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**INVESTMENT POTENTIALS
IN
MANIPUR**

**Department of Commerce & Industries
Government of Manipur
Imphal.**

CONTENTS

Sl. No.	Chapter	Page
1.	Introduction	1
2.	Manipur – General Profile	2
3.	Why invest in the State	7
4.	Business Opportunities	13
	- Agro & Food Processing	13
	- Mineral Sector	22
	- Handloom Sector	27
	- Border Trade	30
	- Handicrafts Sector	32
5.	Project Profiles	42

CONTENTS (Project Profiles)

Sl. No.	Name of Project	Page No.
A. Food Based		
1.	Fruit and vegetable processing plant	I
2.	Ginger dehydration and oleoresin plant	III
3.	Spices Processing plant	V
4.	Integrated Mushroom Processing Plant	VII
5.	Lime Ginger (RTS) Plant	IX
6.	Agri Export Zone for Passion Fruit	XI
7.	Manipuri Traditional Liquor Plant (Distillery)	XIV
8.	Integrated Pine apple Concentration Plant	XVI
9.	Floriculture	XVIII
10.	Custom Farming	XX
B. Mineral Based		
11.	200 TPD Cement Plant Project	XXII
12.	Serpentinite & Idocrase Processing Industries	XXIV
C. Handloom & Handicraft		
13.	Handloom & Handicraft Marketing	XXVI
14.	Cane & Bamboo Production Project (project report enclosed)	XXXIII
15.	Kouna (reed) Craft Production Project (project report enclosed)	XXXV
D. EXIM		
16.	Special Economic Zone at Moreh	XXVIII
17.	Inland Container Depot at Moreh	XXXI
E. ENERGY		
<u>Small Hydro Power Project</u>		
18.	Govajang Small Hydro Power Project	XXXVII
19.	Chammu Small Hydro Power Project	XXXVIII
20.	Tuipi-Lui Small Hydro Power Project	XXXIX
21.	Ijai Small Hydro Power Project	XL
22.	Chinjarol Small Hydro Power Project	XLI
23.	Irang Small Hydro Power Project	XLII

Sl. No.	Name of Project	Page No.
24.	Apong Small Hydro Power Project Small Wind Power Project	XLIII
25.	Tengnoupal Wind Power Project	XLIV
26.	Chawangking Wind Power Project	XLV
27.	Kotlane Wind Power Project	XLVI
28.	Dolang Khunou Wind Power Project	XLVII
29.	Laimaton Wind Power Project	XLVIII
30.	Lamdan Wind Power Project	XLIX
31.	Sihai Phangrei Wind Power Project	L
32.	Phungyar Wind Power Project Major Hydro Power Project	LI
33.	Irang Hydro Electric Project	LXIII
34.	Tuvai Hydro Electric Project	LXIII
35.	Tipaimukh Hydro Electric Project	LXIV
36.	Loktak Downstream Hydro Electric Project	LXV
F.	IT- based	
37.	Medical Transcription (IT enabled)	LII
38.	Call Centre(IT enabled)	LIII
39.	Software Development Centre	LIV
G.	TOURISM	
40.	Wildlife Tourism	LV
41.	Tourist Circuit Projects	LIX
42.	Regional Air Service Network Project	LXVI
H.	Cold Storage	
43.	Leasing out Departmental Cold Storage Plant	LVII
I	Tea Estate	
44.	Leasing out Tea Estate at Jiribam	LVII
J.	Medicinal Plant	
45.	Medicinal Plant Processing Project.	LX

1. INTRODUCTION

1.1 Developmental efforts in Manipur, by and large, have primarily been directed towards social services sector. The Plan allocations for Industry Sector has all along been relatively low. The geographical location of the State, lack of raw material and inadequacy in infrastructure like power, roads, water and market have kept industrial development at lower level. Concurrently, the traditional cottage and village industries and various small scale units in manufacturing and service sectors which do not require large investment and sophisticated machinery, have stood the test of time because of abundance of local demand, skill, manpower and participation.

1.2 To make good the infrastructural bottleneck, Government has given a new thrust in this area. The Prime Minister had already announced a special economic package for the North Eastern Region including Manipur and a region-specific industrial policy is already framed.

1.3 However, Manipur although bottled up in the North Eastern corner of India, is gradually emerging as an important gateway for external trade. International imagination has been excited of a South Asia Development Triangle - including eastern and North - eastern India, Nepal, Bhutan and Bangladesh - an extension of which within a larger growth quadrant takes in Myanmar, Thailand, Laos and South-west China along the old Burma Road and the proposed Trans-Asian Highway and Railway. With this in the backdrop, the restoration of Indo-Myanmar Border Trade via Moreh in Manipur and the just concluded Ganga Treaty with Bangladesh herald a new chapter for international trade through Manipur with South-East Asian countries. An ever widening market for industrial products in the State would warrant greater investments to precast new industries in Manipur even without awaiting the international trade route to develop fully. Such industries should obviously be based either on the wider demand or the availability of raw materials locally, or both. Given the high level of investment and management capability, the enterprises could well flourish with adequate return.

1.4 The varied climate and the agro-climatic zones in the State affords wide range of agricultural and horticultural crop and forest produce. These can well be utilised by setting up suitable industries.

1.5 With this expose, in the background, a modest attempt follows which gives an overview of Manipur touching upon some selected features including the land, its people and the state of economy, and then with the new Government endeavour for development and some accounts on a few successful units, etc., and further to identify a few techno-economically viable industries. This may help take investment decisions. Appropriate project studies in detail as are contemplated follows up. The State Government will make every possible endeavour to participate in the venture.

2. MANIPUR – GENERAL PROFILE

2.1 Location and Area:

Situated between latitudes 23.80° N to 25.68° N and longitudes 93.03°E to 94.78° E, Manipur covers a total geographical area of 22,327 Sq.Km. Of the total area, about nine-tenths constitute the hills which surrounds the remaining one-tenth valley. It is one of the border States in the North-Eastern part of India, bounded by Nagaland on the north, Assam on the west and Mizoram on the south and along the east it shares a 352 Km. long international boundary with Myanmar.

2.2 The People:

Manipur is inhabited by three major ethnic groups in Manipur - the Meiteis in the valley, the Nagas and the Kuki-Chin tribes in the hills. The Meitei Pangals (Meitei Muslims) form a minority community. Besides this, other communities from the other states of India have also settled in the State. People are predominantly Mongoloid, and speak Tibeto-Burman languages. The Meitei language which is the mother-tongue of the Meitei people is the lingua-franca of the State.

2.3 Population:

Manipur has a population of 23.88 lakhs (2001 Census *provisional figure*). Of the total population, 58.9% live in the valley and the remaining 41.1% are in the hill areas. The hills are inhabited mainly by the tribals and the valley by the Meiteis (including Meitei Muslims). The distribution of area, population and density, literacy rate, etc. as per the 2001 Census provisional figures are as below:

Total Population (Nos.)	23,88,634
Male Population (")	12,07,338
Female Population (")	11,81,296
Rural Population (")	18,18,224
Urban Population (")	5,70,410
Sex Ratio (Female per '000 Male)	978
Density of Population (Per Sq. Km.)	107
Literate Population (Nos.)	14,29,656 (68.87%)
Towns (including 5 Census towns)	33

2.4 Physical Features:

Physiographically, Manipur may be characterised in two distinct physical regions - an outlying area of rugged hills and narrow valleys and the inner area represents the features of flat plain topography with all associated land forms. These two areas are not only distinct in respect of physical features but are also conspicuous with regard to various floras and faunas.

The valley region would have been a monotonous, featureless plain but for a number of hills and mounds rising above the flat surface. The Loktak lake is an important geographic feature of the central plain area. The total area occupied by all the lakes is about 600 Sq.Km. The altitude ranges from 40m at Jiribam to as high as 2,994m at Iso Peak near Mao above MSL.

2.5 Drainage System:

Within the State of Manipur, there are two major river basins, viz. the Barak River Basin and the Manipur River Basin. The total water resources of the two basins have been estimated to be 1.8487 million hectare metre in the form of annual yield.

The Barak river originates from the northern hills and is joined by a number of tributaries such as Irang, Maku, Tuivai, etc. and thereafter enters Cachar District of Assam. The Manipur river basin has eight major rivers such as Imphal, Iril, Nambul, Sekmai, Chakpi, Thoubal and Khuga. All these rivers originate from the surrounding hills. Almost all the rivers in the valley area are in the mature stage and, therefore, deposit the load in the Loktak lake.

The rivers draining the Manipur Hill Area are comparatively young due to the hilly terrain through which they flow. These rivers are corrosive in nature and assume turbulent form in rainy season. Important rivers draining the western area include Maku, Barak, Jiri, Irang and Leimatak. Rivers draining the eastern part of the State include Chamu, Khunou and other short streams.

2.6 Soil and Climate:

The soil cover can be divided into two broad types, viz. the red ferrogenous soil in the hill area and the alluvium in the valley. The soil generally contains small rock fragments, sand and sandy clay and are of varieties. The top soil on the steep slopes are very thin. In the plain areas, especially flood plains and deltas, the soil is of considerable thickness. Soil on the steep hill slopes is subjected to high erosion resulting into formation of sheets and gullies and barren rock slopes. The normal pH value ranges from 5.4 to 6.8. The climate of the State is salubrious with approximate average annual rainfall varying from 933 mm at Imphal to 2593 mm at Tamenglong. The temperature ranges from sub-zero to 36 °C.

2.7 Vegetation:

The natural vegetation occupies an area of about 14,365 sq. km. which is nearly 64% of the total geographical area of the State. The vegetation consists of a large variety of plants ranging from short and tall grasses, reeds and bamboos to trees of various species. Broadly, there are four types of forests below:

- (i) Tropical Semi-ever Green
- (ii) Dry Temperate Forest
- (iii) Sub-Tropical Pine
- (iv) Tropical Moist Deciduous

Teak, Pine, Oak, Uningthou, Leihao, Bamboo, Cane, etc. are important forest resources growing in plenty. In addition, rubber, tea, coffee, orange, cardamom, etc. are also grown in hill areas. The forests offer avenue of livelihood and employment to large section of the hill population.

Food and cash crops occupy the main vegetation cover in the valley. Paddy occupies about 86% of the total valley area. Other important crops include sugarcane, potato, tobacco, mustard and pulses. Horticultural trees and plants like pineapple, banana, lemon, pears, peach, etc. constitute other vegetation cover.

2.8 Inter Regional Linkage:

While Imphal valley region can be understood as an area of intense economic activities, the Manipur hill area, on the other hand can be seen as an area of low level of economic development yet having much prospects.

Notwithstanding diversities in the physical and economic factors above, a great deal of interdependence exists between the two, which makes them a well-knit fabric of interactions. The Manipur hill area has rich reserve of natural resources which is exploited in the central valley for economic and industrial development. In the central valley, where there is no forest wealth, there are number of industries based on forest resources. This region, therefore, depends entirely on the hill region for the supply of firewood, timber and other forest products. The shifting cultivation practised in the hills leads to deforestation and soil erosion in the hills and silting of the rivers and lake beds causing floods in the plain. Ecologically also, therefore, the two regions form inseparable part of the total system.

2.9 Transportation:

Imphal, the State Capital, is well connected by air with Delhi, Calcutta and Guwahati. Further, National Highway No. NH-39 and NH-53 link the State with the rest of the country respectively through the railway heads at Dimapur in Nagaland at a distance of 215 km. and Silchar in Assam of 269 km. from Imphal. The total road length in Manipur is about 7170 km in a net-work connecting all the important towns and far off villages of the State.

2.10 Power:

The Power supply of the State of Manipur depends upon the Central Sector Power Plants located in the North Eastern Region. The share of power for Manipur from the Central sector power plants including the shares from the unallocated share of power of the Central Projects is 141.15 MW when the plants are operated at their full capacity. The availability of power from the Central projects varies from month to month depending upon the hydro-power generation which are dependent on rainfall. At present, the availability of power from the Central Sector Power Plants during peak hours is 63.75 MW. The requirement of the State is 120 MW during peak hours. At present the State draws 83.75 MW by overdrawing 20 MW from the Central Projects. Availability of power from Central Sector Power Plants is shown below:-

Name	Effective availability (MW) (26.4.2002)	Manipur's Share (MW)
1. Loktak H. E. Project	60	19.08
2. Kopili Hydro Electric Project	150	13.50
3. Doyang H. E. Project	18	1.73
4. Rangnadi H. E. Project	55	5.56
5. Assam Gas based Power Project (Kathalguri)	170	16.83
6. Agartala Gas Turbine Power Project (Ramchandranagar)	72	7.05
Total	525	63.75

Source : Power Department, Government of Manipur.

The peak power requirement of Manipur by the year, 2006-07 and 2011-12 as per the 16th Electric Power Survey of India are 252 MW and 406 MW respectively. The Region has many more ongoing projects. There will not be any shortage of power for the region as a whole and for the State of Manipur as well for another 10 years.

The State Power Department is currently engaged in taking necessary actions for generation of at least 1654.5 MW as below:-

1. Loktak Down Stream HE Project	-	90.0	MW
2. Irang HE Project	-	60.0	MW
3. Tipaimukh H. E. Project	-	1500.0	MW
4. Micro-Hydel projects at Leimakhong(Stage-III), Gelnel (Stage-I) and Tuipaki, Haipi, Maklang, Iring, Ijai and Tupul	-	4.5	MW
Total :			1654.5 MW

Source : Power Department, Government of Manipur.

The State Power Department has completed construction of Heavy Fuel Based Power Project (6x6 MW) at Leimakhong. Trial run test of the six units has been done successfully in March and April, 2002. Commercial operation is being started shortly. Once the project is commercially operated the peak hour shortage of the State can be minimised.

There are seven 132/33 KV Sub-Stations with total capacity of 191.3 MVA to receive power from North Eastern Region Power Grid. These are located at Yurembam, Jiribam, Yaingangpokpi, Ningthoukhong, Kakching, Karong and Churachandpur. Altogether 35 Nos. of 33/11 KV Sub-Stations having a total capacity of 206.1 MVA are in operation for distribution.

2.11 Agriculture:

Agriculture is the mainstay of the State's economy. It engages 76% of the workers. The size of the cultivated area is, however, only 9.41% of the total geographical area of the State. Of this total cultivated area, 52% is confined to the valley. Therefore, half of the total valley area which accommodates 67% of the total population is occupied for agriculture purposes. The pressure on land in the valley is thus quite conspicuous.

2.12 Unemployment.

A high rate of unemployment exists in Manipur, particularly among the educated youth. There are more than 4 lakhs unemployed persons as per the live register of the Employment Exchanges.

2.13 State of Economy:

The per capita net income (SDP) of the State based on a quick estimate at current prices is Rs. 11,370/- for 1999-2000 as against the All India Average of Rs. 16,047/-. The average annual growth rate of the State Domestic Product is 10.52% in 1999-2000 as against 8.03% of the manufacturing sector.

The table below will throw some light on the level of development in the State.

	Item	Unit	Ref. Year	Quantum
1.	Decennial growth rate of population	%	1991-01	30.02
2.	Literacy	%	2001	68.87
3.	Workers	%	1991	42.18
4.	Agriculture			
	i) Rice production	'000 tonnes	2000-01	381.69
	ii) Fertiliser consumption	tonnes	1999-00	39,624
5.	Fish production	'000 tonne	1999-00	15.51
6.	Road length per 100 Sq. Km	Km	1999-00	32.12
7.	Power			
	i) Per capita consumption	KWH	1999-00	77.04
	ii) Villages electrified	%	1999-00	91.70
8.	Banking			
	i) Banks	No.	1999	105
	ii) Banks per lakh of population	No.	1999	44.35
	iii) Credit Deposit Ratio	%	1999	44.35
	iv) Per Capita Credit	Rs	1999	891.70
9.	Per capita net income			
	i) At current prices	Rs.	1999-00	11,370
	ii) At 1993-94 prices	Rs.	1999-00	7,231

Source : Department of Economics & Statistics, Government of Manipur.

3. Why Invest in the State?

3.1 The North Eastern Region of India lags in development far behind the national average. The availability of basic minimum services is very poor. The continuing gaps in infrastructural sectors have resulted in industrial backwardness of the Region. Recognising this, position, the Prime Minister announced on 27 October, 1996 "New initiatives for the North Eastern Region" along with a Rs. 6100 crores special economic package including Rs. 703 crores for Manipur.

3.2 Pursuant to the "New Initiatives", the Central Government appointed a High Level Commission to critically examine the backlog in respect of the basic minimum services and the gaps in important sectors of infrastructure development in the region and suggest policies, programme and the requirement of funds to bridge such gaps and backlogs. The Commission has in its report entitled "Transforming the Northeast" (March, 1997), made an exhaustive 173 recommendations touching upon 27 areas for development. These, among others, include power, roads, civil aviation, railways, waterways, telecommunications, banking and financing, trade and transit, industry, etc. The report recommends a total of about Rs. 9,396 crores for the whole region's requirement in respect of basic minimum services, of which Rs. 1,423 crores is for Manipur. It also makes room for an indicative requirement of Rs. 93,619 crores as total estimated investments in infrastructural sectors for the region as a whole, of which Manipur's share is Rs. 5,815 crores.

3.3 The following sector wise allocations are included in the report in respect of Manipur:

(1)	Irrigation Sector	-	Rs. 566 crores
(2)	Flood Control	-	Rs. 45 crores
(3)	Railways	-	Rs. 935 crores
(4)	Power Sector	-	Rs.3,740 crores
(5)	Transmission Sector	-	Rs. 84 crores
(6)	Others	-	Rs. 445 crores

3.4 Further, the High Level Commission has advocated to improve the NH-39, the Imphal-Moreh sector in particular, to serve both as a commercial highway and as line of communication for construction of the Rs. 92 crores Tamu-Kalewa Highway sanctioned by Border Road Development Board, as Moreh could become a major nodal point for trade with the South East Asia along the proposed Trans-Asian Highway. In the banking and finance sector, the Commission has, inter alia, spelt out the need to consider industrial finance as part of priority sector lending. The recommendation on the industry sector recognises the need to establish export processing or special economic zones in the region to attract export oriented industries. The Govt. of Manipur is also vigorously pursuing to set up such an Export Processing Zone at Moreh.

3.5. Manipur, though located in a far flung north-eastern corner of the country and largely hilly terrain in its landscape, it has got many areas of strength and opportunities that justifies investment in the State. The existing Indo-Myanmar Border Trade currently underway in the border towns of Moreh & Tamu has already paved the way for a full scale trade between India and Myanmar which would further extend to other adjacent countries, like Thailand, Laos, South West China along the old Burma road and the proposed Trans-Asia Highway and railway. In this context, Manipur is the gate way to the International trade route connecting between Indian sub-continent including Nepal, Bhutan and Bangladesh. Resultantly, not only the production and trading units can flourish taking advantage of the expanding international trade but there is also good scope for investment in creating infrastructure facilities in the areas of road construction, power generation, developed industrial areas, water facilities, IT services, etc.

Another important competitive advantage thereby increasing the strength and opportunities of the state is the suitable agro-climatic condition prevailing in the state. The climatic condition of the state is very much suitable for growing almost all kinds of agricultural and horticultural crops and taking up afforestation activities and as such, there is great potential and prospects for large scale plantation of fruits and vegetables and setting up agro-horti based industries particularly food processing industries. For instance, the agro-climatic condition is so suitable that potato can be harvested two times in a year.

There are more than four lakhs unemployed youths in the live register of the Employment Exchange. Of these, more than 2.5 lakhs are educated youths who are matriculates and above. There is therefore, adequate educated manpower for absorption to any economic/business venture in the State.

Manipur is unique in its craftsmanship. The artisans are adorned with innate qualities of craftsmanship. There are more than 1.5 lakh artisans in the trade of cane and bamboo.

3.6 In addition to the above mentioned strengths and opportunities, the State Govt. has fully taken note of the Central Govt.'s new economic policy initiatives in the post-1991 era to:

- Create a liberal investment environment for economic activity especially industrial activity.
- Minimise Govt. regulation and control.
- Move towards a supportive role, i.e. facilitation.
- Create internationally competitive basic infrastructure facilities.
- Extend preferential treatment to priority sectors of industrial activity through an incentive mechanism.
- Provide full freedom of industrial and commercial activity within clearly established and transparent parameter.

3.7 Keeping in view these new policy initiatives of the Govt. of India, the State Government has adopted the "**Industrial Policy of Manipur, 1996**". This policy among others seek to:

- create an integrated investor-friendly environment;
- bring about industry and trade supportive infrastructural establishments and other facility centres;
- maximise utilisation of various resources including raw materials and skills in the manufacturing sectors and accord priority to industrial investment;
- modernise technology and upgrade skill of the manufacturing units to improve the quality and thus competitiveness of the products;
- revive the sick industrial units;
- take positive steps to optimise the advantages offered by the recently opened Indo-Myanmar border trade through Moreh in Manipur; and,
- provide a comprehensive and attractive package of incentives to the industries.

3.8 The package of incentives offered by the State Government over and above those provided by the Government of India are as follows:-

1. Preferential allotment of land and subsidy on cost of land development.
2. Provision for allotment of sheds to SSI Units and subsidise the monthly rent.
3. Subsidies on Manpower Development.
4. State Capital Investment Subsidy.
5. State Transport Subsidy upto Siliguri and upto Patna on case to case basis by surface route.
6. Interest Subsidy upto 7% on working capital & term loan taken from banks/financial institutions.
7. Power subsidy on the tariff, drawal of power lines and purchase of diesel generating set.
8. Subsidy for feasibility study and project report preparation.
9. Subsidy for the cost of technical know-how obtained by SSI units.
10. Price preference of 20% in favour of SSI units.
11. Reimbursement of Stamp duty and Registration fee for securing loans and other incentives from financial institutions.
12. For purchase of testing equipment upto 25-30% of cost for improvement of the quality.
13. State capital investments Subsidy for modernisation/ expansion/ diversification through purchase of plant and machinery

3.9 With this brief commentary on some aspects of the State developmental endeavours which underlines the strong commitment of the Government for promoting industries. Manipur is well set to welcome investors as a major player in industrial development. The Government of Manipur is prepared to update the existing Industrial Policy to meet the requirements of private investors in the State.

3.10 **New Industrial Package for the North-East:**

The Government of India has introduced a comprehensive new industrial policy for the North Eastern Region. It includes infrastructure support and both project and production related benefits that are meant for all industrial activities including those of small scale and agro & rural industries. The salient features of the policy are as follows:-

I. Development of Industrial Infrastructure.

- (a) Government of India will provide entire expenditure on the establishment of Industrial Growth Centre. (Upto a ceiling of Rs. 15 crore as against Rs. 10 crore admissible earlier).
- (b) Government of India would provide 80% of funds for Integrated Industrial Development Centres (IIDC's) as grant (as against 40% earlier) and balance 20% would be by SIDBI.

II. Transport Subsidy

The transport subsidy will be extended for a further period of seven years i.e. upto 31st March, 2007.

III. Fiscal Incentives

- (a) The Industrial Growth Centres and IIDCs would be total tax free zone for the next 10 years. All industrial activity in these zones would be free from income tax, excise, for a period of 10 years from the commencement of production.
- (b) Industries located in the growth centre would also be given capital investment subsidy at the rate 15% of their investment in plant and machinery, subject to a maximum ceiling of 30 lakhs.
- (c) The commercial banks and the North East Development Financial Corporation (NEDFI) will have dedicated branches/counters to process application for term loans and working capital in these centres.
- (d) An interest subsidy of 3% on the working capital loans would be provided for a period of ten years after the commencement of production.
- (e) Similar benefits would also be extended to the new industrial units or their substantial expansion in other growth centres or IIDCs or industrial estates/parks/export promotion zones set up by the States in the NE region.

IV. Relaxation of PMRY norms

The PMRY would be expanded in scope to cover areas of horticulture, piggery, poultry, fishing, small tea gardens etc. so as to cover all economically viable activities. PMRY would have a family income ceiling of Rs. 40,000 per annum for its beneficiary along with his/her spouse and upper age limit will be relaxed to 40 years. Projects costing upto Rs. 2 lakhs in other than business sectors will be eligible for assistance. No collateral will be insisted for projects costing upto Rs. 1 lakh. Group financing upto Rs. 5 lakhs will be eligible. Schemes will have subsidy component @ 15% with an upper ceiling of Rs. 15,000. The margin money may vary from 5% to 12.5% of the project costs to make the subsidy and margin contribution at 20% of the project cost.

V. Other Incentives

- (a) A comprehensive insurance scheme for industrial units in the North East will be designed in consultation with General Insurance Corporation of India Ltd. and 100% premium for a period of 10 years would be subsidised by Central Government.
- (b) A one time grant of Rs. 20 crore will be provided to the NEDFI by the Central Government through NEC to fund techno-economic studies for industries and infrastructure best suited to this region.
- (c) State Government may consider setting up of a "Debt Purchase Window" by the NEDFI which buys the debt of the manufacturing units particularly in respect of the supplies made to the Government Department so as to reduce the problem of blocking funds for these units.
- (d) It may be considered to provide assistance for restructuring State PSUs from National Renewal Fund.

VI. Procedure for release of assistance under the New Incentives.

Currently central assistance for Transport subsidy is given on reimbursement basis. The expenditure is first incurred by States and then reimbursement claimed from Centre. Release under the growth centre scheme are made taking into consideration the physical and financial progress and release made by the State Governments. Inadequacy of funds with States delays the releases which affects the progress of implementation or puts the entrepreneurs to hardship. It has been decided that the transport subsidy budget would be released by a designated agency on the basis of the recommendation of the S.L.C. NEDFI would be designated as the nodal agency for release of transport subsidy.

VII. Development of Village & Small Industries

Weavers' Service Centre (WSCs) in NE region and Indian Institute of Handloom Technology at Guwahati would be suitably strengthened to provide technology and training support to the weavers. National Handloom Development Corporation will give priority in supply of hank yarn to the NE region. All the four varieties of silk would be covered under the Mill Gate Price scheme. Priority would be given to the NE region in scheme of setting up of market complexes and permanent exhibition facilities. A new design centre for development of handicraft would be set up in the NE region. To upgrade the skill of artisans, advance training programme through master craftsmen would be organised. New emporia will be set up and financial assistance for renovation of existing emporia would be provided. The Central Silk Board will give priority to NE region in implementation of its schemes.

4. BUSINESS OPPORTUNITIES

4.1 Agro & Food Processing:

4.1.1 Introduction:

Government of Manipur is looking forward to explore the resources available towards the development of Food Processing Industries in the state as Food Processing Sector plays a significant supportive role in diversification and commercialisation of Agriculture, Horticulture, Fisheries, Poultry, Animal husbandry and Forest, improving value addition in the agricultural produce, employment generation and providing income and production of agro-food products for export.

Prospective mobilisation of this sector is mainly concerned with the raw material resources and its potential for future expansion, improvement of infrastructure, investment ability and up-gradation of technology.

4.1.2 Agro-Horticulture:

Agriculture plays a vital role as it is the main backbone of the State economy till today. The agriculture is mainly dependent on monsoon however around 28.49% of area under cultivation is irrigated by Canals. Moreover with a range of natural conditions and varied soil and topography, the state produces sizeable quantity of Paddy, Wheat, Maize, Pulses, Oilseeds such as Mustard, groundnut, Soyabeans, Sunflower, Ginger, Turmeric and Fruits like Pineapple, Lime/Lemon, Banana, Orange, Papaya, Plum and vegetables like, Cauliflower, Cabbage, Tomato, Pea, Squash, Carrot, Pumpkin, etc. The existing area under fruits and vegetable crop is about 1.08% of the total geographical area and with such suitable agro-climatic conditions, the state still has lots of potential areas on the foot hills, mild hill slopes and along the river banks.

4.1.3 Agriculture:

The existing area under cultivation of different crops in Manipur is 2,85,000 hectares as against the available potential area of 3,25,500 hectares.

Rice, wheat, maize, oil seeds, potato and sugarcane etc. are the main crops in the State. Among these crops, cultivation of paddy is the largest both in the plains and hills, and covers 82% of the total cultivated area. Among the variety of rice, there are two varieties of rice locally named as “CHAK-HAO POIREITON” having its natural colour (dark violet) and a distinct flavour and “CHAK-HAO” having its natural white colour, scent and distinctive flavour. Next to paddy, maize is the second largest cultivated crop. It occupies about 40% of the gross cropped area and grown mainly in the hills. Area and production of different crops are given below:

Sl	Crops	1998-99		1999-2000		2000-01	
		Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT
1.	Paddy	211.50	397.66	126.49	353.99	212.39	477.21
2.	Wheat	0.45	0.68	0.75	1.00	1.00	1.03
3.	Maize	16.50	29.60	13.84	24.88	16.50	33.16
4.	Pulses	16.37	13.10	21.50	14.87	22.20	16.45
5.	Oilseeds	15.11	9.26	20.33	13.90	22.75	15.21
6.	Potato	3.88	22.99	7.30	68.50	7.52	62.04
7.	Sugarcane	4.00	240.00	3.00	180.00	3.10	185.00

Source: Department of Agriculture, Government of Manipur.

4.1.4 Horticulture:

Manipur has vast potential for commercial plantation of citrus fruits like lemon, lime, orange, grapes etc. and Pineapple, Banana, Passion fruit, temperate fruits and locally available fruits (amla, olive, figs, mandrine and Heirukokthong etc.). The quality of the pineapple (Q-variety) so available in Manipur has distinctive taste and flavour. So far, identified potential area is estimated at 2,77,000 Hectares. Out of this about 24,000 Hectares are covered under different crops. Area and production in respect of some of the fruits in the State are given below:

Sl.	Crops	1999-00		2000-01		2001-02	
		Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT
A. FRUITS							
1.	Pineapple	10.00	68.97	10.02	69.14	10.08	69.43
2.	Banana	1.63	12.93	1.65	13.01	1.66	13.11
3.	Papaya	1.87	10.29	1.87	10.31	1.89	10.24
4.	Orange	0.90	3.68	0.93	3.70	0.94	3.76
5.	Mango	0.18	0.94	0.19	0.95	0.20	1.10
6.	Pear/peach	0.62	4.03	0.35	4.11	0.64	3.86
7.	Guava	0.71	2.41	0.72	2.46	0.73	2.48
8.	Lemon	1.10	5.07	1.13	5.14	1.13	5.17
9.	Jack fruits	0.29	1.14	0.29	1.16	0.30	1.20
10.	Others	7.27	8.67	7.30	8.67	7.30	8.81
B. VEGETABLES							
1.	Cauliflower	1.00	10.00	1.01	10.10	1.01	10.10
2.	Cabbage	1.30	15.60	1.32	15.84	1.32	15.84
3.	Tomato	0.50	4.08	0.50	4.12	0.51	4.16
4.	Pea	1.00	5.76	1.01	5.81	1.01	5.82
5.	Radish	0.23	2.30	0.23	2.30	0.23	2.35
6.	Carrot	0.28	2.04	0.28	2.03	0.28	2.07

Sl.	Crops	1999-00		2000-01		2001-02	
		Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT	Area '000 ha.	Prodn. '000 MT
7.	French Bean	0.60	1.83	0.61	1.86	0.62	1.89
8.	Bhindi	0.70	2.31	0.71	2.34	0.72	2.38
9.	Brinjal	0.31	1.60	0.31	1.63	0.32	1.65
10.	Knol-khol	0.29	1.50	0.29	1.50	0.29	1.50
11.	Others	0.31	0.87	0.31	0.88	0.32	0.89

C. SPICES

1.	Chilli	7.01	22.78	7.01	22.78	7.03	23.06
2.	Ginger	1.10	11.00	1.10	11.00	1.11	11.14
3.	Onion	0.52	5.20	0.53	5.30	0.54	5.43
4.	Turmeric	0.31	3.72	0.32	3.78	0.32	3.78

Source : Horticulture Department, Government of Manipur .

4.1.5 Mushrooms:

A new thrust area is cultivation of mushrooms. In the world scenario, it is generally seen that countries with a weak economy tended towards the mushroom industries for export since mushrooms provide “hard” currencies. Mushrooms also have a low gestation period ensuring fast returns in terms of income and realisation of investments. In India during the past few years with the liberalisation of foreign investments, it has been seen that an increasing number of multinational institutions have voiced their willingness to invest in mushroom production units in the country with 100% export oriented units. There is, thus vast scope for commercial cultivation of mushrooms in India and specially in the North-East which offers ideal weather conditions for mushroom cultivation.

The State is having favourable climatic conditions for growing mushrooms. Wild varieties of mushrooms grow abundantly and some of such mushrooms are edible. Pleurotus and Agaricus mushroom varieties can be grown throughout the year in this State. Similarly other varieties such as, Auricularia Auricula (UCHINA), Schizphyllum commune (KANGLAYEN), Letimula edodes (THANGJIYEN), Volvariella SPP (CHARUYEN), etc. can also be cultivated. Substrate for cultivation of mushrooms are available locally except few chemicals that are to be procured from other states. Few varieties, which can be cultivated at normal conditions are given below:

	Varieties	Season
i)	Agaricus bisporus (Button Mushrooms)	December - March
ii)	Agaricus bitorquis	February - April/August-October
iii)	Pleurotus Flabellatus	April - July
iv)	Pleurotus Sajor - Caju	August - November
v)	Pleurotus Ostreatus	December - March

Dr C. O. Rangad, Ph.D. And M/s Gee Gee (Foods and packaging) Co. (P) Ltd., New Delhi had prepared a techno-economic feasibility report for the establishment of a “pilot project on Mushroom Cultivation” at Mao in Senapati District by Manipur Tribal Development Corporation Ltd. (MTDC). As per the said report, Agaricus species (Button Mushrooms) are suitable for cultivation as Button Mushrooms grow well at low temperature (i.e. 18 C to 20 C). In this regard, Horticulture Department, Government of Manipur has been encouraging local farmers to cultivate mushrooms. It is one of the important growth areas.

4.1.6 Tea:

Tea grows wild in this State since time immemorial. However, plantation of tea for commercial production has been started from the year 1981-82 by Manipur Plantation Crops Corporation Limited in Jiribam.

The targeted project area of tea plantation is 425 ha. out of which till the end of 1996 a substantive area of 260 ha. has already been covered. The yield of green tea leaf since inception upto 30th June, 1997 was 200 M.T. approx. A target of 500 M.T. of green tea leaf is attempted during the current year. As there is no suitable alternative at present, green tea leaf are sold to the Jirighat Tea Estate, Cachar, Assam @ Rs. 5 Kg. (ex factory). The Corporation has collected a revenue of Rs. 10 lakhs upto the end of June, 1997. Considering the increasing trend of yield and productivity and also to arrest unremunerative income from sale of green tea leaf, a modern tea factory is being installed at Manipur Tea Estate, Jiribam.

4.1.7 Bamboo and Bamboo Shoots:

Bamboo although not cultivated systematically, grow in wild abundantly along the low altitude hill areas where the rainfall is high. The major species of bamboo which are available in the bamboo forest are given below:-

Sl.No.	Botanical Name	Local Name
1.	<u>Bambusa arundinacea</u>	SANEIBI
2.	<u>Bambusa pallida</u>	KAL SUNDI
3.	<u>Dendrocalamus giganteus</u>	MEIRIBOB
4.	<u>Dendrocalamus hamiltonii</u>	WANAP/UNAP/PECHA
5.	<u>Melocana bambusoides</u>	MOUBI/MULI
6.	<u>Teinostachya dulooa</u>	DULU
7.	<u>Bambusa tulda</u>	UTANG

About 3,218 sq. Kms. area are covered with bamboo forest mainly by Melocana bambusoides sp. (Muli) in the reserved, protected and unclassed forest. The Forest Department, Government of Manipur has carried out survey of bamboo stock and growing stock of bamboo to determine the average yield per annum, as given below:

Sl. No.	Name of Block	Geographical area (sq. kms.)	Total Bamboo area (sq. kms.)	Qty. Of bamboo in lakh tonnes	Annual yield calculated on growing stick (in lakh tonnes)
1.	Thanlon	1238.40	387.00	10.14	1.69
2.	Henglep	637.26	206.08	4.63	0.77
3.	Nungba	1465.44	278.14	13.89	2.28
4.	Tipaimukh	789.48	278.64	7.92	1.32
5.	Jiribam	309.60	36.12	0.70	0.12
6.	Tamenglong	1083.60	283.80	5.09	0.85
Total:		5523.78	1470.28	42.37	7.03

Source: Forest Department, Manipur

The available resources of bamboo and bamboo shoots are yet to be commercially utilised fully in Manipur. It is mainly consumed at present in the construction of houses, mat and baskets etc. About 20-30 MT of bamboo shoots are consumed annually for the production of canned bamboo shoots. Keeping in view the existing resources and its utilisation, there is still a good scope for commercial utilisation of bamboo in the following sectors:

4.1.8 Food Processing Sector:

The average food value of bamboo shoot is given below:

Moisture	88.80 %
Protein	3.90 %
Fat	0.50%
Minerals	1.10%
Carbohydrates	5.70%
Calorific value	43.00 Kcal.

With the high moisture content, Bamboo shoots can be processed into the following products:

- a) Canned Bamboo shoots:
 - i) In brine
 - ii) In curried vegetable
 - iii) In syrups
- b) Bamboo shoot candies
- c) Bamboo shoot chutney
- d) Bamboo shoot sweet pickles
- e) Fermented bamboo shoots (Locally named as Soibum and Soidon)
- f) Bamboo shoot powder

There is a good demand of the above bamboo shoot products (orient food) in the local and export markets, specially, in countries namely Japan, Singapore, China, Thailand, Hongkong and U.K. etc. It is one of the prospective areas for investment.

4.1.9 Rubber:

Rubber Plantation under Forest Department, Manipur started in 1977-78 in Jiribam area covering about 938 Ha.

Potential Area: Jiribam area is, in fact, a non-traditional area for the Rubber Crop. However, due to prevalence of optimum climate, edaphic conditions required for successful growth of the crop, Jiribam has got good potential for undertaking plantation of rubber in a large commercial scale. Besides, there is a good transport facility to connect the area with good markets of Rubber Crop.

The outlying areas of Jiribam town are quite good potential areas for growing rubber trees. Plantations in a large scale can be taken up in areas on both the sides of Man Bahadur Road as far as Choudhurikhal. Special targets to utilise abandoned jhum areas in a productive manner by way of rubber plantation can be set and achieved. Higher the investment, higher would be the financial returns.

Production: So far, a total of 15,000 nos. of Rubber trees are put under tapping under half spiral alternate daily system (1/2 s d/2 system). All the mature areas are not put under tapping because of many factors such as non-availability of mature and tappable trees at regular spacing. The production of raw rubber is maximum during the dry season in Jiribam (Sept. to January).

Scope for future cultivation: There is quite a good scope for cultivation of rubber in Jiribam area. In general, rubber trees can be put under tapping after 7 years of plantation and the financial returns would outpace the investment once tapping/production of raw rubber commences. As per Rubber Board Index expenditure norm, around Rs. 40,000/- per Ha. is the expenditure upto 7th Year of plantation and taking an average yield of 1000 kg of raw rubber per Ha. and market price (conservative figure) of RS. 40/- per kg, the return would be to the tune of Rs. 40,000/- per Ha. In other words, the investment made during the first 6-7 years may be said to have been recovered in the first year of tapping & production. Since rubber trees can be put under effective tapping for 25-30 years, the total return per Ha would be quite high.

Soil, Rainfall, etc.: Rubber trees required deep & well drained soil of lateritic type. It also requires humid, equable climate (21 to 35°C) and fairly well distributed annual rainfall of 200 cm for optimum growth.

Rubber Plantation in brief (success story): Rubber Plantation in Jiribam was taken up by Forest Department with the following objectives:

- a) To generate employment.
- b) To put abandoned jhum/degraded land under productive use.
- c) To demonstrate a viable alternative to shifting cultivation.
- d) To open avenue for new rubber based industrial ventures and,
- e) To earn revenue.

Rubber plantation related activities provided immense benefit to nearby people in particular to the people of Uchathol, Harinagar, Khasia, Jarolpokpi, Boiroikhal, Sabughat, Aglapur, etc. Even now also, quite a number of people from these areas are getting employment either in plantation works or in raw rubber production works. Besides, many abandoned jhum/degraded lands have been put under productive use and the viability of rubber plantation has been shown. With production of raw rubber, rubber-based industries can be set up to uplift the economy of the people.

Rubber plantation is also environment-friendly. With the nearby people fully aware of the economic benefits specially in the form of assured employment, there is a bright prospect of rubber plantation in Jiribam area. The only thing is that the people need to be involved in a committed manner. The economic lot of the people can be uplifted in a marked way by undertaking rubber plantation.

4.1.10 Identification of Feasible Industrial Projects in Manipur:

On the basis of the various agro-horticultural resources available in Manipur, the North Eastern Industrial consultants (NECON) had identified the following feasible Food Processing Industries based on the locally available raw materials:

Sl.	Projects for	Input raw materials
1.	Fruit Juice concentration	Pineapple, Orange, Lemon
2.	Pectin and allied citrus products	Peels of Orange, Lemon
3.	Consumers pack of fruit juice	Any fruit juice
4.	Tomato Paste	Tomato
5.	Banana/Guava pulp	Banana, Guava
6.	Pineapple slices, canned fruits, Pear, Peach, Plum, fresh pack	Pear, Peach, Plum, Pineapple, Orange
7.	Potato Chips	Potato
8.	Papain (Papaya)	Papaya
9.	Modern Rice Mill	Paddy
10.	Ginger oil extraction	Ginger
11.	Mushroom cultivation cum processing	Mushroom
12.	Preservation and canning of bamboo shoots	Bamboo shoots
13.	Dry Fish Fermentation	Dry Fish (To be imported from neighbouring States like Assam)

4.1.11 Market Potential:

The disadvantageous geographical situation and severity of the terrain have been standing in the way of industrial development and trade particularly of the Food Processing Industries which can thrive only through value addition and cost efficiency. It is high time to explore this untapped sector as processed fruits, vegetables, mushrooms, ginger, spices and

rice etc. are having good demand in the local and export market. At present, many of such processed fruits and vegetables are imported to this State from other States and neighbouring countries through Myanmar. At the same time some of the units in this sector have been established and are being run successfully, catering to the local demand. This indicates existing potential available in this sector.

Sl. No	Processing Unit	Sector	Type	Capacity MT/annum	Type of products
1.	MAGFRUIT	Hort. & Soil Conservation, Govt of Manipur	SSI Unit	240	Canned fruits and vegetables, fruit syrups, pickles, jam jellies, RTS (Lime-ginger) cordials, squashes, candies, etc
2.	HEIRANG	Co-operative	-do-	240	-do-
3.	WAIFRU	N.G.O.	-do-	240	-do-
4.	RATNA FRUITS	PRIVATE	Cottage Scale	50	Squashes, jam
5.	LIKLA	-do-	-do-	50	Squashes, RTS, jam, jelly(Fruit based)
6.	SANA	-do-	-do-	50	Squashes, pickle, jelly, jam
7.	MANIFRU	-do-	-do-	50	-do-
8.	HILL FRUITS	-do-	-do-	50	Squashes, jam, etc.

The most striking area is the production of pineapple (Kew-variety), having special taste and flavour. There has been demand of such pineapple products from MAGFRUIT by the C.I.S. countries. The MAGFRUIT had exported 168 MT of canned pineapple products to the erstwhile U.S.S.R. from the year 1983-84 to 1985-86. As the units are in the SSI and the cottage scale sectors, they are often in a disadvantageous condition for continuous tapping of such export markets. Moreover, these units are hardly kept in operation due to various constraints like inadequate working capital, non-availability of quality control system as well as inability to link up with the big marketing agencies in the cosmopolitan cities like Calcutta, Chennai, Delhi, Mumbai, etc. Once the sufficient production of such processed fruits and vegetables is made (with strict maintenance or quality, packaging and reasonable price), there is a big marketing potential not only in the local market, but also in major cities of our country and even export to the countries like Saudi Arabia, Kuwait, Dubai, Singapore, Nepal, Bangladesh, U.S.A., Germany, etc. Setting up of the identified projects based on modern technology and in the medium/large scale sector are most essential for the development of food processing industries in the State.

4.1.12 Proposed Projects:

Out of identified projects in the aforesaid paras, the following projects are proposed to be set up in the State:

Sl. No.	Proposed project	Production Capacity	Estimated project cost
1.	Fruits & vegetables Processing	80 MT/day	Rs. 405.00 lakhs
2.	Ginger dehydration and Oleoresin	33 MT/day	Rs. 750.00 lakhs
3.	Spices processing plant	5 MT/day	Rs. 284.00 lakhs
4.	Integrated Mushroom processing Plant	15 MT/day	Rs. 330.00 lakhs
5.	Lime Ginger(RTS) Plant	100 lakh bottles of 200 ml. per annum	Rs. 318.14 lakhs
6.	Agri Export Zone for Passion Fruit	2 MT/Hour	Rs.2,784.00 lakhs
7.	Manipuri Traditional liquor Plant (Distillery)	9 lakhs lt./annum	Rs. 1,768.87 lakhs
8.	Integrated Pineapple Concentration Plant	50 MT/day	Rs. 9,005.00 lakhs
9.	Floriculture		Rs. 285.92 lakhs
10.	Custom Farming	1,000 Ha.	Rs. 377.00 lakhs
		Total	Rs16,307.93 lakhs

Project profiles of the above projects are given in the Annexure .

4.2 MINERAL SECTOR

4.2.1 200 TPD Cement Project in Manipur :

4.2.2 **Demand, Supply and Prospect:** There is a bright prospect for developing cement industries in Manipur. The principal major consumers of cement in the State are the State Government departments and various industries and private individuals. The present annual demand of cement in Manipur is roughly 1.86 lakh tonne. Assuming a growth rate of 13.2%, the projected demand of cement in the State year wise for the years from 2002 to 2006 are estimated below:

2002	1,85,879 MT
2003	2,10,415 MT
2004	2,38,190 MT
2005	2,69,631 MT
2006	3,05,222 MT

Viewing from the volume of demand of cement indicated above, it is highly prospective to put up new cement units in the State, at least a 200 TPD plant. Since about 87% of the total raw material requirement are limestone and clay which are locally available and considering the huge transportation cost involved in bringing cement from outside the State, setting up of new cement units in the State has definite economically competitive advantage. The product from such local units will also have a ready market in Myanmar through Moreh since the Indo-Myanmar border trade is now flourishing. Measuring the competitive advantage of export alone to Myanmar, Manipur thus has a distinct investment potential in cement industry.

4.2.3 **Availability of limestone:** A number of limestone occurrences have been located in Manipur. Of them, two clusters of limestone bodies - one at Phungyar and the other at Meiring in Ukhrul District - are recommended for obtaining the requirements of the new cement unit. The former deposit is composed of 3 limestone bands in a cluster located at about 5 Km. from Phungyar Village, while the later is near Meiring Village about 8 Km. from the Phungyar deposit. Both the villages are on a State highway the limestone deposits are nearby the respective villages. The Phungyar limestone have been explored in fair detail with drilling. Preliminary investigation has been carried out for the Meiring limestone and it is now being further explored with drilling. Both the deposits are of cement grade. The Phungyar deposits have been estimated at 6.35 million tonne and the Meiring limestone will make up another reserve of about 5.76 million tonne. These reserves will be more than sufficient for a 200 TPD cement plant.(Recommended minimum requirement of limestone for 200 TPD VSK cement plant is 5.40 million tonnes). Different limestone occurrences of the State are shown in the table below:

Limestone occurrences:

Name of Limestone Deposits	CaO content (Aprox./Av%)	Reserved		
		Measured	Indicated	Inferred
UKHRUL DISTRICT				
1 Meiring	49.6%	-	-	5.76 m.tonnes
2 Mova	50.7 %	-	-	0.45 m.tonnes
3 Kasom	38.4%	-	-	0.05 m.tonnes
4 Khangkhui	47.7%	-	-	0.26 m.tonnes
5 Lambui	43.3%	-	-	0.016 m.tonnes
6 Paoyi	47.3%	-	-	0.256 m.tonnes
7 North of Paorei	Not Analysed	-	-	6750 tonnes
8 Phungcham	Not Analysed	-	-	30000 tonnes
9 Kajing Malung	Not Analysed	-	-	0.38 m.tonnes
10 South of Huining	Not Analysed	-	-	4000 .tonnes
11 Shokpao	46.8%	-	-	275000 tonnes
12 Yongphu	44.9%	-	-	0.479 m.tonnes
13 Shingda	46.5%	-	-	0.3 m.tonnes
14 Marao	40.5%	-	-	2126 tonnes
15 Shingkap	44.2%	-	-	0.8725 m.tonnes
16 Shangsak	43.3%	-	-	0.271 m.tonnes
17 Koshu	48%	-	Not Estimated	
18 Leishi	Not Analysed	-	Not Estimated	
19 Tongam	42%	-	-	30 tonnes
20 Phalang	45%	-	-	250 tonnes
21 Khuntak Awang	Not Analysed	-	Not Estimated	
22 Hundung Goda	Not Analysed	-	Not Estimated	
23 Nungou	40.5%	-	-	24290 tonnes
24 Kangngoi	Not Analysed	-	-	244 tonnes
25 Mawai	Not Analysed	-	Not Estimated	
26 Shongphel	50%	-	-	5000 tonnes
27 Sirarukhong	50%	-	-	250 tonnes
28 Humine	Not Analysed	-	-	-
29 Makan	Not Analysed	-	-	-
30 Toupokpi	42.8%	-	-	0.6 m.tonnes
31 Beru	Not Analysed	-	-	0.04 m.tonnes
32 Chakpikarong	43.4%	-	-	0.2 m.tonnes
33 Pallel	37.3%	-	-	4 m.tonnes
34 Haikot	Not Analysed	-	-	103.5 tonnes
35 Shajik Tampak	Not Analysed	-	-	-
36 Nungphura	Not Analysed	-	-	-
37 Mombi	Not Analysed	-	-	-
Total (excluding Hundung deposits):				27145543 tonnes

4.2.4 **Location:** The project may be located at Yaingangpokpi, about 26 Km. from Imphal on the Imphal-Ukhrul road and 82 Km. from Phungyar limestone deposits, or somewhere nearer to Imphal, the State Capital and main marketing centre of the product.

4.2.5 **Infrastructure available**

- a) Power: There is a 132/33 KV power distributing station at Yaingangpokpi. Therefore, there shall be no problem for power if the project site is located at Yaingangpokpi.
- b) Communication : Yaingangpokpi and Phungyar are connected with Imphal, the State capital, by an all weather state highway. However, for mining and transportation of limestone it will be necessary to improve the approach road from Phungyar Village to the limestone deposits.
- c) Water Supply: The proposed project area is fed by two small perennial streams, viz. the Thamnapokpi river and the Maramkhog Nala. Further, when the Thoubal Dam is commissioned there shall be no problem of water in the area.

4.2.6 **Infrastructure to be established:** Main infrastructure required to be established and their approximate expenditures are given below :

Particulars	(Rs. In lakhs)	
	Quantity	Amount
a) Procurement of land and development thereof	100 acres	150.00
b) Construction of approach road to and within the cement factory complex @ Rs. 10 lakh (approx.) per Km. of 3 m. width (including sand gravel, WBM and primex.)	3 Km.	30.00
c) Boundary wall around the factory complex.	11200 Rm.	9.00
d) Construction of residential quarters.	5 Nos. of 20 blocks	60.00
e) Installation of transformers and laying of power lines.		30.00
f) Water supply arrangements.	3.60 lakh lit./day	66.00
Total:		345.00

4.2.7 **Utility Requirements:** The major utility requirements are power of 3,000 KVA (approximately) and water @ 3.60 lakh litre per day.

4.2.8 **Mining of Limestone:** To meet the requirement of limestone for the proposed cement project, the limestone deposits at Phungyar and Meiring will need be exploited. For this purpose, first of all it is necessary to ensure the creation of the required infrastructures. Quarry

haul roads to Phungyar and Meiring Limestone with a total length of about 18 Km. will be required to be constructed. Further, it will be necessary for the mining establishment to have permanent mines office, staff accommodation, power and water supply arrangements, magazine house, rest shelter, etc. in addition to the procurement of mining equipment and machinery.

4.2.9 Total Project Cost: A project report is yet to be prepared. However, an approximate estimate can be worked out based on the available information. The standard cost of the plant proper of a 200 TPD capacity is about Rs. 2,250/- lakhs. Adding this amount to the cost of infrastructural development and mining indicated earlier, the total cost of the project is estimated at Rs. 3,341/- lakh as under :

I. Infrastructural Development	-	Rs. 518 lakh
II. Plant Proper	-	Rs. 2,250 lakh
III. Mining	-	Rs. 573 lakh

		Rs. 3,341 lakh

Project profile in the prescribed proforma is given in the Annexure.

4.2.10 Serpentinite and Idocrase Processing Industries

4.2.11 Prospects :

Serpentinites occur extensively in Chandel and Ukhrul Districts of Manipur within the Ophiolite Belt which spread over about 1600 sq. km. of area.

Serpentinites are also commercially known as 'Green Marble'. It, like granite and marble, can be processed into monuments, tiles, slabs and other building blocks. It is considered that the serpentinites have a huge market potential, both as finished product and in raw forms, both within India and outside. Countries in the South-East Asia and the Middle East could be the important buyers. So far Manipur is concerned, it could become a most important mineral industry generating large scale employment and appreciable export earnings.

Idocrase has been found occurring in the host Serpentinites as pockets and lenses and also as floats. The massive green variety of Idocrase is also commercially called 'Californite Jade' as misnomer. As recommended by the Gem Testing Laboratory, Jaipur of the Gem & Jewellery Export Promotion Council, the Idocrase may be cut and polished into any shape and cutting style which may be used as semi-precious jewellery items. The carving process may yield decorative items like ash-trays, penstands, leaves, idols, or any other figure, bangles, etc. The processing industry is highly labour intensive with minimal infrastructure and fixed capital requirement. Further, through an extension from the Idocrase processing industry, Manipur will have a good potential for setting up gemstones cutting and polishing industry. Because, the traditional skill of high degree of excellence of the people, particularly women,

of Manipur for dexterous handiwork is remarkable and it is the skill which matters most in the trade.

In view of the above, the State Government has taken up steps to explore and exploit the serpentinites and Idocrase deposits and set up processing industries for cutting and polishing of both the materials and also to promote the development of gemstones cutting and polishing industries.

4.2.12 Exploration

Although the occurrences of serpentinites are extensive, at places they are weathered, fractured and jointed. It is, therefore, essential to explore the industrially desirable blocks of the rock devoid of such features. Another important aspect is to avoid inclusion of easily corrosive minerals such as carbonates as far as possible. In order to achieve systematic and planned production of both serpentinite and Idocrase it is necessary to make precise identification and assessment of the reserve and quality of workable compact blocks in the case of serpentinites and clusters in regard to Idocrase. Some such block and clusters have already been identified, but intensive exploration covering large area is still awaited for large scale exploration and investments. Appropriate mining methods should also be identified.

4.2.13 Project Cost

A typical project cost for production of 5,00,000 sq. fit. of different sizes of serpentinite tiles (viz. 5" x 10", 10" x 10", 6" x 12", 12" x 12" and larger slabs) is about Rs. 18.76 crores as given below:

1. Land & Development	105.00
2. Building & other civil works	383.00
3. Plant & Machinery	765.00
4. Power Connection & D G Set	90.00
5. Materials Handling equipment	225.00
6. Water supply arrangements	75.00
7. Post & Pre-operative expenses	83.00
8. Working capital Margin	150.00

Total	1876.00

Project profile in the prescribed proforma is given in the Annexure.

4.3 **HANDLOOM SECTOR**

4.3.1 **Introduction:-**

From time immemorial handloom industry has been playing a vital role in the state economy. The traditional skill of handloom weaving was not only a status symbol for the women-folk but it was also an indispensable aspect of the socio-economic life. Handloom weaving is by far the largest and the most important cottage industry in the state. As per the National Handloom census reports 1996-97, there are 3.39 lakh weavers with 2.77 lakh different looms producing 86.40 lakh linear metre of handloom cloth per month.

Out of the total weavers 70% were working full time in the valley areas as against 40% in the hill areas. The incidence of low utilisation of employment both in the hill and valley areas is due to lack of proper and efficient marketing mechanism. If proper marketing arrangement is made, the capacity utilisation could be increased. In fact, if there is full utilisation of the available manpower and equipment in the State, the production would be 115.20 lakh metre of handloom cloth per month.

The State Handloom & Handicrafts Development Corporation Ltd. with its emporia at New Delhi, Kolkata and Imphal and the Manipur State Handloom Weavers Co-Operative Society, an apex body of the weavers co-operative societies in Manipur were primarily responsible for marketing of handloom and handicrafts products of the State but all these organisations have not been able to meet the requirements and there has been a big gap in the marketing sector.

In view of the above shortcomings, it is high time to establish a new agency exclusively for export and marketing of handloom products in the state of Manipur with active/effective participation of Private Investors and other concerned organisations. The agency would procure finished products of handloom from the PWCS which have been benefited extensively under the Central Sponsored schemes like Integrated Handloom Village Development Project, Margin Money for Destitute Weavers, Project Package Scheme and Deen Dayal Hathkargha pratsahan Yojana and Individual weavers. Further, the agency would provide marketable standard/specified handloom fabrics with proper quality control for export outside the state/country. The agency would also provide training inputs to the selected PWCS/individual weavers in order to enable to produce quality fabrics in the specified design.

4.3.2 Handloom Population and production:

As per the National Handloom & Powerloom Census conducted during the year 1996-97, population of looms & weavers in Manipur are given hereunder:-

Sl. No.	Name of the district	No. of weaver	No. of loom	Consumption of yarn per month in Kg.	Production of cloth per month in Metre
1	Imphal District	91820	68273	5, 01,936.10	44, 26,402.00
2	Thoubal Disatrick	37835	26586	1, 60,334.50	19, 33,600.00
3	Bishnupur District	53069	31420	1, 86,294.70	13, 25,974.00
4	Churachandpur District	39294	43847	56,502.10	3, 61,953.60
5	Ukhrul District	24233	22629	23,567.00	1, 98,933.50
6	Tamenglong District	35577	36918	1, 02,953.80	2, 29,434.30
7	Senapati District	44250	35443	12,763.80	92,901.12
8	Chandel District	13554	11639	26,204.70	71,615.00
	Total	339632	276755	10, 70,557.00	86, 40,814.00

In respect of Imphal, Thoubal and Bishnupur districts, the main handloom products are Cotton, Polyester cloths like Sarees, Made up bed sheet, curtain, towel(Bath towels, hand towels, face towels, etc), Table cloths, Fashion garments with intricated designs, cushion covers, pillow covers, Upholstery, Draperies, Scarves, Terry towels, dassing gown, lashingphee(cotton tweed cloth) etc. and the remaining five hill districts from Sl.No. 4 to 8 are mainly produced Acrylic/wool cloth like Tribal Shawl, ladies lungies, Wall hanging & coverings, Upholstery, hanging bags, curtain, home furnishing etc.

4.3.3 Projected target of production on full utilisation of existing manpower & equipment:

Sr. No.	Name of the district	No. of weaver	No. of loom	Projected consumption of yarn per month in Kg	Projected production of cloth per month in metre
1	Imphal District	91820	68273	8, 36,560.20	73, 77,336.70
2	Thoubal Disatrick	37835	26586	2, 67,224.20	32, 22,666.70
3	Bishnupur District	53069	31420	3, 10,491.20	22, 09,956.70
4	Churachandpur District	39294	43847	1, 88,340.30	12, 06,512.00
5	Ukhrul District	24233	22629	78,556.67	6, 63,111.67
6	Tamenglong District	35577	36918	3, 43,179.30	7, 64,781.00
7	Senapati District	44250	35443	42,546.00	3, 09,670.40
8	Chandel District	13554	11639	87,349.00	2, 38,716.67
	Total	339632	276755	21, 54,247.00	159, 92,752.00

It is seen from the above two tables, that the first table shows the normal production of consumption of yarn in absence of proper designing techniques and marketing outlet and the second table shows the projected target as and when the new designing techniques is introduced and marketing is assured with the same population of manpower and looms.

4.3.4 Reason of low production:

Around 40% of weavers are not working fully during the whole year of 12 months in respect of valley district, where conventional Fly Shuttle Looms and weavers are concentrated and 70% of the weavers in case of hill district due to:-

- (a) Fear psychosis, presuming that bulk production would not find market.
- (b) Lack of modern and improved techniques of designing.
- (c) Lack of awareness of the modern fast changing market scenario.

4.3.5 Existing Market Mechanism:

- (a) Marketing under the Co-operative Organisations.
- (b) Marketing under Govt. undertaking/owned Corporation/deptt.
- (c) Marketing by independent weavers.
- (d) Marketing under Master Weavers.

4.3.6 Ongoing and past discontinued Developmental schemes or Programmes launched by Government of India:

There are many Developmental as well as Welfare schemes under central Sponsored Scheme from the Ministry of Textiles, Govt. of India. Some of the important developmental schemes are:

- (a) Erstwhile Project Package Scheme (PPS).
- (b) Integrated Handloom Village Development Project (IHVDP).
- (c) Deen Dayal Hathkargha Protsahan Yojana(DDHPY).

These schemes are emphasised on production of handloom items with assistance in form of Central grant and loan and nominal contribution of state matching shares as grant and loan. The department is also contemplating to avail the opportunity of getting loans by the weavers/PWCS from the Financial Institutions/Banks for basic Inputs like Working Capital and purchase of looms. The production programme can, therefore, carried out in accordance with the guidelines issued by the Government of India from time to time.

A profile of the above project is enclosed in the Annexure.

4.4 **BORDER TRADE**

4.4.1. **Introduction:**

The Indo-Myanmar Border Trade was inaugurated on 12.4.95 by the then Union Minister of State for Commerce, as a follow-up measure of the Trade Agreement signed between the two countries on the 21st January, 1994, at New Delhi. The opening of the Border Trade along the Tamu (Myanmar)-Moreh (Manipur) sector is quite significant as this would act as an economic bridge between industrially developed India and the blooming economies of South East Asian countries.

Along this sector besides the Border trade (within 40 km. of the international border based on barter mechanism) the normal export-import as per the existing policy of Government of India is possible. A developed trade across this border will be of advantage mainly in reduced cost while accessing the market of South East and even far-east Asian countries.

The State Government is taking all the required measures for the development of the export-import along this sector. Institutional mechanism like upgradation of the Industries Department, Counselling-cum-Grievance Committee, conducting general awareness programme, setting up of State level Export Committee which includes banks etc. has already been done.

Adequate measures are also being taken up by creating infrastructure which will help in the setting-up and growth of industries directed towards the export. The following are the important measures which have been taken:

- i) **Trade Centre** providing facility to traders & entrepreneurs will be set up at Moreh and Imphal.
- ii) Improvement of Road, infrastructure under ASIDE Scheme.
- iii) Setting up of a **Special Economic Zone**.
- iv) Introduction of **Inland Container Depot (ICD)** and **Warehousing Facility**

The setting up of Special Economic Zone at Moreh aims at

- a) Exemption from Customs duty, Central Excise Duty, CST, etc.
- b) Promotion of economic activities by curbing the illegal activities and capturing revenues
- c) Promotion of clusters of small scale tiny units to create employment opportunity and develop export.
- d) Creation of infrastructural facilities like communication including helicopter service, banking, post office, residential complex, power, water, etc.
- e) Strengthening of Counselling-cum Grievances Redressal Cell and activating the State Level Export Promotion Committee(SLEPC) with the creation of Single Window Clearance.

In following of the following trade differences between legal and illegal (Customs Seizure), the State Govt. proposes to tap the beneficial impact in both terms of social economic development to the hinterland by enhancing regional economic co-operation within the framework of Indo-Asian Partnership.

YEAR-WISE VOLUME OF TRADE(through Legal Route):-

					(Amount in Rupees)
Sl.No.	PERIOD	EXPORT	IMPORT	TOTAL	
1.	April, 1995 to March, 1996	10,45,27,782/-	5,38,99,029/-	15,84,26,811/-	
2.	April, 1996 to March, 1997	31,70,51,137/-	15,17,64,094/-	46,88,15,231/-	
3.	April, 1997 to March, 1998	22,44,72,930/-	35,08,34,823/-	57,53,07,753/-	
4.	April, 1998 to March, 1999.	5,06,09,710/-	3,74,39,616/-	8,80,49,326/-	
5.	April, 1999 to March, 2000	3,25,65,827/-	3,67,97,316/-	6,93,63,143/-	
6.	April, 2000 to March, 2001	5,29,17,530/-	19,38,523/-	5,48,56,053	
7.	April, 2001 to March, 2002	1,25,08,345/-	8,29,71,255/-	9,54,79,600/-	
Total:-		79,46,53,261	71,56,44,656	151,02,97,917	

Customs seizure during the last three years:

Financial year	Amount in Rupees	Main items seized
1999-2000	3,56,59,603/-	VCD, Inverters, Battery, Precious stones, narcotic drugs (Amphetamine tabs., Ephedrine, Heroine Powder, etc), Blanket, Cloth carpet, Myanmar currency, detergents, soap, readymade garments, shoes, chapples, edibles, etc.
2000-2001	4,02,21,474/-	
2001-2002	4,01,32,944/-	

Project profiles in the prescribed proforma are given in the Annexure.

4.5. HANDICRAFTS SECTOR

4.5.1 Cane & Bamboo Production Project (CBPP)

Introduction:

Over 130 species of bamboo are found in India and 44 varieties of bamboo are accounted for North Eastern States, of which Manipur has 15 varieties of bamboo and 5 varieties of cane and some of these are widely exploited by traditional communities on selective basis. It is reported that the natural endowed forests of Manipur cover nearly 3,000 sq. km. and the bamboo production is around 2 lakh tonnes annually. There is ample scope for cultivation & economic utilisation of cane & bamboo in many folds in the Manipur State to provide employment to the masses. New applications can open up the possible use of this rich genetic resource in a much wider manner than at any time in the past. Some of the varieties of bamboo found in Manipur & worth the name are as under :-

	Sl. No.	Local Name	Botanical name
	1.	Tenwa	<i>Arundinaria callosa</i>
	2.	Watang khoi	<i>Bambusa vulgaris</i>
	3.	Saneibi	<i>Bambusa balcoa</i>
	4.	Khok	<i>Bambusa khasiana</i>
	5.	Utang	<i>Bambusa pallida</i>
	6.	Pokshang	<i>Cephalostachyum</i>
	7.	Unan	<i>Dendrocalamus strictus</i>
	8.	Uei	<i>Dendrocalamus sericeous</i>
	9.	Longnga	<i>Dendrocalamus flagellifer</i>
	10.	Meiribop	<i>Dendrocalamus hamiltonii</i>
	11.	Moubi	<i>Melocanna bambusoides</i>
	12.	Nat	<i>Teinostachyum wightii</i>

Cane & bamboo craft industry is covered under Handicrafts Industry within the ambits of encouragement/development plans of the office of the Development Commissioner(H/C), Ministry of Textiles, Government of India and also the Department of Commerce & Industries, Government of Manipur. Among the crafts/trades under Handicrafts Industry, cane and bamboo craft is the most wide-spread one throughout the State and becomes most employment generating and lively-hood earning craft because of availability of sufficient raw materials and local market demands including household consumption needs in addition to demands from outside the State including overseas. Among the items of cane & bamboo products, the following are worth to mention:-

- 1) Baskets like items for packaging, measuring, storing, carrying of goods, washing and fishing etc.
- 2) Mats like items for ceiling, partition, fencing, sitting and walling etc.
- 3) Fishing traps/tools
- 4) Furniture like side table, chairs, sofa sets, stool/*mora etc.*
- 5) Walking stick.
- 6) Umbrella handle.

- 7) Trays.
- 8) Decorative pieces like table lamp, wall hanging, ash tray, flower pot, flower and other models, etc.
- 9) Caps/hats.
- 10) Ply board(bamboo laminated).
- 11) Tooth pick/Agarbati sticks.
- 12) Musical instruments like flutes.
- 13) Suit case.
- 14) House construction materials like bamboo strips/slivers, rope, etc.

These items are in different forms/designs according to the varying customs of different tribes of the State. The number of artisans engaged in cane & bamboo activity in Manipur is estimated at 1.50 lakhs approximately.

Since India has a very large standing resource of bamboo, mostly in the forest areas and there is a tradition in many parts of the country for small-scale homestead cultivation of bamboo for self consumption, the commercial cultivation of bamboo is not found normally. In view of commercial cultivation and economic utilisation of bamboo and cane as a substitute for the fast depleting timber resources, the Government of India feels that there is a need for a comprehensive programme of cane and bamboo for sectional upgradation, enhancement of employment opportunities for artisans, promotion of value-addition through better and well designed product development, optimum propagation and conservation etc. To achieve these objectives, the office of the Development Commissioner(Handicrafts), Ministry of Textiles, Government of India has been taking up actions for launching of a special scheme of cane & bamboo development with the assistance of the International Body namely, “United Nations Development Programme (UNDP)” in the country specially for the North-Eastern States since last two years. The title of the scheme is “UNDP assisted Cane & Bamboo Project” The scheme will involve activities relating to propagation and conservation of cane & bamboo species, design and product development, setting up of common facility centres, training and skill upgradation, documentation & dissemination of information and market support, etc. These activities under the said project will cover the State of Manipur also.

Trained Artisans in Cane & Bamboo trade.

There are many trained Artisans / Entrepreneurs in the Cane & Bamboo trade in the State. Various Central/State Government Departments/Offices under various schemes through either departmental training centres or implementing agencies/ Mastercrafts persons have conducted training programmes for Cane & Bamboo in various parts of the State since last many years. In the State, there are also a number of skilled artisans having got training in Fine Bamboo & Cane Works from BCDI, under the O/o the DC(H/C), Government of India, Agartala. Data on the number of passed out trainees in Cane & Bamboo trade as on 31st March, 2001 for the departmental training centres under the Department of Commerce & Industries, Manipur and Office of the Development Commissioner (Handicrafts), Ministry of Textiles, Government of India are given below.

Sl. No.	Name of District	Departmental training Centre, Com.& Ind. Department	O/o DC(Handicrafts)			Grand Total
			Deptt. Mobile Training Centres	NGOs & Individual Crafts persons	Total	
1.	Imphal East	57	98	30	128	185
2.	Imphal West	-	412	64	476	476
3.	Thoubal	90	32	-	32	122
4.	Bishnupur	9	173	51	224	233
5.	Senapati	-	1	36	37	37
6.	Ukhrul	-	9	15	24	24
7.	Churachandpur	64	16	42	58	122
8.	Chandel	-	26	15	41	41
9.	Tamenglong	-	-	-	-	-
Total		220	767	253	1020	1240

Concept of the Cane & Bamboo Production Project

Taking advantage of the potentials for further development on cane & bamboo crafts due to having sufficient raw materials resources, skilled manpower force, high market demand from within and outside the State and also keen interest from the Indian Chamber of Commerce(ICC), Confederation of Indian Industries (CII), NEDFI etc. for investment/buying of handicrafts products from the North East, the Government of Manipur shall take up a cane & bamboo project as a joint venture by setting up 10 units for Cane & Bamboo production in the State - one each at District Head Quarters and one at Block Head Quarters, Jiribam of Imphal East District, by acquiring improved type machinery.

The main objectives are as follows:-

- i) Employment generation for unemployed youth.
- ii) Enhancement of income to the families of those youth.
- iii) Creation of business environment between the State and the rest of the country.
- iv) Revenue earnings of the State.

The project shall consist of 10 units at the cost of Rs. 16.00 lakhs each and the total project cost shall be Rs. 160.00 lakhs, of which capital cost shall be Rs. 110.00 lakhs. The targets of Annual Sales/turnover shall be Rs. 208.00 lakhs for 1st year of operation, Rs. 234.00 lakhs for 2nd year and Rs. 260.00 lakhs for 3rd year and onwards. The project shall give employment to 800 persons directly. It will also create indirect employment to bamboo farmers/suppliers/ traders/artisans/entrepreneurs who may use the machinery facilities of the units under the project.

The competitive advantage of the project over other cane & bamboo production units in the State shall be in terms of volume of production, quality & price because of the installation of improved type machinery. The project shall be first of its kind in the State. The facilities for utilising these improved machinery for standard processed materials of desired sizes may be opened to artisans in & around the locations of the units under the project after taking some charges.

Implementation work of the Project shall be entrusted to either capable/deserving individuals or NGOs or Co-operative Societies as promoters. One such party for each units shall be selected by the State Government. It is also proposed for participation of NEC, NEDFI and investors from members of CII & ICC for successful implementation of the project. The funding pattern of the project is proposed as below:-

i)	Promoter's contribution @ 12.5%	:	Rs.	20.00	Lakh
ii)	NEC's equity @25%	:	Rs.	40.00	Lakh
iii)	Investor's/NEDFI's equity@25%	:	Rs.	40.00	Lakh
iv)	<u>Bank/NEDFI loan@ 37.5%</u>	:	Rs.	60.00	Lakh
	Total	:	Rs.	160.00	Lakh

State Government's role in the project shall be as under:

- i) Arrangement for availability of land, if the promoters do not have sufficient land,
- ii) State Govt. guarantee, if necessary, in addition to the promoters' co-lateral security.
- iii) Selection of capable/deserving private promoters by issuing Notice through printed media, TV/AIR for calling/inviting applications from individuals/NGOs/Co-operative Societies.
- iv) Monitoring & Evaluation.
- v) Loan recovery
- vi) Creation of security environment.
- vii) Extension of Incentive packages as escort services.
- viii) Any other assistance, wherever possible, for speedy and successful implementation of the project.

Arrangement for Raw Materials:

Some of the varieties/species of bamboo and cane commonly used by the handicrafts artisans of the State are as under :-

- (a) Bamboo
 - i) Saneibi (*Bambusa balcoa*)
 - ii) Khok (*Bambusa Khasiana*)
 - iii) Utang (*Bambusa Pallida*)
 - iv) Unan (*Dendrocalamus strictus*)
 - v) Uei (*Dendrocalamus sericeous*)
 - vi) Longa (*Dendrocalamus flagellifer*)
 - vii) Meiribop (*Dendrocalamus hamiltonii*)
 - viii) Moubi (*Melocanna bambusoides*)
- (b) Cane
 - i) Yairi (*Rubus idens*)
 - ii) Liren (*Rubus micus*)
 - iii) Leethit (*Rubus longunabuas*)

Under the UNDP assisted cane & bamboo project, integrated gene pool banks, tissue culture and plant multiplication nurseries will be set up by the Government of India at

identified locations of the North-Eastern Region. By supplying necessary inputs from these centres, cultivation of bamboo & cane of selected species according to the local needs will be taken up through the selected farmers. Procurement & supply of required quality & quantity of bamboo & cane materials may be made through contract suppliers from these farmers as well as local resources. This system will also create employment to some persons.

Marketing arrangement:

Marketing arrangements for selling the finished products as well as semi-processed raw materials may be taken up in many ways or through many channels as follows:-

- i) To sell direct at the production centre itself;
- ii) To sell by opening Emporia/Sales out-lets at the main market places of the districts;
- iii) To sell/supply to the State Handloom & Handicrafts Development Corporation/North Eastern Handloom & Handicrafts Development Corporation;
- iv) To supply to handicrafts traders/exporters;
- v) To sell by participating Local/State/Regional/National Level Exhibitions/Trade Fairs etc.;
- vi) To supply to State Govt. Departments/Offices.

All the available media, trade fairs, web sites and e-commerce may be tapped to bring the benefits of a changed market place to the production unit. There is a centrally sponsored scheme for Handicrafts Development under the O/o the D.C.(Handicrafts), Ministry of Textiles, Government of India for opening of new/renovation/ expansion of emporia/sales outlets with a view to ensure economic development of crafts persons as a permanent outlet to avoid commission of middlemen in marketing of handicrafts etc. Under this scheme the units may get financial assistance from the Central Government for opening of new emporia/sales outlets at suitable places if the State Government/State Level Selection Committee recommends its applications for the same after one year or so of the successful implementation of the above project. The units may get financial assistance from the Central Government for organising exhibitions in various places within the country from time to time at yearly intervals so as to promote sales of handicrafts, increase awareness in favour of handicrafts, expose craftspersons to the market and launch new products and designs for trial and promotion. For survival of the units under the proposed cane & bamboo project, the State Government may frame a policy for purchase of Cane & Bamboo furniture and other office equipment from these units in place of new/replacement purchase of office furniture/equipment of wood/iron/plastic. This will not only help the Government Policy for providing employment to youth in the private sectors but also preserve the destruction of timber forests.

A profile of the project is indicated in the Annexure.

4.5.2 Kouna Craft Production Project (KCPP)

Introduction:

Kouna, which is locally called, is a class of reed - a firm- stemmed water or marsh plant especially of genus - Phragmites. The plants grow wildly in the marshy land, ponds, canals, along the river and lake beaches. From time immemorial, these stalks, locally called Kouna, after drying have been being used in making mats/mattresses by the people living mostly in the valley areas of the Manipur State. Kouna craft making mats/mattresses in different sizes, short and long is taken up by traditional artisans for economic earnings. The craft has now been taken up as a gainful economic activity by artisans/entrepreneurs in some areas in the State due to having high market demands. The plants are planted especially for economic utilisation in the marshy paddy fields, canals, along the submerged river and lake shores.

- (a) Kouna growing areas in abundance are as under:
 - I. Imphal West District: (1) Konjeng Leikai
(2) Mayang Imphal.
 - II. Imphal East District: (1) Thambal Khong.
(2) Kongba
(3) Singjamei Kshetrileikai.
(4) Khongman.
 - III. Bishnupur District: (1) Oinam.
(2) Keinou.
(3) Thinungei.
(4) Phubala.
(5) Sunusiphai.
(6) Moirang.
 - IV. Thoubal District: (1) Khangabok.
(2) Nongpok Sekmai.
(3) Shikhong.
(4) Langmeithek.
(5) Ukhongshang.
(6) Chairen (East).
(7) Kakching.
- (b) Kouna craft concentration areas are as under:
 - I. Imphal West District: (1) Konjeng Leikai
(2) Keisamthong.
(3) Mayang Imphal Bengun.

- II. Imphal East District: (1) Thambal Khong.
(2) Kongba Nandeibam Leikai
(3) Singjamei Kshetrileikai.
(4) Khongman.
- III. Bishnupur District: (1) Moirang.
- IV. Thoubal District: (1) Khangabok.
(2) Shikhong.
(3) Langmeithek.
(4) Ukhongshang.
(5) Chairan (East).
(6) Kakching.

Kouna craft industry is also covered under handicrafts industries within the ambit of encouragement/development plans of the office of the Development Commissioner (Handicrafts), Ministry of Textiles, Government of India and also the Department of Commerce & Industries, Government of Manipur. Now-a-days, kouna craft becomes one of the flourishing industry among other Handicrafts in the State due to having potentials in source of raw-materials and markets. Kouna products have not only local market demands but also demands from outside the State including both the country and the foreign countries. These products are exported outside the State like Delhi and Mumbai and outside the countries like U.K., Netherland, German, France, UAE and Switzerland, etc. by traders/exporters/ NGOs. Some trading firms having business interest in Latin American countries have made inquires to the Department of Commerce & Industries, Manipur for kouna products especially for Cushion. The surging demands for kouna products surpass the current production in the State. As such, there is ample scope for large scale production of kouna items. Items of kouna products are as under:

- (1) Cushion of different sizes.
- (2) Mat/Mattress of different sizes.
- (3) Stool (local name - Mora)

Concept of kouna craft production project:

Taking advantage of the potentials for further development on kouna craft due to having room for expansion of raw-material sources by plantation methods, skilled manpower force, high market demand from within and outside the State and also keen interest from the Indian Chamber of Commerce (ICC), Confederation of Indian Industries (CII), NEDFI etc for investment/buying of handicrafts products from the North-East, the Government of Manipur shall take up a kouna craft production project as a joint venture by setting up 10 units for kouna production in the following suitable identified areas in the State.

- I. Imphal West District: (1) Konjeng Leikai
(2) Mayang Imphal Bengun.
- II. Imphal East District: (1) Kongba Nandeibam Leikai
(2) Khongman.
- III. Bishnupur District: (1) Moirang.
(2) Keinou.
(3) Phubala.
- IV. Thoubal District: (1) Khangabok.
(2) Shikhong.
(3) Chairen (East).

The main objectives are as follows:

- i) Employment Generation for unemployed youth.
- ii) Enhancement of income to the families for those youth.
- iii) Creation of business environment between the State and the rest of the country.
- iv) Revenue earnings of the State.
- v) Foreign exchange earnings of the country.

The project shall consist of 10 units at the cost of Rs. 20.00 lakhs each and the total project cost shall be Rs. 200.00 lakhs, of which capital cost shall be Rs. 60.00 lakhs only. The expected annual sales/turnover shall be Rs. 288.00 lakhs for 1st year of operation, Rs. 324.00 lakhs for the 2nd year and Rs. 360.00 lakhs for the 3rd year and onwards. The project shall give employment to 560 persons under production programme and 500 persons under plantation programme.

For availability of sufficient and regular flow of supply of raw materials, large scale plantation programme shall be taken up. Under this programme, 500 farmers from the suitable identified areas shall be selected and given loan @ Rs. 10,000/- per farmer for plantation of Kouna. They shall supply the raw materials (dry kouna) to the production units. 50 farmers shall tied up with each production unit which shall collect/recover the loan amount from the farmers by equal annual instalments for pay back to the lenders/ investors. The farmers may adjust the loan instalments against their sales proceeds received from the production units.

Under plantation programme, the following villages around Loktak Lake and Ithai Barrage and other areas are identified:

- I. Bishnupur District: (1) Keinou
(2) Thinungei
(3) Phubala.
(4) Sunusiphai.

- (5) Moirang
- (6) Ithai
- (7) Khordak

- II. Thoubal District:
- (1) Khangabok.
 - (2) Nongpok Sekmai.
 - (3) Chairan (East).
 - (4) Mayang Imphal
 - (5) Tera
 - (6) Mondum.

The competitive advantage of the project over other Kouna production units in the State shall be in terms of volume of production, quality and price because of its organised form involving the Government. Advantages over other units are due to the availability of skilled manpower, arrangement for adequate raw materials supply as well as high market potentials including export, security environment to be created by the State Government especially for this project.

Implementation work of the project shall be entrusted to either capable/deserving individuals or NGOs or co-operative societies as promoters. One such party of each unit shall be selected by the state Government. It is also proposed for participation of NEC, NEDFFI and investors from members of CII & ICC for successful implementation of the Project. The funding pattern of the project is proposed as below:-

i)	Promoters' contribution @10%	:	Rs. 20.00 Lakhs
ii)	Investors/NEC/NEDFI's equity @ 20%	:	Rs. 40.00 Lakhs
iii)	Investors/Bank/NEDFI's loan @ 70%	:	Rs. 140.00 Lakhs
	<u>Total</u>	:	<u>Rs. 200.00 Lakhs</u>

State Government's role in the project shall be as under:

- i) Arrangement for availability of land, if the promoters don not have sufficient land.
- ii) State Government guarantee, if necessary, in addition to the promoter's collateral security.
- iii) Selection of capable/deserving private promoters by issuing Notice through printed media, TV/AIR for calling/inviting applications from individuals/NGOs/ Co-operative Societies.
- iv) Monitoring & Evaluation.
- v) Loan recovery.
- vi) Creation of security environment.
- vii) Extension of Incentive packages as escort services.
- viii) Any other assistance, wherever possible, for speedy and successful implementation of the project.

Marketing arrangement:

Marketing arrangements for selling the finished kouna products may be taken up in many ways or through many channels as follows:-

- i) To sell direct at the production centre itself;
- ii) To sell by opening Emporia/Sales out-lets at the main market places of the districts;
- iii) To sell / supply to the State Handloom & Handicrafts Development Corporation / North Eastern Handloom & Handicrafts Development Corporation;
- iv) To supply to handicrafts traders/exporters;
- v) To sell by participating Local/State/Regional/National Level Exhibitions/Trade Fairs etc.;
- vi) To supply to State Govt. Departments/Offices.

All the available media, trade fairs, web sites and e-commerce may be tapped to bring the benefits of a changed market place to the production unit. There is a centrally sponsored scheme for Handicrafts Development under the O/o the D.C.(Handicrafts), Ministry of Textiles, Government of India for opening of new/renovation/ expansion of emporia/sales outlets with a view to ensure economic development of crafts persons as a permanent outlet to avoid commission of middlemen in marketing of handicrafts etc. Under this scheme the units may get financial assistance from the Central Government for opening of new emporia/sales outlets at suitable places if the State Government/State Level Selection Committee recommends its applications for the same after one year or so of the successful implementation of the above project. The units may get financial assistance from the Central Government for organising exhibitions in various places within the country from time to time at yearly intervals so as to promote sales of handicrafts, increase awareness in favour of handicrafts, expose craftspersons to the market and launch new products and designs for trial and promotion. For survival of the units under the proposed Kouna Project, the State Government may frame a policy for purchase of Kouna products especially cushions in place of new/ replacement purchase of office rubber cushions.

A profile of the project is indicated in the Annexure.