

CHAPTER – VI

INDUSTRIES & MINERALS

6.1 VILLAGE AND SMALL INDUSTRIES

The primary objective and function of the Department is promotion and development of industries for employment generation for unemployed youths, impart training for skill development and motivate the youths to set up self-employment ventures and increase the State Domestic Product (SDP).

The approved 11th plan outlay is ₹4900.00 lakhs and the anticipated expenditure during the Eleventh Plan is ₹ 2885.18 lakhs. The approved outlay during 2011-12 is ₹ 800.00 lakhs and the entire amount is expected to be fully utilized.

Achievement during the Eleventh Plan:

During the 11th Plan Period, the Department has been able to create employment opportunities to 10,863 nos. of unemployed youths from 2,752 nos. of registered Micro and Small Enterprises in various parts of the State with an investment of ₹ 8,659.00 lakhs and has also been able to provide financial assistance of ₹13,77,43,194/- to 2,296 nos. of Micro and Small Enterprises under the Package Scheme of incentives 1997.

For skill development, local youths are sponsored for undergoing training in different trades to different Vocational Training Centre for women like RVTI in eight different centres across the country and NVTI, Noida, NEITCO (Guwahati), CIPET(Guwahati), NIFT (Calcutta) etc and during the 11th Plan Period 1,529 nos. of youths has been trained in various fields of industrial activities to equip themselves to take up job opportunities available in the State as well as in other parts of the country. The numbers of rural artisans trained in the trade like Cane & Bamboo, Wood Crafts and other artistic works during the 11th Plan Period is 1,056 nos under the Master Craftsman Training Scheme. During the 11th Plan, 136 awareness programme were organized and 2,925 nos. local youths attended the programmes for acquiring the basic technical know-how in the field of Industries and Trade related activities. 35 nos. of Exhibitions/ Trade fairs were arranged during the 11th Plan Period in different parts of the State for the benefit of 1,050 local units for promotional activities, marketing their products as well as establishing future reactivity linkages. 657 passed out trainees were trained during the 11th plan in different activities viz Tailoring, Embroidery, Knitting, Carpentry, Steel fabrication etc in different Departmental Training Centres in the state and machineries, tools and equipments were distributed.

Under the centrally sponsored scheme viz Prime Minister Employment Generation Programme 286 units was set-up during the 11th plan period to train and groom first Generation Entrepreneurs to take up self employment ventures in various trades and activities to set up their own units, thereby creating an employment of 1,606 nos

Approach, objective and strategies for the 12th Five year plan (2012-17) period

During the 12th plan period the following thrust areas are envisaged to be taken up:-

1. Promoting around 4,000 nos. Micro, Small & Enterprise with an investment of ₹15,000 lakhs and creating an employment opportunities to local educated unemployed youths thereby increasing the State Domestic Product.
2. Training of educated unemployed youths for skilled development in different trades to cater to job market demands. It is expected that 5,000 youths will be trained to adapt themselves according to the job environment.
3. Marketing supports to registered units through International/National Trade Fair and Exhibitions.
4. Providing Financial Assurances to Micro & Small enterprises under the Package Scheme of Incentives.
5. Creating infrastructures for attracting investment and creating employment opportunities.
6. Entrepreneurship development programme and workshop and seminar on Micro & Small Enterprises.
7. Upgradation of Infrastructures and skilled in Existing Departmental Training Centres.
8. Promoting Bee Keeping (Apiculture) in the state.
9. Setting up of an Integrated Craft Complex at Nongrim Hills, Shillong.

The Projected outlay for the 12th Five Year plan (2012-2017) for Village & Small Industries is Rs.5100.00 lakhs and the proposed outlay for 2012-13 is Rs. 1520.00 lakhs which includes Rs.500.00 lakhs for Apiculture Mission under IBDP.

During the Twelfth plan period most of the schemes/programme under this sector will be continued.

1. Training Inside and Outside the state, Awareness Programme, Mastercraftman will also continue during the 12th five year plan in identified areas of the Districts in the state for motivation and identification of local entrepreneurs to take up self employment and training of local youths to equip themselves in various fields of Industrial activities to take up job opportunities available in the state as well as in the country.

2. Grant-in-Aids to passed out trainees, Subsidies and Exhibition:- The Department participates in various Trade Fairs, and Industrial Exhibitions, both in as well as outside the State. In addition, the DICs also annually organized District Level Exhibitions in the District Head Quarters so as to bring awareness in local people and help local units to market their products thereby creating an atmosphere of industrial climate in the Districts/state. In order to support the local industrial units, subsidies, incentives and grants are also extended to the local entrepreneurs and bodies. An amount ₹ 218.00 lakhs is proposed for the 12th plan and ₹ 39.00 lakhs for the annual plan 2012-2013.

3. Grant-in-Aids to MKVIB and Share Capital Contribution to MHHDC:- Grant-in-Aid to MKVIB also will continue in order to encourage Village & Cottage Industries. An amount of ₹ 925.00 lakhs is proposed during the 12th five year plan and ₹180.00 lakhs for annual plan during 2012-2013. A Share Capital Contribution to MHHDC also will continue in order to encourage local artisans. An amount of ₹ 232.00 lakhs is proposed during the 12th five year plan and ₹.45.00 lakhs for annual plan during 2012-2013.

New Schemes

1. Upgradation Of Departmental Training Centre :

Various Vocational Training Institute located all over the State imparted training to unemployed youths in various trade namely- Tailoring & Embroidery, Knitting, Furniture Making, Carpentry, Steel Fabrication, Cane & Bamboo, Shoe Making etc. for acquiring the basic technical know-how in the field of Industries and Trade related activities. The following Departmental Training Centres are proposed to be upgraded and modernized in respect of Infrastructures, Plant and Machineries and Skilled upgradation.

1. Knitting, Tailoring and Embroidery Training Centre, Nongrim Hills
2. Furniture Making Institute, Nongrim Hills, Shillong
3. Leather and Shoe Making Institute, Nongrim Hills, Shillong
4. Knitting, Tailoring and Embroidery Training Centre, Assanang, West Garo Hills, Tura.
5. Carpentry and Steel Fabrication Cherangre, Tura
6. Upgradation/Modernisation of Saw Mill cum Mechanised Carpentry Workshop, Umsning.

2. Capacity Building For Functionaries And Officers

In addition to its Primary objective for development of Micro, Small & Medium Enterprise, the Department has also taken the initiative to develop its own functionaries for strengthening the DCIC's and to play a more proactive role in advocacy and capacity building keeping in view of the changing scenario in Micro, Small, Medium & Large Industries to keep pace with the rest of the country. Institute like National Institute of Micro, Small & Medium Enterprise Development (NIMSME), Hyderabad, National Institute for Entrepreneurship & Small Business Development (NIESBD), Noida, Indian Institute of Management (IIM), Shillong, Institute of Entrepreneurship, Ahmedabad, Indian Institute of Entrepreneurship, Guwahati will be involved for capacity Building its manpower.

3. Promoting Bee Keeping (Apiculture) in the state.

The Bee Keeping section at present is unable to perform its task for which it has been created for the purposes of developing Bee Keeping Industries due to paucity of fund. In order to revitalize the Bee keeping Industries in the state for generation of income and for providing employment opportunities to the unemployed youth the Department proposed to set up a Bee Keeping processing units, quality control and Test cum Training Centre in Shillong and Tura and to equip these centres with modern facilities to help farmers to train themselves in the trade and market their products at a competitive price.

4. Setting up of an Integrated Craft Complex at Nongrim Hills, Shillong

The Commerce & Industries Department, with aims to augment the growth of the cane and bamboo handicrafts industry, submitted a project proposal of Rs 4,94,40,000/- for setting up an Integrated Craft Complex to Development Commissioner (Handicrafts) in May 2011 which was approved by Development Commissioner (Handicraft) under Ambedkar Hastship Vikas Yojana (AHVY) scheme. Out of the total amount of Rs 4,94,40,000/- the Government of India Share is Rs 4,30,00,000/- and the State Share is Rs 64,40,000/- of which has been earmarked during the annual plan 2012-13.

The Components of the Integrated Craft Complex are:

- (i) Raw Material Bank

- (ii) Craft Based Resource Centre
- (iii) Design Bank
- (iv) Common facility Centre
- (v) State Initiative Design Centre

6.1.6 The broad schematic outlays proposed for the 12th Plan (2012-2017) and Annual Plan 2012-13 are as follows:-

(Rs. in Lakhs)

Sl. No	Major Head/ Minor Head of Development (Scheme-wise)	Eleventh Plan (2007-12) Projected Outlay at 2006-07 Prices	Eleventh Plan Anticipated Expenditure (at Current prices)	Annual Plan (2010-11) Actual Expenditure	Annual Plan (2011-12)		12th Five Year Plan Tentative Projected Outlays (at 2011-12 prices)	Annual Plan 2012-13 (Proposed Outlays)
					Approved Outlay	Anticipated Expenditure		
0	1	2	3	4	5	6	7	8
1	Head Quarter Organisation	100.00	114.16	13.16	40.00	40.00		
2	District Organisation	35.00	34.76	4.66	20.00	20.00		
3	DIC	1500.00	1532.48	400.17	368.00	368.00		
4	Industrial Estate	60.00	51.65	10.24	22.00	22.00		
5	MPSW	35.00	32.45	8.99	9.00	9.00		
6	TKE	35.00	53.13	13.66	15.00	15.00		
7	KTC	35.00	42.20	12.30	15.00	15.00		
8	Training inside and outside	50.00	118.19	15.89	70.00	70.00	137.00	25.00
9	Awareness Programme	50.00	34.71	6.18	10.00	10.00	89.00	16.00
10	Mastercraftsman training	50.00	67.64	12.98	20.00	20.00	135.00	25.00
11	Exhibition	60.00	48.35	11.00	13.00	13.00	131.00	24.00
12	Grants in aid	70.00	53.40	11.70	12.00	12.00	87.00	15.00
13	MHHDC	500.00	149.00	30.00	40.00	40.00	232.00	45.00
14	MKVIB	600.00	469.04	84.00	120.00	120.00	925.00	180.00
15	Industrial Estate Works	1670.00	29.80	7.80	10.00	10.00	171.00	100.00
16	Joint Director of Industries	50.00	54.22	22.36	16.00	16.00		
17	Bee Keeping						164.00	50.00
18	Upgradation of training Centre						1300.00	430.00
19	Capacity Building						67.00	10.00
20	Handicrafts Promotion						342.00	100.00

21	Apiculture Mission under IBDP						1320.00	500.00
	Total V&SI	4900.00	2885.18	665.09	800.00	800.00	5100.00	1520.00

6.2 SERICULTURE AND WEAVING

A. SERICULTURE SECTOR

6.2.1. Sericulture is essentially a village-based industry providing employment and supplementary income to the rural population. Although it is considered as a subsidiary occupation, technological innovation has made it possible to take it up on an intensive scale capable of generating adequate income.

Endowed with salubrious climate and sericigenous flora and fauna, Meghalaya is home to the three types of silk worms and their host plants - Mulberry, Eri and Muga. Even Tasar silkworm and host plants are present in the State, but have not been adequately developed as yet.

Muga Silk is produced nowhere else in the world except in Assam and Meghalaya and the golden fibre is popular in making of traditional dresses.

The State has sub-tropical climate conditions conducive for production of superior Mulberry bi-voltine seeds and, as a result, is able to meet the requirement of the bi-voltine seeds of the North Eastern States and, sometimes, the supply even extends to West Bengal.

6.2.2. **The Eleventh Plan Projected Outlay for Sericulture & Weaving sector is `6400.00 Lakhs and the anticipated expenditure is `5592.10 lakhs. The approved outlay for the Annual Plan 2011-12 is `1200.00 Lakhs and the anticipated expenditure is `1236.00 lakh.**

6.2.3 Achievement during the 11th Plan

Sericulture Sector

The area expansion of host plantations was 1708 acres under the *mulberry* sector, 7372 acres under the *eri* sector and 1,462 acres in the *muga* sector.

Raw silk production was 6.02 MT of mulberry, 1,299 MT of *eri* and 30.47 MT of *muga*.

Under capacity building of progressive sericulture farmers, 3034 reelers and spinier were trained by the Department during the 11th Plan.

The SPA (Special Plan Assistance) had assisted in infrastructural support like construction of *eri* & *muga* grainages for meeting the demand of quality seeds for the sericulture farmers.

Handloom sector:

Popularization of silk weaving on priority basis had been given importance by upgrading the skill of the progressive weavers. The establishment of the Handloom Yarn Depot had made the yarn readily available at the doorstep of the weavers.

A State level 'Special Handloom Expo' 2011 had immensely helped the weavers in disposal of fabrics and enhancing their income.

Physical achievements shown below:

- i) 8 (eight) handloom clusters established in the State under IHDS (Integrated Handloom Development Scheme) consisting 3,343 weavers. These weavers were also trained in skill up-gradation, dyeing and designing through the intervention of qualified Master Weavers and 8 (eight) Textile Designers.
- ii) 2,940 weavers of cotton and other fibre weavers were trained in silk weaving.
- iii) 1,000 weavers have undergone in-house training on dobby and jacquard machines.
- iv) Provision was made for employment of 50 trained Handloom Certificate Course holders on contractual basis.
- v) The weavers of the State produced 631.79 lakh square metres of handloom fabrics of various types during the 11th Plan.

The SPA (Special Plan Assistance) had assisted in infrastructural support like construction of workshops and common facility centres for provision of pre-loom, on-loom and post-loom facilities to the weavers.

6.2.4. **Approach to the 12th plan**

The emphasis during the 12th Plan would be to bridge the gaps in the value chain from the pre-cocoon to the post-cocoon stages. This would be done through modernization and up-gradation of the Departmental Seed Farms and infrastructural facilities at the farmers' establishments. Area expansion of plantations would be stepped up to increase feed source for the silk worms.

In the absence of organised cocoon market in the State, all cocoons are disposed off to the traders of neighbouring States. Introduction of reeling and spinning activities, with appropriate machines, would enable addition of value to the cocoons and also provide the yarn for the weavers of the State. Training and capacity building of Departmental personnel and farmers would be increased in both quality and intensity.

The Projected 12th Plan Outlay for Sericulture & Weaving is `13000.00 lakhs and the proposed outlay for 2012-13 is `1960.00 which includes `1000.00 for Sericulture Mission under IBDP.

The proposed allocation of `1960.00 lakhs during 2012-2013 will be utilised for modernization and up gradation of Departmental Seed Farms and infrastructural facilities at the Farmer's establishment. To step up area expansion of plantation and to increase feed source for the Silk Worm.

I Mulberry:

(a) Pre-cocoon stage:

The infrastructure in the State, based on the Japanese model created during the colonial regime, is well-suited for production of high quality bi-voltine seeds. In contrast, the traditional sericulture States use multi-voltine cross-breed varieties of inferior quality.

The State is maintaining exotic high yielding varieties of Japanese and Chinese origin – SE2P, HSP, YK, B40 and C108. Hence there is good potential in this mulberry sector.

This advantage would be consolidated by raising of high yielding host plant varieties, upgrading the existing Department Farms for meeting the demand of disease-free layings (dfls) inside & outside the State, modernisation of equipments and re-plantation programme.

(b) Cocoon stage:

The Mulberry farmers carry out silkworm rearing in their dwelling places. Hence, because of the limited rearing space and unhygienic conditions, the production is low and much below the potential. Mulberry silkworm, being susceptible to diseases, needs hygienic rearing conditions, free from rodents and equipped with appropriate rearing appliances.

The focus would be on expansion and modernization of the grainages at the Departmental Farms, provision of support to the farmers in creation of separate rearing infrastructure along with supply of rearing tools and disinfectants.

(c) Post-cocoon stage:

There are two existing Multi-end Basins and two Cottage Basins installed in the Departmental unit for production of Mulberry silk yarn. These old machines need to be replaced by the modern, improved Multi-end machines for gearing up production of superior bi-voltine raw silk in the State. Reeling activity will also be introduced at the farmers level for value-addition.

II. Muga:

(a) Pre-cocoon stage:

The State has emerged as a major Muga Seed Zone as, unlike Assam, it is free from devastating floods and hot summers which affect the healthy growth of the silkworm. Muga farmers from far flung areas of Assam come to Meghalaya in search of Muga Seed in the event of seed crop failure in Assam.

The State has 2 (two) P2 Muga Seed Farms and 1 (one) P3 Muga Seed Farm to cater to the need of Muga silkworm seeds within and outside the State.

Unlike Mulberry Silkworm, Muga is non-domesticated and the rearing activity is conducted outdoors. The success of Muga Silkworm rearing depends on the timely availability of quality disease free layings (dfls).

There is, therefore, need to establish Muga seed production linkages, to train farmers in scientific methods for production of disease free layings and to intensify and promote the raising of systematic Muga plantations at the farmers level.

(b) Cocoon stage:

Most Muga Silkworm rearers use their own seeds leading to low production. Muga farmers prefer tall trees to conduct rearing thus leading to poor rearing management. Many of the Muga farmers use scattered host plants for cocoon-rearing purposes.

The cocoon mountage is usually kept in the open and not in the mountage shed, thereby affecting the reeling process of the mature cocoons.

Farmers cannot afford to procure Muga nets for protection of the host plants from birds during the rearing period as well as inputs for maintenance of plantation.

It is, therefore, necessary to create systematic plantations, to provide watch and ward sheds for Muga farmers in the plantation area for surveillance of Muga worms during rearing period, to supply rearing accessories to the Muga farms, to construct Muga mountage sheds, to set up separate Muga Chawki gardens and to train the Muga farmers to prune the tall trees for rearing convenience.

(c) Post-cocoon stage:

There is no Muga Reeling at the farmers level and all the cocoons produced in the State are being disposed off to the traders of the neighbouring States. The focus is, therefore, to promote Reeling Technology at the stake-holders level with the help of the Central Silk Board. Further, it is necessary to strengthen and upgrade the existing Muga Reeling Units for conversion of cocoons to yarn for higher value addition within the State.

I. Eri:

(a) Pre-cocoon stage:

Rearing of Eri silkworm, spinning of cocoon and weaving of Eri silk fabrics is an age-old tradition of the State. There is no systematic plantation at the farmers level and for feeding the silkworms the farmers collect the leaves from the scattered castor plants. The castor plants are preferred by the Eri farmers and cultivated in a small way around their dwelling houses for cocoon-rearing purposes.

The need is to establish systematic plantations, including re-plantation programme, introduce mechanization and modernisation of equipments.

(b) Cocoon stage:

Most of the Eri silkworm seeds come from the Eri Seed rearers themselves and the production is uncertain. The Eri farmers cannot afford separate rearing houses and have to conduct silkworm rearing in their dwelling houses thus exposing the worms to unhygienic conditions with subsequent low productivity.

The proposal is to upgrade the existing Eri Seed Farms into full-fledged Eri Seed Grainages, to set up modern rearing houses for the farmers and to train them in systematic rearing techniques.

(c) Post-cocoon stage:

The spinning of Eri is mostly done in the conventional spinning device like 'Takli' (Drop Spindle) with low production capacity. While the CSB (Central Silk Board) has developed the motorised spinning wheel, there is need to introduce the motorized-cum-paddle Eri spinning wheel in the major areas of production where yarn can be spun and used for handloom sector. It is proposed to establish an Eri Spinning Centre, on a pilot basis, to meet the requirement of Eri yarn and to increase the earnings of the Eri farmers.

B. HANDLOOM SECTOR

Handloom Weaving is an important rural cottage based industry in the State. The Sector is basically women-oriented activity and practised by weavers as a subsidiary occupation. The Handloom sector with a long tradition of skill in its craftsmanship occupies a place of eminence in preserving the heritage and culture of the people of the State. It has a vital role in the rural economy.

During the 11th Plan weavers were assisted with new fly shuttle frame looms, worksheds and margin money under Centrally Sponsored Schemes. Under the IHDS (Integrated Handloom Development Scheme) of the Ministry of Textiles, 7 (seven) Handloom Clusters have been formed in different parts of the State. Most of the weavers are now aware that there are adequate employment and income-generating opportunities in this sector.

In spite of this potential, the sector suffers from uneconomic working conditions of weavers, lack of regular supply of requisite yarn at stable prices, lack of credit facilities and proper marketing facilities. This is compounded by non-availability of pre-loom and post-loom

facilities, poor infrastructure and shortage of manpower in design development and product diversification. Further, most of the technical personnel in this sector also lack exposure outside the State for updating technical knowledge on latest technology.

In the 12th Plan, more Handloom Clusters would be formed to cover the majority of weavers in the State with the objective of facilitating installation of modern looms and intensification of training on silk weaving. Further, the assistance of the NIFT (National Institute of Fashion Technology), Shillong Centre, will be sought in fabric designing, product diversification and garment making for the benefit of the weavers. Common Facility Centres would be set up in these clusters where pre-loom, on-loom and post-loom facilities will be provided. Marketing linkages will be expanded so that weavers are able to receive better remuneration for their products.

1. *Pre-loom phase:-*

Production and quality control is one of the most important aspects of handloom activity which needs urgent attention. The pre-loom processes involve brushing, dyeing, sizing of yarn and warping.

It is therefore, proposed to provide these pre-loom facilities in the Departmental Handloom Production Centres as well as in the Common Facility Centres to be set up in the existing Handloom Clusters. Model Handloom Villages would also be set up in certain parts of the State which would serve as centres of excellence in this sector and where weavers would be taken for awareness and training.

2. *On-loom phase:-*

At present almost 90% weavers of the State use ordinary fly shuttle frame looms and loin looms with low productivity of simple designs. It is, therefore, proposed to provide weavers with improved looms along with additional attachments like doobby and jacquard for design development and higher productivity, thereby raising the income of the weavers.

It is also proposed to establish 2 Power-loom Units to encourage the handloom weavers in this activity which presently contributes 63% of the total cloth production of the country. Entrepreneurs and weavers will be imparted training on power-loom and mechanised dyeing. In addition, 2 Handloom Apparel Manufacturing Training Centres will be set up for product diversification and training of handloom weavers, particularly in ready-made garments. Further, different types of yarn, the basic input of the handloom sector, will be procured and supplied to weavers at affordable prices.

3. *Post-Loom phase:*

Post-loom weaving processes include pre-shrinking, finishing, piece dyeing and calendaring for giving silken effect of woven clothes. At present these facilities are not available in the State.

Considering the production volumes and weaver population of the State, it is proposed to introduce these post-loom processes in the Departmental units and in the Common Facility Centres at the cluster level.

At present there is no organised handloom fabric marketing in the State. However, marketing of the handloom fabrics is done at exhibitions and periodic shows within and outside the State. As such, adequate attention will be given to development of market opportunities of handloom products through organising more frequent exhibitions at district, State, regional and national levels. Steps will also be taken to set up 2 permanent Handloom Markets in the State.

Centrally Sponsored Scheme:

1) The CDP (Catalytic Development Programme), is a flagship scheme of the Government of India, covering different stages of cocoon production, had helped the sericulture farmers of the State to upscale their production capacity and increase their earnings. For implementation of this Scheme of the Central Silk Board, an amount of Rs.800.00 lakhs is proposed for 2012-13.

2) The IHDS (Integrated Handloom Development Scheme), a flagship scheme of the Handloom sector of the Government of India, had facilitated sustainable development of Handloom Industries of the State for product diversification and design development. An amount of Rs.240.00 Lakhs is proposed to be implemented for 2012-13.

6.3 LARGE AND MEDIUM INDUSTRIES

The approved 11th plan outlay for this sector is ₹ **15400.00 lakh** and the anticipated expenditure is ₹ 11856.51 lakhs. The approved outlay during **2011-12 is ₹2040.00 lakh** and the anticipated expenditure is 1946.00 lakh.

Achievement during the 11th plan period 2007-12:

During the 11th Plan Period, the Department has been able to create employment opportunities for 2,749 nos. of unemployed youths from 68 nos. of registered Large & Medium Industries in various parts of the State with an investment of ₹ 864,66,85,401/- and 1997, 156 nos. of Large & Medium units were given financial assistance of ₹17,41,67,599/- under the Package Scheme of Incentives. With the upgradation of the Department to Commerce & Industries in the year 2010 it has also taken the responsibility of building up of infrastructures in land custom station and designated Border Haats. During the 11th plan period, Upgradation of two Land Custom Stations at Dalu and Ghasuapara, West and South Garo Hills Districts are under implementation.

With the signing of the Memorandum of Understanding (MOU) by the Government of Bangladesh and India action has already been initiated for the development of the infrastructure for operation of Border Haats at Baliamari (Bangladesh) – Kalaichar (Meghalaya) which was inaugurated and opened on the 23rd July, 2011. The other Border

Haats Lauwaghar (Bangladesh) – Balat (Meghalaya) is expected to be inaugurated soon Under the Scheme Assistance to State for Infrastructure Development of Exports and Allied Activities (ASIDE) infrastructures viz. Roads, Bridges, Drinking Water supply etc. in different parts of the state were created viz,

1. Water Supply to land custom at Gausapara, South Garo Hills
2. Water Supply to Land and Custom Office at Mahendraganj
3. Water Supply to Land and Custom Office at Killapara Office at Killapara
4. M.B.T. to Double lane of Jatap-Umsong Shella Road (0-5.10) Kms
5. Improvement including Metalling and Blacktopping of Mustoh-Sella Road (L=6.30) Kms
6. Construction of road from 5th KM of Sohbar to Byrong via Wahjain to connect at 4th KM of Ichamati Bholaganj Road (L=6.00 KM)
7. M and BT of Ichamati-Bholaganj Road (Remaining Promotion from 2260.00 M to 9600.00 M) (L=9.60 KM)
8. Construction including M and BT of a road from Nongtraia to Shella (L=6.28 KM)

9. Greater Bholaganj Water Supply Scheme
10. Tamabil-Dawki Combined Water Supply Scheme
11. Construction of a bridge at Wahjapuh in Ichamati Bholaganj road including immediate approaches.

Programmes for the 12th Five year plan (2012-17) period:

During the 12th plan period thrust will be given to the following areas:-

1. Promoting 100 nos. resource based Medium & Large Enterprise and environmental free with an investment of ₹ 1,000 Crores and job opportunities to 15,000 local unemployed youths.
2. Providing Financial Assurances to Industrial Units of Large & Medium under Package Scheme of Incentives.
3. Creating infrastructures for attracting investment and creating employment opportunities.
4. Acquisition of Land for creating up of more Industrial Areas/Land and E.P.I.P. for the benefit of the prospective entrepreneurs in the State.
5. Creating of more infrastructures in Lands Customs Area and Border Haats to facilitate export/import.
6. Setting up of a Quality Control Laboratories in Land and Custom Stations of the state
7. National Mission for Food Processing.

The projected outlay for the 12th Five Year Plan (2012-2017) for Large & Medium Industries is ₹8800.00 lakhs and the proposed outlay for 2012-13 is ₹ 1300.00 lakhs.

In addition to the above schemes, the following schemes will be continued during the 12th plan period:-

1. **Equity participation:-** The M.I.D.C as the State Industrial Development and Financial Corporation takes part in equity participating of Industrial project approved by the Govt. so as to ease out their cost over burden. For the 12th plan period, a total of ₹ 53.00 lakhs is proposed, out of which the Annual Plan 2012-2013 proposed outlay is ₹ 6.00 lakhs.
2. For equity participation to MCCL for upgradation and expansion of the existing plant, an amount of ₹ 3050.00 lakhs is proposed for the 12th plan, out of which an amount of ₹ 500.00 lakhs is proposed for the Annual Plan 2012-2013.
3. **Unsecured Loan to MCCL:-** An amount of ₹ 79.00 lakhs is proposed for the 12th Plan out of which an amount of ₹ 10.00 lakhs is proposed for the Annual Plan 2012-2013.
4. **Financial Operation:-** The MIDC in its dual role as an Industrial Development Corporation (IDC) and the State Financial Institution (SFC) has been assisting entrepreneurs financially for setting up of economically viable projects and provides support assistance by way of term loans to the Industrial units of all categories. These term loans are again refinanced to the Corporation by the IDBI/SIDBI to the extent of 65% of the disbursed amount and the balance are to be met from MIDC's own resources. As such, the total Plan Outlay proposed for the 12th plan is ₹ 230.00 lakhs and for 2012-2013 is ₹ 20.00 lakhs.
5. **Development of Industrial Areas:-** The MIDC has also been functioning as an Agency for the maintenance and repairs of the Industrial Areas and Estates located in different parts of the State. Fund required for various developmental. Works is estimated to be around ₹ 50.00 lakhs during the 12th five year plan out of which an amount of ₹ 10.00 lakhs is proposed for the Annual Plan 2012-2013.

As of now the State's Industrial Policy, 1997 and the Government of India's North-East Industrial Policy, 2007 are still in place and there has been a substantial growth of

Industries in the state. Consequently, the land area at the Industrial Area, Umiam and the ExportPromotionIndustrial park (EPIP), Byrnihat, Ri-Bhoi District have reached a saturated point. As such fund is required to acquire more land for uses as Industrial park, Industrial Areas and Industrial Estate and building up of infrastructural facilities like Road Communication, Water power etc.

6. **Entrepreneurship Development Programme (EDP):-** The MIDC, along with other Promotional Agencies like the NEITCO, IIE, SISI, conducts E.D.Ps, workshops, and Seminars from time to time in different identified areas of the State for motivation and development of local entrepreneurship and skilled man power. An amount of ₹ 44.00 lakhs is provided for the 12th plan and the amount proposed for 2012-2013 is ₹ 5.00 lakhs.

7. **Man-Power Training Scheme:-** The MIDC has been sponsoring local youths for pursuing some of the professional courses like Engineering, Management Studies, etc. so as to bring our local skilled Man Power. Under the scheme, the Corporation gives stipend @ ₹ 1,000.00 per month to the selected youths towards the cost of meeting a part of the study expenditure. An amount of ₹ 44.00 lakhs is proposed for the 12th plan and for the Annual plan 2012-2013 an amount of ₹ 5.00 lakhs is proposed.

8. **Preparation of Project Feasibility Reports:-** The MIDC has been taking up identification and studies of viable projects so that Industrial Development of the State can be achieved at an accelerated rate. The Total 12th Plan Outlay is proposed at ₹ 51.00 lakhs with the Annual Plan 2012-2013 outlay proposed at ₹ 10.00 lakhs.

9. **Industrial Growth Centre:-** The Govt. has approved setting up of the Industrial Growth Centre, at Mendipathar, in East Garo Hills district, covering an area of 182 hectares. An amount of ₹ 44.00 lakhs is proposed for the 12th five year plan, out of which the Annual Plan outlay for 2012-2013 is ₹ 5.00 lakhs.

10. **Package Scheme of Incentives:-** As announced in the Industrial Policy, 1997, a Package Scheme of Incentives have been declared for both the Small Scale and Large & Medium Scale Sector. The Package Scheme of Incentives encourages young local entrepreneurs as well as investors to set up Industries in the State thereby creating employment to local unemployed youths. Such type of incentives help the local Industrial units by relieving from financial burden such as bank loans, power consumed etc to a great extent. An amount of ₹ 3630.00 lakhs is proposed during the 12th five year plan and an outlay of ₹ 550.00 lakhs is proposed for the Annual plan 2012-2013

11. **Publication and Publicity:** The fund requirement under this scheme is for meeting the expenses pertaining to publication of booklets, pamphlets, advertisements and other promotional activities relating to industrial development in the State. It also includes expenses on visits of dignitaries, holding of meetings and Conferences, etc from time to time. An amount of ₹ 430.00 lakhs is proposed for the 12th five year plan out of which ₹ 70.00 lakhs is the outlay for 2012-2013.

12. **ExportPromotionIndustrial Park (EPIP):-** The fund requirement is for development and maintenance of the E.P.I.P at Byrnihat. The total 12th plan outlay is ₹ 44.00 lakhs and the plan outlay proposed for 2012-2013 is ₹ 5.00 lakhs.

13. **Construction of DCIC Office, Baghmara:-** The Fund requirement is for construction of DCIC Office, Baghmara. The 12th Plan Outlay is ₹ 640 Lakhs the Plan Outlay proposed during 2012-13 is ₹ 50 Lakhs.

14. **Salary and Wages and other running expenses of Subsidiary companies of Meghalaya Industrial Development Corporation (MIDC):-** Fund is required for payment of salary and wages and other running expenses of subsidiary companies viz. Meghalaya Electronics Development Corporation Limited, Meghalaya Bamboo Chips Limited and Meghalaya Watches Limited.

New Schemes:

1. New Industrial Areas:- During the 12th five year Plan the department will initiate acquiring more land for creating up of more Industrial Areas / Land and EPIP for the benefit of the prospective entrepreneurs on the state.

2. National Mission on Food Processing:- The Ministry of Food Processing has proposed a New Centrally Sponsored Scheme viz National Mission on Food Processing (NMFP). The plan outlay proposed for 2012-13 is ₹ 40.00 lakhs. The Brief outline of NMFP is as per the following:-

a. Structure: The proposed structure would be a three tier structure at National, State and District level. District level Mission would however be optional.

b. Programmes to be covered:

- (i) Scheme for Technology Upgradation/ Expansion/ Setting up of Food Processing Industries.
- (ii) Scheme of supporting cold chain facilities for Non Horticulture Products and Reefer Vehicles.
- (iii) Scheme for creating Primary Processing Centres / Collection Centres in rural areas.
- (iv) Scheme for Modernization of Abattoirs.
- (v) Scheme for Modernization of Meat Shops
- (vi) Creation of Infra-structural facilities for running Degree / diploma courses in Food Processing.
- (vii) Entrepreneurship Development Programmes (EDP)
- (viii) Setting up of Food Processing Training Centres (FPTC)
- (ix) Scheme for promotional activities (Seminars, Workshops, Studies / Surveys, Exhibition, Fairs, Advertisement / Publicity.

The proposed National Mission on Food Processing (NMFP) which will be operational during the 12th plan period starting from April 2012 for which the funding pattern is @ 90:10 as per usual norms of Centrally Sponsored Schemes for Northeastern region. The proposed outlay during the 12th plan period is ₹ 300 lakhs and the Annual plan outlay during 2012-2013 is ₹ 40 lakhs

3. Setting up of a Quality Control Laboratories in Land and Custom Stations of the state

During the 12th five year plan the Department proposed to initiated construction of Quality Control Laboratories in Land and Custom Stations of the state for which an amount of ₹ 51.00 lakhs is needed during the 12th five year plan and ₹ 4.00 lakhs for the Annual Plan 2012-2013.

The broad schematic outlays proposal for the 12th Plan (2012-2017) and Annual Plan 2012-13 are as follows:-

(Rs. in Lakhs)

Sl. No	Schemes	11 th Plan (2007-12) Projected Outlay	1 st Four Year (2007-11) Actual Expenditure	Annual Plan 2011-12		12 th Plan (2012-17) Proposed Outlay	Tentative Budgeted Outlay 2012-13
				Outlay	Anticipated Expenditure		
1	Equity Participation to	25.00	4.00	10.00	10.00	53.00	6.00

	M.I.D.C.						
2	Development of Industrial Areas	3750.00	72.39	90.00	-	50.00	10.00
3	Financial Operation	3650.00	650.00	150.00	150.00	230.00	20.00
4	Entrepreneurship Development Programme (EDP)	30.00	5.00	5.00	5.00	44.00	5.00
5	Man-Power Training Scheme	40.00	3.00	5.00	5.00	44.00	5.00
6	Preparation of Project Feasibility Reports	80.00	24.00	10.00	10.00	51.00	10.00
7	Industrial Growth Centre	500.00	9.37	15.00	15.00	44.00	5.00
8	Package Scheme Of Incentives	5000.00	3158.00	605.00	585.00	3630.00	550.00
9	ExportPromotionIndustrial Park (EPIP)	300.00	20.38	10.00	10.00	44.00	5.00
10	Publication and Publicity	250.00	190.00	70.00	106.00	430.00	70.00
11	Equity Contribution to M.C.C.L.	1725.00	5665.37	1000.00	1000.00	3050.00	500.00
12.	Financial Assistance						
13.	New Industrial Areas						
14.	FoodPark	50.00	15.00	20.00	-		-
15.	Construction of DCICsOfficeBuilding	-	-	50.00	50.00	640.00	50.00
16	Land & Custom at Khasi & Garo Hills					51.00	4.00
17	National Mission on Food Processing					300.00	40.00
18	Salary & Wages & Other running expenses of Subsidiary companies of MIDC						
19	Unsecured Loan to MCCL.					79.00	10.00
20.	Acquisition of land at industrial park/ Garo Hills	-	-			60.00	10.00
	Total	15400.00	9816.51	2040.00	1946.00	8800.00	1300.00

6.4 MINING AND GEOLOGY

6.4.1. The State is well-known for the existence of a number of valuable minerals like limestone, coal, clay, glass sand, kaolin, quartz, sillimanite, iron stone and granite. While the deposits of limestone and coal have been explored extensively all over the State and sizeable reserves of these minerals have already been established, prospect of other minerals found in the State are yet to be fully ascertained. The potentiality of such deposits needs to be proved by detailed survey and drilling for preparation of geological report/feasibility reports with a view to set up of mineral-based industries. Such geological data have helped in the growth of several mining activities in the State. Besides exploration of mineral resources, the department is to explore ground water potential for drinking and irrigation purposes and scheme for geo-technical studies on landslide and stability of foundation for construction of dams and bridges. Emphasis will also be given for speedy evaluation of Mineral deposits into proved category, for potentiality of ground water and for solving the geotechnical problems in the State.

In the absence of a proper Mining Policy of the State, unscientific mining activities is still continuing by individual mine owners which have resulted in massive

environmental degradation like pollution of the streams and rivers, loss of agricultural lands resulting in health hazards of the people living near the mining areas. Unscientific mining has also adversely affected the ecology and environment in and around the mining areas and a cause of concern for the safety of miners. These issues have now been seriously considered and the Government is taking steps to formulate the Mining Policy for the State so that these problems can be properly identified and addressed to.

The main activities of the Directorate are inter alia, geological investigations, administration of mines and collection of revenue on major minerals, facilitating the process of state contribution in the form of Grant-in-Aid to the Meghalaya Mineral Development Corporation (MMDC) on mineral development activities and also entrusted with the task to distribute the share of royalty with the respective District Councils.

The Directorate is divided into two main segments, namely, the geology section and the mining section. The geological section carries out the mineral investigation works with the help of geological survey and drilling assisted by laboratory work for determination of the quality of minerals when any mineral based industry is proposed to be set up. The geological section also includes Ground Water Investigation and Geo-technical studies by mapping and drilling.

The Ground Water investigation is carried out on request from various State Government Departments. The Geo-technical studies lay emphasis on civil constructions such as building of roads, dams etc. The Directorate also undertakes studies on landslides as most of the areas of the state are prone to landslides.

There is a need to supplement the energy demand in the State. The availability of minerals like coal is considered an important source of power through the conversion of coal to liquid. The Directorate is contemplating to undertake a study along with experts in the field in terms of feasibility and cost-effectiveness.

The activities on the mining section will continue with more emphasis on resource mobilization for the state. The Directorate proposes to install more electronic weighbridges in the main outlet to stop leakage in mineral transportation. The department is contemplating to launch motivated schemes to substitute unscientific mining with scientific mining to avert the degradation of mining areas and wastage of resources.

The XIth Plan (2007-2012) Projected Outlay for this Sector is ` **2350.00 Lakhs** and the anticipated expenditure is ` **2355.24 lakhs**. **The approved outlay for 2011-12 is ` 500.00 lakhs and the anticipated expenditure is ` 1164.00 lakhs. The Projected Outlay for the 12th Five Year Plan (2012-2017) for Mining & Geology is ` 2400.00 lakhs and the proposed outlay for 2012-13 is ` 350.00 lakhs.**

6.4.3. Programmes for the Twelfth Plan :

1. Direction and Administration: General administration, administration of mines and minerals and collection of revenue on major minerals of the State are the main activities of the Directorate. At present, the Directorate is operating 6(six) nos. of unit schemes under this head. The major divisions of works under this category include, inter alia:

- Management of Geology & Mining Establishment at the Headquarter
- Administration and strengthening the Branch and Divisional Offices at Tura, Nongstoin, Jowai, and Williamnagar,
- Payment of Dues, Liabilities etc., to Me.S.E.B./Municipal Board.

Besides the on-going activities under this head, the Directorate proposed to take up the administration of minor minerals during the Twelfth Plan. It is proposed to create additional infrastructure, such as, installation of additional check gates and computerization of revenue collection through the check gates and at the Directorate and offices of Divisional Mining Officers. The computerized system will help in monitoring the collection of revenue, realization of loss of revenue due to overloading of mineral carrying trucks and also reduce the discrepancies in the figures of collection of revenue of the Directorate and those of Accountant General Office. It will provide to initiate a system for setting up of a viable data base. It is also proposed to set up a rigorous monitoring, inspection and supervision of mining activities. The State will soon adopt the draft Mineral Policy. The activities will be extensive and also regulatory in nature.

2. Training, Capacity Building, Stipends and Scholarships : Under this programme the Department is sponsoring local students by granting scholarship for pursuing higher studies in Earth Science. Besides, training facilities were given to the technical in-service employees. The scheme will continue during the Twelfth Plan. Further, it may be stated that mining of coal has been carried out extensively in the State during the last four decades by the local miners without sufficient knowledge of systematic and safe mining practices. This type of mining has adversely affected the ecology and environment in and around the mining areas and has become a safety concern for miners. Moreover, to avoid further deterioration of the situation and with a view to ensure increased production of minerals, the Department proposed to purchase land for setting up of two training-cum-demonstration centers for the local mine owners and mine workers, one each in Garo and Jaintia Hills Districts of the State during the Twelfth Plan.

The Department has prepared a Draft Mining Policy for the State which is awaiting Cabinet's approval.

3. Research and Development: Chemical analysis and petrological studies of the rocks, minerals, water samples, etc. are carried out through this scheme, for the purpose of assessing the quality/grade of minerals from various deposits for their possible utility. This activity will continue by creating additional infrastructure i.e. man-power and sophisticated machinery during the Twelfth Plan. Under this scheme, the Directorate proposes to take up a study on conversion of coal to liquid and other allied geological studies.

4. Survey and Mapping: Survey and mapping of various mineral deposits is the main objective of this scheme. This activity will continue during the Twelfth Plan to enable wider coverage area. This will involve mobilization of additional manpower, infrastructure and machinery. It is also proposed to evaluate potential of minerals within the State by remote sensing technique through consultancy services.

5. Mineral Exploration : The main objectives of this scheme are:-

- Intensive Mineral Investigation
- Preparation of Feasibility Report on Mineral-based Industries
 - Administration of Coal Mining Industries
 - Intensive Ground Water Investigation and
 - Geo-technical Study.

More emphasis will be given to intensify the investigation programmes with an objective to bring the existing probable/possible reserves of minerals into proved category. Emphasis will also be given on Granite Investigation as dimensional stone and investigation

on ground water for irrigation and drinking purposes. The Directorate is also proposing to provide technical assistance on investigation of isolated small deposits of coal in the coal mines operated by private coal miners which is a new venture in the State. The Directorate will continue to contribute Grant-in-Aid for development of mining industries through the Meghalaya Mineral Development Corporation (MMDC) against their proposed project on limestone, coal, clay etc.

6. Social Services – Housing Schemes Including Office Complex: During the Twelfth Plan, the Department is proposing to complete the construction of Officers and Staff quarters at its Branch Office at Tura and to set up the Demonstration –cum-Training Centre. It is also proposed to complete the fencing work of the land at Williamnagar. It also proposed to purchase land for the office of DMO and Demonstration-cum-Training Centre at Jowai and land for installation of check gates and weighbridges and Civil construction thereon shall be entrusted to the P.W.D.

6.4.3. **The broad schematic outlays proposal for the 12th Plan (2012-17) and Annual Plan 2012-13 are as follows:-**

(Rs. in Lakhs)

Sl. No	Schemes	11 th Plan Projected Outlay (2007-12)	1 st Four Year (2007-11) Actual Expenditure	Annual Plan 2011-12		12 th Plan (2012-17) Proposed Outlay	Tentative Budgeted Outlay 2012-13
				Outlay	Anticipated Expenditure		
1.	Direction & Administration	800.00	640.51	264.00	264.00	666.50	127.00
2.	Training	50.00	0.12	0.20	0.20	40.00	2.00
3.	Research & Development	160.00	83.59	58.50	58.50	245.00	65.50
4.	Survey & Mapping	160.00	95.09	38.70	38.70	156.00	17.00
5.	Mineral Exploration	600.00	297.91	128.60	792.60	237.00	103.00
6	Construction / Renovation of Residential Building	200.00	52.02	1.00	1.00	100.00	1.00
7	Administration of Coal Mining Industries					150.00	20.00
8.	Intensive Ground water Investigation					100.00	0.40
9.	Geotechnical study Cell					100.00	0.10
7.	Investment in Public Sectors	205.00	-	-	-	350.00	
8.	Construction of office Building for the Branch office of the DMR at Tura.	175.00	22.00	9.00	9.00	255.50	14.00
	Total	2350.00	1191.24	500.00	1164.00	2400.00	350.00