a potential market for the prospective manufacturers.
 - 2) **Lending Institutions:** The lending institutions play a crucial role in the process of economic growth and industrialization. In the absence of the speedy and adequate growth of financial infrastructure, the process of industrialization can not be accelerated. Adequate & timely finance is necessary to oil the wheels of the industrial activities to ensure its smooth working an to prevent its breakdown. So the role of a well-developed financial infrastructure in stimulating and sustaining economic growth is well recognized. A net work of financial institutions helps the economy to deploy its savings more efficiently. Now let us observe the status of lending institutions in the district of Boudh.

Table-4.5
Status of different lending institutions in Boudh district as on 31-3-2000

Srl. No.	Name of the Agency	No. of branches
1.	State Bank of India	11
2.	Indian Bank	4
3.	Kalahandianchalika Gramya Bank	7
4.	Boudh Cooperative Central Bank	4
5.	O.S.F.C	1
6.	PASC	42
7.	PHWCS	37
8.	Mini Banks	15

Source: Annual Credit Plan, Boudh

The health of the lending agencies is not in good condition due to the mounting over dues and non-recycling of funds.

The repayment position in different developmental schemes is not good. So there is a need for coordinated effort for overall improvement of the position. In the table below, the bank-wise vis-à-vis sector wise performance in the district during 1998-99 is given.

Table-4.6
Bank-wise performance in the district of Boudh during 1998-99 (Rupees in lakhs)

	BCCB Boudh	KAGB(RRB)	Commercial Banks
Demand	710.27	197.92	721.44
Collection	381.25	132.51	307.32
Balance	239.02	65.41	414.12
% of recovery	54	53.67	42.60

Source: Credit Plan Book, Boudh.

Table-4.7
Performance indicators of the credit delivery System in the district of
Boudh (Rs. In lakhs.)

S.No.	Particulars	BCCB	RRB	CBs	Others	Total
1	No. of Banks	01	01	02	-	04
2	No. of Branches					
	Rural	02	06	12	-	20
	Semi-urban	02	01	3	-	6
	Urban	-	-	-	-	-
3	No. of staff per branches/society	-	08	04	05	-
4	No. of Loan Account	10291	6308	24320	-	40919
5	No. of Loan Account per branches/ society	2033	901	1781	-	4715
6	Average population per branches/ society	79405	1443	14436	-	12216
			6			
7	Average no, of villages covered per branches/ society	385	34	61	-	-
8	Total deposits as on 31-12-99	547	650	2999	-	4196
9	Average deposit per branch	136	93	200	-	161
10	Growth in deposits					
	1999 over 1998	37	50	10	-	18
	1998 over 1997	32	55	23	-	27
11.	Total loan outstanding as on 31-12-99	927	456	1916	-	3299
12.	Percentage increase in outstanding					
	1999 over 1998	80	52	4	-	23
13.	Outstanding per branch	184.22	49.13	129.74	281.61	122.54
14.	CD Ratio (%)	170	70	64	-	86

Source: Annual Credit Plan, Boudh District.

Table-4.8
Status of Credit deposit ratio of different financial institutions in the district
of Boudh during the year 1999-2000.

Name of the Bank	Deposit	Advance	Credit-Deposit Ratio
SBI	224903	150596	67
Indian Bank	75012	40953	55
KAGB	65010	45587	70
BCC Bank	54695	92740	170
Total	419620	358964	86

Source: Annual Credit Plan, Boudh District.

Table-4.9
Sector-wise performance under ACP during 1998-99

Name of Bank	Agriculture			Industries			Trade and service		
	Target	Achievement	%	Target	Achievement	%	Target	Achievement	%
SBI	20705	17344	84	6430	2750	43	13395	10917	81
Indian Bank	3704	1421	38	848	37	4	3372	2577	76
KAGB	8452	8737	103	710	901	127	5470	10040	184
BCC Bank	20419	28275	138	4360	22929	526	20910	3102	15
Total	53280	55777	105	12341	26617	216	43147	26636	62

Source: Annual Credit Plan, Boudh.

In addition to the lending institutions in the district, there are other promotional agencies inside and outside the district who are making their sincere efforts to promote enterprises in the district. These are as follows:

1. The Directorate of Industries, Orissa, Cuttack.
2. The District Industries Center, Boudh.
3. OSFC
4. OSIC, Cuttack
5. Small Industries Development Bank of India, Bhubaneswar.
6. NABARD
7. Small Industries Service Institute, Cutack.
8. National Small Industries Corporation, Cuttack.

The Credit facilities are available both inside and outside the district. The above promotional agencies are playing crucial role in promotion of small scale industries. The entrepreneurs of the district should take advantage of these opportunities.

iv) Incentives under IPR-1996 of Govt. of Orissa

Incentives play an important role in the process of development in an area by creating a positive motivation. It is the duty of the state to declare some incentives for a particular area where the industrial activities have not taken an upward trend. For the purpose of giving incentives under IPR-1996, the state has been divided into three zones viz. A, B and C depending upon the pace of industrial development and the entire district of Boudh comes under Zone-A. This zone A are given in detail below:

Before we discuss the details of incentives / benefits under IPR-1996, it is worth while to mention that the Government of Orissa is about bring out the latest IPR-200 and it will take the place of IPR-1996.

1) CAPITAL INVESTMENT SUBSIDY:

New Industrial Units will be allowed capital investment subsidy in the following manner:

Zone-A 20 percent of the fixed capital investment subject to a limit of Rs. 20 lakh.

Provided that only new industrial units with a maximum project cost up to Rs. 5 crores will be eligible to avail of the incentive of capital investment subsidy.

Provided further that special class entrepreneurs will be eligible for 5% extra capital investment subsidy subject to a limit of Rs. 5.00 lakhs over and above the limits specified.

2. EXEMPTION OF SALES TAX:

All new Khadi, Village, Cottage and Handicraft Industrial Units will be exempted from payment of Sales Tax on purchase of Machinery, Spare parts of machinery, Raw material, packaging materials and finished products in the manner indicated below:

Category	Maximum Amount of exemption/Deferment payment of sales tax	Maximum Eligibility Period.
Zone-A	100% of the fixed capital investment	7 (Seven) years
Zone-B	100% of the fixed capital investment	6 (Six) years
Zone-C	100% of the fixed capital investment	5 (Five) years

3. EXPANSION/ MODERNISATION/ DIVERSIFICATION

All existing industrial units going in for expansion/ modernisation/ diversification will be eligible for exemption/ deferment from payment of sales tax on finished products in the manner indicated below subject to fulfillment of the prescribed eligibility criteria.

Category	Maximum Amount of exemption/Deferment from payment of Sales Tax	Maximum Eligibility period
Zone-A	100% of the additional fixed capital investment	7 (Seven) years

- 1) Provided that expansion/ modernisation/ diversification has been under taken on the basis of separate project report duly appraised by the financial institutions.
- 2) Provided that subject to the provisions of the Sales tax Act, the benefit of exemption/ deferment shall not have the effect of reducing the Sales Tax paid by the unit prior to Expansion/ Modernisation/ Diversification programmes. In other words benefits shall be applicable to incremental Sales tax only.

4. LAND:

Government land wherever available will be allotted for industrial projects including power projects and sub-stations of OSEB at predetermined rates as notified from time to time. The following rates shall apply until further orders.

Category	Rate for land located within Municipal / NAC area (per Acre)	Rate for land located outside Municipal/ NAC area (per acre)	Ground Rent (Rs.)
ZONE-A	Rs.75,000/-	Rs. 25,000/-	% of the land value

Provided that for Cuttack including Jagatpur, Rourkela including Kalunga and Bhubaneswar including Chandaka Industrial area shall be as notified by the State Government from time to time.

5. INTEREST SUBSIDY:

Special class entrepreneurs setting up new industrial units with project cost not exceeding Rs. 1.00 crore will be entitled to interest subsidy @ 2% on term loans availed for setting up the unit.

6. POWER:

Exemption of Electricity Duty:

New Industrial units with contract demand upto 500 KVA will be exempted from payment of Electricity duty for a period of 5 years from the date of power supply.

New Industrial units with contract demand between 5,000 KVA and 10,000 KVA will be exempted from payment of 25 percent of electricity duty payable for a period of 5 years from the date of power supply if these are set up in Zone-A.

Explanation:

Date of power supply means the date of power supply by the Orissa state Electricity Board for commercial production in cases where power for construction and power for production are separately taken, the date of power supply shall be arrived on the basis of power for commercial production.

STAMP DUTY:

No stamp duty will be required to be paid in respect of land allotted by the Government to IDCO. But stamp duty @ 5% will be required to be paid in respect of transfer of land/ shed by Government and IDCO to industrial units. This will also be applicable in respect of private land acquired by IDCO which is subsequently allotted to industrial units.

EXEMPTION FROM OCTROI:

Machinery and equipment required to set up new industrial units will be exempted from payment of octroi. Similarly, spare parts of machinery, raw materials and packing materials used by an industrial unit for a period of 5 years from the date of its commercial production will be exempted from payment of octroi.

ANTIPOLLUTION MEASURES:

Capital investment subsidy for installation of pollution control and monitoring equipment shall be allowed on the certificate of the state prevention and control of pollution Board (SPCPB) about the necessity for such installation. This incentive will be 20 percent of the cost of pollution control and monitoring equipment subject to a ceiling of Rs. 20.00 lakhs and this would be in addition to Capital Investment Subsidy available to the industrial unit.

10.REHABILITATION OF SICK INDUSTRIES:

Sick Industrial Units may be given by the Government any of the incentives/ facilities applicable to new industrial units on the recommendations of State Level Inter Institutional Committee (SLIIC)/ State Level Empowered Committee (SLEC) or the State Level Nodal Committee (SLNC), if the SLIIC, SLEC and SLNC came to the conclusion that extension of such incentives/ facility is necessary for the revival of the sick unit. In case of medium and large industrial units. Approval of the Chief Minister will have to be taken for the purpose. In case of small scale units, approval of the Government in the Industries Department will have to be taken.

11. DEVELOPMENT OF TOURISM INDUSTRY

The following tourism related activities will be treated as industrial activity and will be entitled to incentives applicable to new industrial units, except for exemption/ deferment of Sales tax and exemption of Octroi on Raw Materials and Packing materials.

Hotels/ Motels/ Courses/ Rope ways and Way side amenity centres satisfying the norms/ conditions stipulated by the State Government.

Transport facility with Air Conditioned Cares/ coaches with minimum capital investment of Rs. 15 lakhs operating in Travel Circuits identified/ certified by the Department of Tourism.

Motor launches operating in tourist centers identified/ certified by the Tourism Department with minimum of investment of Rs. 10 lakhs.

Aero Sports Centres developed at place identified by the Department of tourism with minimum investment of Rs. 10 lakhs and meant for promotion of adventure tourism.

Water Sports Complexes and Amusement parks with minimum investment of Rs. 10 lakhs and operated in Tourism Centres identified by the Department of Tourism.

Health Resorts established at places like Hill Stations, Hot Springs, etc. identified by the Department of Tourism with a minimum investment of Rs. 10 lakhs.

Tourism Camps and Camping sites having minimum capacity of accommodating not less than 30 Tourists in the camp to be set up at places determined by the Department of Tourism.

Such Tourism related activities (existing and new) will be entitled to have power at industrial and not commercial rates of tariff.

12. ELECTRONICS INDUSTRIES:

The following additional incentives will be available to new Electronics/ Telecommunication (Hardware and Software) industrial units.

Land at Bhubaneshwar (including Chandaka industrial area) will be allotted @ Rs. 5 lakh per acre.

Electronics / Telecommunication (Hardware and Software) industrial units will be eligible for incentives applicable to –A Zone irrespective of their actual location.

In appropriate cases, venture capital for Technical Entrepreneurs (belonging to Electronics and Computer discipline) up to 50% of the equity requirements subject to a limit of Rs. 25 lakhs (either single or jointly) and equity participation for other categories of entrepreneurs up to 25% subject to a limit of Rs. 25 lakhs will be provided. This facility will be available for a maximum period of five year with effect from the effective date.

Travel assistance to the technical entrepreneurs (belonging to Electronics and Compute disciplines) to visit abroad for interaction with Software industries and organisations likely to offer Software assignments. The assistance can only be availed of by those sponsored by the Department of Science & Technology.

The scale of assistance will be as under-

1 st year	-	Rs. 20,000/-
2 nd year	-	Rs. 15,000/-
3 rd year	-	Rs. 10,000/-

13. MARKETING SUPPORT:

The policy of the State Government is to ensure that State Government Departments and agencies under the control of the State Government purchase their requirements of store items available from industries located inside the State. In order to achieve this, the products of industries located inside the State will be persuaded to accord similar facilities to products of local industries. Simultaneously efforts will be made to bring down cost and achieve overall competitiveness of the products of local industries. New industrial units coming up in the State will be persuaded to patronize local industries/ farms for construction/ supply of materials.

vi) Technical Skills and Training Facilities:

The facilities for Technical education in the district is not good even in comparison to neighbouring districts. In respect of general education also the district is not well advanced. The district has 554 nos. of primary schools, 126 nos. of Middle Schools, 46 nos. of Secondary Schools and 11 nos. of general colleges only. The district has got one ITI at Boudh exclusively for women with 32 nos. of seats. Recently a few private technical institutes have come up in the neighbouring districts to provide technical education to the educated youth. There is a need to develop and encourage for technical education and training to support the effort of industrialisation in the district. Earlier this district was a part of erstwhile undivided Phulbani district. So the district being newly carved out, many infrastructural facilities including the technical training institutes are yet to come up independently for the district. However, the facilities available outside the district are availed of to some extent by the candidates of this district. Small Industries Service Institute (SISI) at Cuttack including its Br. SSI located at Rayagada conduct many short-term technical training for educated unemployed youth, as well as for prospective and existing entrepreneurs. It also conducts a six-month duration skill Development Training Programme at its workshop at Cuttack and at Br. SISI, Rayagada twice in a year which the people of the district can take advantage. In addition to this, SISI also conducts various product-cum-process oriented Entrepreneurship Development Programme (EDP) for prospective entrepreneurs and Management Development Programmes (MDP) for existing and prospective entrepreneurs also. So the people of the district can take advantage of these facilities in order to improve their technical skill to run the SSI successfully. Besides, there are Engineering Colleges, Polytechnic Institutes, Computer Institutes, etc. are also existing in the neighbouring districts which the people of the district can take advantage. The other promotional agencies of central and State Government including financial institutions and nationalised banks including NGOs also conducting similar programmes from time to time.

Growth Centres:

Presently there is no growth center in the district. However, Government have planned to develop two centers i.e. Brundaban with 142.58 acres of land and Manamunda with 382.00 acres of land into growth centers.

CHAPTER-V

PRESENT INDUSTRIAL STATUS

Boudh district is industrially backward in comparison to other districts of the state. So the Government of Orissa have declared the district as industrially backward and special incentives/subsidies are provided to set up certain category of industries in the district by encouraging the local entrepreneurs. Only a few SSI units exist in the district. In the district more than 80% of population live in the rural areas with agriculture as their main occupation, out of them some are engaged in cottage, village and other industries. The Industrial Status of the district can be observed from the tables given below:

Table-5.1
Category-wise no. of SSI units set up in the district of Boudh during 1998-99 and 1999-2000

S.No.	Category	No	Inv. (Rs. in lakhs)	Employment in nos.	No.	Inv. (Rs. in lakhs)	Employment in nos.
1.	Food & allied	7	78.89	66	4	3.85	15
2.	Chemical & allied	-	-	-	-	-	-
3.	Electrical & Electronics	-	-	-	-	-	-
4.	Engineering & metal based	2	11.77	20	1	1.40	3
5.	Forest & wood based	-	-	-	-	-	-
6.	Glass & Ceramics	1	10.39	20	1	1.08	4
7.	Love stock & leather	-	-	-	-	-	-
8.	Paper & paper products	1	0.44	2	-	-	-
9.	Rubber & Plastic products	-	-	-	-	-	-
10.	Textiles	-	-	-	1	1.62	6
11.	Miscellaneous manufacturing	-	-	-	5	5.50	13
12.	Repairing & servicing	1	5.28	12	2	2.25	6
	Total	15	106.77	120	14	15.70	47

Source: Directorate of Industries, Orissa and DIC, Boudh.

Table-5.2
Investment break-up of SSI units set up during 1998-99 (Rs. In lakhs.)

No. of SSI units set up	Block capital	Working capital	Total
15	75.33	31.44	106.77

Source: directorate of Industries, Orissa.

Table-5.3
Investment pattern of SSI units set up during 1998-99

S. No.	Investment pattern	No. of units
	Upto Rs.25,000	-
	Rs.25,001 to Rs. 50,000	1
	Rs. 50,001 to Rs. 2,00,000	10
	Rs. 2,00,001 to Rs. 5,00,000	1
	Above Rs. 5,00,000	3
	Total	15

Source: Directorate of Industries, Orissa.

Table-5.4
Number of SSI units with Investment and Employment set up in Rural/Urban areas during 1998-99 in Boudh district.

Area	No. of units	Investment (Rs. in lakhs)	Employment in nos.
Rural	14	104.25	114
Urban	1	2.52	6
Total	15	106.77	120

Source: Directorate of Industries, Orissa.

Table-5.5
Number of Tiny and above Tiny SSI units with investment and Employment set up during 1998-99

Category	No. of units	Investment (Rs. in lakhs)	Employment in nos.
Tiny	14	104.25	114
Above Tiny	1	2.52	6
Total	15	106.77	120

Source: Directorate of Industries, Orissa.

Table-5.6
Number of SIDO & Non-SIDO SSI Units set up in Boudh district during 1998-99

Category	No. of units	Investment (Rs. in lakhs)	Employment in nos.
SIDO	10	101.22	106
Non-SIDO	5	5.55	14
Total	15	106.77	120

Source: Directorate of Industries, Orissa.

Category-wise No. of SSI units set-up in Boudh district during 1999-2000

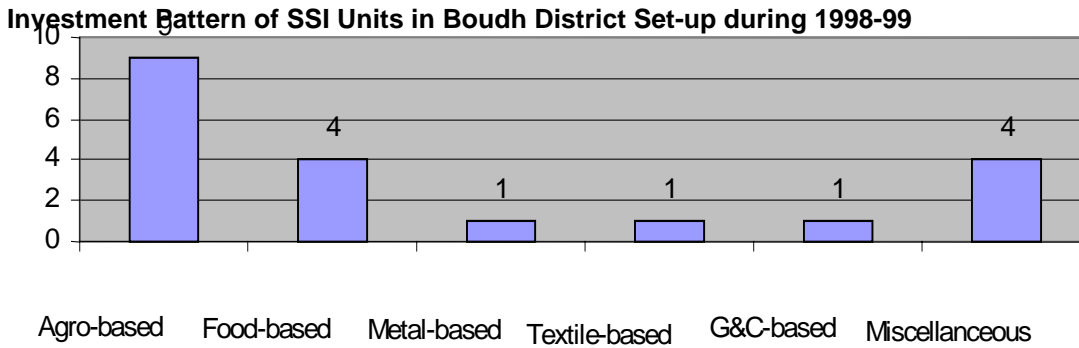


Table-5.7
Block-wise category-wise number of SSI units set up in Boudh district during 1999-2000.

Name of the Block	Agro based	Food based	Metal based	Textile based	Ceramic based	Misc.	Total
Boudh	2	1	1	-	1	3	8
Kantamal	3	2	-	1	-	4	10
Harbhanga	4	1	-	-	-	-	5
Total	9	4	1	1	1	7	23

Source: DIC, Boudh

Table-5.8
Term loan sanctioned and disbursed to SSI units by OSFC during 1998-99

Term loan	Number	Amount (Rs. in lakhs)
Sanction	3	14.25
Disbursement	1	1.02

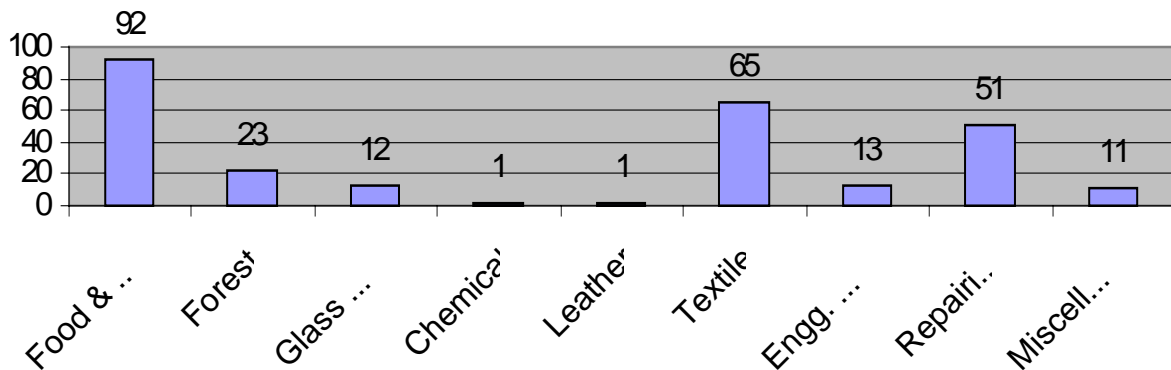
Source: Directorate of Industries, Orissa

Table-5.9
Category-wise break up of SSI units existing in Boudh district as on 31-3-2000

Name of the block/ NAC	Category of industry	No.	Investment (Rs. in lakhs)	Employment (in nos)
Boudh NAC	Food & allied	8	6.16	25
	Glass & Ceramics	3	0.59	7
	Repairing & Servicing	17	21.46	43
	Leather	1	0.08	2
	Textiles	9	9.65	54
	Engineering & Metal	4	4.52	20
	Miscellaneous	4	6.13	18
	Boudh Block	Food & allied	29	90.00
Textile		20	9.58	64
Repairing & Servicing		3	0.46	3
Forest		9	2.33	16
Engg. & Metal		2	1.23	8
Glass & Ceramics		2	1.30	6
Chemical		1	11.04	11
Kantamal Block		Food & allied	19	13.80
	Glass & Ceramics	3	0.74	7
	Forest	8	0.74	8
	Repairing & Servicing	23	8.25	41
	Engg. & Metal	3	10.04	6
	Textile	33	39.79	221
	Miscellaneous	4	5.91	13
	Harabhanga Block	Food & allied	36	25.18
Engg. & Metal		4	3.16	12
Repairing & Servicing		8	0.46	3
Forest		6	0.89	8
Glass & Ceramics		4	11.57	34
Textile		3	6.21	3
Miscellaneous		3	4.54	6

Source: DIC, Boudh

Category-wise No. of SSI units in the Boudh district as on 31.03.2000



The above tables reveal that food and allied & textiles units accounts for more than 50% of the total units. With regard to employment only 888 people are engaged in these non-farm sector activities. This reveals a grim picture of present non-farm activities in the district. So there is a need to develop this sector by strengthening the infrastructure facilities and earmarking credit flow in the annual credit plan for the district. This district has also got good scope for agro and forest based industries as well service related and some demand based industries. This will definitely create ample employment opportunities in the district. The Government is also implementing various self-employment schemes like PMRY, SJRY, SGSY, etc. providing financial assistance to develop non-farm activities also. So the educated unemployed youth of the district should come forward to participate in the self-employment ventures, so that the promotional agencies can act as a catalyst in the efforts for development of SSI sector. **Khadi & Village Industries:** The KVIC programme are also under implementation in Boudh district. The district has got ample scope to bring the weavers families under this scheme. Finance upto Rs. 10 lakhs and margin money upto 25% is available under the scheme. This will help the rural artisans in a great way for promoting their activities by using their traditional skills.

Textile, Handicraft & Cottage Industries: Boudh district is important for its handloom cloth production and this activity provides employment to large number of weavers, which is next to agriculture. Meher weavers were involved in weaving only mercerised cotton fabrics with traditional methods before few decade ago. Now the artmanship of those weaver are so developed that they are able to weave silk tassar, cotton, polyester and art silk fabrics with intricate designs as per consumers demand. The craft now is not confined to only Meher or Bhulia weavers but many S.C. weavers are also producing cloth to maintain their livelihood. The district handloom sector is being looked after by the Assistant Director of Textile under the control of Southern Textile Division, Berhampur and Directorate of Textiles, Orissa. Assistant Director of Textiles, Boudh is the implementing agency of all the District Sector Plans relating to handloom sector.

Handloom industries: Handloom sector is well developed in the district. There are about 3,000 skilled weavers working with conventional looms in the district of which 60% are members of various Primary Handloom Weavers Cooperative Societies in the district. Special variety of silk

sarees of these societies commands a good market. The progress of both handloom and cottage industries in Boudh district can be observed from the following tables.

Table-5.10
Number of cottage industries set up in Boudh district during last 3 years.

Year	Number	Investment (Rs. in lakhs.)	Persons employed in no.
1997-98	752	70.02	1504
1998-99	1206	114.89	2406
1999-2000	11	2.75	22

Source: Economic Survey, Government of Orissa.

A survey was conducted by the local DIC to identify the handicraft artisans in the district. The number of artisans engaged in different handicraft works are as follows.

Table-5.11
Number of artisans engaged in different handicraft works in Boudh district as on 31-3-2000.

Srl.no.	Name of the craft	Area of Concentration	
		Area	No.
1	Artistic Bamboo	Bapujinagar,	30
		Dhalapur	20
		Baunsuni	12
		Panikmal	15
		Baghiapada	25
2	Patter	Badhigaon	45
		B Chandrapur	30
		Maulisingha	20
		Khuntabandra	30
		Bilaspur	15
3	Leather	Baghiapada	15
		Rangarh	20
		B Nagar	15
		Badabandha	20
4.	Copper snake	Goodvelipadar	18
5.	Bullock driver	Biramchandrapur	8
6.	Oil Ghani	Bilaspur	6
		Padarpada	16
7.	Dhobi	Rajanpalli	13
8.	Carpentry	Jampalli	30
		Talapadar	18
9.	Blacksmithy	Sarasara	17
		Tileswar	14

Source: DIC, Boudh.

Table-5.12
Progress of handloom industries in undivided Phulbani district during last
2 Years. (Cooperative Sector)

Year	No. of handlooms (Cumulative)	Investment (Rs. in lakhs)	Production (in lakh sq. mtrs)	Employment
1997-98	2955	412.34	4.23	5910
1998-99	2961	474.77	1.21	5922
1999-2000	2866	425.38	1.57	5732

Source: Economic Survey, Govt. of Orissa.

Problems faced by the Existing Industries:

The existing industries of the district are facing many problems in different directions. The important problems are summarised below:

Difficulty in procuring raw materials: Presently there is no raw material depot in the district. The entrepreneurs are presently procuring raw materials from OSIC depot at Berhampur and Bolangir with much difficulty. So there should be a raw material depot to be set up as per the local demand of the entrepreneurs.

Problems in getting working capital: It is revealed from the discussion with the local entrepreneurs that they are not getting adequate amount of working capital in time, as a result of which they are not able to utilize the installed capacity fully. So their production gets affected adversely and the cost of production is increased thereby affecting its sales volume, ultimately leading the unit towards sickness.

Long gestation period: It has been a general complaint from the entrepreneurs of the district that they are not getting all the required infrastructure support at a time to start commercial production of their unit. After getting credit from banks, they are not getting other infrastructure like electricity, raw materials, etc. in time for which commercial production gets delayed. The long gestation period increases the cost of production of finished goods by which the entrepreneur incurs loss leading the unit towards sickness.

Marketing: Marketing is the most important problem faced by the local entrepreneurs. They are facing steep competition in selling their products with the branded products from outside the state. The stock of finished goods hampers the regular flow of income to the entrepreneurs thereby affecting the process of production. The entrepreneurs demand is to get assured source of marketing form Government, PSUs and Promotional Agencies.

Absence of good transport system: there is no National Highway passing through the district. Even the state highway and district roads are not suitable for heavy traffics. Similarly, the entire district is devoid of railway connection. So this creates greatest problem for the marketing of the finished products as well as getting the raw materials from outside smoothly.

CHAPTER-VI

SCOPE OF NEW INDUSTRIES

Based on the availability of various resources and opinion of the promotional organisations of both State and Central Government, Financial Institutions, Banks, representatives of Industrial Associations and existing entrepreneurs of the district, some prospective items in the SSI sector have been identified for the district. The demand pattern of the people of the district and the availability of skilled manpower, artisans and other factors have also been taken into account. With regard to the prospect of the ancillary industries in the district, as there is no medium and large-scale industries, so no industries in this category have been identified. However, the units capable of supplying the mother plants located elsewhere in the state may get in touch with them. The prospective industries have been identified on the following categories.

- A. Agriculture and Food based
- B. Chemical and allied industries
- C. Glass & Ceramics
- D. Textiles
- E. Forest Based
- F. Livestock and Leather based
- G. Mechanical and Metallurgical
- H. Electrical and Electronics
- I. Repairing and Servicing.

Agriculture and Food Based:

Agricultural products like rice, maize, gram, mung, biri, peas, groundnut, sesamum, castor, mustard, nizer, etc. Are produced in the district. The items like potato, onion, chilly, garlic, coriander and vegetables, mango, citrus, ber, banana, litchi, papaya and guava, etc. are also grown in the district.

So basing upon the availability of these resources and demand of the local people, the following industries are suggested to be encouraged in the district.

- 1) Rice mill
- 2) Ginger powder
- 3) Onion powder
- 4) Turmeric powder
- 5) Potato chips
- 6) Jam
- 7) Jelly
- 8) Pickles
- 9) Badi, Papad manufacturing
- 10) Bee keeping cum Honey processing
- 11) Ice plant
- 12) Dehydration of vegetables
- 13) Fish processing
- 14) Mushroom processing
- 15) Animal/poultry feed meal

Chemical and Allied Industries:

Based on the available of resources and demand of local people, following industries are suggested.

- 1) Plastic processing unit/ Fabricated Plastic products
- 2) Hand made paper unit.
- 3) Chalk and Refills
- 4) Tooth paste herbal
- 5) Bleaching powder
- 6) Mosquito coil and mat
- 7) Agarbati

A Glass and Ceramics:

- 1) Graphite powder
- 2) Graphite crucibles
- 3) Quarts/ quartzite powder
- 4) Manganese ore based industries
- 5) Building lime
- 6) Bricks
- 7) Cement Galleys, Well rings
- 8) Glass mirror
- 9) Roofing tiles
- 10) Chalk crayons

B. Textiles:

Mulberry, tassar and cocoons, etc. are sericultural products in the district. So basing upon demand of the local people, following industries are suggested to be encouraged in the district.

- 1) Cotton yarn
- 2) Handloom cloths
- 3) Silk fabrics
- 4) Handicraft items
- 5) Synthetic knitted goods

C. Forest based:

The district has got a higher percentage of forest area. Eucalyptus, bamboo, sal, seeds, kendu leaves, mahua flowers, tamarind, sisal, honey, etc. are plentifully available in the forest of the district. Based on the availability of these resource and demand of the local people, the following industries should be encouraged in the district.

- 1) Match box
- 2) Manufacturing of furniture and Decorative items from Bamboo.
- 3) Herbal medicine
- 4) Agarbati pulp
- 5) Wooden furniture and Decorative items
- 6) Broom making
- 7) Neem seed processing
- 8) Bidi manufacturing
- 9) Tamarind powder
- 10) Non-edible oils
- 11) Wooden pencil
- 12) Wooden musical instruments

D Livestock and Leather based:

- 1) Processing of raw hides and skins
- 2) School bags
- 3) Canvas shoes
- 4) Leather belts
- 5) Bone milling

E. Mechanical and Metallurgical Items:

- 1) Agricultural Implements
- 2) General Engg. Workshop-cum-fabrication works
- 3) Home appliances
- 4) Bicycle stand and covers
- 5) Hand tools

F Electrical and Electronics:

- 1) TV Antenna, Boosters, etc.
- 2) Voltage stabilizer
- 3) Motor rewinding
- 4) Starter for tubes
- 5) GLS Lamp.

G. Repairing and Servicing Industries:

- 1) Cycle and Rickshaw Repairing Unit
- 2) General Engineering workshop
- 3) Motor Garage
- 4) Slaughter House
- 5) Industrial Consultancy
- 6) Advertising agency
- 7) Beauty Parlour
- 8) Software development
- 9) TV and Radio Repairing works
- 10) Tyre Retreading
- 11) Health Club
- 12) Restaurant / Hotel
- 13) Cyber café
- 14) Laundry and Dry Cleaning
- 15) Teleprinter & Fax Service
- 16) Computer aided design and drafting
- 17) Testing Laboratory
- 18) Beauty parlour

The items identified above are illustrative in nature. Other items may be chosen by the entrepreneurs to be promoted in the district depending on the viability of the item. Detailed description of some of the feasible items are given below for the benefit of prospective entrepreneurs of the district.

Ayurvedic Medicine: Ayurvedic Medicines have been preferred to the allopathic medicines at present because of its less harmful side effects. Unlike previous formulations, readymade medicines are prepared and supplied just like allopathic drugs in the ayurvedic field. The district forest is having many medicinal plants. Many of these can be cultivated in the different regions of

the district also. The Government also have been giving emphasis on the plantation of medicinal plants. So no doubt this will further encourage the setting up of such units in the district.

1) Ginger powder and Paste: Now a days the consumers choice and preference change very fast. He wants newer and cheaper products all the time which also ensures quality. So the customers have become quality consciousness. He should be supplied the good of his choice in time also. Now a days because of busy life, time become very scare for mankind. So a customer always wants readymade stuffs in order to save time. So ginger if manufactured into powder and paste form and sold in packets to customers, then definitely it will find a good market inside as well as outside the district. It can find an export market also. This product being meant for final consumption item, so it helps in saving some time for the customers, thereby getting a preference for itself. The district has got production of the raw materials for these items and the neighbouring districts of Phulbani and Gajapati have plenty of this crop. So some units in SSI sector can be set up in the district.

2) Non-edible Oil: Non-edible oils extracted from palm rosa, citronella and lemon grass are used for manufacturing of high grade perfumery soap and mosquito repellants, etc. there is scope for cultivation of these plants in district or neighbouring districts and the local people can be employed in this work which will also regenerate instead of denudating the forest. Eucalyptus oil is also an important item in the non-edible oils. Mohua seeds are also plentifully available in the forest of the district. One unit in small scale sector can be set up for extraction of this oil which has got very good demand.

3) Bamboo works: The district is having sufficient production of bamboo. So bamboo can be utilized to manufacture decorative items like bamboo baskets, kulas, dala, ceiling material, flower baskets, utensils, vessels, table mats, electric stand, ash trays, smoking pipes, name plates and varieties of furniture, some export worthy modern decorative items can also be prepared to attract the attention of the Customers from the Overseas countries. The manufacturers of these articles should also take care to introduce some modern equipment to reduce the labour cost to make it competitive pricing.

4) Jam/ Jelly: The district produces mango, litchi, banana and many other fruits plentifully. The production and disposal of these fruits are not done in economic and organised way. As a result of which these activities are not bearing much result on the living standards of the farmers and the people depending on it. These resources need to be utilised in a proper way. Jam and Jelly manufacturing units should be encouraged in the district. Promotional agencies like District horticulture Office, DIC and SISIs located at Rayagada and Cuttack can be contacted for detailed guidance in regard to preparation of project profiles for these items.

5) Quartz Power: Quartz / quartzite is used for the manufacture of silica and super duty silica refractories. Quartz is used for glass, fused quartz crucibles, basins and ceramic products, sand paper and silicon carbide. Quartz powder is also used as filler in rubber industry and in cleaning powder. So basing upon the availability of this resource, the entrepreneur can go for setting up of mineral grinding unit including processing of quartz and quartzite. The prospective entrepreneurs can contact SISI, Cuttack or Br. SISI Rayagada to know details of the technical know how about the manufacturing of this product including project profile.

6) Graphite Powder: The district is having plenty of graphite stock. The graphite powder is manufactured out of graphite flakes. This is used for the manufacture of clay graphite, silicon carbide/ graphite, carbon graphite crucible and reractories. It is also used in basic refractories like magnesium carbide alumina carb, slide gate, other steel plant refractories, electric furnaces and dry cell battery. It is also used as lubricant, foundry-making materials, in explosives, pencils and shoe polish, etc. so due to its multiplicity and common use, it has got a wider market. So the entrepreneurs can set up at least one such unit with the assistance and guidance of the

promotional agencies including SISI, Cuttack and Br. SISI, Rayagada which has got technical know how and project profile on the item.

7. Building Lime: The district is having the stock of calcareous tuffa lime stone which can be used as a raw material for manufacture of building lime and this is used for white washing and lime colours. So the local entrepreneurs should come forward to set up some units and in this direction they may contact the local DIC as well as SISI, Cuttack or Br. SISI, Rayagada in order to get the detail technical know how and manufacturing process of the product.

8. Cold storage: The climate of the district is suitable to grow many horticultural crops (both vegetables and fruits) in large quantity. But presently due to lack of any cold storage facility in the district, the farmers are not encouraged to produce more. It so happens that the farmers sell their products at below the remunerative price some times in the apprehension of losing more money. They also get exploited by the middlemen if there would be a cold store, then these problems will not be faced and it will help in improving the economic position of the farmers. Now the Bankers like NABARD are ready to finance these schemes. The Government have also started encouraging to set up Cold storage. So interested entrepreneurs should come forward to take advantages of the liberal provision of the scheme. The necessary guidelines and technical know-how are available with SISI, Cuttack and other concerned agencies also.

9) Tamarind Concentrate: Apart from, forest department, private parties also collect a huge quantity of Tamarind and this is sold to parties of Andhra and Tamilnadu. Many times can be prepared out of it including consumer item, which have a great demand in the state as well as in the country. The items are Tamarind concentrate, paste and starch etc. Tamarind concentrate is an important component of food for the people South India. Tamarind Starch are used in the Textile mills and Jute Mills. So this product has got a wide market both inside the state as well as outside. So interested entrepreneurs should come forward to set up this industry and they should contact SISI, Cuttack or Br. SISI, Rayagada to get technical know-how and other details.

Ancillary Industries: As there is no medium and large-scale industries in the district, so there is no scope for ancillarisation.

CHAPTER-VII

PLAN OF ACTION FOR PROMOTION OF INDUSTRIES

Various promotional agencies involved in the process of industrial development of the district have been organising different programmes for the awareness of the district. As the district is industrially backward hence, there is need of coordinated efforts on the part of these agencies for promotion of small scale industries which will ultimately make the economic activities in general and industrial activities in particular more vibrant. Setting up of SSI is the only answer to the present day's acute problem of unemployment and underemployment. No doubt the district economy is dominated by agriculture. However, both agriculture and industry are complementary to each other implying that prosperity in agriculture leads to prosperity in industries as there is positive correlation among these activities because of forward and backward linkages. So at various times the following plan of actions have been taken by promotional agencies like DIC, SISI, NABARD, SIDBI, Local NGOs as well as other related organisations both at the state and district level for promotion of industries in the district and there is a continued effort on the part of these agencies in the following spheres.

I Intensive Industrial Campaign: Various Industrial Motivational Campaigns have been organised by the concerned agencies to create an awareness among the people about the prospects of industrial development and also the role played by different promotional agencies, financial institutions on promoting these activities.

II Entrepreneurial Development Programme/ Management Development Programmes: The local DIC, NABARD, IED, SISI/Br. SISIs have been organising various Product-cum-process Oriented EDPs & management development Programmes on topics like finance, Marketing, Industry, Export etc. for the benefit of the entrepreneurs of the regions to start and run their units smoothly.

III Industrial Exhibition: Various agencies are organising industrial exhibitions displaying the products manufactured by the SSI & others to reveal the preference of the general consumers and big purchases like PSUs, Govt. Departments, Corporate Houses, etc. It is a good Platform for both the Suppliers and Purchasers.

- 1) Construction of Industrial Estates:** Presently there is no Industrial Estate in the district. But the district authority have been well aware of this problem and taking necessary steps to develop industrial estate in the district headquarter, Boudh.
- 2) Development of Industrial Area:** The Government have proposed to establish industrial growth Centres at Brundaban and Manmunda which will give a boost to industrial activities of the district.
- 3) Development of Roads & Communications:** The Government have already planned to build an Express High Way from Khurda to Dasspalla via Boudh which will go a long way in boosting the economic activities of the district. Besides, the major district roads are being upgraded as a part of general action plan of the Government of India. About railways, the district is soon going to get a place for itself in the railway map of the country after completion of the proposed railway line between khurda and Bolangir via Boudh.

CONCLUSION

Orissa is primarily an agricultural state. Due to non-availability of surplus agricultural land and increase of population, the State as a whole as well as the districts have to focus on industrial activities to utilize the available physical resources and to create employment avenues for the unemployed youths of the district. It has been observed that in large and medium industries, investment per unit employment is comparatively higher as compared to the same for the Small Scale Industries (SSI) and tiny industries. Hence Small Scale Industries can play a vital role in creating employment opportunities in the district with limited investment. There exists a good potential for development of this sector in the district taking in to account the available resources and demand factor. In the district, the Handloom and Handicrafts activities are also contributing fairly in the activities of non-farm sector. Apart from this there exists a very good potential for setting up forest based SSI in the district.

As agriculture is the base for promotion of SSIs, the coverage of irrigation has to be stepped up along with improvement and modernization of prevalent agricultural practice both in irrigated and rain-fed conditions. Efforts should be made to motivate the farmers to go for cash crops or commercial plantation, suitable for dry land farming condition in the areas, where rice and other traditional crops are failing repeatedly and necessary infrastructure facilities and inputs should be provided for the purpose. The unutilized potentials in Sericulture, Fisheries and livestock sectors should be tapped to give boost to the industrial activities in the district.

In the services sector, the emphasis should be made to encourage newly emerging services which have proved successful elsewhere and for which there is demand with the changes taking places in the process of globalization. The existing service activities should also be strengthened by adopting right approach by the service providers.

The infrastructure facilities which act as a catalyst for the development of industrial activities should be strengthened first before initiating a rapid course of action in this sector. There is also a need of coordinated effort by promotional agencies of Central and State Governments, Financial Institutions and NGOs.