AGRICULTURAL CREDIT IN RI-BHOI DISTRICT OF MEGHALAYA
(A CASE STUDY OF FOUR VILLAGES)

By

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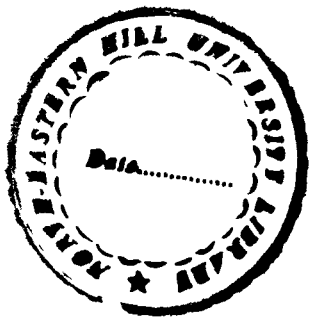

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I, *Ñiewkor Syngkon*, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form the basis of award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any degree in any other University/Institute.

This is being submitted to the North-Eastern Hill University for the award of the degree of Doctor of Philosophy in Economics.

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ÑIEWKOR SYNGKON

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Chapter-I

INTRODUCTION

Statement of the Problem

The present study relates to the investigation of the needs and utilization of agricultural credit by the farmers of the Ri-Bhoi district of the state of Meghalaya by making a case study of four villages namely, Umsning, Nongthymmai, Sohphoh and Ingsaw.

For a long time, credit needs for agricultural operations in the rural areas in India were mainly met by the village money lenders. Usually they belong to trading community and/or big farmers and as such they also function as traders and/or rentiers leasing out land to small and marginal farmers. Money lending is thus one aspect - although a very important one - of diverse agricultural operations.

It is usually believed that in tribal areas such practice of money lending is either absent or if present, it is very insignificant considering the overall credit needs of the small and marginal farmers. Some even argue that even if some tribal rich lend money, they do not charge any rate of interest. That is, money is lent out of their benevolence.

Our preliminary visit to a few villages in the new Ri-Bhoi District of Meghalaya does not confirm this argument. On the contrary, we find that money lending is practised and what is more important, the rate of interest charged is also quite high. Thus it shows that like the rest of the country, even in tribal areas, capacity for self-financing in rural

areas by small farmers for agricultural operation seems to be very limited. In that situation, we have to examine the efficiency and equity of the traditional money lending operation for financing productive investment.

There were quite a number of studies on agricultural finance both on national and regional levels. However, as far as Meghalaya is concerned, no indepth study has yet been made relating to the credit needs for agricultural operation in any district.

Review of Literature

For a long time, the importance of credit in agricultural operation has been universally understood. In pre-independence period, India witnessed the dominant role of the money lenders who exploited the illiterate farmers with exorbitant interest rate. The government passed the **Deccan Agricultural Debtor's Relief Act** in 1879, authorising the court to examine the history of a farmer's debt with a view to fix the principal sum withholding unreasonable payment of interest rate and preventing the forcible sale of the farmer's land.

The British government realising the importance of agricultural credit and desiring to help the indebted farmers in India in general and in the Madras Presidency in particular, deputed **F.A. Nicholson** to Europe in 1892 to study the land bank system. Nicholson in his Report remarks "The

lesson of universal agrarian history from Rome to Scotland is that an essential of agriculture is credit. Neither the condition of the country nor the nature of the land tenures, nor the position of agriculture, affects the one great fact that agriculturists must borrow."[1] The peasantry of India is no exception. This has been amply borne out by records of heavy rural indebtedness, historically described in the words - "a farmer is born in debt, lives in debt and dies in debt."

The Reserve Bank of India in their two studies (i) The **Preliminary Report 1936** and (ii) the **Statutory Report 1937** had also noted the dominating role of the money lenders. Both the reports suggested suitable measures to regulate money lending and checking malpratices of these money lenders. Important Acts that were passed by different provinces to control money lenders were (i) the Punjab Registration of Money Lenders' Act of 1938; (ii) the Bengal Money Lenders Bill of 1938; (iii) the Bihar Money Lender's Bill of 1938; (iv) the Bombay Money Lenders' Bill of 1938 and (v) the U.P. Money Lenders' Bill of 1939. The Acts provide for the registration and licensing of money lenders. Money lending without licenses was declared an offence.[2]

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1. Quoted in B.N. Chaubey, *Institutional Finance for Agricultural Development*, Shubhada Saraswat, Pune, p.2.

2. Mamoria, C.B., *Agricultural Problems of India*, 6th edition, Kitab Mahal, Allahabad, 1969.

In most of the countries of the world, an attempt has been made to develop institutional credit for agriculture on co-operative lines. The British Government of India appointed a committee under Edward Law to make proposal regarding co-operative societies. The committee concluded that "Co-operative societies were worthy of every encouragement and of a prolong trial"[3] The committee drew model schemes of management which formed the basis of the **Co-operative Credit Societies Act of 1904**, which was the beginning of the co-operative movement in India. The absence of central agencies for supply of capital and supervision, necessitated the Government to pass a more Comprehensive **Societies Act of 1912**.

The **Maclagor Committee** appointed by the Government of India, examine the co-operative movement in its financial aspect and suggest suitable measures submitted its report in 1915. The committee felt that the Secretary managing the society would be a local man.

Co-operation became the provincial subject under the Government of India Act of 1919. Some provinces enacted their own **Provincial Acts**. Such Acts gave great stimulants to co-operative movement.

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3. *Report of the Committee on Co-operation in India 1915.* Reprinted Bombay: Reserve Bank of India, November, 1957.

The **Royal Commission on Agriculture** appointed in 1926 under the chairmanship of the Marquess of Lintlithgow believed that "the greatest hope for the salvation of the rural masses from their crushing burden of debt, rests in the growth and spread of a healthy and well organised co-operative movement based upon the careful education and systematic training of the villagers themselves.[4]

By 1944, a **three-tier system of agricultural co-operative credit** came up in India. The system comprises: (1) the provincial co-operative banks (state level) at the apex, (2) the central co-operative banks at the intermediate (district level), and (3) the primary credit societies at the base level (village level).

The **Agricultural Finance Sub-Committee 1945**, the Co-operative Planning Committee 1945, and the Co-operative Sub-Committee 1948, studied the progress and suggested measures to strengthen the co-operative movement.[5]

After independence, the Government of India appointed the **Rural Banking Enquiry Committee** in November 1949 under the chairmanship of Purshatamdas Thakurdas. Its report came in May 1950. It concluded that commercial banks concentrated

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4. *The Royal Commission on Agriculture in India - Abridged Report*, Bombay: The Government Central Press, 1928, pp.49-50.

5. History of the Reserve Bank of India, p.762.

in towns while money lenders continued their dominant role in rural credit even though their activities were on the decline. It also felt that Commercial Banks could provide agricultural advances against produce for purchase of agricultural equipment.[6]

Since 1951, the **Government of India and the Reserve Bank of India** are to play an active role in supplying rural credit. Many expert committees were appointed from time to time to improve the flow of credit from institutional sources.

The **All India Rural Credit Survey** was appointed by the Reserve Bank of India in 1951 under the chairmanship of Gorwala, undertook a comprehensive survey of rural credit and submitted its report in August 1954. The survey revealed that the shares of institutional and non-institutional sources of rural credit were 7.3 per cent and 92.7 per cent respectively. The Gorwala committee made a number of recommendations which were accepted by the Government.

In 1959, the **Mehta Committee** recommended the provision of funds even to the tenant cultivators. It observed that a large portion of the loan would be in kind to avoid misapplication of loans. It also suggested quick measures to

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6. Mathur, B.S., *Land Development Banking in India*, National Publishing House, Delhi-6, 1974, p.768.

link credit with marketing to reap the benefits of organised marketing that would help in the recovery.[7]

In July 1961 the Government of India appointed the **Patel Committee** to examine the question of organizational procedure and administrative difficulties associated with routing *taccavi* loans and other facilities of the Government through co-operatives. The report came in 1963 recommending that all loans for normal production should be arranged through the co-operative institutional agency and that Government would provide finance directly to the farmers only in certain cases of high financial risk.

Singh (1963)[8] emphasized that major portion of the total credit of farmers went to ceremonies and domestic consumption and that only a small portion was used in ways which increase agricultural production. Singh suggested that farmers should be educated to use credit only for agricultural production.

The **All-India Rural Credit Review Committee** (1966) headed by Venkatappiah, observed that "except in a few areas, the predominance of non-institutional credit continued over

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7. Paranjothi, T., *Committees and Commission on Co-operations*, Rainbow Publications, Coimbatore, November 1984, p.405.

8. Singh, Hira, *Role of Agricultural Credit in Economic Development of Indian Agriculture*, University of Winconsin, 1963.

the years, despite inroads made by the growth of co-operative credit."[9] The Committee suggested reorganisation of co-operative credit. Its main recommendations relate to simplification of lending procedures to improve production and recoveries, establishment of two new organisations namely the Small Farmers Development Agency (SFDA) to identify the problems of potentially viable small farmers and ensure them supply of agricultural inputs, services and credit, and the Rural Electrification Corporation to help rural electrification schemes through the State Electricity Boards.

The committee also observed that the role of Commercial Banks in the sphere of rural credit might consider in certain areas like "production credit, distribution credit, credit for the infrastructure, investment credit, credit undertaken jointly with agriculture and credit to co-operatives engaged in agricultural activities." It also stressed that date should be fixed in each state beyond which no *taccavi* loan should be provided except to meet situations of widespread distress like floods and famines.[10]

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9. Report of the All India Rural Credit Review Committee, Reserve Bank of India Agricultural Credit Department, Bombay, December 1969, p.405.

10. Ibid., p.1000.

Naidu (1968)[11] reveals that co-operative credit movement has registered a significant progress during the decade (1951-61).

In 1969, the committee on co-operation headed by **Santhanam**, in its report, recommended that "the scale of cultivation finance should include a reasonable amount towards the consumption expenses of the members' family."[12] It further recommends that village societies should be empowered to pursue action under the Land Revenue Recovery Act and drive up recovery measures. In order to augment resources of the village societies, the Committee also recommended a three per cent margin between lending rate and its borrowing rate from the Central Bank.

In December 1971, the **National Commission on Agriculture** in its report recommended the establishment of the Farmers Service Societies to provide all types of credit, technical guidance to small farmers to develop their farms in an integrated manner, and to provide two-third representation so as to enable the weaker sections to control the society. Such societies could be either financed by Commercial Banks

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11. Naidu, V.T., *Farm Credit and Co-operative in India*, Vora & Co. Publishers Pvt. Ltd., Bombay, 1968.

12. *Report of the Committee on Co-operation*, Reprinted, Ministry of Food, Agriculture, Community Development and Co-operation, Government of India, 1972, Vol.II, p.3.

or by Co-operative Banks. This scheme was accepted and put into operation since 1973-74 in almost all the states.

Sukla (1971)[13] found that the flow of finance tends to gravitate to better off states but not to Assam, Bihar, Orissa and West Bengal.

The **Committee on Co-operative Land Development Banks** in 1973 headed by Madhava Das studied the structure of land development banks in different states, suggested the setting up of regional/dimensional office of the Central Land Development Bank with adequate technical and other staff to provide necessary support to the base level structure in the formulation of scheme and their implementation. It also recommended that "there should be close link between the State Co-operative Bank and various government departments[14] for enabling the banks to take prompt and effective measures against the defaulters.

The **Planning Commission** (1975)[15] revealed that 23 per cent of the short-term credit and 35 per cent of medium-term

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13. Sukla, Tara, "Regional Analysis for Institutional Finance for Agriculture", *Indian Journal of Agricultural Economics*, Vol.XXVI, No.4, October-December, 1971, pp.548-49.

14. Report of the Committee on Co-operative Land Development Banks, p.306.

15. Government of India, *Utilisation of Co-operative Credit, Programme Evaluation Organisation*, Planning Commission, New Delhi, 1975, p.69.

credit were diverted to purposes other than those for which credit was advanced.

Hanumantha Rao (1975)[16] writes "If institutional credit is not to become a mean for widening the existing disparities in income and wealth within the agricultural sector, if it is indeed to be made an instrument for reducing such disparities, then credit rationing needs to be practised. A clear cut policy regarding the allocation of credit among different land holding groups will have to be introduced".

In 1979, a committee to review arrangements for Institutional Credit for Agriculture and Rural Development recommended the establishment of a **National Bank for Agriculture and Rural Development** under the control of the Reserve Bank of India. It also recommended that the development agencies including the credit institutions have to plan and progress together and ensure that credit is tied up with development programmes and supported by appropriate backward and forward non-credit linkage.[17] In matters of

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16. Rao, Hanumantha, C.H., *Farm-Size and Credit Policy in Rural Banking in India*, Ashish Publishing House, New Delhi, 1975, pp.8-11.

17. Report of the Committee to Review Arrangements for Institutional Credit for Agricultural and Rural Development (CRAFICARD), p.349.

dispensing long-term credit, Primary Agricultural Credit Societies should act as agents of land development banks.[18]

Bhalla and Chadha (1983)[19] revealed that institutional finance played a vital role for the growth of private tube wells in Punjab when there is less rain in a particular year.

Tripathi (1984)[20] concluded that subsidy loans are considered as free gifts and are being misused by officials and beneficiaries. The creation of adequate credit facilities had been identified as solution for major agricultural problems of rural India. He emphasized that farmers equipped with better financial resources device the benefit of new development scheme. The shortage of finance is a major constraint for Marginal and Small Farmers to change and renovate practices of cultivation. The landless labourer, rural artisans and the weaker sections are at disadvantage position and their participation in rural development programmes have been almost negligible.

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18. *Report of the Committee to Review Arrangements for Institutional Credit for Agricultural Rural Development (CRAFICARD)*, Reserve Bank of India Rural Planning and Credit Cell, Bombay, January, 1981.

19. G.S. Bhalla and G.K. Chadha, *Green Revolution and the Small Peasant: A Study of Income Distribution Among Punjab Cultivators*, Concept Publishing Company, New Delhi, 1983, pp.13-167.

20. Tripathi, Satyendra, *The Role of Banks in Upliftment of Rural Poor under JROP*, Banaras Hindu University, 1984, Varanasi.

Chauhan (1985)[21] **examined the role of Commercial Banks** in promoting agricultural sectors. He suggested the close supervision over utilisation of funds and that the scheme of crop insurance would be introduced in all the districts of the country.

Gadgil (1986)[22] emphasized that the green revolution witnessed in some parts of the country was facilitated by institutional credit which helped not only in the expansion of rural credit but also in mobilisation of rural saving and monetisation of the rural economy.

Objectives and Scope of the Study

a) To examine the various sources of credit on which the agriculturists depend and the extent to which agriculture has been financed by institutional and government agencies and to classify these sources.

b) To investigate the extent to which agricultural credit is necessary for carrying on agricultural activities both for the production and consumption purposes.

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21. Chauhan, Dilip J., *Role of Commercial Banks in Agricultural Development*, Sardar Patel University, 1985.

22. Gadgil, M.V., "Agricultural Credit in India: A Review of Performance and Policies", Chief General Manager, NABARD, Bombay 1986, *Indian Journal of Agricultural Economics*, Vol.41, July-September, 1986, Part-I, No.3.

c) To study the schemes of financial assistance best suited to help in a substantial manner in improving agriculture of the state in general and in the Ri-Bhoi district in particular.

In addition to the above mentioned objectives, we would also make an objective analysis of the economic structure of the state, of the district and of the selected villages.

Hypotheses of the Study

To examine the validity or otherwise of the following hypotheses :

1. That the capacity for self-financing in rural areas is very limited through the case study of the four villages, namely, Umsning, Nongthymmai, Ingsaw and Sohphoh.

2) That the traditional money lending operation continues to be exploitative and incapable of financing for productive investment.

3) That the institutional credit from sources like banks and co-operatives is a preferred and reliable way to finance organised investment in land in a much more efficient way than otherwise and thus improve the agricultural sector of the economy.

Methodology

As already stated, the study covers four villages of Ri-Bhoi District, viz., Umsning, Nongthymmai, Sohphoh and

Ingsaw. These villages have been selected because they have almost very similar agricultural and other economic traits, except that the first two villages, viz., Umsning and Nongthymmai have been `adopted' by the State Bank of India for financial assistance for agricultural purposes while the other two villages, viz. Sohphoh and Ingsaw have not been so adopted. These four villages are also representative of the agricultural characteristics and practices in the state as well as in the district. They practise both wet paddy cultivation and *jhum* cultivation, a traditional and wasteful type of agriculture.

Since finance is a necessary as well as an important input in both categories of cultivation, we get a fairly good idea of the indispensability of agricultural credit and the importance of its availability in agricultural production by a comparative study of the four villages. The main focus of the study is on the analysis of the manner in which credit is utilised by the farmers for productive purposes in agriculture and on the adequacy and equity of the credit made available by the nationalised banks.

In order to gather the necessary information for our study, we undertook extensive investigations in the concerned four villages. Owing to rather under-developed state of transport and communication, the fact that the household members were often in the field engaged in some [illegible] of

agricultural activity or other at the time of our visit, the collection of information took much more time than we had anticipated at the beginning of our study as we had to visit the villages many times. The information canvassed and collected concerned major aspects of village life and development with emphasis on the agricultural sector.

As mentioned earlier, two villages selected for our case study, were those `adopted' and financially assisted by the State Bank of India in their agricultural operations, and the other two not so assisted by the Bank. Even though the average number of households in a village in Meghalaya is smaller than the average number of village households in the rest of India, the number of households in the selected four villages were much above the average number in Meghalaya nearer to the national average.

The method of investigation adopted was through personal contact and interview. For the purpose of eliciting information, we had prepared an exhaustive questionnaire on the items required to be analysed and the answers were recorded at the time of interview. Supplementary information outside of those elicited through questionnaire, were also gathered through personal conversation duly recorded. Copy of the questionnaire used is reproduced in the Appendix. Following up visits for elucidation of the already gathered

data and collection of further additional information were also undertaken in all the four villages.

We might mention here that the preparation of the questionnaire and of other information sought through personal conversation were greatly facilitated by the secondary data obtained from the Banks, the different departments of the State Government, the Bureau of Statistics and the interviews with the officers of the government and of the institutions including those in the villages.

The data so gathered from the primary and secondary sources were analysed with the help of appropriate Statistical Techniques. The results obtained have been analysed against the background of the socio-economic conditions of the villages surveyed, subject of course, to the rigorous logic of economic analysis.

Since Umsning, an adopted village, is the most populous among the four selected villages with the largest number of households, 150 sample households have been selected. But from the remaining three villages only 50 sample households have been selected for investigation.

Primary data have been collected by personal visits and canvassing of questionnaire. Besides, both official and non-official reports - published and unpublished - have also been consulted. The secondary sources of information have been obtained from library sources and from interviews and

discussions with various officials of the banks, government agencies, and other relevant institutions.

For the present study, therefore, besides the primary source of data which have been collected by us through village survey method, we have also made use of studies done in the all-India context by other researchers as well as the studies made by SBI, RBI, NABARD, nationalised banks and co-operative societies, etc. The nationalised banks have begun lending credit to villagers in the Ri-Bhoi district since the late seventies.

At the completion of the collection of necessary data, the same were classified, tabulated and analysed in as many as 67 statistical tables. The analyses have also been reflected in the graphs wherever necessary.

Significance of the Study

The study is significant in so far as it throws light on the role and importance of finance in agricultural development. Further, it also reveals the most appropriate or rather the suitable agency, in terms of the needs and requirements, for financing agricultural operations in the rural areas of a backward economy like that of Meghalaya. The study also brings out some policy implications which may be considered by the institutional financing agencies for the further development of agriculture in the rural areas.

Organization of the Study

In Chapter-I, we introduce the topic of our study and its importance, the objectives and hypotheses of the study, the Methodology used for collection of data from the villages through extensive as well as intensive field survey. The sources of the secondary data have been indicated in the chapter.

Chapter-II deals with some aspects of the economy of Meghalaya. We discuss the various socio-economic aspects of the State including physical features, the sectoral contribution of the different sectors of the economy to the state Gross Domestic Product. We also discuss the agricultural production in the State giving summary account of the different food crops like rice, pulses, grams, horticulture and the different schemes which the State has come up with for the improvement of agriculture.

In Chapter-III is discussed the important aspects of the general socio-economic profile of the **Ri-Bhoi** District of Meghalaya, giving a summary account of the relevant aspects necessary for an indepth analysis of the core part of the study. We also touch upon the physical features, natural resources, population, industries and socio-economic conditions like health and education and the infrastructural facilities that currently exist in the district.

Chapter-IV contains the main focus of our study on the agricultural economy of the **Ri-Bhoi** district. Important aspects of climatic condition, rainfall, altitude, soil, cropping pattern, horticulture, market and marketing facilities, land tenure system and *Jhumming*, all of which, in one way or the other, influence agriculture are briefly looked into.

Chapter-V is devoted to a discussion on the nature, importance and the result of institutional financing of agricultural activities, with particular reference to both the national and state averages vis-a-vis the district under study.

In Chapter-VI, we analyse the data collected from the four sample villages of our case study and attempt at a comparison of the various socio-economic factors in these four villages.

Chapter-VII is the concluding chapter where we summarise our findings and give the conclusion that emerges from the findings.

Chapter-II

SOME ASPECTS OF THE ECONOMY OF MEGHALAYA

Since this is a case study of four villages in the Ri-Bhoi district of the State of Meghalaya, it is relevant to discuss in this chapter some aspects of the economy of the State. Meghalaya is one of the seven states in the North-Eastern region of India. The other states in the region are Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland and Tripura.

Soon after the formation of Meghalaya as a State on 21 January 1972, the new district of Jaintia Hills was formed on 22 February 1972 by upgrading the Jaintia Hills sub-division of the then district of United Khasi and Jaintia Hills. In October 1976, two more districts, namely, the West Khasi Hills district and the East Garo Hills district were created. On 4th June, 1992 again two more districts, namely, the Ri-Bhoi and the South Garo Hills districts were created. Thus at present, Meghalaya has seven districts.

Physical Features

Meghalaya is a plateau. The physical characteristics of the plateau are varied due to the highly dissected and irregular terrain in the northern faces in contrast to the regular and steep fall of the southern face, down to the Barak-Surma plain through a faulted face.

The Central Upland Zone of the plateau running east-west consists of the plateau proper which, at its western

end, attains a height of 1,515 metres in the peak of Nokrek situated 13 km. south-east of Tura and at its eastern end, attains 1,961 metres in the Shillong Peak located just south of Shillong.[1]

The central upland region is suitable for potato cultivation which is exported to the neighbouring States. The cultivation of cabbages, radish, cauliflower, carrot, tomato and other vegetables are also suitable. Other crops such as millets, paddy and sweet potato are also grown in this region. While in the Garo Hills district cotton and jute are the favoured crops.

The northern belt of the plateau with accordant submits (170 metres to 820 metres) gradually slope down towards the Brahmaputra Valley of Assam and form the sub-montane region of the plateau.[2] This region has an undulating topography. It consists of an extensive plateau with continuous flatlands and open valleys particularly in its western portion where the hills are low and unintersecting.[3] In the middle part of this region the submit of these hills vary between 170 metres and 820 metres. Most of the hillocks are conspicuous by their

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1. N.C.A.E.R., *Techno-Economic Survey of Assam*, New Delhi, 1962, p.2.

2. Goswami, D.N.D., "Meghalaya: Mikir Region", *op. cit.*, p.681.

3. Hunter, W.W., *A Statistical Account of Assam*, London, 1879; Reprinted, New Delhi, 1975, p.137.

flat-top character. In the east, the Jaintia Hills are rather irregular in form and broken in many places. Many embankments projects into the hills along the head stream of the Kupli river.[4] The interesting physiographic feature in this region is that the limit of the plateau is not very well-defined, there being broken ranges of low irregular hills stretching across lower and central Assam to the foothills of the Himalayas.[5] **"Ri-Bhoi"** is the local geographical term applied to this region in Khasi and Jaintia Hills. It is a low rainfall region, paddy is grown here. In Garo Hills rice, jute and tapioca are grown abundantly.

The southern belt of the plateau region begins where the central upland ends at about 900 metres elevation and stretches downward towards the plains of Bangladesh.[6] This is the region where the highest rainfall occurs. "Ri War" is the local geographical name given to this region in Khasi and Jaintia Hills. In the west, the southern belt consists of low hills. But as we go eastwards, it consists of the steepest parts of the region. The low hills and valleys slope very abruptly and in many places there are deep gorges. The face

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4. Bhuyan, M.C., "Geographical Individuality of Meghalaya" in *The Assam Tribune Supplement*, April 2, 1970, p.III.

5. Goswami, D.N.D., *op. cit.*, p.680.

6. In the Draft Fifth Five-Year Plan, Government of Meghalaya (Vol.I), p.2, this Division is called "Border Areas".

of the escarpment has been attached by the fluvial erosion due to extremely heavy rainfall, and as a result, many structural platforms were formed like the Cherrapunjee, the Lyngkyrdem, and the Mawsynram platforms. But in its eastern part, the southern belt rises into a range of hills which attain a height of 1,625 metres in the peak of Marangksih, the highest peak in Jaintia Hills.[7]

In this region fruits like oranges, and banana are produced in plenty. Arecanut and bay leaf are exclusively grown. In Garo Hills, 50 per cent of the total rice, jute, tapioca and pineapple are also found.

Sectoral Contribution to State Income

Primary Sector

Meghalaya is basically an agrarian State in which a major section of the population depends on agriculture for their livelihood. The fact that 81 per cent of the population in the State are in the rural areas as against the All-India figure of 74 per cent signifies the dominant position of agriculture in the State. Its contribution to the Gross State Domestic Product (SDP) at constant 1980-81 prices for the period 1980-81 to 1992-93 is presented in Table 2-1.

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7. Bhuyan, M.C., *op. cit.*

Table-2.1

Estimate of Gross State Domestic Product 1980-81 to 1992-93 at Constant (1980-81) Prices

Year	Primary Sector	Percentage	Secondary Sector	Percentage	Tertiary Sector	Percentage	Total Gross Domestic Product	Percentage
1980-81	7701	38.44	3544	17.69	8787	43.87	20032	100
1981-82	7975	38.16	3578	17.12	9348	44.72	20900	100
1982-83	7979	37.31	3658	17.11	9747	45.58	21384	100
1983-84	8001	36.24	3737	16.93	10338	46.83	22076	100
1984-85	8489	36.36	3699	15.89	11096	47.65	23284	100
1985-86	8677	35.34	3844	15.66	12030	49.00	24551	100
1986-87	8303	33.03	3925	15.61	12912	51.36	25140	100
1987-88	8972	32.74	4382	16.00	14046	51.26	27400	100
1988-89	7804	27.84	4239	15.12	15992	57.04	28035	100
1989-90	9842	30.71	4450	13.89	17751	55.40	32043	100
1990-91	11438	32.15	5127	14.41	19010	53.44	35575	100
1991-92	11344	30.23	5880	15.67	20302	54.10	37526	100
1992-93	9055	25.30	6106	17.00	20633	57.64	35794	100

Source: Government of Meghalaya, *Estimators of State Domestic Product of Meghalaya 1980-81 to 1995-96*, Directorate of Economics and Statistics, Meghalaya, Shillong.

It may be seen from the table that the primary sector always contributes a major portion to the State's income. It accounted for more than one-third of the State Domestic

Product up to 1985-86. Its share had, however, been fluctuating continuously and its contribution declined to less than one third after 1985-86 and by 1992-93 it declined to about 25 per cent of the SDP. The main reason for the continuous decline in the share of the primary sector to the SDP is the unusual rise in the contribution of the tertiary sector without the corresponding rise in the secondary sector.

Secondary Sector

It will be seen from Table-2.1 that the rate of growth of this sector, in terms of its contribution to the Gross State Domestic Product declined continuously from 1980-81 to 1989-90 and thereafter it rose during the remaining three years from 1990-91 to 1992-93.

The main reason for the continuous decline in the share of the secondary sector to the Gross State Domestic Product up to 1989-90, is the poor agricultural performance and lack of entrepreneurship among the local people. Large scale industries will not succeed in the State due to many other factors including the organisational and entrepreneurial weaknesses. Industrial growth and development through large scale industries in the State cannot be expected. However, a sizeable number of medium and minor industries have great

potentialities of development in the State but owing to certain bottlenecks like absence of local entrepreneurship and reluctance of entrepreneurs to come from other parts of the country, the development of the secondary sector of the State will have to wait.

Tertiary Sector

The rate of growth of this sector in terms of its contribution to the SDP has been much higher than the other two sectors of agriculture and industry. The rather inordinate growth of this sector as compared to the near stagnant nature of the industrial sector and the relatively declining contribution of agriculture, is a pointer to the low development of the State's economy.

After analysing the sectoral contribution of the three principal sectors to the SDP at constant 1980-81 prices for the period 1980-81 to 1992-93, we will now look into their contribution to the SDP at constant 1993-94 prices for the period of six years from 1993-94 to 1998-99 as reflected in the following table:

Table-2.2

Estimate of Gross State Domestic Product 1993-94 to 1998-99 at Constant (1993-94) Prices

Year	Primary Sector	Percentage	Secondary Sector	Percentage	Tertiary Sector	Percentage	Total Gross Domestic Product	Percentage
1993-94	46230	28.44	21854	13.45	94432	58.11	162516	100
1994-95	49826	29.49	19306	11.42	99864	59.09	168996	100
1995-96	52295	28.73	22987	12.63	106715	58.64	181997	100
1996-97	57292	29.76	24428	12.69	110768	57.55	192488	100
1997-98	57248	28.37	25977	12.87	118586	58.76	201811	100
1998-99	60255	27.84	28915	13.36	127239	58.80	216409	100

Source: Government of Meghalaya, *Estimates of Gross State Domestic Product at Constant (1993-94) Prices, 1993-94 to 1998-99*, Directorate of Economics and Statistics, Meghalaya Shillong.

From the above table, it will be seen that the contribution of the primary sector continued to fluctuate every alternate year but it was always above 25 per cent. The contribution of the secondary sector appears to have always risen marginally during the last four years as seen in the table after it went down in 1994-95. The tertiary sector continued to maintain its major contribution which has been above 50 per cent of the SDP but its share has been fluctuating during the 6-year period.

Compound Growth Rate in State Income

We would also like to analyse the compound growth rate in the net SDP to find out the achievements made by the State in the economy. In order to measure such achievements, the rate of compound growth during a span of 5 years is considered to be an appropriate period in view of the fact that such 5-year period can reflect the overall performance of the sectors in the economy. The official data are given in the following table:

Table-2.3

Compound Growth Rate in Net State Domestic Product 1980-81 to 1995-96

Sector	1980-81 to 1984-85	1985-86 to 1989-90	1990-91 to 1994-95	1980-81 to 1995-96
Primary	1.75	2.03	-2.18	1.60
Secondary	-1.82	1.21	2.10	2.96
Tertiary	4.75	8.09	3.65	6.29
State Domestic Product	2.64	5.08	1.58	4.19

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya, 1980-81 - 1995-96*, Directorate of Economics and Statistics, Meghalaya, Shillong.

The above table reveals that in all the three periods the tertiary sector did better than the other two sectors. It achieved very significantly during the second period 1985-86

to 1989-90 with the rate of growth registering at 8.09. While the primary sector ended up with a negative compound growth rate of -2.18 in the third period, the secondary sector which commenced with a negative growth rate of -1.82 in the first period ended with a positive growth rate of 2.10.

Taking the overall period of 15 years from 1980-81 to 1995-96, the tertiary sector grows faster than the overall growth rate in the SDP. The industrial sector achieved the growth rate of almost 3 as compared to the growth rate of the primary which went down to 1.60.

Comparing the three periods of performances, the table reveals that all the three sectors did very well during the second period from 1985-86 to 1989-90.

Per Capita Income

We will next look at the per capita income of the State during the period of 15 years from 1980-81 to 1995-96, both at current prices and constant prices and examine the variances from year to year. The relevant data collected are given in the following table:

Table-2.4

Per Capita Income of Meghalaya 1980-81 to 1995-96

Years	Per Capita Income at the Current Prices		Per Capita Income at the Constant (1980-81) Prices	
	Rupees	% Variance over Previous Year	Rupees	% Variance over Previous Year
1980-81	1361	-	1361	-
1981-82	1516	11.39	1379	1.32
1982-83	1626	7.26	1361	-1.31
1983-84	1831	12.61	1354	-0.51
1984-85	2047	11.79	1385	2.29
1985-86	2250	9.92	1412	1.95
1986-87	2479	10.18	1397	1.06
1987-88	2922	17.87	1485	6.30
1988-89	3074	5.20	1455	2.02
1989-90	3836	24.79	1596	9.69
1990-91	4375	14.05	1733	8.58
1991-92	4891	11.79	1764	1.79
1992-93	5272	7.79	1617	-8.33
1993-94	5934	12.56	1681	3.96
1994-95	6402	7.89	1673	-0.48
1995-96	*6826	6.62	*1714	2.45
1980-81 to 1995-96	Annual Average	11.48	Annual Average	1.64

* Quick Estimate

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya 1980-81 to 1995-96*, Directorate of Economics and Statistics, Meghalaya, Shillong.

The above table shows the per capita income of Meghalaya at Rs.1361 in 1980-81 both at current and constant prices. While at the current prices the per capita income kept on increasing, at the constant prices it declined several times repeatedly in 1981-82 and 1982-83, then in 1986-87, in 1988-89, in 1992-93 and in 1994-95. The decline was the heaviest in 1992-93 which accounted for a percentage

variance of -8.33. The percentage variances in the increase of per capita income at current prices fluctuated from year to year and the highest increase occurred in 1989-90 with 24.79 per cent variance. Though the per capita income at constant prices registered a decline on six occasions, yet it recorded a fairly high increase in 1989-90 with 9.69 per cent variance in spite of the decline of (-)2.02 per cent variance in the previous year 1988-89. It again registered an increase of 8.58 per cent variance in the next year 1990-91.

Detailed Sectoral Contribution to State Income

We would like to examine in detail the sectoral contribution to the State income by looking at the contribution of every sub-sector within the three principal sectors, viz., Primary, Secondary and Tertiary Sectors. we would first analyse the contribution of the sub-sectors at current prices for the period of 6 years from 1993-94 to 1998-99. The data collected are shown in the following table:

Table-2.5

Percentage Sectoral Contribution to Gross State Domestic Product at Current Prices

Sl.No.	Industry	Years					
		1993-94	1994-95	1995-96	1996-97	1997-98(P)	1998-99(Q)
1	Agriculture	20.25	20.22	19.16	20.13	21.07	19.22
2	Forestry & Logging	1.32	1.68	1.72	1.49	1.22	1.13
3	Fishing	1.00	0.82	0.72	0.73	0.65	0.60
4	Mining & Quarrying	5.87	6.74	5.91	5.83	5.05	6.15
	Sub-Total	28.44	29.46	27.49	28.17	28.00	27.11
5	Manufacturing	2.62	2.81	2.74	2.88	2.39	2.28
5.1	Registered	0.86	0.89	0.87	1.01	0.71	0.66
5.2	Un-Registered	1.76	1.92	1.87	1.87	1.67	1.61
6	Construction	6.40	5.83	6.94	7.01	6.88	7.66
7	Electricity, Gas & Water Supply	4.43	3.14	3.83	3.75	3.93	3.78
	Sub-Total	13.45	11.77	13.51	13.64	13.19	13.71
8	Transport, Storage & Communication	10.23	10.48	10.33	10.42	10.65	10.58
8.1	Transport by other means	9.83	10.06	9.83	9.83	10.14	10.07
8.2	Storage	0.00	0.00	0.00	0.00	0.00	0.00
8.3	Communication	0.39	0.42	0.49	0.48	0.50	0.50
9	Trade, Hotel & Restaurant	14.98	16.08	15.19	15.38	14.65	13.96
10	Banking & Insurance	1.83	1.95	2.09	2.13	2.14	2.09
11	Real Estate, Ownership of dwelling & Business Services	11.50	11.29	10.59	10.49	10.10	9.27
12	Public Administration	11.99	11.53	11.90	11.88	13.17	13.70
13	Other Services	7.58	7.43	8.90	7.89	8.10	9.58
	Sub-Total	58.11	58.77	59.00	58.19	58.81	59.18
14	GROSS STATE DOMESTIC PRODUCT	100.00	100.00	100.00	100.00	100.00	100.00

P=Provisional Estimates
Q=Quick Estimates

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

The above table reveals that at the end of six years only Mining and Quarrying of all the four sub-sectors under Primary Sector which increased its share from the 1993-94 level. The other three subsectors, viz., Agriculture, Forestry and Logging and Fishing decreased their share in the same period. Hence the total contribution of the primary sector at the end of the 6-year period decreased by more than one per cent.

Similarly, of the three subsectors under the Secondary Sector only Construction had increased its share at the end of six years while the other two subsectors contributed less than what they started at the beginning of the six year period. However, the good performance of construction has resulted into the slight increase in the contribution of the Secondary Sector as a whole from 13.45 per cent to 13.71 per cent at the end of six years.

Of the eight tertiary subsectors, six subsectors were doing well and increased their contribution at the end of six year period. The other two subsector, viz. (1) Trade, Hotel and Restaurant and (2) Real Estate, Ownership of Dwelling and Business Services fared badly at the end of six years. While the contribution of Trade, Hotel, etc. came down by more than one per cent, the contribution of Real Estate, etc. came down by more than 2 per cent. These two subsectors are crucial and should have fared better. Nevertheless, the contribution of

the tertiary sector increased gradually except in the year 1996-97.

We will now look into the contribution of the subsectors to Gross SDP at constant (1993-94) prices with the collected data given in table 2.6.

The position is a little bit different as the table shows. The contribution of the Secondary Sector as a whole decreased instead of increasing at the end of the six-year period in spite of the similarly good performance made by Construction. The rest of the subsectors contributed less than what they had started at the beginning of the six year period. Similarly, the tertiary sector as a whole has shown a decline for two consecutive years 1995-96 and 1996-97 instead of one year only when estimated at current prices in spite of the fact that Trade, Hotel, etc. did better than what it started at the beginning of the six-year period. Again, in place of the Trade, Hotel, etc. which decreased its contributions when estimated at current prices, it is the Public Administration which declined when estimated at constant prices. As a whole, the Tertiary sector did increase at the end of the six-year period. As far as the Primary Sector is concerned, the position remains same whether the estimates were done at Current or Constant prices.

Table-2.6

Percentage Sectoral Contribution to Gross State Domestic Product at Constant (1993-94) Prices

Sl.No.	Industry	Years					
		1993-94	1994-95	1995-96	1996-97	1997-98(P)	1998-99(Q)
1	Agriculture	20.25	19.62	19.72	20.97	20.39	19.05
2	Forestry & Logging	1.32	1.69	1.76	1.57	1.24	1.09
3	Fishing	1.00	0.98	0.80	0.93	0.81	0.80
4	Mining & Quarrying	5.87	7.20	6.45	6.29	5.92	6.90
	Sub-Total	28.44	29.49	28.73	29.76	28.37	27.84
5	Manufacturing	2.62	2.73	2.61	2.81	2.38	2.20
5.1	Registered	0.86	0.87	0.80	0.95	0.70	0.66
5.2	Un-Registered	1.76	1.86	1.81	1.86	1.68	1.54
6	Construction	6.40	5.85	6.47	6.90	7.04	8.14
7	Electricity, Gas & Water Supply	4.43	2.84	3.54	2.98	3.45	3.02
	Sub-Total	13.45	11.42	12.63	12.69	12.87	13.36
8	Transport, Storage & Communication	10.23	10.67	10.40	10.56	11.33	11.29
8.1	Transport by other means	9.83	10.25	9.88	10.04	10.75	10.70
8.2	Storage	0.00	0.00	0.00	0.00	0.00	0.00
8.3	Communication	0.39	0.41	0.51	0.52	0.57	0.59
9	Trade, Hotel & Restaurant	14.98	16.84	15.90	16.31	15.35	15.08
10	Banking & Insurance	1.83	2.05	2.11	2.15	2.32	2.36
11	Real Estate, Ownership of dwelling & Business Services	11.50	11.19	10.81	10.49	10.27	9.83
12	Public Administration	11.99	11.12	11.10	10.79	12.05	11.88
13	Other Services	7.58	7.23	8.32	7.25	7.44	8.34
	Sub-Total	58.11	59.09	58.64	57.55	58.76	58.80
14	GROSS STATE DOMESTIC PRODUCT	100.00	100.00	100.00	100.00	100.00	100.00

P=Provisional Estimates
Q=Quick Estimates

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

Table-2.7

Percentage Sectoral Contribution to Net State Domestic Product at Current Prices

Sl.No.	Industry	Years					
		1993-94	1994-95	1995-96	1996-97	1997-98(P)	1998-99(Q)
1	Agriculture	22.81	22.89	21.61	22.70	23.68	21.50
2	Forestry & Logging	1.34	1.74	1.78	1.51	1.23	1.12
3	Fishing	1.02	0.80	0.66	0.69	0.62	0.57
4	Mining & Quarrying	3.10	3.93	3.34	3.35	2.82	4.26
	Sub-Total	28.27	29.36	27.40	28.25	28.35	27.46
5	Manufacturing	2.58	2.86	2.74	2.89	2.39	2.28
5.1	Registered	0.81	0.90	0.85	1.01	0.71	0.66
5.2	Un-Registered	1.77	1.96	1.89	1.89	1.68	1.62
6	Construction	6.92	6.29	7.56	7.64	7.48	8.24
7	Electricity, Gas & Water Supply	1.55	-0.10	0.69	0.56	0.59	0.53
	Sub-Total	11.05	9.05	10.99	11.09	10.45	11.04
8	Transport, Storage & Communication	9.27	9.48	9.20	9.28	9.52	9.40
8.1	Transport by other means	8.95	9.18	8.89	8.99	9.22	9.12
8.2	Storage	0.00	0.00	0.00	0.01	0.01	0.01
8.3	Communication	0.31	0.30	0.30	0.27	0.29	0.27
9	Trade, Hotel & Restaurant	16.81	18.14	17.06	17.26	16.40	15.55
10	Banking & Insurance	2.04	2.19	2.33	2.37	2.38	2.32
11	Real Estate, Ownership of dwelling & Business Services	12.51	12.33	11.51	11.41	10.95	9.99
12	Public Administration	11.87	11.38	11.78	11.76	13.23	13.86
13	Other Services	8.18	8.06	9.73	8.57	8.73	10.38
	Sub-Total	60.68	61.59	61.61	60.66	61.20	61.50
14	GROSS STATE DOMESTIC PRODUCT	100.00	100.00	100.00	100.00	100.00	100.00

P=Provisional Estimates
Q=Quick Estimates

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

We will now analyse the contribution of the subsectors in detail to the Net SDP at current prices according to the data given in the table 2.7 above.

The contribution to the Net SDP by the subsectors under Primary Sector show similar trends as their contribution to the Gross SDP estimated at current prices. But in the case of the Secondary Sector as a whole, the contribution decreased instead of increasing at the end of the six-year period. In the case of the tertiary subsectors, it shows as many as three subsectors which did badly instead of two which contributed less to the Gross SDP at the end of the six-year period.

We will also analyse the contribution of the subsectors in detail to the Net SDP at constant prices with the data given in the following table:

Table-2.8

Percentage Sectoral Contribution to Net State Domestic Product at Constant (1993-94) Prices

Sl.No.	Industry	Years					
		1993-94	1994-95	1995-96	1996-97	1997-98(P)	1998-99(Q)
1	Agriculture	22.81	22.12	22.12	23.51	22.83	21.28
2	Forestry & Logging	1.34	1.75	1.84	1.62	1.26	1.09
3	Fishing	1.02	0.99	0.78	0.92	0.79	0.78
4	Mining & Quarrying	3.10	4.53	4.07	4.03	3.73	4.99
	Sub-Total	28.27	29.40	28.81	30.08	28.61	28.14
5	Manufacturing	2.58	2.78	2.60	2.81	2.36	2.16
5.1	Registered	0.81	0.89	0.78	0.94	0.70	0.65
5.2	Un-Registered	1.77	1.89	1.82	1.87	1.66	1.51
6	Construction	6.92	6.31	7.00	7.49	7.61	8.74
7	Electricity, Gas & Water Supply	1.55	-0.32	0.56	-0.06	0.47	0.07
	Sub-Total	11.05	8.76	10.15	10.22	10.44	10.97
8	Transport, Storage & Communication	9.27	9.68	9.25	9.38	10.12	10.04
8.1	Transport by other means	8.95	9.38	8.91	9.03	9.73	9.65
8.2	Storage	0.00	0.00	0.00	0.00	0.00	0.00
8.3	Communication	0.31	0.29	0.33	0.33	0.38	0.38
9	Trade, Hotel & Restaurant	16.81	18.93	17.76	18.19	17.10	16.75
10	Banking & Insurance	2.04	2.29	2.34	2.38	2.57	2.61
11	Real Estate, Ownership of dwelling & Business Services	12.51	12.19	11.72	11.36	11.12	10.61
12	Public Administration	11.87	10.94	10.92	10.61	13.07	11.91
13	Other Services	8.18	7.81	9.04	7.79	7.97	8.98
	Sub-Total	60.68	61.84	61.04	59.70	60.95	60.89
14	GROSS STATE DOMESTIC PRODUCT	100.00	100.00	100.00	100.00	100.00	100.00

P=Provisional Estimates
Q=Quick Estimates

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

Similar trends are shown in the contribution of the Primary subsectors to the Net SDP even when estimated at Constant prices. So also similar trends are found in the Secondary subsectors and the Tertiary subsectors whether the estimates are done at Current or Constant prices.

We would like to discuss at this stage, the advance estimates of the SDP for the year 1999-2000 as per the data released to us and given in the following table 2.9 before we conclude our analysis of the state income.

The above table depicts both the Gross and the Net SDP at current prices. It can be seen that the tertiary sector continues to dominate the economy both in terms of Gross or Net SDP. The Secondary Sector is still lagging behind, with a contribution of less than 11 per cent to Net SDP. But Agriculture still dominates in terms of contribution to the SDP of Meghalaya with 19.35 per cent contribution to the Gross SDP and 21.66 per cent to the Net SDP. The second highest contribution to the Gross SDP is made by Public Administration while the Net SDP shows that the second highest contribution was made by Trade, Hotel and Restaurants.

Table-2.9

Advance Estimates of Gross/Net Domestic Product at Current Prices for the Year 1999-2000

Sl.No.	Industry	G.S.D.P. (Rs.in lakh)	G.S.D.P. Percentage Contribution	N.S.D.P. (Rs.in lakh)	N.S.D.P. Percentage Contribution
1	Agriculture	65577	19.35	64890	21.66
2	Forestry & Logging	3461	1.02	3025	1.01
3	Fishing	1851	0.55	1530	0.51
4	Mining & Quarrying	20013	5.91	12358	4.13
	Sub-Total	902	26.83	81803	27.31
5	Manufacturing	7506	2.22	6645	2.22
5.1	Registered	2183	0.64	1933	0.65
5.2	Un-Registered	5323	1.57	4712	1.57
6	Construction	26336	7.77	25005	8.35
7	Electricity, Gas & Water Supply	12398	3.66	991	0.33
	Sub-Total	46240	13.65	32641	10.90
8	Transport, Storage & Communication	36087	10.65	28136	9.39
8.1	Transport by other means	34353	10.14	27286	9.11
8.2	Storage	43	0.01	36	0.01
8.3	Communication	1691	0.50	814	0.27
9	Trade, Hotel & Restaurant	46874	13.83	46153	15.41
10	Banking & Insurance	7288	2.15	2117	2.38
11	Real Estate, Ownership of dwelling & Business Services	30080	8.88	28621	9.55
12	Public Administration	47368	13.98	42500	14.19
13	Other Services	33989	10.03	32593	10.88
	Sub-Total	201686	59.52	185120	61.80
14	STATE DOMESTIC PRODUCT	338828	100.00	299564	100.00
15	Population (000)	2403		2403	
16	Per Capita Income (in Rs.)	14100		12466	

G.S.D.P. = Gross State Domestic Product
N.S.D.P. = Net State Domestic Product

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

We can also discuss the advance estimates of SDP for the year 1999-2000 made at Constant prices as per the data given in the following table:

Table-2.10

Advance Estimates of Gross/Net Domestic Product at Constant (1993-94) Prices for the Year 1999-2000

Sl.No.	Industry	G.S.D.P. (Rs.in lakh)	G.S.D.P. Percentage Contribution	N.S.D.P. (Rs.in lakh)	N.S.D.P. Percentage Contribution
1	Agriculture	43600	19.06	43192	21.26
2	Forestry & Logging	2448	1.07	2179	1.07
3	Fishing	1757	0.77	1502	0.74
4	Mining & Quarrying	15797	6.90	10403	5.12
	Sub-Total	63602	27.80	57276	28.19
5	Manufacturing	4962	2.17	4341	2.14
5.1	Registered	1423	0.62	1311	0.65
5.2	Un-Registered	3539	1.55	3030	1.49
6	Construction	19043	8.32	18122	8.92
7	Electricity, Gas & Water Supply	6340	2.77	-404	-0.20
	Sub-Total	30345	13.26	22059	10.86
8	Transport, Storage & Communication	26488	11.58	20833	10.26
8.1	Transport by other means	24994	10.93	20005	9.85
8.2	*Storage*	*20*	*0.01*	*16*	*0.01*
8.3	Communication	1474	0.64	812	0.40
9	Trade, Hotel & Restaurant	34659	15.15	34136	16.80
10	Banking & Insurance	5715	2.50	5590	2.75
11	Real Estate, Ownership of dwelling & Business Services	21835	9.54	20898	10.29
12	Public Administration	27177	11.88	24261	11.94
13	Other Services	18971	2.29	18094	8.91
	Sub-Total	134845	58.94	123812	60.95
14	STATE DOMESTIC PRODUCT	228792	000.00	203147	000.00
15	Population (000)	2403		2403	
16	Per Capita Income (in Rs.)	9521		8454	

G.S.D.P. = Gross State Domestic Product
H.S.D.P. = Net State Domestic Product

Source: Government of Meghalaya, *Estimates of State Domestic Product of Meghalaya - 1980-81 to 1998-99*, Directorate of Economics and Statistics, Meghalaya, Shillong.

The data shown in the above table reaffirm the domination of the Tertiary sector in the economy of the State

in terms of the SDP, while the Secondary sector continues to lag behind with less than 11 per cent contribution to Net SDP. But taking all the subsectors together, agriculture continues to dominate the economy followed by Public Administration in both Gross and Net SDP.

To conclude our analysis of the State income, it may be stated that the dominance of the Tertiary sector in the State's economy implies the larger growth and development of service centres in the State rather than the manufacturing industries. Considering the fairly large contribution of Public Administration to the SDP, it may be concluded that the small State of Meghalaya is having a large amount of administrative establishments with an army of workers doing white-collar jobs in the absence of manufacturing industries.

Natural Resources

Meghalaya is rich in mineral resources. The State has the largest single limestone deposits in India. The Geological Survey of India has recorded an estimated deposit of more than 5000 million tonnes of limestone in the State which accounts for an unsurpassable deposit of high-grade limestone, and the world highest deposit of sillimanite.[8]

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8. Barua, B.K., "Foreword" in D.N.D. Goswami, *Geology of Assam*, Gauhati, 1960, p.1.

The State has a number of coal deposits. Coal based industries including the manufacture of cement can be set up. It has been found that the State has rich coal reserves to the extent of 1,200 million tonnes and limestone reserves of the order of 2,100 million tonnes. The State is also rich in various types of clay deposits. There are 20 areas of important clay deposits in various parts of the State. The existence of clay deposits would, therefore, facilitate the establishment of some refractory and pottery industries in the State.

Meghalaya has the world's largest deposits of sillimanite. The total country's sillimanite deposits accounting for 90 per cent are found in Meghalaya. Besides there are a number of other minerals of little or unknown economic importance. Uranium and Gypsum are also found in the State. It also has an immense potential for hydro-electric power generation and for irrigation due to its various north-flowing and south-flowing rivers. The climate of the State in general is salubrious and rainfall is heavy. The development potential is thus very great in view of the existence of a huge amount of mineral resources in the State.

Infrastructure

A modest progress has been made in the development of infrastructure and social services during the last 28 years

since the inception of the State in 1972. But in spite of the improvements, the infrastructure of the economy of Meghalaya is still too weak to sustain any vigorous programme of industrialization and of development of agriculture in the State. There are still serious bottlenecks particularly in the fields of inter-state transport, power and technical manpower even in the field of social services like health and education.

For a brief survey of the strength of the infrastructure development in the State, we may compare its share in the direct generation of net domestic product of the State during the last 25 years since its inception. We present in Table 2-11 below the relevant statistics.

The table shows the contribution of the infrastructure in its traditional restricted sense, to the total net SDP. That is, the table does not show the contribution of education and health services because it is not separately estimated even in India's national income statistics. So also defence has been left out. We deliberately left out public administration. Thus the infrastructure, in its traditional restricted sense, contributed directly only about 6.0 per cent in 1973-74 and 12.2 per cent in 1998-99 of the total net SDP as shown in the above table. The interesting fact is that while in 1973-74, electricity, gas, etc., i.e. power supply contributed 2 per cent in 1973-74, its contribution in

1998-99 was negative (-1.5) to the net SDP. Communication system also contributed less in 1998-99 than in 1973-74. But transport system and Banking and Insurance contributed very positively in 1998-99 as compared to their contribution in 1973-74.

Table 2.11

Contribution of Infrastructure to Generation of State Income in 1973-74 and 1998-99

Sectors	1973-74		1998-99		
	Rs.in lakhs	%	Rs.in lakhs	%	Difference
1. Electricity, Gas & Water Supply	131	2.0	1399	0.5	-1.5
2. Railways	-	-	-	-	-
3. Communication	15	0.2	723	0.3	0.1
4. Transport by other Means	210	3.2	24,136	9.1	5.9
5. Banking & Insurance	30	0.5	6,133	2.3	1.8
Total for Infrastructure	386	5.9	32,391	12.2	6.3
Total for Superstructure	6,155	94.1	232,363	87.8	-
Total for the entire economy	6,541	100.0	264,754	100.0	-

Source: Government of Meghalaya, *Estimates of State Domestic Production*, Directorate of Economics and Statistics, Meghalaya, Shillong (July 1978 and unpublished 2000).

There is no railway or airway transport system connecting Meghalaya with the rest of the country. Roadways are the only means of communication within the State and which connect it with the rest of India. Hence, road transport system had to be improved which appears to have

contributed more than 9 per cent to the net SDP as shown in the above table.

Our observation is that telex communication system has been much improved in the State during the last 25 years of its existence although its relative contribution as shown in the above table appears to be less in 1998-99 than in 1973-74.

Banking and Insurance Services have no doubt improved a great lot in the State. Its contribution in 1998-99 as shown in the table was three times its contribution in 1973-74. Expansion of bank branches in the State has been tremendous which increased to 179 altogether. Similarly, the amount of deposits has greatly increased during the last 25 years. But the credit-deposit ratio had decreased from 21.05 per cent in 1976 to 13.06 per cent in 1997. This has become a matter of great concern to the development planners of the State.

SECTORAL ANALYSIS

Agriculture

Agriculture is the main-stay of the people of Meghalaya. According to 1991 census, 69 per cent of the labour force is engaged in agriculture which reflects the vital position of this sector in the State. But agricultural productivity in the State is still very low as compared to the all-India figures which are presented in the following table.

Table-2.12

Yield Rate of Some Major Crops in Meghalaya

Particulars	Average yield (kgs.)/hectare					
	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Rice						
Meghalaya	1152	946	946	1000	1120	1147
India	1552	1481	1465	1689	1745	1751
Maize						
Meghalaya	1360	1047	1046	1151	1265	1196
India	1172	1282	1282	1396	1022	1324
Wheat						
Meghalaya	1405	1396	1396	1457	1283	1283
India	2032	1916	1995	2244	2121	2274
Small Millets						
Meghalaya	963	1000	1000	1000	839	806
India	409	390	402	424	483	491
Total Pulses						
Meghalaya	606	844	544	766	750	750
India	544	556	538	598	549	576
Potato						
Meghalaya	7863	8185	4775	4017	6269	6280
India	12610	15322	15968	15929	15714	16195
Jute						
Meghalaya	1381	1742	1396	1343	1301	1818
India	1717	1689	1496	1748	1879	1803
Rape & Mustard						
Meghalaya	600	591	591	507	585	576
India	694	526	748	·906	831	900
Ginger						
Meghalaya	4086	4727	4777	-	4651	4623
India	2438	2583	2525	-	2915	2786
Turmeric						
Meghalaya	1500	1385	1385	-	3385	2905
India	3099	2911	2939	-	3706	2957
Tapioca						
Meghalaya	5658	5825	5833	-	5667	5775
India	16577	18147	19327	-	20538	21016

Source: Directorate of Economics and Statistics, Ministry of Agriculture, Government of India.

Table-2.12 reveals that excepting for small millets, pulses, jute and ginger productivity per hectare is much lower in most of the major crops in the State as compared to the All-India figures. The productivity per unit area of rice, the staple food of the people of the State, has further declined from the 1985-86 level which was far below the All-India level. In the cases of jute and turmeric, the productivity is comparable to the All-India figures. Meghalaya is famous for the good quality turmeric but its productivity in the State is lower, though comparable, than the All-India figure.

Low productivity is also recorded in the case of the other food crops in the state such as wheat and maize. One of the major reasons is that these crops are grown as a mixed crop in area of rice cultivation.

Potato is one of the major cash crops of the State mainly grown in the central plateau of Khasi Hills and a major portion of it is exported. The economy of the people in this region depends mainly on the cultivation of this crop. However, in comparison with the All-India figure, the productivity level of potato is very low. This is because the existing varieties of seeds have become more susceptible to disease and their total replacement with new ones has not been possible due to the shortage of adequate facilities. One breed seed farm and one foundation seed multiplication farm

have been established in Meghalaya with the assistance of the North-Eastern Council and the Indian Council of Agricultural Research respectively to boost up the cultivation of this crop. Potato cultivation in the State is possible for three to four times a year. This potentiality has not been fully utilized so as to increase the total production of this crop. Since the quality of potato produced in Meghalaya is better than elsewhere in the country, its increased production deserves to be actively considered.

The other important cash crop in the State is jute which is mainly grown in Garo Hills and in the Byrnihat area of the Ri-Bhoi district. The productivity level of this crop now is comparable with the national figure though it accounted for a much higher yield during the earlier period of two years, i.e. 1986-87 and 1990-91.

Production of Pulses:

Meghalaya appears to be doing well in the production of pulses. Their cultivation is, however, limited to the plains areas of Garo Hills where the main crops grown are gram, soyabean, tur and other pulses. Though they are still minor crops in the State, their productivity level per unit area is higher than the national average. The productivity level of different pulses grown in the State is presented in the following Table-2.13.

Table-2.13

Productivity of Pulses Crops in Meghalaya

Particulars	Average yield (kgs.)/hectare					
	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Gram						
Meghalaya	500	800	800	600	600	500
India	743	649	624	753	483	701
Soyabean						
Meghalaya	833	1000	1000	1000	1000	1023
India	754	584	583	892	801	900
Tur						
Meghalaya	933	888	888	875	875	875
India	757	722	679	779	763	673
Other Pulses						
Meghalaya	606	844	544	766	750	750
India	544	556	538	598	549	576

Source: Directorate of Economics and Statistics, Ministry of Agriculture, Government of India.

The above table reveals that the average yield of all pulses in Meghalaya is much higher than the All-India average. The productivity level of soyabean which is both a pulse crop and an oil-seed crops increased considerably from 833 kgs. in 1985-86 to 1,023 kgs. in 1990-91 as against the national figure of 754 kgs. and 900 kgs. respectively. Though the productivity level of the other pulses in the State has fluctuated during the period 1985-86 to 1990-91, yet their average yield is still much higher than the national figures.

Meghalaya is noted for the production of good quality Tur which is mainly grown in Jaintia Hills and in some areas

of Khasi Hills. The productivity level of this crop has declined from the 1985-86 level but it is always above the All-India figure during the whole period from 1985-86 to 1990-91. It is only in the case of gram that the productivity rate in Meghalaya is lower than the All-India average although in 1989-90, it did very well and exceeded the All-India productivity level.

Production of Major Crops

The total production of major food crops in Meghalaya is given in the following table:

Table-2.14

Total Production of Major Food Crops in Meghalaya (in thousand tons)

Particulars	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Total food-grains	166.63	131.30	142.30	138.39	151.00	153.36
Total cash-crops	234.08	201.41	214.52	139.72	179.20	190.80
Total horti-cultural crops	174.53	178.90	189.97	195.05	204.20	211.33

Source: Review of the Implementation of Development Schemes and Programmes for 1990-91 and 1992-93, Planning Department, Government of Meghalaya, Shillong.

It may be noted from the above table that excepting for horticultural crops, the total production of both food crops and cash crops has both fluctuated and decreased during the period from 1985-86 to 1990-91. The decrease in the

production of food-grains from the 1985-86 level which was 166.63 thousand tonnes to 153.36 thousand tonnes in 1990-91 is quite unfortunate. The total production of cash crops has also declined considerably during the period from 1985-86 to 1990-91. From 234.08 thousand tonnes produced in 1985-86, the production of total cash crops came down to 190.80 thousand tonnes in 1990-91.

On the other hand, the total production of horticultural crops has registered an increasing trend during the period of 1985-86 to 1990-91. The total production of pineapple has increased from 60.90 thousand tonnes in 1985-86 to 72.00 thousand tonnes in 1990-91. In the case of bananas the total production increased from 50.42 thousand tonnes to 60.44 thousand tonnes while the total production of oranges increased from 32.76 thousand tonnes to 42.05 thousand tonnes during the same period.

Rice Production

Among the food-grains, rice is the main food crop. Rice is grown all over the State. The area under rice and its productivity and total production can be seen in Table-2.15, along with the graphs.

Table-2.15

Total Rice Production in Meghalaya

Year	Area in Hectare	Production in M.T.	Yield in Kgs/Ha.
1987-88	1,08,507	1,10,533	1,019
1988-89	1,09,678	1,05,571	962
1989-90	1,04,419	1,16,687	1,117
1990-91	1,04,364	1,19,075	1,141
1991-92	1,04,512	1,21,067	1,158
1992-93	1,04,151	1,14,036	1,095
1993-94	1,04,408	1,17,786	1,128
1994-95	1,03,203	1,11,491	1,080
1995-96	1,03,945	1,12,503	1,082
1996-97	10,488	1,41,105	1,346
1997-98	1,05,170	1,50,101	1,427
1998-99	1,05,402	1,49,742	1,421

Source: Government of Meghalaya, Directorate of Agriculture, Shillong

Table-2.15 reveals the highest amount of production of rice in the State occurred during 1997-98 which was more than 150 thousand metric tonnes with the highest yield of 1,427 per hectare. But by the next year 1998-99, the total production decreased to less than 150 thousand tonnes and the yield also came down to 1421 kgs. per hectare. The table further indicates that within a decade, the difference in amount yielded is 465 kgs. per hectare. This productivity

rate is, however, far less than the All-India average which was 1751 kgs. per hectare in 1990-91 - eight years earlier.

Food-Grains Production

Besides rice, other food-grains produce in Meghalaya are maize, millet, etc. The total food-grains production in the State can be seen from Table-2.16 below:

Table-2.16

Total Food-Grains Production in Meghalaya

Year	Area in Hectare	Production in M.T.	Yield in Kgs/Ha.
1987-88	1,38,351	1,42,301	1,028
1988-89	1,38,298	1,38,320	1,000
1989-90	1,33,762	1,50,920	1,128
1990-91	1,32,590	1,53,362	1,157
1991-92	1,33,344	1,55,199	1,164
1992-93	1,31,592	1,45,199	1,103
1993-94	1,31,827	1,49,334	1,133
1994-95	1,30,271	1,43,525	1,102
1995-96	1,31,218	1,42,872	1,089
1996-97	1,32,154	1,78,265	1,349
1997-98	1,32,653	1,86,574	1,406
1998-99	1,32,993	1,86,782	1,404

Source: Government of Meghalaya, Directorate of Agriculture, Shillong

The highest amount of food-grain production in the State occurred in 1998-99 at 1,86,782 metric tonnes, the

lowest was in 1988-89 with 1,38,320 metric tonnes. The biggest area cultivated was 1,38,351 hectares in 1987-88 and the lowest was 1,30,271 hectares in 1994-95. But the yield per hectare was 1,404 kgs. which is far below that of All-India average.

Fibre Crops

There are three important fibre crops in the State namely Cotton, Mesta and Jute; they are being exclusively grown in the districts of Garo Hills. Of the three, Cotton and Mesta are *Jhum* crops. Jute is grown as the second crop in paddy fields. These crops have been the traditional cash crops of Garo hills. The area covered by these crops has been decreasing yet the production increases.

Spices

Meghalaya has natural advantages in growing a variety of spices of which the prominent ones are, turmeric, ginger, chilies, black pepper and bay leaf. Except for bay leaf, which is a forest product, the other spices are cultivated. The cultivation of turmeric (Lakadong variety) is concentrated in the Nangbah-Shangpung belt of Jaintia Hills district, while bay leaf is concentrated on the southern slopes adjoining Bangladesh. Chilies are grown all over the State while ginger cultivation is concentrated in East and

West Garo Hills and East Khasi Hills districts of Meghalaya. Large cardamom has been introduced recently and is slowly becoming popular with the farmers.

Plantation Crops

There are two important plantation crops in Meghalaya, they are, `Arecanut' and `Tea'. A brief account of these two crops is given as follows:

(a) Arecanut: Since time immemorial Arecanut has been grown in the southern part of Meghalaya as an important commercial crop. In the recent past this crop has also been introduced on the northern slopes of Khasi Hills in the Ri-Bhoi district.

(b) Tea: It was felt that the mid-regions of Meghalaya are agro-climatically suitable for growing tea. In 1974, the Tea Board officials visited the State and on their recommendation, Tea Experimental Stations have been established at Umsning in Ri-Bhoi district (2.5 hectares), Riangdo in West Khasi Hills district (2.0 hectares) and Thebronggiri in West Garo Hills district (1.6 hectares) in the year 1976-77.

The results from all the three stations are encouraging and it was decided to encourage farmers to grow tea as a homestead crop. In order to supply good planting materials of varieties approved by the Tea Board, the State Government of

Meghalaya established a Tea Nursery at Umsning in the Ri-Bhoi district and at Rongram in the West Garo Hills district in 1982-83.

At present the area under tea cultivation is being expanded in villages around tea nurseries. The nurseries are manned by tea specialists who oversee the tea gardens in the farmers' fields and assist the farmers in marketing green tea leaves in addition to ensuring the flow of good planting materials through the state nurseries. The response of farmers in the target areas is encouraging and the area under tea is increasing every year.

However, the total area and production at Umsning and Rongram taken together is not yet large enough to warrant the establishment of a full-fledged tea-processing unit either in the private sector or the public sector. Nevertheless, the quality of green tea leaves is good enough to make it feasible for a private tea factory at Sonapur in Assam, to lift green tea leaves from Umsning. At Rongram, a local entrepreneur converts green tea leaves into finished product which is mostly sold in the local market.

At present, efforts are being made to accelerate the pace of expansion of area under Tea around Umsning and Rongram and to achieve the production level to warrant the establishment of a mini tea-processing unit in the State.

Other Horticultural Crops

Meghalaya has a certain amount of surplus produce of commercial and horticultural crops such as potato, jute and mesta, cotton, ginger, pineapple, banana, citrus fruits and other fruits. This can be seen in Table-2.17

Table-2.17

Marketable Surplus of Various Agricultural Produce of Meghalaya (1988-89 to 1991-92)

Sl.No.	Crop	Year			
		1988-89	1989-90	1990-91	1991-92
1	Cotton	4,000 bales	5,035 bales	5,130 bales	4,626 bales
2	Jute and Mesta	56,500 bales	57,475 bales	57,660 bales	63,422 bales
3	Turmeric	1,400 tonnes	1,440 tonnes	1,440 tonnes	2,016 tonnes
4	Ginger	26,100 tonnes	26,370 tonnes	27,990 tonnes	30,240 tonnes
5	Potato	49,800 tonnes	76,790 tonnes	83,330 tonnes	1,19,119 tonnes
6	Pineapple	48,000 tonnes	47,231 tonnes	50,400 tonnes	53,270 tonnes
7	Banana	26,600 tonnes	29,600 tonnes	30,200 tonnes	35,000 tonnes
8	Citrus fruits	29,700 tonnes	31,596 tonnes	33,600 tonnes	43,840 tonnes

Source: Directorate of Agriculture, Meghalaya, Shillong.

The above table reveals that the highest amount of marketable surplus of cotton was produced in 1990-91 with 5130 bales which dropped to 4626 bales in the next year 1991-92. The marketable surplus in the case of Pineapple dropped to 47,231 tonnes in 1989-90 from 48,000 tonnes in the

previous year. Except for this drop, the marketable surplus in the case of all crops gradually increases from year to year.

There is no proper marketing outlet in the State for the surplus produce which is a discouraging factor for the farmers since they are not assured of adequate and fair return on the investment made by them for producing the commodities. An efficient agricultural marketing system is essential for increasing agricultural productivity leading to an increase in income of the farmer.

Horticulture

Meghalaya is blessed with tropical, semitropical and temperate climates which permit the cultivation of a wide variety of horticultural crops. The important horticultural crops grown in the State are Banana, Oranges, Pineapple, Papaya, Jack fruit, Litchi, Plum, Peach, Pear, etc.

Vegetables and Mushrooms

Two other segments of the Horticultural sector are Vegetables and Mushrooms.

Vegetables: Meghalaya is known for its vegetables in the north-east. Cabbage, cauliflower, radish and squash, etc., are regularly marketed outside the State. The area, production and productivity in the vegetable sector have

shown an upward trend as can be seen from the following table:

Table-2.18

Profile of Growth in the Vegetable Sector

1978-79			1989-90			1990-91		
Area	Prodn. ('000 MT)	Prody.	Area	Prodn. ('000 MT)	Prody.	Area	Prdn. ('000 MT)	Prody.
4.66	43.99	9440	5.01	45.74	9130	6.56	64.76	98.72

N.B.: Area in '000 ha.

Prodn. - Production in '000 MT
Prody. - Productivity in kg./ha.

Source: *A Profile of Agriculture in Meghalaya* (1971-72 to 1994-95), December 1996, published by the Agricultural Information Wing, Directorate of Agriculture, Fruit Garden, Shillong-793003 (Meghalaya).

From the above table, it can be seen that there is an increase in the area, production as well as productivity under the Vegetable sector. The area in 1978-79 was 4.66 hectares with the amount of production of 43.99 metric tonnes at the rate of 9440 kg. per hectare. These figures kept on increasing from time to time except the productivity rate which fell down to 9130 kg. per hectare in 1989-90 from 9940 kg. per hectare in 1978-79.

Mushroom: Regional Centre for Training and Production of Mushrooms in the North-Eastern Region was sponsored by the

North-Eastern Council and the centre was received in February 1982. The Centre was established in Shillong in 1982. It is located in the Agricultural Complex at Upper Shillong. Its aim is to provide training facilities to growers to set up one Community Composing Centre, to encourage small and medium-sized Mushroom farms, to provide technical know-how and quality spawn and to assist the growers in collecting, processing and marketing of their produce at competitive rates directly or through various marketing agencies.

The Centre is currently concentrating on the production and extension of (i) *Agaricus* spp. or White Button Mushroom, and (ii) *Pleurotus* spp. (Dhingri/Oyster). Of all the different mushrooms that can be grown by farmers, these two varieties have the strongest market potential. Up till now, more than 700 farmers have been identified as trained growers and training sessions are being held regularly in the villages of all the districts of the State.

Meghalaya offers great potential for production of Mushrooms. Owing to diverse agro-climatic condition and different elevation zones ranging from 100 metres to over 2,000 metres above sea level, there is an immense scope for growing a large varieties of horticultural and agricultural crops in Meghalaya.

Adequate infrastructure has to be developed for the development of agriculture in the State. As of today, the

underdeveloped transport system hinders the use of advanced technology in agriculture. The movement of personnel, seeds, pesticides, fertilizer and other inputs to the remote areas of the region is an unsurmountable obstacle with the present level of transport and communication system in the rural areas.

Industries

Industrially, Meghalaya is under-developed. At the time of its formation in 1972, Meghalaya had no industrial enterprise worthy of note except the Mawmluh Cherra Cement Limited, and the Assam Sillimanite Limited which has since been taken over by the Hindustan Steel Limited in November 1972. The Mawmluh Cherra Cement Limited is the only large sized company enterprise in the State. The cement manufacture was started by this company only in 1966 although it was formed in 1955 in the private sector. It took eleven years for this company to procure machinery and equipment from abroad and install them for production. It was commissioned in the last part of 1966 with an annual capacity of 82,500 metric tonnes.

After the formation of Meghalaya in 1972, a few more company enterprises have been set up including the Meghalaya Plywood Limited and the M/s. Associated Beverages (P) Ltd. in the Ri-Bhoi district.

There is great potentiality for starting mini-cement industries in the State with the large-scale availability of

limestone and coal. The establishment of one mini cement plant in each of the seven districts would be very feasible. It will also be more profitable for the State to sell the finished cement product than exporting raw lime outside the State since it is rich in lime and coal deposits.

Industrial workers constitute only one per cent of the total working force in the State as against the national average of more than 12 per cent. Industrial establishments form only 15.2 per cent of the total establishments in the State.

Thus the industrial sector of the economy of Meghalaya is proportionately small. The sector employed about 1.46 per cent of the total population in 1971 and further declined to 0.36 per cent in 1981 and 0.40 per cent in 1991. Furthermore, the percentage of total workers in this sector was 3.34 in 1971; it declined to the level of 0.84 per cent in 1981 and to 1 per cent in 1991 revealing that the percentage of workers in this sector might now be less than 1 per cent and the near stagnant nature of the industrial sector indicates the low level development of the State's economy.

The very slow development of industries in the State is due to: (i) lack of entrepreneurship among the local people, and (ii) high transport charge. The State offers large potentials for development of various industries on account

of its rich natural resources comprising minerals, forests, power and human resources. The nearest rail head from the State of Meghalaya at present is at Guwahati (Assam) and the people have necessarily to depend on road transport which increases the production cost. The industrial development potential is thus very great but in the absence of local entrepreneurs there is no organised industry in the State except Cottage industries.

Services

In our earlier analysis of the State Income of Meghalaya, we have found that the Services Sector has all along dominated the State's economy in terms of its contribution to the State Domestic Product. The figures in the following table depict a clear picture of the economy of the State during the last 25 years.

Table-2.19

Sectoral Percentage Contribution to Net SDP at Current Prices in 1973-74 and 1998-99

Sectors	1973-74	1998-99
Primary	64.50	27.46
Secondary	7.66	11.04
Tertiary	27.84	61.50

Source: Compiled by the author from the tables given in the foregoing sections.

From the above table it can be seen that there is an increase in the contribution of the Secondary sector during the last 25 years but it is too small to indicate any substantial development of industries in the State. The services sector dominates which may not be very unusual for a developing economy.

In the end, it can be said that in the long 25 years, Meghalaya has not been able to build the capability necessary for its industrial development. The condition of its existing infrastructure is still too weak to sustain a vigorous programme of economic development.

In spite of the rich resources of the State, economic development cannot take place unless the inhibiting factors are overcome to facilitate industrialization. The improved standards of health and sanitation and progress of general education in the State are observed to have occurred. One effect of improvements in health and sanitation standards is to have a quick lowering of the death rate without a corresponding drop in the birth rate. Thus rapid population growth occurs. Unless there is scope for employment opportunities for the people by way of industrial development, a serious crisis in the economy of the State is bound to occur. It may also be true to state that unless all districts in the State are uniformly developed industrially, the lopsided development of the State will continue.

Chapter-III

THE SOCIO-ECONOMIC PROFILE OF RI-BHOI DISTRICT

Our case study is on the four villages selected from the Ri-Bhoi district. It is, therefore, proposed to discuss in this chapter, the important aspects of the socio-economic profile of the new Ri-Bhoi district of Meghalaya pertaining to its physical features, natural resources, population, animal husbandry including fisheries, power, health, education and other services.

PHYSICAL FEATURES

The new Ri-Bhoi district was formed by upgrading the Ri-Bhoi sub-division of East Khasi Hills district on 4th June, 1992. The district lies between 91°55'16 Latitude and 25°40' to 26°20' North Longitude. It is bounded on the north by the Kamrup district of Assam, on the south by East Khasi Hills district, on the west by the West Khasi Hills district and on the east by Karbi Anglong and Nagaon districts of Assam.

Ri-Bhoi forms part of the sub-montane region of the Meghalaya plateau. The undulating hills with their peaks varying in height between 170 metres and 820 metres, gradually slope towards the Brahmaputra Valley. There are two peneplaned surfaces - one stretches from Nongpoh to Byrnihat and the other from Jorabat to Khanapara with the altitude of 490 metres with flat top.

The Ri-Bhoi district comprises an area of 2,378 sq. kms. with a population of 1,27,312 (1991 Census). The

district has 296 villages. Its headquarters is at Nongpoh which is 53 kms. north of the State Capital, Shillong. It includes the Diengiei Peak, the famous Umiam Lake, which is fast becoming a tourist attraction and Umroi Airport in Meghalaya.

The district is fed by two main rivers, namely, the Umtrew and the Umiam rivers with their tributaries and has the potential to become the granary of the State. The district is also endowed with rich flora and fauna. The forest and hilly terrain in the region have provided the habitat for different varieties of silkworms.

The economy of **Ri-Bhoi** district is not much different from the economy of East Khasi Hills district. The Shillong plateau of the East Khasi Hills forms the watershed of all the principal rivers of the district. The rivers drain their water either to the Brahmaputra or the Surma rivers in Bangladesh.

The Umkhen river rising from the North of Shillong Peak flows northward and forms the boundary between the **Ri-Bhoi** district and the Karbi Anglong district of Assam. The Umiam-Khwan river rises from the mountain range west of Shillong Peak. It flows through **Ri-Bhoi** district through the deep gorge until it reaches and joins the Umsiang river. The river Umiam-Khwan was dammed at a place about 20 kms. north of Shillong. The Umiam Hydel Project is located at this place in

the Ri-Bhoi district. The erstwhile Guwahati-Shillong Road had been submerged by the dam and a new road has been constructed over the main dam of the project. The Umiam Reservoir forms a natural lake for the waters flowing over the ranges of hills surrounding it also. In the backdrop of the hills around it and the rows of pine trees growing on these hills, the artificial lake now acquires an unrivalled natural beauty. The excess waters released from the lake are drained away through a tunnel into the down stream and fall into the Umtrew river. The Umtrew river rises from the western face of the Sohpetbneng peak near Raitong peak in the Bhoi area and flows in the western direction through our sample villages of Sohphoh and Ingsaw till it meets the waters from the Umiam river released from the Umiam Hydel Project.

NATURAL RESOURCES

The Ri-Bhoi district is endowed with three important natural resources namely, (1) Mineral resources; (2) Forest resources and (3) Hydel power potential.

1) Mineral Resources

The district is lacking in mineral resource except the existence of Granite with considerable reserves. The deposits are found in Iewsier village which is 7.5 kilometre south-west of Nongpoh, the district's Headquarters. According to

the report of the Geological Survey of India (G.S.I.) and the Directorate of Mineral Resources (D.M.R.) Government of Meghalaya, the total reserve for this occurrence of Granite is 40 million cubic metres.

Granite also occurs in two more villages, namely Umsaw and Nongbri with a deposit of 20 million cubic metres according to the estimates of D.M.R.[1]

In the area covered by mapping and drilling of Granite deposits, four distinct varieties of granite were recorded at different depth levels of the deposit. A reserve of 20 million cubic metres of granite of the four varieties was estimated in the area covered by detailed Mapping. The varieties are grey and pink both of light and dark shades.

The physico-mechanical test of a few samples which were done at Regional Research Laboratory, Jorhat, indicated that the compressive, the tensile and the sheering strength of this granite are slightly less than those of standard granites of South India. However, considering the physico-mechanical properties and aesthetic look of the polished blocks, this granite is recommended for production of dimensional blocks as well as for processed products like polished slabs, tiles, table-tops, wall-claddings and other

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1. Unpublished Report of the Directorate of Mineral Resources, Government of Meghalaya on "A Note on Granite Resources (for Polished/Block/Slabs/Tiles) in Meghalaya" (Latest Report dated Nil).

materials. According to D.M.R. unpublished report, it is found that around the area where granite occurred, Metallic Ores like Zinc, Copper, Lead and Gold are also detected and investigations are going on. **Ri-Bhoi** is the only district in the State where Granite is located in huge quantities.

2) Forest Resources

Ri-Bhoi district is rich in natural vegetation ranging from tropical to temperate dense jungles which abound in wild life. There are timber trees like the Salwood and Pine Trees. Bamboos are found in abundance in the district. The principal bamboo species are the *Dalu* and *Muli*. Besides the trees and bamboos, other important species found are the *Gurga*, *Haldu*, Canes and *Aguru*.

Ri-Bhoi district has very fine varieties of Sal trees. Besides a number of plant species which provide edible roots, corns, bulbs, leafy vegetables, flowers, fruits and seeds are also found.

Reeds and broom grass are some of other minor products of the district. Cane is used for making furniture and baskets.

Medicinal and aromatic herbs, creepers and plants like *Solanum khasianum*, Lemon grass, etc. are also grown in the district. *Ipeceae* and *Cenchara* are other medicinal plants found mainly in the **Ri-Bhoi** district. A sample list of the

medicinal plants grown locally are: a) *Solanum khasianum*, b) *Rouwalfia serpentina*, c) *Rouwalfia conasceae*, d) *Ipeceae*, e) *Yam*, f) *Dolcini*, g) *Rajpeta*, h) *Eucalyptus cetrioderma* (essential oil bearing plant).

The animals found close to human habitations are the elephants, monkeys, deer, tiger, wild pigs, bears, squirrels, bamboo rats and other species. Birds found in the jungles are spot bulls, pigeons, horn bills, mynas and parrots, etc.

Ri-Bhoi is also rich in various types of beautiful orchids and butterflies.

3) Hydel Power Resources

The district has great potentiality for the development of hydro-electric power that can be generated from its five major rivers flowing along rugged topography. These rivers are Umtrew, Umiam-Khwan, Umsiang, Umkhen and Umling. Two important hydel projects have already been constructed to generate power from Umtrew and Umiam-Khwan rivers with a generating capacity of 11.20 MW. and 36.00 MW, respectively. The installed capacity of Umiam Hydel Project has increased with the expansion at various stages as given in the following table.

Table-3.1

Installed Capacity of the Two Hydel Power Projects (in Megawatt)

Projects		1986-87	1994-95
1.	Umiam Hydel Project		
	Stage (i)	36.00	36.00
	Stage (ii)	18.00	18.00
	Stage (iii)	60.00	60.00
	Stage (iv)	-	60.00
2.	Umtrew Hydel Project	11.20	11.20
	Total	125.20	185.20

Source: Meghalaya State Electricity Board, Shillong

It will be seen from the above table that the installed capacity of the Umiam Hydel Project has been expanded from 36 MW at the initial stage to 174 MW in 1994-95. But the installed capacity of Umtrew Project remains at 11.20 MW.

POPULATION

According to 1991 Census, **Ri-Bhoi** district has a total population of 1,27,312 all comprising rural population with 65,576 males and 61,736 females. The break-up of the total population of the district along with the literacy rate in 1987 and 1991 is given in the following table:

Table-3.2

Break-Up of Population of Literacy Rate

Population	1981		1991	
	Number	Literacy	Number	Literacy
Persons	99,933	28.12	1,27,312	30.66
Males	52,015	17.10	65,576	17.36
Females	47,918	11.02	61,736	13.30

Source: District Census Handbooks, East Khasi Hills District 1981 and 1991.

The above table shows that the total population of the **Ri-Bhoi** district had increased from 99,933 in 1981 to 1,27,312 in 1991 accounting for a decadal variation of 27.40 per cent which is below the state average of 32.86 per cent. While the male population had increased by 13,525 during the decade accounting for 26 per cent, the females had increased by 13,818 which works out to 28.84 per cent.

So far as the literacy rate is concerned, the literate population among male did not increase as much as that among females. While the male literacy rate has increased by only 0.26 per cent during the decade from 1981 to 1991, the female literacy rate increased by 2.28 per cent.

Population Density

The density of population in the district is 52.01 persons per sq. km. in 1991 which is far less than the state figure of 79.13.

The relative position of Ri-Bhoi district among the seven districts of Meghalaya may be seen in the following table in respect of density:

Table-3.3

Density of Population (in Number)

District	Area (Sq.km.)	Population (1991)	Density (Per cent)
Jaintia Hills	3,819	2,20,473	57.73
East Khasi Hills	2,748	5,37,906	195.74
Ri-Bhoi	2,448	1,27,312	52.01
West Khasi Hills	5,427	2,20,157	40.57
East Garo Hills	2,603	1,88,830	72.54
West Garo Hills	3,714	4,03,027	108.52
South Garo Hills	1,850	77,073	41.66
MEGHALAYA	22,429	17,74,778	79.13

Source: Census of India, 1991

It may be seen from the above table that South Garo Hills district has the smallest area of 1,850 sq. km. in the State followed by Ri-Bhoi district with 2,448 sq. km. Although the West Khasi Hills district has the lowest density in the State in spite of its larger number of population, yet being the biggest district in area, its density is the lowest.

INFRASTRUCTURE

Transport and Communication

In the absence of railways and waterways, roads are the only means of communication. A National Highway No.40 passes through **Ri-Bhoi** district and connects Guwahati, the capital of Assam, with Shillong, the capital of Meghalaya and proceeds right up to Tamabil in the Bangladesh in the southern part of the State. Thus the district is well-connected by an inter-state highway connecting Shillong with Guwahati and enjoys a very advantageous economic location. The highway has been well maintained and joins the National Highway No.44 in Shillong which leads to the Barak Valley and Mizoram and Tripura States.

A number of feeder roads have been constructed to connect a number of villages in the new district on both sides of the National Highway-40. Unfortunately, most of these roads connecting the villages in different parts of the district are unmetalled and not well maintained. Since the district is experiencing heavy rainfall every year, its roads must have been maintained as all-weathered road to facilitate good transport for the economic development of the district.

Moreover, the road characteristic in the hill areas like the **Ri-Bhoi** district should take into consideration the surface condition of the roads, their width, gradients and

sharpness of curves, speed and permissible load of motor vehicles. Unmetalled and gravelled roads are less advantageous in providing stable infrastructural facilities in the rural areas.

At present Ri-Bhoi district has a total length of blacktopped roads of about 221 kilometres and gravelled roads of about 233 kms. The district headquarters is being connected by roads to all the different villages in the district. There is an increase in the number of vehicles as well. There are 277 three-wheelers,21 buses and 18 taxis that provide transport services within the district. With good transport system, small scale industries like automobile repairing, tyre retreading and auto body building have sprung up in the district. It is expected that transport development would further take place and that will generate employment, income, saving and investment as preconditions for the economic development and growth of the district. The only airport in the State is situated at Umroi which is in the Ri-Bhoi district.

Power

We have already seen that the district has two major hydel projects constructed on two of its major rivers with the total installed capacity of more than 185 MW. Hence, power supply is expected to be adequate enough for all

economic activities that require the use of power. The third hydel power project on the Umling river with an installed capacity of 1.50 MW is expected to be commissioned soon.[2]

Education

The State policy is to universalise general education and to make all people literate. Education is an important social input for economic development. The district has 39,045 literate persons accounting for 30.60 per cent which is far below the state figure of 49.10 per cent and the national figure of 52.22 per cent.

Education in the Ri-Bhoi district is progressing rapidly year after year. High school education is being looked after by the Inspector of Schools, East Khasi Hills District, Shillong. At present there are 29 high schools in the whole district, with two Government schools, 10 adhoc High Schools, 3 unaided High Schools, 3 Senior Basic Schools and one Government M.E. School.[3]

Primary education receives special attention of the Government. Since 1992, many posts of teachers were sanctioned for primary schools of the district out of which, a major portion were for the new set-up primary schools in

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2. Government of Meghalaya, "Two Years of Ri-Bhoi District", The Office of Information Officer (JR) Ri-Bhoi District.

3. Government of Meghalaya, Office of the Inspector of Schools, East Khasi Hills District, Shillong.

the interior villages. Furniture grants of Rs.5,000/- each, free text-books in science and a uniform grant (Rs.1000/- each) were given to all primary schools with development grants to encourage education in the district.

In the Upper Primary Schools the enrolment is 4,307 and 1,83,773 pupil at primary level. The number of teachers in M.E. schools was 258 and 499 in primary schools. In 1992-93, 60 teachers were sent for special training for the improvement of science teaching. With such trained teachers and earnest students it is expected that there will be an increase in the number of educated people which will result in the rapid development of the State and of economy in general.

The district has got one Central Government residential school, viz., Jawahar Navodaya Vidyalaya at Niangbari in Ri-Bhoi district.

Administrative Set-Up

The position of the Ri-Bhoi district in relation to other districts of the State with respect to its administrative machinery is given in the following table:

Table-3.4

Administrative Set-Up

Districts	Sub-Division (excluding district Hqs.) 1991	Towns 1991	Police Station 1997-98	Police Out-post 1997-98	Community Develop-ment Blocks (1988)
Jaintia Hills	2	1	3	3	4
East Khasi Hills	1	7	10	4	7
Ri-Bhoi	-	-	2	5	2
West Khasi Hills	2	1	3	3	5
East Garo Hills	1	1	3	3	4
West Garo Hills	2	2	4	4	7
South Garo Hills	-	-	1	2	3
MEGHALAYA	8	12	26	24	32

Source: Community and Rural Development Department, Meghalaya

The above table has shown that unlike any other districts, **Ri-Bhoi** district has got no administrative sub-division.

It has 2 Police Stations, 5 Police Outposts and 2 Community and Rural Development Blocks. But South Garo Hills district which is much smaller in area than **Ri-Bhoi** district, has got 3 Community and Rural Development Blocks.

The district has not faced any law and order problem. The peaceful situation in the district is congenial for its economic development if only prospective entrepreneurs are willing to invest in the district.

Community and Rural Development Blocks

The 2 Community Development Blocks are Umsning and Umling Blocks. According to 1991 Census, the Umsning Community and Rural Development Block covers a total area of 1,22,500 hectares with 76,529 population and 13,989 households. Its headquarters is at Lumnongrim and covers 296 villages.[4] All the four sample villages selected for our study fall under the Umsning Community and Rural Development Block. The Block is divided into 15 circles. Different villages are included in different circles. Our sample villages, Umsning and Nongthymmai, fall under circle number 9 while Ingsaw and Sohphoh fall under circle number 15, namely, Umsning circle and Tyrso circle, respectively. The Umsning circle covers a total area of 6,471 hectares with 7,404 population and 1,472 households. Umsning village alone covers an area of 400 hectares with 1,238 population and 280 households while Nongthymmai village has an area of 240 hectares with 607 population and 88 households. Ingsaw village has an area of 625 hectares with 389 population with 71 households. Sohphoh has an area of 740 hectares with 326 population and 56 households.[5]

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4. Government of Meghalaya, "One Year of the Ri-Bhoi District", The Office of Information Officer (JR), Ri-Bhoi District.

5. Government of Meghalaya, Block Development Office, Umsning Community and Rural Development Block, Umsning.

The Umsning Community and Rural Development has taken up many popular schemes which can be summarised as follows:

1) J.R.Y. Scheme - The Jawahar Rozgar Yojana is funded by the Central Government and partly by the State Government at 80 and 20 per cent respectively. The funds are channelised through the C.D. Block with the objective of creating employment for the rural people.

2) Small Farmers and Medium Farmers - Under this scheme small and medium farmers are given assistance for construction of small water dams and canals for improving the agricultural production and construction to terrace bounding and land development.

3) Social Forestry - Under this programme afforestation are being taken up wherever possible, around the school building and public halls, community centres, etc.

4) IRDP - The main objective of this scheme is to provide assistance to the villagers for construction of decent dwelling houses. There are also other schemes like the IRDP which is known as Credit Linkage Programme linked with the financial institution to provide assistance to the poor rural people to improve their standard of living, by creating employment which generates average income for overall improvement.

5) Indra Awas Yojana - Another scheme is the Indira Awas Yojana where dwelling houses have been provided to poor

families, pit latrines in schools, footbridge, irrigation canals, etc.

6) Dairy Farming and Fisheries Ponds in which 33 ponds have been constructed at Sohkhwai village in the Bhoi area, have also been under the Community Development Block. Broomstick cultivation has also been extensively encouraged under IRDP. Two power tillers have been put into service to assist farmers of the Block. Four minor irrigation dams are also under construction including water supply connection for two big villages.

The C.R.D. Blocks are highly beneficial to the people of this district which will help them to earn higher income, assist in agricultural development and living standard of the people which in turn will lead to the overall development of the State.

Banking and Insurance

There are 17 bank branches in the whole district which work out to about 9094 persons per bank office. But the Credit Deposit ratio of 16.19 per cent is among the lowest in the State although it is above the state figure of 15.84 per cent.

Health

Among the important social infrastructural facilities are health and education. The Ri-Bhoi district at its

headquarters at Nongpoh, had a primary Health Centre which has been converted into a Community Health Centre in 1993 with improved facilities for patients and doctors and para-medical staff. The Centre is likely to be upgraded into a Civil Hospital which the district deserves to get.

Presently, the district has 10 primary health centres and 24 sub-centres with a total of 23 medical officers.[6] The doctor-population works out to 1:5535. However, in every primary health centre, there is at least one medical officer. A leprosy centre of the State is located at Umden in the district. It has also one sub-centre where two health workers are appointed to deal with cases of emergency, immunization, delivery and other minor aspects of treatment. Thus the district is poised for development, particularly in health care, much faster than the rest of the State. The health services available in the district are expected to create conditions whereby the people are enabled to increase their standard of living, which will ultimately lead to the all-round development of the district.

Sectoral Analysis

Since our work is on agricultural credit in Ri-Bhoi district, we shall look separately into its agricultural

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6. Government of Meghalaya, Directorate of Economics and Statistics, Shillong, 1998.

economy in the following chapter. We will now discuss the modest position of industrial development in this new district of Meghalaya.

Industries

Ri-Bhoi is a young district in so far as industrialization is concerned. The pace of industrialization cannot be measured by the normal yardstick used in respect of the other States of the country. The Government, however, is doing its best to promote industrial ventures in the district wherever feasible. In fact, it is only in this district that the State industrial areas have been thriving with industrial activities unlike in other industrial areas in other districts. The two industrial areas set up in the district are in Byrnihat and Barapani. There is no large scale industry. Except for one medium scale industrial factory, all other industrial activities found in the district fall under the small scale category.

There is a total of 63 cottage and small-scale industries in the district registered upto March 1993. From 1994-95 to 1998-99, a number of the small scale industries is given in Table-3.5.

Table-3.5

Number of Small Scale Industries (SSI) Units in Ri-Bhoi district (1994-95 to 1997-98)

Years	No. of Units	Investment (in lakhs)	Persons Employed
1994-95	16	40.94	141
1995-96	8	30.25	111
1996-97	19	74.02	198
1997-98	23	116.60	178
1998-99	27	116.83	117
Total	93	378.64	

Source: Directorate of Industries, Government of Meghalaya, 1994-95 to 1997-98.

The table reveals that during the 5 year period from 1994-95 to 1998-99, 93 units were registered with an investment amounting to Rs.378.64 lakhs and the total number of workers employed was 745. The only medium scale industrial factory is the Meghalaya Plywood Private Ltd. floated by the private entrepreneurs. The factory located at Byrnihat on the Meghalaya-Assam border and close to the National Highway-40, utilises the timber resources of the nearby forests. It is unique in India being the first factory which is equipped with special machinery required to manufacture plywood panel as large as 3 metres x 1.50 metres.

The climate of the district is very congenial for the setting up of forest-based industries. A number of package schemes of incentives and liberal financial assistance is being offered by both the State and the Central Governments. The central financial institutions are also providing many incentives to the industrialists and businessmen. There are thus very good prospects for the establishment of several raw material-oriented industries for which adequate raw materials within the district are available. With the excellent availability of raw materials, a number of small, medium and even large industries can be established.

As already stated, Ri-Bhoi district has two industrial areas located at Byrnihat and Barapani. An Export Promotion Industrial Park has also been set up at Byrnihat.

Industrial areas in the district are owned by State Government for encouraging the setting up of small scale industrial units and have sufficient space and accessibility to industrial facilities. Buildings are built by the Government and hired out at a concessional rate.

The industrial area of Barapani was established in 1971 with a total area of 109 acres and with ten units of factories. They are: (1) M/s. Premier Bakery, (2) M/s. Premier Roller Flour Mill, (3) M/s. Premier Hatchery, (4) M/s. R.K.B. Cement Ltd., (5) M/s. Stone Watch Industry, (6) M/s. Gemini Feed Mills, (7) M/s. Gee Sees Stone Crusher, (8)

M/s. Mansen Food Products, (9) M/s. Precision Engineering Works, (10) M/s. Umiam Calcinate (P) Ltd.

The industrial areas at Byrnihat was established in 1974 with a total area of 116.26 hectares. It is 30 kms. from Nongpoh, the district Headquarters. The industrial units that exist now in this area are 12 in number and are of different types. They include the following: (1) M/s. Meghalaya Mineral Limited, (2) M/s. Eastern Stone Ltd., (3) M/s. Meghalaya Polycon Limited, (4) M/s. Rynjah Amalgamated Industry Ltd.. (5) M/s. Amrit enterprise, (6) M/s. Byrnihat Oxygen Plant Ltd., (7) M/s. Meghalaya Alloy (P) Ltd., (8) M/s. Meghalaya Re-Rolling Mill Ltd., (9) M/s. Shiva Granite Ltd., (10) M/s. Ranuwaka Industries, (11) M/s. Meghalaya Fusion Ltd., (12) M/s. Timpack Industry (P) Ltd.

The Export Promotion Industrial Park (EPIP) at Byrnihat was established in 1994 with an area of 112 acres. It is also owned by the State Government. The EPIP is meant for accommodating (1) M/s. Indus Cement Plant Ltd., (2) M/s. Jumbo Farm Ltd., (3) M/s. Lyngdoh Hawai Chapal Ltd., (4) M/s. Megha Polycraft, (5) M/s. Banjob Carbon Ltd., (6) M/s. Meghalaya Steel and Concrete Products Ltd., (7) M/s. Grey Stone Ispat (P) Ltd. As a result of the establishment of the industrial area and the Industrial Task Force, the surrounding areas are flourishing with many industrial units. The most prominent of which are the following: (1) M/s. K.K. Beverages

(P) Ltd., Baridua, Byrnihat; (2) M/s. S.B. Industries (P) Ltd., Baridua, Byrnihat; (3) M/s. Aurovalley Flour Mills, Baridua, Byrnihat; (4) M/s. Cosmicraft (P) Ltd. Byrnihat; (5) M/s. Meghalaya Industries and Agro Products (P) Ltd., Byrnihat; (6) M/s. Jaintia Alloy and Steel (P) Ltd., Byrnihat; (7) M/s. Satyam Alloy and Steel (P) Ltd., Byrnihat; (8) M/s. Shivam Steel (P) Ltd., Byrnihat; (9) M/s. Pawan Ispat (P) Ltd., Tamulkuchi, Byrnihat; (10) M/s. Associated Beverage (P) Ltd., Byrnihat; (11) M/s. A.T.C. Agro Products (P) Ltd., Byrnihat; (12) M/s. Meghalaya Lime Limited, Byrnihat.[7]

The total number of small scale industries in the district at present is 170 which have been registered during the last 25 years since Meghalaya was created in 1972. These industries provide employment to a total of more than 2550 workers. A list of 59 prominent units is given in the Appendix-I.

Ri-Bhoi district has the largest number of industrial units in the State. This is attributed to the fact that the district has a favourable climate for setting up industries and it has a good locational advantage being close to the

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7. *Eastern Panorama*, "The News Magazine of North East", Vol.VIII, No.2., Dr. K.K. Jhunjhunwala, Hills Publication (P) Ltd., Shillong, December 1999.

Guwahati railway station which is barely 20 kms. from the northern borders of the district.

The **Ri-Bhoi** district is endowed with most facilities for setting up of industrial units if only the prospective entrepreneurs get the favourable opportunities. But the absence of the local entrepreneurs is a great hindrance to the industrial development of the district and even the State as a whole.

In spite of the various incentives provided by both the State and the Central Governments for setting up of industrial projects, not much response has been shown. There appears to be a near absence of local entrepreneurs while entrepreneurs from other parts of the country are reluctant to come forward.

The main reason is the peculiar land system in the district and in the State as a whole which becomes a great hindrance for industrial development. A number of regional, state and district level organisation like the district Industrial Centre (DIC), Indian Institute of Entrepreneurship (IIE), North-Eastern Industrial Technical Consultancy (NEITCO), and the Meghalaya Industrial Development Corporation (MIDC), etc. have played an important role in providing training, motivation and development of entrepreneurship in the district. But these entrepreneurs have started setting up only small scale and tiny industries.

The Government should come up to encourage industrial development by providing infrastructural facilities and leadership for industrial growth. The private sector should be encouraged to play a complementary role, but a major role within the broad framework of a mixed economy for the development of industrial sector, should be that of the State which can effectively pull the district economy up by its bootstraps.

Sericulture and Weaving

In the Khasi and Jaintia Hills, handloom weaving is now prevalent only in the **Ri-Bhoi** district. Traditional dress materials like *Ryndiastem, Thohsaw, Thohstem, Khyrwang, Thoh Saru, Jain-it, Jainslieng, Phakshaid, Jyrpor, ka Phali*, etc. are produced by the local weavers but the production of these items has to some extent, decreased. The people in the **Ri-Bhoi** district are also known for their skills in the technique of using indigenous vegetable dyes which give a very fast colour of the cloth produced by them.

A number of programmes have been taken up by the State aiming at stepping up the production of selected items of handloom fabrics which can easily find market both within and outside the state. The programmes are Weaving Training Centres at Nongpoh, Pilot handloom Weaving Centre at Sanidan; Handloom Demonstration-cum-Production Centres at Iapngar and

Umsohlait; Weaving Demonstration Centres at Umkyrpang, Pillangkata and Saiden; Mobile Handloom Demonstration unit at Pahambi; Weaver's Extension Services unit at Marngar; Modernised Handloom Production Centres at Nongpoh, Byrnihat, Marngar and Raid Maiang. Another Training Centre for tribal textile weaving and vegetable dying has been established at Sonidan.

The marketing of these handloom fabrics produced by the local weavers is being arranged by the State through the Meghalaya Handloom and Handicrafts Development Corporation (MHHDC), North-Eastern Handloom and Handicraft Development Corporation (NEHHDC) and other agencies besides the local sales outlets.

Although a large percentage of the people in the district are dependent upon agriculture, other subsidiary occupations play an important part in supplementing their income. Among the gainful subsidiary occupations, silk and handloom industries are two important ones which have been a regular source of income. The climate is favourable and ideal for the rearing of different kinds of silk worms and host plants. The worms generally reared are Eri, Mulberry, Muga and Tassar silk worms. The Ri-Bhoi district has all the four known types of silkworms. Rearing of silkworm, has become the regular household activities in certain pockets like Mawsyntai, Mangai, Umden, Patharkhmah, Warmawsaw, etc.

As on December 1999, it was found that the villagers of Umpathaw, Sohkhwai, Umpohwin and Umtngam are actively involved in this activity.[8]

The success of sericulture depends on mulberry farms. The mulberry production centres can be found at Mawsyntai, Umkaduh, Marngar, Raid Nongbri, Nongkwah, Umfarasi, Mawthum, Niangbari, Garikhana, Umden, Umroi and Sohliya. At these centres, Eri spinners with new spinning devices have been introduced by the State.

The State has taken up a number of programmes for the development of sericulture activities. The stress is on the systematic plantation of silkworm food plants through organisation of demonstration units and blocks on improved varieties for a higher production in which marketing of cocoon is concerned. The sericultural farmers do not face any problem at this junction since they can easily find market within and outside the State at a good price. The mulberry cocoons are also purchased by the State at fixed rate for utilization in the departmental Ruling and Twisting Units at Shillong for production of silkworms. Besides this, a number of schemes/programmes for extending benefits to the sericultural farmers have been set up like the organisation

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8. *Ibid.*, December 1999, Shillong.

of Block Plantations, Village Extension Centres, Chowki Rearing Centres, Eri Spinning Centres, etc.[9]

In addition to the above, there is also one Eri Seed Grainage at Nongpoh which is a prestigious seed farm producing and supplying disease-free Eri silkworm eggs to rearers in the State and outside the State as well. The Central Silk Board has also set up a Muga unit at Nongpoh utilizing the Muga plantation of the State for maintenance of parent stock Muga seed.

The State has also initiated action for setting up of one Eri Spinning Centre at Umden and one Eri Block Plantation at Umpathaw during 1992-93 besides the continuance and improvement of the existing activities. For all these, a district Level Officer has been established at Nongpoh with a view to ensuring smooth and effective implementation of programmes. Sericulture is an agro-based industry and labour intensive providing occupation to a sizeable section of rural mass without dislodging them from their homesteads. It is also highly suitable to this newly created district with relatively low investment in addition to the temperature and aptitude of the people who are well suited for its growth.

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9. *Sericulture and Weaving in Ri-Bhoi District of Meghalaya*, Directorate of Sericulture and Weaving, Meghalaya, Shillong, 1992.

The practice of silk worm rearing, spinning and weaving are the cultured ethos of the people of this district.

The specific schemes/programmes for extending assistance to the sericultural farmer in Ri-Bhoi district are summarised as follows:

(1) *Muga Silk Industry*: Muga seed development project of the Central Silk Board, Nongpoh, was established during 1986-87, with about 5 acres of farm area handed over by the State to the Central Silk Board for starting the technical activities of the unit.

The most important activity of this unit is the production of diseases from Muga laying (seed) and supply to P_3[10] unit of the same organisation and government agencies for further multiplication. The production since the inception of the district can be seen below:

Production	9,947 laying
Number of seed cocoons	54,132
Number of Nurseries raised	5,000

The unit production is co-related with the demands of seeds by various organisations. The unit has supplied almost 2,000 seedlings (Muga food plan) free of cost to the

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10. P_3 - For maintenance of multiplication of Muga basic seed to supply to P_2 farm.

villagers to establish their own farms to practise the culture. The extension activities are progressing.

(2) *Oak Tasar Silk Industry* was established at Bhoilymbong and Iapngar for the introduction of new hybrid species.

(3) *Eri Silk Industry* has been practised traditionally since ancient time. It is used for the production of warm clothing for the rural people.

(4) *Organisation of Eri Block Plantations*: The people of the district do not have a regular and systematic plantation of Eri plants. therefore schemes of systematic plantation of Eri plant organised in a common plot of land about 2.5 hectares respectively where ten families are identified in each Block Plantation. Necessary inputs like planting materials, fencing, manure water supply, etc. are provided by the Department and employed about 8000 number of caster plants have been planted by the beneficiaries.

(5) *Eri-Seed Grainage*: Grainage is a place where production of certified eggs or seeds of superior quality are produced by a scientific methods and its vitality important for development of Sericulture Industry.

The main activity of this Eri-Seed Grainage is to produce disease-free seeds in scientific way to fulfill the requirement of the private Eri cocoon growers of the Bhoi district which exports these cocoons. The States that import are

Mizoram, Bihar, Orissa and Assam. Marketing of Eri seed is extended to Nagaland in 1993-94.

(6) *Eri Spinning Centre*: To improve the spinning of Eri cut cocoons, Eri Spinning Centre has been set up in different parts of the district. Training and demonstration facilities to local spinners are used to improve spinning devices. Since the inception of the district, 20 local spinners have been trained and about 20 kg. of Eri spur produced by them.

(7) *Mulberry Silk Industry*: Growing of Mulberry is the first and foremost pre-requisite for success in sericulture. Satin is a mulberry variety in which silkworm rearers of this area feed on. The State provides them with necessary facilities such as rearing appliances, disinfectant, manure fencing, sapping laying, etc. **Ri-Bhoi** is the only district in the State at present where all the four commercial silk varieties are culture, i.e., Eri, Muga,Tasar and Mulberry. The district will in no time be the largest exporter of Muga in the world.

In 1999-2000, the North-Eastern Council (NEC) has come up with the integrated development of Muga seed project. Meghalaya is the second largest producer of Muga Reeling Cocoon, in the North Eastern region. It must be mentioned that Muga culture in the State originated in the **Ri-Bhoi** district and is still confined to that district.

For sustaining the economic development of Muga production units and stabilizing the regular production of silkworm seed in the State, the NEC in the Ninth Five-Year Plan has sanctioned Rs.224 lakhs for (i) the development of Som/Soalu Nursery, (ii) strengthening the existing P_2[11] Muga Seed Farms in Resubelpara, East Garo Hills and West Khasi Hills in Mollugkeng and Umsohpieng, (iii) establishment of Muga P_3 at Sohliya Ri Bhoi district, (iv) organisation of commercial Muga Rearer for large scale production of silk cocoon and beneficiaries will be facilitated with grants-in-aid in kind at the total cost of Rs.5000/- each, (v) organisation of Muga P_1[12] seed cocoon of rowers of 50 numbers. The beneficiaries will received Rs.500/- each grant-in-aid in kind, (vi) establishment of commercial grainages, (vii) organisation of private Muga Reeling Societies/NGOs to organise 2 Muga Reeling Co-operative Societies in West Khasi Hills and East Garo Hills, (viii) augmentation of Muga Food Plants - the project envisages to assist the Muga beneficiaries under the Catalytic Development Programme of

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11. P_2 - For multiplication of Muga seeds received from P_3 farm to supply to P_1 Muga seed cocoon growers.

12. P_1 - Organisation of Muga Seed Cocoon Growers for production of commercial seeds.

the CSB (Central Silk Board) with Rs.1575/- to each beneficiary for 1 acre of Muga plantation.[13]

CONCLUSION

We have come to the end of our discussion on some aspects of the economy of the Ri-Bhoi district of Meghalaya. The district is certainly poised for a brisk and an assured development of industries both in the secondary and services sectors depending on the desire of the people for further progress and on the emergence of a suitable political and institutional framework capable of creating the pre-conditions for an accelerated industrial development. We shall look into the agricultural economy of the district in the following chapter before our indepth study on the need of agricultural credit is taken up.

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13. The Directorate of Sericulture and Weaving, Government of Meghalaya, Shillong.

Chapter-IV

AGRICULTURAL ECONOMY OF THE RI-BHOI DISTRICT

In this chapter, we analyse the main features of the agricultural economy of the new **Ri-Bhoi** district. Important aspects like climatic conditions, rainfall, altitude, soil, cropping pattern, horticulture, market and marketing facilities, land tenure system, *jhumming* - all of which in one way or the other, influence agriculture, are briefly looked into. Our attention in this chapter is to provide an over-all view of the background and the base of agricultural activities in the district.

Ri-Bhoi is predominantly an agricultural district where more than 85 per cent of the people live in rural area and depend on agriculture for their livelihood. The climatic conditions and rainfall in the district are adequate for agriculture but owing to rugged topography, the district has not been able to give a satisfactory result in agricultural activities except in the valleys and the flat lands in the border areas which form part of the Brahmaputra valley.[1]

CLIMATE

The **Ri-Bhoi** district experiences mainly sub-tropical and tropical type of climate which is influenced by the south-west monsoon. The monsoon begins usually in the month

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1. Bhakta, G.P., *Geography of Meghalaya*, published by Shri Bimal Bawri for Akashi Book Depot, Don Bosco Road, Laitumkhrah, Shillong-793 003, 1992, p.19.

of May and continues upto the end of September and even well to the end of October after which it stops abruptly. The climate from November to April is dry. During the months of October and November the climate is cool and when November approaches, the temperature slowly dropped and the climate changes from cold to mild mid-winter.

During March and April, the atmosphere gradually warms up and with the advent of spring from the middle of April to the middle of May, the temperature reaches the maximum point and this period may be termed as the summer season. The maximum and minimum temperatures recorded are at 34°C and 26°C respectively. In determining the climate of the district, we have to take into consideration a number of factors as also the average weather condition for a fairly long period which is more seasonal than uniform.

The factors involved in the local climatic environment are (a) distribution of temperature, (b) wind speed and direction, (c) rainfall and air-pressure, (d) humidity, (e) regularity and intensity of cloudiness and hours of sunshine over large periods.

Ri-Bhoi district falls under the Mediterranean and wet equatorial type of climate. The one factor that is most prominent in influencing the Mediterranean climate is the periodic wind.

Summer monsoons which are responsible for widespread rains during the greater part of the year and during the winter, retreating monsoon as well as local condition caused Mediterranean type of rainfall especially in the Northern Mid-Latitude zone. The direction of periodic winds, temperature, intensity of cloudiness and period of sunshine over the district lasted not only during one or two particular years but over many years. Ri-Bhoi district being located in the northern part of the central region of the State, partly lies in the rain shadow, thus receiving an average 200 cm. to 400 cm. of annual rainfall. The district also receives rain during winter caused by the retreating monsoon winds under the influence of the north-east trades wind and hence there is the Mediterranean type of rain and climate. Thus Ri-Bhoi district falls under two zones, namely (a) Mediterranean type (with high seasonal rainfall) zone; (b) West Equatorial type climate (with seasonal rainfall) zone.[2]

RAINFALL

There are occasions when slight rainfall takes place during very dry seasons. This is due mainly to locally created humid condition. The highlands of Meghalaya are

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2. *Ibid.*, p.39.

surrounded by dense vegetation and forest of the neighbouring plains. Evaporation from the local woodland as well as from neighbouring forests, transpiration from million of leaves are enough to cause moisture convergence with the ascending air. This condition is sufficient to give rise to local rainfall and are responsible for sufficiently cooling down the temperature and making the weather warm and soothing.[3]

The average rainfall in the district ranges between 200 cm. to 400 cm. Rainfall is confined to the district mostly from the last part of May to October and discontinues during the winter months from November to March. The mean annual air temperature ranges between 20°C and 24°C and the mean summer temperature rises as high as 28°C and mean winter temperature falling down to as low as 9°C. Ground frost is not common.

The climatic conditions do have a strong influence on agricultural practices in the district.

ALTITUDE

The altitude of the **Ri-Bhoi** district ranges from 1000 metres to as low as 50 metres average mean sea level (AMSL). This shows that the district comprises mainly the mid and the low altitude areas with the prevailing climatic conditions

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3. *Ibid.*

and the altitudinal ranges. Agricultural programmes on multiple croppings could be successfully implemented.

Along with the altitude of a place, soil texturity also influences agricultural production greatly.

SOIL

The thin surface layer on the earth comprising mineral particles formed by breakdown of rocks, decayed organic materials, living organism and moisture is known as soil. It is the medium for the growth of plants and the plants in turn support different forms of life. Agricultural crops, grasses, trees and vegetables grow on the soil. The formation of soil is greatly influenced by the parent rock materials, climate and organism (plants and animals). Time is an important factor which provides maturity to the soils. The effect of physiography is also affected in the characteristics of soil in a region.

The soils of **Ri-Bhoi** district have been formed under conditions of geology, relief, climate and vegetation[4] and may be classified into three categories:

1) Alluvial soil
2) Red and yellow soil
3) Hill soil.

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4. *Ibid.*

1) Alluvial Soil: The alluvial soils occur in all the plains and flat lands in Ri-Bhoi district including the four villages of our study, namely, Umsning, Nongthymmai, Ingsaw and Sohphoh. The alluvial soil in Ri-Bhoi varies from sandy to clayey loam with varying amount of nitrogen and are highly acidic. The soil is also rich in potassium but poor in phosphate. Hence it is good for the cultivation of rice, jute and fruits.

2) Red and Yellow Soil: The red and yellow soil is found in a belt running from west to east in the southern part of the district. It varies in colour from yellow to red, reddish-yellow and yellowish-brown. The yellow colour is due to the higher degree of hydration of the ferric oxide in this soil than that in the red soils. The soil is usually fine-textured, ranging from loam to silty loam and is suitable for the production of rice and fruits.

3) Hill Soil: The hills often have different soil profiles. Except on hills plateau where we find mature soil with characteristic profiles, the slopes of the hills may present thin `skeletal'" profiles or no clear profile at all. This is due to the fact that the nature of the slope and valley soils depends upon a number of soil influencing factors. There is also a delicate balance between eclaphic conditions and nature of vegetation.

Hill slopes supporting sparse vegetation may often lose materials through the effect of `downhill wash' or creeps. The mineral particles may accumulate at the base of slopes or enclosed valleys. Thus the breakdown of the old profile will result into two factors:

(i) the mineral content of the upland soil may differ, and (ii) the water holding properties may also vary to a great extent.

This is one of the reasons why a single climatic region is often found to be supporting different types of vegetation on hill slope beneath plateau.

Another characteristic feature of the hill soils is the regular repetition of soil sequences down a slope. This is either due to topography or the changes in parent rock material. Hence, the thin upland soils may result into clay loams in drained mid-slopes and light grey loams in the water logged balloon slopes. Such a pattern of soil sequence originating from the same parent material varies with the topography. That is relief and drainage is termed `catena'.

The common soil type found in the district are red lateritic, red loam, loam and alluvial situated in upland and mid-land, while in the low lying areas (valley) alluvial soil is common. These soils are acidic in reaction having high iron and alluminium content but deficient in calcium, magnesium and other carbonate. The fertility status of these

soils regarding major nutrient content is: high nitrogen, low phosphate and medium potassium. However, nothing can prevent the cultivation of different types of crops.

Thus, in the Ri-Bhoi district owing to the presence of a large number of soil textures, we find that the soil is very fertile and is suitable for the cultivation of any crops, vegetables and fruits. The soil where paddy is grown extensively containing heavy loam and a fairly large amount of organic matter. Agricultural production could even increase with proper soil management practices like erosion control, contour cropping, judicious use of fertilizer and liming to control acidity of the soil, good drainage system and proper agricultural planning. The fertility of the soil could still be increased which in turn affects the cropping pattern of the district.[5]

CROPPING PATTERN

The Ri-Bhoi district produces a large variety of crops. Rice is the principal food crop grown throughout the district. The varieties of rice crops differ from region to region depending on the altitude and climatic conditions. High yielding varieties like *IR-8 Jaya, Mashuri, Pankaj, Nigoba, Manipur,* are being popularised by the state

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5. *Ibid.*

department among the farmers of low and warm regions. The production of rice for 1992-93 is 16,767 tonnes out of 10,947 hectares of area.[6]

Rice Cultivation

The Ri-Bhoi district has a very fertile land in the State which is favourable for the cultivation of rice and maize. It is interesting to compare the inter-district performance in the production and yield of these two food crops in the State for the period from 1992-93 to 1998-99. The data collected in respect of rice are given in Table-4.1.

From the table-4.1 it can be seen that the Ri-Bhoi district performed excellently in the yield of rice per hectare in 1998. It produced 2006 kgs. per hectare which is far above the state figure of 1421 kgs. per hectare while it is still below the national productivity of 2811 kgs. per hectare produced in 1996. The latest national figures are not readily available. The sudden rise of productivity by 49.26 per cent in the district has been due to the introduction of the high yielding seeds of the North Korean variety that was obtained by the local farmers through border trade in the

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6. Government of Meghalaya, Office of the Information Officer (J.R.), Ri-Bhoi District, *One Year of the Ri-Bhoi District*, p.13.

Table-4.1

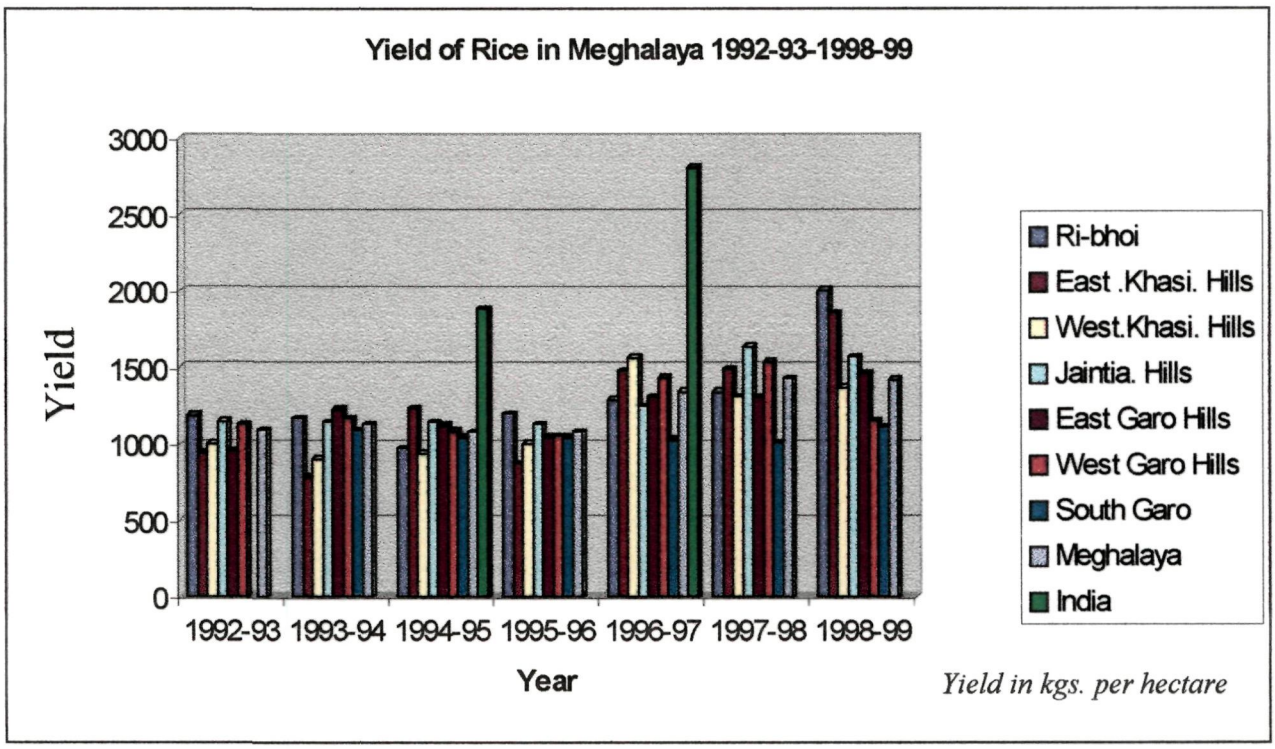
Area, Production and Yield of Rice in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	12307	12312	12828	11809	11867	11837	11788
	P	14629	14383	12552	14079	15319	15914	23652
	Y	1189	1168	978	1192	1291	1344	2006
East Khasi Hills	A	4944	4955	4921	5127	5141	5160	5210
	P	4704	3905	6073	4997	4629	7690	9673
	Y	945	788	1234	875	1484	1490	1856
West Khasi Hills	A	9108	8936	6914	9415	9393	9422	9420
	P	9188	8067	6528	9508	14689	12339	12928
	Y	1009	903	944	1010	1564	1310	1372
Jaintia Hills	A	15909	16004	16004	16119	16425	16442	16649
	P	18280	18261	18261	18261	20427	26991	26236
	Y	1149	1142	1141	1133	1244	1641	1575
East Garo Hills	A	17168	17170	17197	17189	17293	17301	17167
	P	16507	21074	19318	17943	22648	22730	25215
	Y	961	1227	1123	1044	1310	1314	1468
West Garo Hills	A	44715	35948	35296	35219	35578	35922	36062
	P	50724	42136	39300	38228	51002	55206	41856
	Y	1134	1172	1083	1056	1433	1537	1160
South Garo Hills	A	-	9083	9043	9067	9091	9086	9106
	P	-	9941	9459	9487	9691	9231	10182
	Y	-	1094	1046	1046	1033	1016	1118
Meghalaya	A	104151	104408	103203	109945	104788	105170	105402
	P	114036	117786	111491	112503	141705	150101	149742
	Y	1095	1128	1080	1082	1346	1427	1421
India	Y	-	-	1880	-	2811	-	-

Note: 1. World's Highest Yield = 7500 kg/ha. by North Korea
2. A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Figure 4.1


Yield of Rice in Meghalaya 1992-93-1998-99
Yield
3000
2500
2000
1500
1000
500
0
1992-93
1993-94
1994-95
1995-96
1996-97
1997-98
1998-99
Year
Ri-bhoi
East .Khasi. Hills
West.Khasi. Hills
Jaintia. Hills
East Garo Hills
West Garo Hills
South Garo
Meghalaya
India
Yield in kgs. per hectare

Indo-Myanmar border markets. It was not a state effort made for raising the yield of rice in the district. The introduction of the North Korean variety of high yielding seed of rice has not only resulted in the increase of yield per hectare but also in the increase in the total production of rice in the district. The production had increased from 15914 MT in 1997 to 23652 MT in 1998 - an increase of 48.62 per cent from an area which was less than that of the previous year.

It is likely that the yield would further increase to reach the all-India level which is still far away from the world record yield of 7500 kgs. per hectare produced by North-Korea. The world's highest yield is more than 2 times that of the all-India figure.

Maize Cultivation

The area, production and yield of maize in the district is shown in Table-4.2. It will be seen from the above table that the excellent performance of the district in maize cultivation is much more than that at the all-India level. The yield per hectare of maize was better in 1997 which was 2201 kgs. than in 1998 which was only 2143 kgs. However, the yield is far above that of all-India figure of 1408 kgs. in 1996 (available figure) and that of the state level performance of 1468 kgs. in 1998. Because of the fall in

Table-4.2

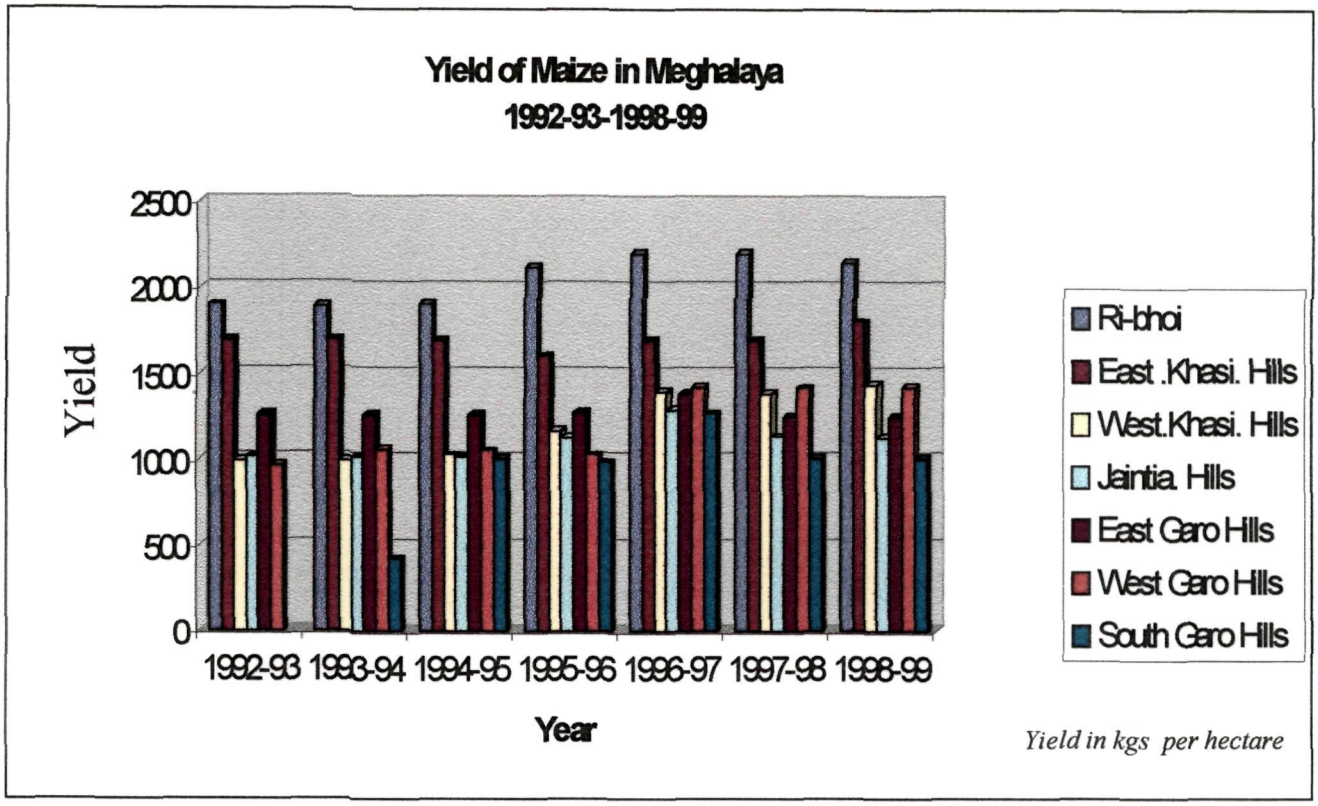
Area, Production and Yield of Maize in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	1907	1914	1919	1906	1910	1912	1910
	P	3612	3617	3657	4037	4202	4208	4093
	Y	1899	1890	1906	2118	2200	2201	2143
East Khasi Hills	A	1774	1786	1801	1812	1842	1847	1866
	P	2998	3034	3054	2906	3111	3131	3370
	Y	1690	1699	1696	1604	1689	1695	1806
West Khasi Hills	A	4800	4665	4523	4601	4649	4604	4617
	P	4782	4646	4651	5392	6508	6382	6654
	Y	996	996	1028	1172	1400	1386	1441
Jaintia Hills	A	2856	2857	2860	2861	2862	2866	2869
	P	2902	2903	2905	3218	3692	3258	3241
	Y	1016	1016	1016	1125	1290	1137	1130
East Garo Hills	A	1075	1080	1090	1088	1090	1090	1903
	P	1355	1361	1373	1387	1504	1362	1366
	Y	1260	1260	1259	1275	1380	1250	1250
West Garo Hills	A	46705	3960	3969	3976	3963	3985	3990
	P	45274	4222	4191	4095	4627	5656	5664
	Y	969	1066	1056	1030	1420	1419	1420
South Garo Hills	A	-	711	712	717	721	871	874
	P	-	303	715	710	916	881	884
	Y	-	426	1004	990	1270	1011	1012
Meghalaya	A	17082	16973	16874	16961	17037	17175	17219
	P	20176	20086	20546	21745	25560	24858	25272
	Y	11815	1183	1217	1282	1500	1447	1468
India	Y	-	-	1700	-	1408	-	-

Note: 1. World's Highest Yield = 8500 kg/ha. by Greece
2. A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong, 1998-99.

Figure 4.2


Yield of Maize in Meghalaya
1992-93-1998-99
Yield
2500
2000
1500
1000
500
0
1992-93
1993-94
1994-95
1995-96
1996-97
1997-98
1998-99
Year
Ri-bhoi
East .Khasi. Hills
West.Khasi. Hills
Jaintia. Hills
East Garo Hills
West Garo Hills
South Garo Hills
Yield in kgs per hectare

productivity by 58 kgs. from 1997 to 1998, the total production decreases by 115 kgs. from an area which decreases slightly. The district is now poised for a "maize revolution" and the total production of the product may increase to an incredible amount since it can be produced four times a year.[7] But as regards productivity, the **Ri-Bhoi** may not reach the world record yield of 8500 kgs. per hectare performed by Greece which produced more than three times of the yield made in the district.

Oil Seeds Production

Rape and Mustard seeds, soyabean and sesamum are among the oil seeds produced in the **Ri-Bhoi** district. Sunflower has recently been introduced and is still insignificant. In pursuance of the national objectives and policies for attaining self-sufficiency in oil seeds production, the State government has taken up intensive efforts to popularise and bring more area under cultivation of these crops.

Rape Seeds and Mustard

These oil seeds rank first among the oil seeds produced in the State in terms of total production, while in India they occupy the third position. **Ri-Bhoi** district performs better in the yield of Rape seeds and Mustard by producing 674 kgs.

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7. Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.3

Area, Production and Yield of Rape seeds in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	51	49	49	42	42	42	42
	P	26	24	24	29	26	26	29
	Y	510	490	490	690	619	619	674
East Khasi	A	62	63	59	56	57	58	60
Hills	P	35	42	36	36	34	35	33
	Y	564	667	610	643	596	603	550
West Khasi	A	31	33	33	30	32	31	31
Hills	P	19	20	20	17	19	18	23
	Y	613	606	606	567	594	581	742
Jaintia	A	10	8	11	11	11	11	11
Hills	P	9	5	7	7	6	7	6
	Y	900	625	636	636	545	636	545
East Garo	A	730	730	730	740	747	749	753
Hills	P	377	350	438	440	359	355	426
	Y	516	479	600	594	481	474	566
West Garo	A	5737	5698	5734	5750	5764	5766	5766
Hills	P	2127	3481	3618	4209	3136	3850	3886
	Y	371	611	631	732	544	668	674
South Garo	A	-	169	180	241	245	257	253
Hills	P	-	97	79	168	159	176	173
	Y	-	574	439	697	444	685	684
Meghalaya	A	6621	6750	6796	6870	6898	6914	6916
	P	2590	4019	4222	4906	3739	4467	4576
	Y	391	595	621	714	542	646	661
India	Y	-	-	1010	-	-	-	1013*

Note: 1. World's Highest Yield = 3570 kg/ha. by Netherlands
2. A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.
* During last decade

Source: Government of Meghalaya, Directorate of Agriculture, Shillong, 1998-99.

per hectare in 1998-99, which was more than the State figure of 661 kgs. The inter-district performance in the area, the total production, etc. of this oil seed is given in the Table-4.3.

From the table-4.3, it can be seen that the **Ri-Bhoi** district yielding 674 kgs. per hectare is in the third position in 1998-99 along with West Garo Hills in so far as the yield per hectare is concerned. But the performance of **Ri-Bhoi** district in 1998-99 decreased from its earlier yield of 690 kgs. per hectare made in 1995-96. The district has better scope to increase its yield to reach the national level of yield of 1013 kgs. per hectare because of its fertile soil condition and can easily beat other districts if the State extends its efforts towards improving the production of this crop for the purpose of manufacturing the finished product within the district.

Soyabean

Soyabean is included in the category of oil seeds at the national level though it is mostly used as a pulse or condiment in the State. Outside the State, it is converted into edible oil. This crop ranks second in its yield per hectare in Meghalaya while in India it ranks fourth. The inter-district position with regard to area, production, etc. is shown in Table-4.4.

Table-4.4

Area, Production and Yield of Soyabean in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	69	70	68	30	30	30	32
	P	64	65	61	27	26	26	26
	Y	927	928	897	900	867	867	812
East Khasi Hills	A	163	165	165	167	167	167	169
	P	144	145	145	147	143	143	144
	Y	883	879	879	880	856	856	852
West Khasi Hills	A	82	41	47	22	50	50	50
	P	51	25	26	32	30	31	31
	Y	623	610	553	1454	600	620	620
Jaintia Hills	A	389	391	391	392	392	389	390
	P	388	390	390	391	391	388	389
	Y	997	997	997	997	997	997	997
East Garo Hills	A	125	129	129	132	139	138	138
	P	125	129	129	129	137	136	136
	Y	1000	1000	1000	977	986	985	985
West Garo Hills	A	119	114	120	116	116	117	115
	P	119	114	119	116	79	80	80
	Y	1000	1000	992	1000	681	684	695
Meghalaya	A	947	918	928	892	901	898	899
	P	891	876	880	848	816	814	812
	Y	1020	954	948	951	906	906	903
India	Y	-	-	1020	-	-	-	995*

Note: 1. World's Highest Yield = 3190 kg/ha. by Italy
2. A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.
* This is an average figure for the last decade.

Source: 1. Government of Meghalaya, Directorate of Agriculture, Shillong, 1998-99.
2) For India: Ruddar Dutta & K.P.M. Sundaram, *Indian Economy* (S. Chand & Co. Ltd.), 1999.

It will be seen from the table that the performance of the Ri-Bhoi district in the cultivation of this crop is not commendable. Its position is fourth in terms of productivity of this crop among all the districts. The yield in Ri-Bhoi district is also below the State level which in turn is less than the all-India figure. There is, however, wide scope for raising its productivity as well as the area of production in the southern part of the district as its productivity was very good in the past few years particularly in 1992-93 and 1993-94 and fluctuated thereafter.

Sesamum

The State has made an intensive efforts of popularising and bringing more area under cultivation of other oil seeds. Sesamum is also produced as the third important source of oil seeds in the State while in India it is the sixth important source of oil seeds. The inter-district data in respect of the area, production, etc. of this crop in the State is given in the Table-4.5.

Table-4.5

Area, Production and Yield of Sesamum in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	5	5	5	5	2	3	3
	P	2	2	2	2	2	3	2
	Y	400	400	400	400	1000	1000	667
East Khasi	A	32	33	32	32	33	32	33
Hills	P	13	13	12	14	13	13	22
	Y	406	394	375	437	394	406	666
West Khasi	A	19	17	6	8	17	14	15
Hills	P	9	8	4	5	9	8	10
	Y	474	470	666	625	529	571	667
Jaintia Hills	A	30	31	31	32	33	34	34
	P	15	15	15	14	16	17	16
	Y	500	484	484	437	485	500	470
East Garo	A	309	307	304	305	300	295	243
Hills	P	155	154	152	153	149	147	147
	Y	502	502	500	502	497	498	502
West Garo	A	931	768	765	766	771	773	773
Hills	P	488	404	403	404	406	409	408
	Y	524	526	527	527	527	529	527
South Garo	A	-	161	161	170	175	175	171
Hills	P	-	84	84	89	91	91	89
	Y	-	522	522	523	520	520	520
Meghalaya	A	1326	1322	1304	1318	1331	1326	1322
	P	682	680	672	681	686	688	694
	Y	514	514	515	517	515	519	525

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

From the above table, it can be seen that Ri-Bhoi district along with West Khasi Hills did the best in the yield per hectare in 1998-99. The yield was 667 kgs. per hectare while the State average is 525 kgs. per hectare. In fact, the yield was better in the previous two years where 1000 kgs. per hectare were produced in spite of the decrease in the area of production. Thus it is indicative of the fact that there is a very good scope for increasing both the productivity and production in this crop in the district.

VEGETABLES PRODUCTION

As the district enjoys a variation of climatic zones, vegetables of various types are grown throughout the year. The data in respect of the amount of production and yield of eight important vegetables in all districts of the State for two consecutive years are given in the Table-4.6 and Table-4.7 where Ri-Bhoi also figures in both periods.

Table-4.6

Area, Production and Yield of Vegetables in Meghalaya (1992-93)

Districts		Onion	Peas	Lady-Finger	Turnip	Bottle Gourd	Radish	Beans	Pumpkin
Ri-Bhoi	A	10	45	30	20	35	205	6	80
	P	80	590	102	320	245	1230	48	1200
	Y	8000	13111	3400	16000	7000	6000	8000	1500
East Khasi Hills	A	12	125	33	4	70	55	3	56
	P	90	1000	113	63	462	302	22	813
	Y	7500	8000	3424	15750	6600	5491	7333	14518
West Khasi Hills	A	7	10	6	18	20	42	2	85
	P	40	31	22	278	124	213	13	1243
	Y	5714	3100	3667	15444	6200	5071	6500	14624
Jaintia Hills	A	8	22	8	19	23	30	3	83
	P	56	137	31	220	131	162	7	1222
	Y	7000	6227	3875	11579	5696	5400	2333	14723
East Garo Hills	A	49	49	118	158	28	62	77	321
	P	573	427	477	1864	239	294	319	4494
	Y	11694	8714	4042	11797	8536	4742	4143	14000
West Garo Hills	A	138	125	137	109	102	122	62	637
	P	828	875	562	1599	550	1243	324	9614
	Y	6000	7000	4102	14670	5392	10189	5226	15093
Meghalaya	A	224	376	332	328	278	516	153	1261
	P	1667	3060	1307	4344	1751	3444	733	18586
	Y	7442	8138	3937	13244	6299	6674	4791	14739

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.7

Area, Production and Yield of Vegetables in Meghalaya (1993-94)

Districts		Onion	Peas	Lady-Finger	Brinjal	Tomato	Bottle Gourd	Beans	Pumpkin
Ri-Bhoi District	A	9	35	5	30	44	19	204	78
	P	70	244	45	100	570	310	1231	1201
	Y	7778	6971	9000	3333	12954	1631	6034	1539
East Khasi Hills	A	11	68	4	33	125	4	53	57
	P	90	463	23	115	1000	65	301	814
	Y	8181	6808	5750	3484	8000	1625	5679	1428
West Khasi Hills	A	7	20	3	7	11	19	44	84
	P	41	125	14	25	35	281	220	1240
	Y	5857	6250	4667	3571	3181	1478	5000	1476
Jaintia Hills	A	9	24	4	9	22	18	32	82
	P	58	136	26	35	139	218	165	1220
	Y	6444	5667	6500	3889	6318	1211	5156	1487
East Garo Hills	A	50	25	75	120	50	158	60	320
	P	581	230	315	482	428	1865	290	4490
	Y	11620	9200	4200	4016	8560	1180	4833	1403
West Garo Hills	A	136	106	60	138	126	105	123	630
	P	820	550	320	565	876	1580	1242	9601
	Y	6029	5188	5333	4094	6952	1504	1009	1523
Meghalaya	A	222	278	151	337	378	323	516	1251
	P	1660	1748	743	1322	3048	4319	2331	18566
	Y	7477	6288	4920	3923	8063	13371	4517	14841

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

It can be seen from the above two tables that the **Ri-Bhoi** district produced the largest amount of vegetables in 1992-93 in respect of three items, namely, Peas, Turnip and Beans.

Figure 4.6

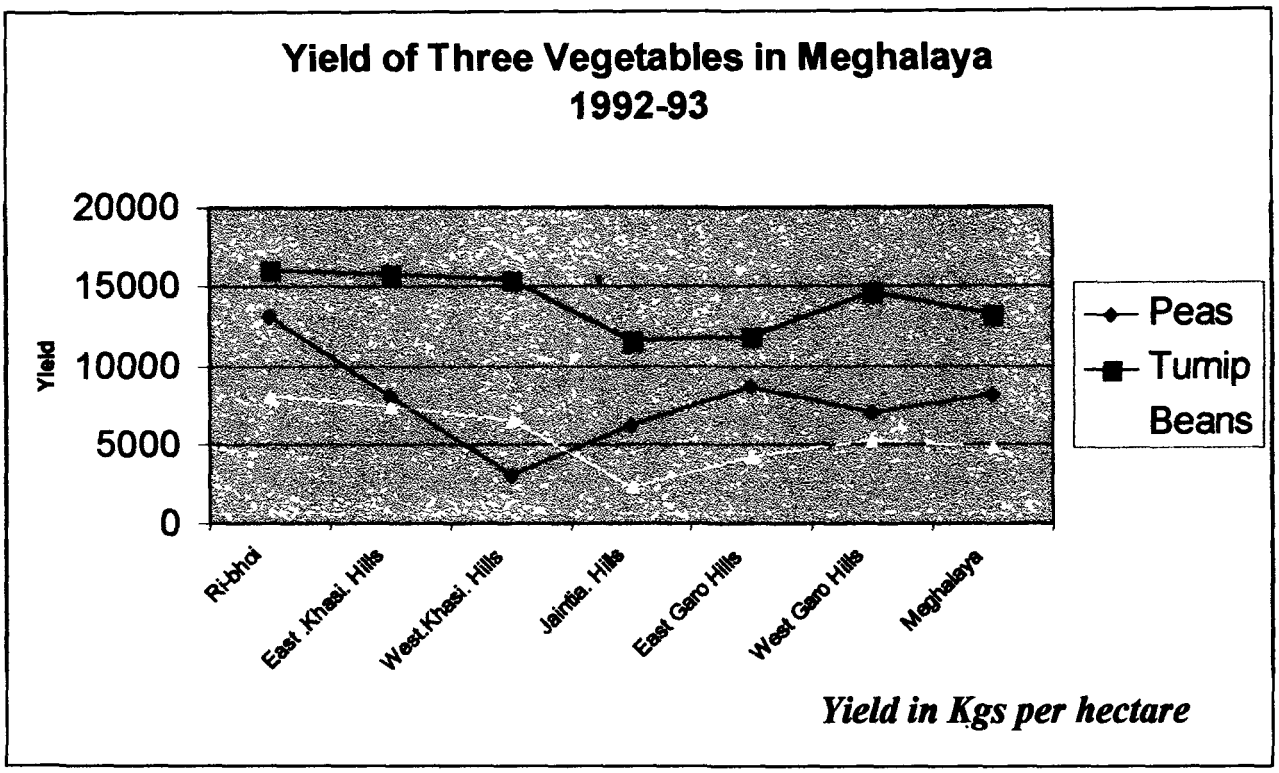
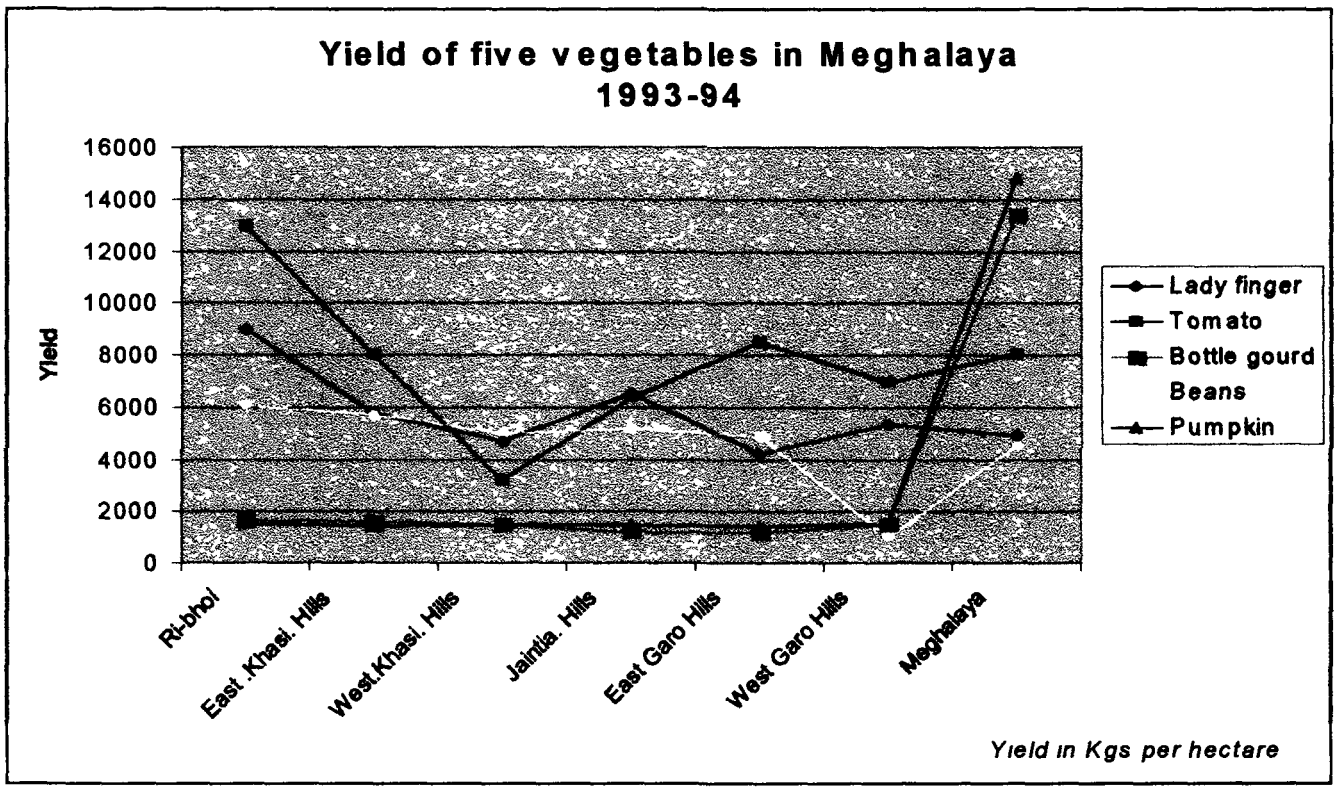


Figure 4.7



The district was the second largest producer in the case of other four items, namely, Onion, Bottle Gourd, Radish and Pumpkin in the same year. The only vegetable item where the district was not doing well was Lady Fingers. The climate of the district is very suitable for the cultivation of Lady Fingers and it could improve the production of this item in the following year.

In the year 1993-94, the **Ri-Bhoi** district had improved further its position. It became the largest producer in respect of five items of vegetables out of eight items. The items which it produced the largest amount were Ladyfingers, Tomato, Bottle Gourd, Beans and Pumpkins. It was the second largest producer of Peas and the third in the case of Onion. The only item where it performed badly was Brinjal. It is expected that the district would improve the production of this item in the coming years.

SPICES PRODUCTION

The production of Spices in the **Ri-Bhoi** district is also significant. They include ginger, turmeric, chilies, black pepper, etc. whose production and yield in different districts of the State for five years from 1992-93 to 1996-97 are shown in Tables-4.8; 4.9; 4.10; 4.11 and 4.12.

Table-4.8

Area, Production and Yield of Spices in Meghalaya (1992-93)

Districts		Turmeric	Chilly	Ginger	Black Pepper	Tezpatta	Arecanut	Total Spices
Ri-Bhoi	A	-	37	308	65	1336	16	1746
	P	-	29	2086	34	2959	10	5108
	Y	-	784	6773	523	2215	625	2925
East Khasi Hills	A	51	75	373	378	4011	4523	4888
	P	82	42	2526	239	9426	3659	12315
	Y	1608	560	6772	632	2350	809	2519
West Khasi Hills	A	34	71	136	54	47	-	342
	P	34	29	607	29	94	-	793
	Y	1000	408	4463	537	2000	-	2319
Jaintia Hills	A	815	114	93	39	21	1516	1082
	P	1066	76	329	22	34	1248	1527
	Y	1308	667	3538	564	1619	823	1411
East Garo Hills	A	103	337	3516	30	115	162	4101
	P	142	202	24991	16	280	140	25631
	Y	1379	599	7108	533	2435	864	6250
West Garo Hills	A	354	1119	2213	44	420	2512	4150
	P	491	698	10261	35	1010	3387	12495
	Y	1387	624	4637	795	2405	1348	3011
Meghalaya	A	1357	1753	6039	610	5960	8729	15709
	P	1815	1076	40800	375	13803	8444	57869
	Y	1337	614	6756	615	2320	967	3684

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.9

Area, Production and Yield of Spices in Meghalaya (1993-94)

Districts		Turmeric	Chilly	Ginger	Black Pepper	Tezpatta	Arecanut	Total Spices
Ri-Bhoi	A	-	37	326	57	1348	16	1784
	P	-	30	2207	35	3000	11	5283
	Y	-	811	6770	614	2225	687	11107
East Khasi	A	51	76	380	380	4045	4523	9455
Hills	P	82	44	2547	240	9568	3665	16146
	Y	1608	579	6703	631	2365	810	12695
West Khasi	A	23	57	131	56	48	-	315
Hills	P	21	23	628	30	98	-	800
	Y	913	403	4794	536	2042	-	2340
Jaintia Hills	A	817	115	94	41	22	1517	2606
	P	1068	76	332	25	34	2200	3735
	Y	1307	661	3532	610	1545	1450	1433
East Garo	A	98	337	3578	31	116	200	4300
Hills	P	195	202	25822	17	289	175	26700
	Y	1990	599	7217	548	2491	875	6209
West Garo	A	307	866	2098	46	421	2306	6043
Hills	P	407	541	9732	33	1011	3108	14832
	Y	1326	625	4639	733	2401	1348	2454
South Garo	A	52	251	123	-	-	209	635
Hills	P	71	157	569	-	-	281	1078
	Y	1365	625	4626	-	-	1344	1698
Meghalaya	A	1348	1739	6670	610	6000	8771	25138
	P	1844	1073	41837	380	14000	9440	68574
	Y	1323	617	6272	623	2333	1076	2728

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.10

Area, Production and Yield of Spices in Meghalaya (1994-95)

Districts		Turmeric	Chilly	Ginger	Black Pepper	Tezpatta	Arecanut	Total Spices
Ri-Bhoi	A	-	39	649	57*	1348*	16	2109
	P	-	32	5577	35*	3000*	12	8656
	Y	-	820	8593	614*	2225*	750	4104
East Khasi Hills	A	52	77	385	380*	4045*	4526	9465
	P	84	45	2574	240*	9568*	3673	16184
	Y	1615	584	6686	631*	2365*	811	1322
West Khasi Hills	A	12	43	134	56*	48*	-	293
	P	13	19	460	30*	98*	-	620
	Y	1083	442	3433	536*	2042*	-	2116
Jaintia Hills	A	817	115	94	41*	22*	1517	2606
	P	1026	76	332	25*	34*	2200	3693
	Y	1256	661	3532	610*	1545*	1450	1417
East Garo Hills	A	98	335	3523	50*	71*	780	4857
	P	133	201	24108	26*	289*	718	25475
	Y	1357	600	6843	520*	2491*	920	5245
West Garo Hills	A	309	860	2095	45*	421*	2384	6114
	P	429	536	9710	33*	1011*	3330	15049
	Y	1388	623	4635	733*	2401*	1397	2461
South Garo Hills	A	53	245	125	34*	24*	224	705
	P	71	154	576	12*	21*	308	1142
	Y	1340	628	4608	353*	875*	1375	1634
Meghalaya	A	1341	1714	7005	663*	6024*	9447	26194
	P	1756	1063	43337	401*	14021*	10241	70819
	Y	1308	616	6143	662*	2327*	1084	2709

* Provisional

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.11

Area, Production and Yield of Spices in Meghalaya (1995-96)

Districts		Turmeric	Chilly	Ginger	Black Pepper	Tezpatta	Arecanut	Total Spices
Ri-Bhoi	A	-	33	671	51*	1348*	16	2119
	P	-	42	6240	35*	3000*	12	9329
	Y	-	1273	9299	686*	2225*	750	4402
East Khasi Hills	A	54	79	390	380*	4045*	4528	9476
	P	270	46	2157	240*	9568*	3690	15971
	Y	5000	582	5530	631*	2365*	815	1685
West Khasi Hills	A	14	54	156	56*	50*	-	330
	P	70	26	840	30*	99*	-	1065
	Y	5000	481	5384	536*	1980*	-	3227
Jaintia Hills	A	818	117	94	41*	24*	1517	2611
	P	4090	79	331	25*	35*	2200	6760
	Y	5000	6752	352	610*	1458*	1450	2588
East Garo Hills	A	102	334	3531	31*	71*	785	4854
	P	510	201	21112	17*	289*	754	22883
	Y	5000	602	5979	548*	2491*	960	4714
West Garo Hills	A	314	867	2316	45*	425*	2393	6360
	P	1570	542	11649	33*	1012*	3349	18155
	Y	5000	625	5030	733*	2381*	399	2854
South Garo Hills	A	60	258	130	-	-	227	675
	P	300	162	631	-	-	313	1406
	Y	5000	628	4854	-	-	1379	2083
Meghalaya	A	1362	1742	7288	604*	5963*	9466	26425
	P	6810	1098	42960	380*	14003*	10318	75569
	Y	5000	630	5895	623*	2348*	1090	2860

* Provisional

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.12

Area, Production and Yield of Spices in Meghalaya (1996-97)

Districts		Turmeric	Chilly	Ginger	Black Pepper	Tezpatta	Arecanut	Total Spices
Ri-Bhoi	A	24	33	670	50*	1345*	28	2126
	P	108	25	6988	31*	2987*	18	10049
	Y	4500	758	10430	614*	2221*	643	4727
East Khasi Hills	A	53	79	393	382*	4040*	4531	17572
	P	86	47	3169	235*	9504*	4531	9478
	Y	1623	595	8064	615*	2352*	1000	1854
West Khasi Hills	A	15	60	156	54*	45*	-	330
	P	23	30	744	25*	90*	-	912
	Y	1533	500	4769	463*	2000*	-	2764
Jaintia Hills	A	820	118	96	40*	23*	1524	2621
	P	4100	85	432	23*	35*	3048	7723
	Y	5000	718	4500	575*	1522*	2000	2941
East Garo Hills	A	103	332	3537	48*	70*	790	4880
	P	143	199	23422	22*	290*	745	24821
	Y	1388	599	6622	458*	4143*	943	19688
West Garo Hills	A	320	876	2326	44*	425*	2399	3081
	P	1600	547	13130	682*	1018*	3363	24821
	Y	5000	624	5645	458*	2395*	1402	5086
South Garo Hills	A	62	262	131	-	-	238	693
	P	310	164	636	-	-	328	1438
	Y	5000	626	4855	-	-	1378	2075
Meghalaya	A	1373	1760	7309	618*	5948*	9510	26518
	P	6262	1097	48521	366*	13924*	12033	82203
	Y	4561	623	6638	592*	2341*	1265	3100

* Provisional

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

It may be seen in Table-4.12 that Turmeric was newly introduced in Ri-Bhoi district in 1996-97 and the crop did

very well in the first year when the district produced the second highest yield in the State with 4500 kgs. per hectare. We have been able to get the latest yield for this crop from the State Directorate of Agriculture which was recorded at 7000 kgs. per hectare in 1998-99 which is believed to be the highest ever recorded although the latest record for other districts is not available. The district should expand its area of production because it is still at a very low level and because of increasing global demand for Turmeric. Ri-Bhoi district performed very well in the production of both Chilies and Ginger in which the yield is the highest among all districts during 1996-97 (Table-4.12). In the previous years (Table-4.8 to Table-4.11) the position of Ri-Bhoi district alternated between the first and the second place.

In the case of Black Pepper, Ri-Bhoi district did not perform well in the earlier years but improved its position later and by 1996-97, its yield became the second highest in the State with 614 kgs. per hectare (Table-4.12). With respect to the yield of Tezpatta, the district always occupied the fourth position during the entire period of five years but in the case of arecanut its performance is always behind all other districts.

SWEET POTATO PRODUCTION

Sweet potato can be cultivated all over the district. The data in respect of the amount of production, yield, etc. is given in the Table-4.13.

Table-4.13
Area, Production and Yield of Sweet Potato in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	288	290	291	188	189	189	141
	P	1130	1133	1135	489	494	494	409
	Y	3924	3907	3900	2601	3554	3554	2901
East Khasi Hills	A	867	875	879	875	878	880	886
	P	3064	3092	3104	3090	3202	3212	3399
	Y	3534	3534	3531	3531	3647	3650	3836
West Khasi Hills	A	1209	1322	1300	1302	1325	1319	1324
	P	4267	4665	4070	2878	4847	4838	4946
	Y	3529	3529	3131	2210	3658	3668	3736
Jaintia Hills	A	1978	1981	1981	1982	1983	1988	1985
	P	5784	5787	5787	5786	5786	5709	5784
	Y	2924	2921	2921	2919	2918	2872	2914
East Garo Hills	A	247	252	253	243	252	251	255
	P	769	785	788	757	785	782	794
	Y	3113	3115	3115	3115	3115	3115	3324
West Garo Hills	A	557	464	467	460	472	471	475
	P	1853	1544	1547	1525	1570	1566	1579
	Y	3327	3327	3313	3315	3326	3325	3324
South Garo Hills	A	-	96	98	103	112	114	115
	P	-	318	323	341	370	377	380
	Y	-	3312	3296	3311	3304	3307	3324
Meghalaya	A	5146	5280	5269	5153	5211	5212	5181
	P	16867	17324	16754	16834	17054	16978	17291
	Y	3277	3281	3180	3267	3273	3257	3337

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.
Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

It may be seen from the above table that the yield per hectare of this crop continuously decreased from 3924 kgs. per hectare in 1992-93 to 2901 kgs. in 1998-99 except for two consecutive years of 1996-97 and 1997-98 when its yield was same at 3554 kgs. per hectare. But the yield during these two years was less than the best ever yield it made in 1992-93. The yield was always higher than that at the state level up to 1997-98 except in 1995-96 and in 1998-99 for which the latest data were available. The decrease was not only evidenced in the case of productivity but also in the area and total production of this crop. The farmers who were interviewed about this phenomenon, explained that the product had no markets and moreover they wished to shift to the cultivation of other crops.

HORTICULTURE

The whole State of Meghalaya and in particular the Ri-Bhoi district has immense potentiality for the development of horticulture. The variation of altitudes, soil and climatic conditions provide ample scope for growing of fruits ranging from sub-tropical to temperate varieties. The farmers are being encouraged and assisted by the State with subsidy and finance wherever possible to raise horticultural crops. The major horticultural crops are Pineapple, Banana, Oranges, and other Citrus fruits like Pears, Plums, Peaches, Apricots,

Lemon, etc. Pineapple is very extensively cultivated and are of two varieties of which improved ones are known as Dwarf and *Robusta*. *Cavendish*, *Chenchampa* and *Malbhog* bananas of local variety grow well at any place. The district offers ample scope for growing various types of fruits but horticultural development is yet to take place in a commercial scale.

The Table-4.14 below shows the area, production and yield of horticultural crops in the district.

Table-4.14

Area, Production and Yield of Horticultural Crops in Ri-Bhoi District, 1992-93 - 1998-99

Crops		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Pineapple	A	3333	3335	3339	3340	3350	3355	3335
	P	28639	28647	28656	28687	28847	28886	28467
	Y	8592	8590	8582	8589	8611	8610	8536
Banana	A	752	757	759	759	772	772	772
	P	13534	13538	13564	13573	13850	13930	13930
	Y	17997	17884	17871	17883	17940	18044	18070
Papaya	A	118	118	119	122	124	124	124
	P	937	935	943	1014	994	1024	994
	Y	7941	7924	7924	8311	8016	8258	8016
Citrus fruits	A	80	90	80	80	83	83	82
	P	400	360	364	364	378	378	379
	Y	5000	4500	4550	4550	4554	4554	4622

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

From the above table, it is obvious that Pineapple is the most important fruit produced by the **Ri-Bhoi** district. Its production keeps on increasing in spite of fluctuating rates in the yield per hectare during 1992-93 to 1997-98. But in 1998-99 there was a decrease in the area, total production as well as the yield of this crop. The yield per hectare in the district was always above the state average figure upto 1993-94. But from 1994-95, the yield in the district was below the state level because of the sudden jump in the yield in the East Garo Hills amounting to 17000 kgs. per hectare while in **Ri-Bhoi** district it was only 8582 kgs. Thus while the yield in the East Garo Hills District of the State has surpassed the national average of 15 tonnes per hectare,[8] the yield in **Ri-Bhoi** district is half-way through the national figure. However, the variety of pineapples produced in **Ri-Bhoi** district is the best in the State.

The inter-district data of area, production and yield are given in Tables-4.15 and 4.16 in respect of Pineapple and Banana only. The district is also a good producer of Banana. The amount of production goes on increasing from year to year as can be seen from Table-4.16. So also the yield keeps on increasing except in the year 1994-95.

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8. *The Hindu Survey of Indian Agriculture 1999*, pp.155-60.

Table-4.15

Area, Production and Yield of Pineapple in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	3333	3335	3339	3340	3350	3355	3335
	P	28639	28647	28656	28687	28847	28886	28467
	Y	8592	8590	8582	8589	8611	8610	8536
East Khasi Hills	A	771	771	772	778	785	794	798
	P	6210	6213	6220	6237	6264	6348	6384
	Y	8054	8058	8057	8017	7980	7995	8000
West Khasi Hills	A	453	450	500	500	518	797	793
	P	2275	2214	2656	2656	2682	4076	7075
	Y	5022	4920	5312	5312	5178	5114	5116
Jaintia Hills	A	279	280	280	279	279	286	285
	P	2232	2235	2235	2233	2247	2262	2257
	Y	8000	7982	7982	8003	8054	7909	7919
East Garo Hills	A	525	537	840	843	854	857	860
	P	3762	4144	14280	14519	14561	14610	14661
	Y	7166	7717	17000	17223	17050	17048	17048
West Garo Hills	A	2831	1883	1885	1895	2051	2251	2261
	P	22802	15170	15180	15260	16524	18134	18217
	Y	8054	8056	8053	8053	8057	8056	8057
South Garo Hills	A	-	949	953	755	956	958	959
	P	-	7636	7661	6069	6077	6088	6093
	Y	-	8046	8039	8038	6357	6355	6354
Meghalaya	A	8192	5205	8569	8390	8793	9298	9297
	P	65920	66259	76888	75661	77202	80404	80116
	Y	8047	8075	8973	9018	8780	8647	8626

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Table-4.16

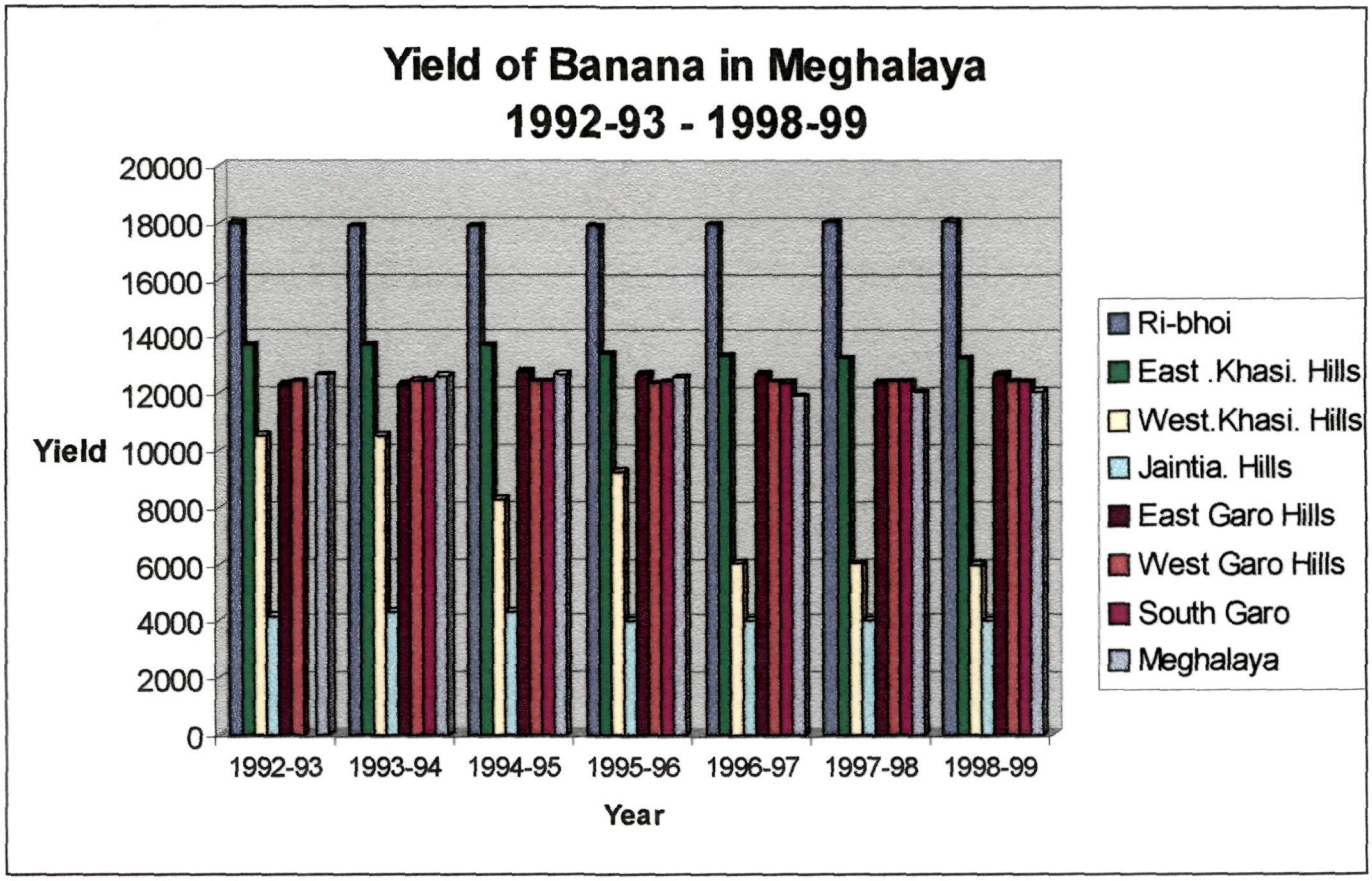
Area, Production and Yield of Banana in Meghalaya (1992-93 - 1998-99)

Districts		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Ri-Bhoi	A	752	757	759	759	772	772	772
	P	13534	13538	13564	13573	13550	13930	13930
	Y	17997	17884	17871	17883	17940	18044	18070
East Khasi Hills	A	613	614	621	626	641	650	652
	P	8389	8402	8508	8393	8548	8614	8647
	Y	13685	13684	13700	13407	13335	13252	13262
West Khasi Hills	A	662	731	521	521	829	655	656
	P	6963	7689	4316	4816	4991	3937	3909
	Y	10518	10518	8284	9244	6021	6011	5954
Jaintia Hills	A	302	295	296	308	308	309	310
	P	1266	1270	1277	1240	1240	1241	1245
	Y	4192	4305	4314	4026	4026	4016	4016
East Garo Hills	A	1030	1035	1047	1054	1065	1075	1032
	P	12691	12745	13345	13386	13526	13310	13106
	Y	12321	12314	12746	12700	12700	12381	12699
West Garo Hills	A	1520	1285	1287	1300	1503	1510	1513
	P	18910	15989	16004	16060	18688	18776	18815
	Y	12441	12443	12435	12354	12434	12434	12434
South Garo Hills	A	-	242	244	246	252	258	259
	P	-	3010	3035	3054	3124	3203	3216
	Y	-	12438	12439	12415	12397	12415	12416
Meghalaya	A	4892	4959	4775	4814	5370	5229	5194
	P	61753	62643	60549	60522	63967	63011	62888
	Y	12657	12632	12680	12572	11912	12050	12108

A=Area in Hectares; P=Production in MT; Y=Yield in Kgs./Hect.

Source: Government of Meghalaya, Directorate of Agriculture, Shillong.

Figure 4.16


Yield of Banana in Meghalaya
1992-93 - 1998-99
Yield
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
1992-93
1993-94
1994-95
1995-96
1996-97
1997-98
1998-99
Year
Ri-bhoi
East .Khasi. Hills
West.Khasi. Hills
Jaintia. Hills
East Garo Hills
West Garo Hills
South Garo
Meghalaya

The area and production of Papaya have increased from 118 hectares and 7941 kgs. in 1992-93 to 124 hectares and 8016 kgs. in 1998-99. The yield, however, fluctuates from year to year. The fruit is still cultivated as an inter-crop or in a homestead garden. It is time that commercial production of the fruit emerges as the district is very favourable for its cultivation.

PLANTATION CROPS

Where areas for permanent food crop cultivation is not suitable, the Government is encouraging the farmers to grow plantation crops like rubber, coffee and tea which are found to have good prospects in the district. Tea and Coffee are grown in the two villages of our study, namely, Umsning and Nongthymmai while rubber plantation is found only at Umsning village.

Tea Cultivation

On the basis of our interview with the State Agriculture Department, we were told that the Tea Board of India was of the opinion that a very large percentage of the area in the State is potentially suitable for tea cultivation. After the Tea Board study made in 1976-77, trial plantation was started by the State in three districts namely, Ri-Bhoi, West Khasi Hills and West Garo Hills. In

1978 seeds of recommended varieties used in Assam and Darjeeling area were introduced in Meghalaya.

The trial plantations were a success. The State Government with the recommendation of the Tea Board and the Tocklai Tea Research Station of the Jorhat Agricultural University, decided to start tea cultivation on a commercial basis. The *Jhum* farmers have been motivated to take to tea cultivation. A Tea Experimental Station was started in Umsning in July 1978.The Tea Board of Assam had been sponsoring Tea Nursery Schemes for raising seedlings and clonal plants at Umsning in **Ri-Bhoi** district and at Rongram in West Garo Hills district since 1982-83.

The State government was giving a subsidy of Rs.15,000 only per hectare in five installments to each tea farmer at the start. Besides, free technical guidance and plant protection chemicals and equipment are being provided to tea growers at 50 per cent subsidised rate.

From 1988-89 to 1998-99, an area of 379.5 hectares was brought under tea plantation in the State with 403 tea farmers producing about 5 lakh kilograms of green tea leaves.

Initially, the small tea growers of the State faced great problem in the disposal of green tea leaves due to non-availability of proper processing units. But in 1996 and 1998, two privately owned factories were established at Rongram in West Garo Hills district and at Mawsyntai in Ri-

Bhoi district. The present capacity of the factory at Rongram is 180 tonnes and the one at Mawsyntai is 120 tonnes annually.

By 1999-2000, the State had tea plantation schemes for all the districts covering 2000 hectares with 286 hectares in every district. The total number of seedlings required was forty lakhs for each district that would be provided by the State. The green tea leaves that would be produced from the districts will be collected at four centres proposed to be set up in each district for transmitting to the factory. The State has proposed to help establish five more processing units at the cost of Rs.1.5 crores each with the financial assistance of 25 per cent of the cost to the private entrepreneurs. The two existing privately-owned factories in the State will be modernised and upgraded with the State funding at the cost of 10.0 lakhs each.

Tea cultivation in the State appears to be promising, but the major set-back is the inadequate capacity of existing tea nurseries to supply tea seedlings to the farmers. However, the State is determined to replace *Jhumming* by introducing tea cultivation as a household occupation of the farmers. Demonstration plots of tea cultivation have been started at Upper Shillong in East Khasi Hills district and at Thadlaskein Farm in Jaintia Hills District. Effort has been made to start small-scale tea nursery at Riangdo in West

Khasi Hills District where the majority of the farmers has shown interest in growing tea as a household crop.[9]

Market and Marketing Facilities

Market has to be found out for the agricultural products of the district. Besides the trading centre at *Nongpoh which is on the Highway-40*, there are a number of regulated and unregulated markets and *bazars*. But the villagers are still unable to find sufficient market for their agricultural produce within the State especially the perishable goods.

Apart from several marketing co-operatives, the Meghalaya State Co-operative Marketing and Consumers' Federation also has been operating since 1975 as an apex institution for collecting the produce on the spot at reasonable prices. The important commodities handled by the marketing societies in large quantities are ginger and vegetables like tomato, brinjal, onion, pumpkin and other items which are taken from centres like Umsning and Nongthymmai to Shillong. After grading/sorting on commercial basis by the Marketing Society, the commodities are sent to different destinations. The marketable surplus of Ingsaw and

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9. Government of Meghalaya, Senior Scientific Assistant, Tea Research Station, Umsning Ri-Bhoi District. Unpublished.

Sohphoh are being sold in the village market as well as at Nongpoh the district headquarters.

Irrigation

An area of 8356 hectares representing 18.39 per cent of the net area is irrigated in the district. Of this, 960 hectares and 112 hectares are government flow irrigation and lift irrigation projects, respectively. An additional area of 2337.6 hectares has been brought under irrigation recently. These are flow irrigation projects executed by the State Department. In addition to important facilities provided by the State individual farmers also undertake minor irrigation work for agricultural purposes.

Soil Conservation

The State undertakes programme of conservation works on agricultural such as terracing which involves conversion of ungenial slope level strip by cutting and filling to reduce the degree and length of the slope.

There are the follow-up programmes like (a) seeds and plants (subsidy) which includes the distribution of the High Yielding Variety of seeds to the farmers; (b) manure and fertilizers are also distributed to the farmers like organic manure (F.Y.M. compost) fertilizer on subsidy basis for the improvement of structure, organic matter and fertility of the

soil; (c) approach roads are also being constructed to the work centres and farms.

Jhum Control Scheme

For the control of *jhum* cultivation, the State is tackling this problem as a special scheme known as "Jhum Control Scheme". The scheme comprises the following components:

(1) provision of developing permanent cultivation land (terracing); (2) provision of irrigation facilities to the developed lands; (3) supply of inputs like seeds and plants, manure and fertilizer; (4) link road construction; (5) provision of drinking water; (6) construction of camp huts.

A centrally sponsored scheme on watershed basin was implemented in Ri-Bhoi district, viz., the Umdu-Sohkhwai and the Umran-Mawrang watershed areas. This scheme, namely the national Watershed Development Project for roughed area was firstly implemented by the State departments. The Soil conservation Department was entrusted to implement land development work, viz., vegetative buds, half-moon terrace, wet terraces and land reclamation and engineering structures for erosion control and water conservation like check dams, irrigation channels, protection walls and such other schemes. Water harvesting includes storing and recycling of water for perennial irrigation as well as for fishery, drinking water,

conservation of water recharging ground water and other purposes.

Afforestation

Another important scheme of the State is the programme of afforestation of barren hills, abandoned *jhum* and catchment areas. The scope that is opened under this programme is very high as most stretches of hill areas in the State have been badly depleted of forest and other vegetative covers. As farmers are aware and conscious of this programme, they have tried to abandon *jhumming* cultivation.

Jhumming

There is a large percentage of population in the **Ri-Bhoi** district which is still practising the traditional method of cultivation known as *Jhumming* or the shifting type of cultivation.

It is an age old method of crop cultivation which is still being practised also in the four villages selected for our study.

The essential features of *Jhumming* are to clear the natural vegetation, burn the forest debris and dibble the seeds in the clearings. After two or three years when the fertility of the soil is exhausted due to erosion of the top soil, the field is abandoned and farming started in a new

area leaving the previously cultivated area for growth of fresh vegetation.

Jhum cultivation is an inefficient form of agriculture. *Jhumias* can only get a bare minimum level of subsistence from *Jhumming* and must depend on other subsidiary occupations. They cannot have any saving for investment and for education of children. This would deprive the *jhumias* of the benefit of modern life.

Jhumming dries up the springs of the hills, causes soil water erosion, destroys valuable forest' adversely affects rainfall and deprives people of the benefit of forest produce. *Jhum* fire can accidentally destroy residential villages and important installation like the telephone and telegraph posts, wires, etc., causing wastage, inconvenience and misery to the afflicted people. *Jhumming* also necessitates shifting and scattering of homesteads or villages which are a great impediment to the provision of modern amenities like schools, dispensaries, drinking water supply and electricity.

An integrated approach is necessary for the control of shifting cultivation. People must be motivated with the assurances that they can have a better life only when income from other sources is available to them.

Ri-Bhoi district has immense potential of growth in agricultural activities but *jhumming* has to be controlled. In

its place terrace cultivation has been introduced to some extent. This method can prevent the soil from being eroded. It also ensures the retention of the soil, manures, fertilizers, seeds, and pesticides is introduced. Terrace cultivation can also achieve permanent cultivation. Other conservative measures like bunding, trenching, checkdaming, gully plugging are also adopted according the need of the area. Afforestation and horticulture are introduced in the hill slopes for the production of fruits, vegetables and other products. The process of planning for regrouping and settlement of the *jhumias* can also be effectively with a certain amount of care and foresight to get their co-operation. Some development scheme and regrouping of the small and scattered villages have been taken up by the State since 1974-75 where plots of developed land, terrace or flat lands were given to each family. Smaller families and scattered villages were grouped together into bigger units of 50 households per unit. Financial help was also given to each family as subsidy for purchasing of materials for house construction in the new site. Provision of drinking water, roads and other amenities are also being made.

It is hoped that *Jhumming* could be eventually discontinued with State interference. So long the system continues as it conforms to other traditional land tenure system prevailing not only in Ri-Bhoi district but throughout

the State except Jaintia Hills and the plains areas of Garo Hills. The customary land system does play a big role in the agrarian economy of the district. We would now like to look into the land tenure system followed in the **Ri-Bhoi** district.

Land Tenure System

Land has always been considered as the community property in **Ri-Bhoi** district. The system of paying land revenue to the government on the basis of the area one owns, is conspicuous by its absence in the whole of Khasi hills not to speak of in **Ri-Bhoi** district alone. As a matter of fact land revenue system was in vogue only in the plains *Mauzas* of Garo Hills[10] and in Jaintia hills district of Meghalaya and it still exists in the plains areas of Garo Hills.

According to the traditional land systems followed in **Ri-Bhoi** district, land is categorised into (i) the *Ri-Kynti* or acquired landed property and (ii) the *Ri Raid* or the community land.

(i) *Ri-Kynti* land is again broadly subdivided into two categories (a) the ancestral and (b) the self-acquired. The ancestral lands are controlled by the *Durbar Kur* or clan while the self-acquired property is under the control of the person acquiring the land. The self-acquired property becomes ancestral property when it passes to the children of the one

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10. Passah, P.M., "Some Aspects of the Economy of Meghalaya" (unpublished Thesis of the Gauhati University, 1979).

who acquired it. The management and control over these ancestral lands, as already stated, lies in the *Durbar Kur* or Clan Council run by the male members of the clan. As such, the ancestral lands are also known as *Ri-Kur.* If *Ri-Kynti* are jointly held and managed by more than one clan, it is known as *Ri-Seng.* The management and control of *Ri-Kynti* vests in the hands of the owners themselves. The State or the chief has no control over such lands except in the settlement of disputes between the claimants if brought to the *durbar* of the village of the *Raid* or the *elaka.* A Khasi woman does not take part in traditional *durbars* of the village *Raid* or *elaka* for deciding on the land disputes.

Ri-Kynti lands have different names which are clearly distinguished from one to another by the nature of the rights a clan has to the land. The following are the different names given to the *Ri-Kynti* lands:

- *Ri-Nongtymmen* are lands inherited from old generation.
- *Ri-Iapduh* are lands of a clan or family which has become extinct.
- *Ri-Lyngdoh* are lands of the Lyngdoh or priest's clan.
- *Ri-Syiem* are lands of the *Syiem* or chief's clan.

- *Ri-Khurid* are lands sold by the original *Ri-Kynti* owners to any persons whether belonging to the same clan or not.

- *Ri-Smak* are lands which are acquired by a man after marriage of which one or more plots are gifted to his *Kur* (clans) with the consent of his wife and children,

- *Ri-Duwar* are lands purchased by a clan or acquired by it for some reason or the other and is generally situated on the way to the market place or river to enable the owner to collect tolls from whosoever passes through it for trading purpose.

- *Ri-Maw* are lands which are acquired by right of purchase or appointment.

(ii) *Ri-Raid* lands or community lands are undivided lands which belong to the community as a whole. Private ownership in the case of the category of lands is absent. The whole *Raid* land belongs to the people in a village or group of villages consisting the *Raid*. There are various types of *Ri-Raid* lands. We will enumerate and briefly explain them as follows:

1) *Ri-Shnat* is a part of the *Raid* land within the jurisdiction of the *Raid*.

2) *Ri-Lynter* is a *Raid* land won by the sword in the old days and in later days by litigation.

3) *Ri-Bam Syiem* is that part of *Raid* land set apart for the *Kur* or clans of the *Syiem* or ruling chief.

4) *Ri-Law Kyntang* are lands which are controlled by the members of the village where they are located.

5) *Ri-Law Lyngdoh* are lands which are managed and control by the *Lyngdoh* or priest.

6) *Ri- Law Niam* are forest areas set apart for religious purposes.

7) *Ri-Law Sumar* is a forest area within *Raid* lands belonging to an individual or family or clan or a village community as a whole, depending on who first afforests the land, and maintain the forest.

8) *Ri-Law Adong* and *Ri-Lawsang* are village forests reserved for the villagers as water catchment areas or to enable the members of the village or of the *Raid* to get firewood or timber for their family needs or for such purposes as the village or *Raid Durbar* may decide from time to time.

9) *Ri-Law Shnong* is *Raid* land forming part of the village which the inhabitants of the village can make use of.

10) *Ri-Shnong* is a *Raid* land where the inhabitants of a village concerned can make use of.

11) *Ri-Ialeh Mokotduma* is a tract of land which an *elaka* constituting of one or more *Raids* got by wining a

litigation against a neighbouring *elaka* and becomes part of the winning *Raid*.

12) *Ri Umsnam* is a *Raid* land which an *elaka* won in old days by the sword.

13) *Nongmei Nongpa* is a *Raid* land in *Ri Bhoi* converted to permanent cultivation and has passed through ten generations of inheritance.[11]

The people of *Ri Bhoi* district are still following the customary law, treating the lands as belonging to the *Raid* on the basis of communal ownership. The *Raid* rulers are merely the custodians of the lands.

The whole *Ri Bhoi* area is divided into *Raids* or *elakas* ruled by the so-called *Syiems*, *Lyngdohs*, *Pators*, *Basans* and *Sordar Raid* who are the controlling power of their respective *Raids*. The people are the owners of the community lands, forests and fields. Hence a *Raid* is called *Ka Raid Bam Lang*, that is, the *Raid* is literally meaning to provide as a source of food to all inhabitants as a group or a community. The important ingredients of the customary land system are enumerated as follows:

1) Every member of *Raid* can cultivate any plot of land which he chooses and as much as he can. He can simply

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11. Blah, B.P., "Past and Present Agrarian Social Structure in a Khasi Village" in B.B. Dutta and M.N. Karna (eds.), *Land Relations in North-East India*, People's Publishing House, New Delhi, pp.125-140.

approach the head of the village, or of the *Raid* or the chief as the case may be, for obtaining such plot of land without paying any tax or rent for the land.

2) No document or *patta* is issued to the person to support his title of the land in question. But the land belongs to him for as long as he utilises it for cultivation. Hence the title of ownership of the land is actual use and once the farmer ceases to cultivate the land for three consecutive years, it ceases to belong to him and reverts to the *Raid* concerned.

This is one of the most important customs being followed in the Ri-Bhoi district. After the period of three years of non-utilisation of the land, it becomes a public land and whosoever wants to cultivate it, can do so according to the customary law. The one who had left it fallow for three consecutive years cannot have any more claim on it nor can he raise any objection against the other person using it subsequently.

3) It may so happen that a person was allowed a particular plot of land to cultivate but failed to utilise it within a year or two. In that event, the person can always approach the authority of the *Raid* for renewal of the permission given to him earlier to use the land with the assurance to utilise it immediately. And if after the period of three years he failed to use the land or any part of it,

what remains unutilised reverts to the community land and any member of the *Raid* can get and cultivate it without any interference.

4) There cannot be any outright sale of land in **Ri-Bhoi**. Any fallow land or part of it can never be bought and sold by the people of the *Raid* but any *Raid* member can ask for permission to use as much as they could of the land.

5) No one can pass on the possession of any cultivated lands or even rice fields to any other on payment of compensation for expenses already incurred in the improvement of the land. But if left uncultivated for three consecutive years, the plot of land in question reverts to the community and any other *Raid* member can get and use it without any compensation for its earlier improvements.

6) *Ka Nongmei-Nongpa* lands revert to the *Raid* if left uncultivated for seven consecutive years. *Ka Nongmei-Nongpa* lands means those rice-fields or lands that have been cultivated by the same *kur* or family for many generations. In order that such land or rice field can be categorised as *Nongmei-Nongpa*, it must be cultivated by the same family or *kur* for at least ten generations or more. No land that has not been cultivated by the same family for generations can claim it to be considered as *Nongmei-Nongpa* land.

7) *Ka Khyndew-Iapduh*, that is, the properties of an extinct family go back to the custody of the *Syiem* or *Basan*

for the people of the *Raid*. No one can appropriate to himself the *Khyndew-Iapduh* without the consent of the people. No authority of the *Raid* can also allow any individual to use such lands except with the consent of the people of the *Raid*. If in any case anyone is found to be in possession of such lands without the people's consent, such person has to hand over the land to the *Raid* concerned even if he has already been cultivating it for many years.

8) If a person goes out of his *Raid* to settle in another *Raid*, his cultivated lands in the previous *Raid* will remain in his possession for as long as he continues to cultivate it and no one can take them away from the person concerned unless the members of the village where it falls, decide to use the land for the village itself or for community purposes.

9) Every village in **Ri-Bhoi** has the right to reserve an area within the jurisdiction of the village as a special plot for utilising it for the benefit of all members of the village.

10) It is the custom in the **Ri-Bhoi** that every village is allotted lands for its exclusive use by the *Raid*. The village in turn distributes the land among the families of the village according to their need only and not according to their avarice.

11) If a family moves away from a village, any plot under its possession reverts to the village immediately, and the family concerned does not have any more claim over it.

12) Every village has a right to get any forest area reserved exclusively for its use for the benefits of the members of the village who can have a right to use any timbers for personal or private use.

13) It is not allowed to fell trees in the forests reserved for the village for the purpose of sale except during the occurrence of famine or any other natural calamities when the village durbar may decide to fell trees sell them in the market and distribute the proceeds to the affected people. Cultivation is also not permitted in the village forest.

14) The *Raid* can reserve one choice forest area for the common benefit of the *Raid* and to meet its expenses. Cultivation or felling of trees is not allowed in such forest.

15) The members of the *Raid* can build their residential house in any vacant plot allowed to them by the village authorities and so long as the house exists, the land around it belongs to the house owner or has a better claim over it against any other.

16) The customary land system in **Ri-Bhoi** continues and no custodians of the *Raid* lands can do as they wish. They

cannot privately or stealthily lease out any part of the *Raid* lands nor transfer the land to anyone by outright sale or lease. They only execute their responsibilities on the land in leasing out land with the consent of the *Raid durbar*. If the authorities of the *Raid* are misusing their power, the people have the right to agitate in the *Raid durbar*.[12]

As of now most lands have come under the *Ri-Kynti* owners or private ownership. These private land owners are making outright sale of their lands and in the process, land alienation to the non-tribal people occurs untill 1972 when Meghalaya was created and land transfer has been made strict by the law of the new State.

The State Government also owns land in the district. In the case of government land too the same customary principles are applied. If the Government is not in occupation of the land for three years without any break, such land can be utilized by the people with the consent of the *Durbar Raid*.

From a purely legal point of view, land in Ri-Bhoi district as in the whole of Meghalaya, is now vested in the Autonomous District Councils constituted under the Sixth Schedule of the Indian Constitution. Under this Schedule, a District Council has the power to make laws with respect to

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12. Lyngdoh, Sngi, *Ka Riti-Khyndew Ba la Buh U Longshuwa-Manshua Jong ka Ri-Bhoi*, Don Bosco Press, Shillong, 1965, pp.14-19.

the allotment, occupation, or use or the setting apart of land for the purpose of agriculture or grazing or for residential or other non-agricultural purposes or for any other purposes likely to promote the interest of the inhabitants of any village or town.

No District Council in Meghalaya is known to have *enforced so far this provision in the Sixth Schedule.* They have, of course, enforced a provision in respect of assessment and collection of land revenue through a Regulation.[13] The Supreme Court had ruled that this Regulation cannot stand in the absence of a relevant law with respect to the allotment, occupation or use, etc. of land within an Autonomous District.[14]

CONCLUSION

At the end of our brief survey of the agricultural economy of the new **Ri-Bhoi** district of Meghalaya, it can be said that the district is now poised for a higher level of agricultural development. It all depends on the state efforts to increase investment in this sector by increasing the agricultural credit through institutional credit. The yield

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13. Para 3 of the Sixth Schedule to the Constitution of India.

14. Judgement and Orders dated 14.8.1986 of the Supreme Court in S.C.A. No.2069-70(NCM) of 1972.

of rice per hectare may soon reach the all-India average while the yield of maize has far exceeded the national average. The prospects of agricultural development in the district are obviously very bright depending on availability and the right magnitude of agricultural credit.

Chapter-V

INSTITUTIONAL FINANCING OF AGRICULTURE

This is our important chapter where we discuss the nature, importance and the result of institutional financing of agricultural activities in the State in general and Ri-Bhoi district in particular. The discussion is designed to serve as a prelude to the analysis of the agricultural financing by institutions in the villages of our study.

Agricultural financing activities by institutions like Banks and Co-operatives have assumed greater importance now than before, in the context of Government planning policy of integrated rural development. A large majority of agricultural population in the country has a low level of income and consequently the capacity of the farmers to save and invest in agricultural operations is very low. Hence the need for institutional finance has become very important and more so because of the introduction of high yielding varieties which can give best results when accompanied by the use of irrigation water, fertilizers, pesticides and other inputs.

CLASSIFICATION OF AGRICULTURAL CREDIT

We may first broadly classify agricultural credit into the following types based on the duration of borrowing.

A. Duration of Borrowing

Credit needs of the farmer are for (1) crop loans and (2) term loans.

(1) Crop Loans: This type of loan covers the credit needs of one agricultural season. It can be repaid from the sale proceeds of harvested crops as they cover only the whole or a part of the operating expenses.

The farmer can repay a crop loan even though he has no net surplus in a particular season, so long as the sale proceeds of his output cover the operating expenses and his family expenses. This is so because the crop loan never exceeds the operating expenses.

(2) Term Loans: Term loans cover investment other than investment in working capital or operation expenses. Even if the sale proceeds of one season are large enough to repay the entire term loan, the farmer cannot do this because he has to meet his current family expenses and operating expenses of the next season.

The farmer can repay a term loan only from the amount by which sale proceeds exceed operating expenses. The whole surplus will not be available for repayment of a term loan because the farmer and his family have to meet their living expenses from the surplus. Only the amount left with the farmer after meeting the operating expenses and family expenses, can be utilised for repayment of the term loan.

Invariably, the investment covered by the term loan is so large that the whole term loan cannot be repaid from the net surplus of one season. It has to be repaid in instalments

spread over a term or period covering a number of seasons. That is why such loans are called term loans. Each instalment of the term loan is repaid by the farmers after each harvest or after a specified interval of time.

B. Purpose of Borrowing

The agricultural credit can also be broadly classified according to the purpose of borrowing. The farmers need loans for both production processes and consumption.

(1) Production Loans

The production loans are loans contracted for various purposes associated with different agricultural operations varying from the purpose of seeds and manure to the marketing of produce. The poor farmers with no savings to fall back upon has to borrow even to meet his needs of manure and fodder for his cattle. He borrows to pay rent for the land and wages to the labourers employed on the land. The various purposes for which a farmer borrows are as follows: (i) the purchase of seed, manure and fodder; (ii) the payment of rent, wages, etc. (iii) purchase of live stock; (iv) repair of agricultural implements; (v) purchase of land; (vi) purchase of additional agricultural implements; (vii) machinery and transport equipment and (viii) other capital expenditure on agriculture.

It is seen that all these purposes are productive in nature and are used only for activities which are related to production. Such loans earn their own means of repayment, since these activities bring an increase in income for the farmers.

(2) The Consumption Loan

The consumption loan means that an agriculturist does not borrow exclusively for `production' because of his very weak holding power. The farmer has also to borrow to meet his consumption expenditure which can include such items as (i) purchase of domestic utensils and clothing; (ii) medical, educational and other family expenses; (iii) purchase, construction and repair of residential house; (iv) expenses relating to death and marriage and other ceremonies; (v) purchase of ornaments; (vi) payment of old debts, and (vii) litigations expenses. All these items of consumption expenditure do not bring in any income to the farmers. Once loans are taken the agriculturist finds it hard to repay. Hence his burden of debt goes on multiplying being abetted by the trickery of money lenders who are the only source from which such loans can be contracted. But it was found that though used for consumption, it is also related to production. For instance, during the interval between the harvesting of crops and its sale, the farmer does need finance to meet his expenses of current consumption. The

loans are repaid after the output is marketed. Thus the types of agricultural credit explained above can be summed up into the following three types based on both the purpose and duration of burrowing:

(1) Short-Term Credit: This is to meet the farmers' needs for current agricultural operations including inputs like purchasing of seeds and fertilizer for paying wages to labourers when hired and for such other purposes. Loans for such purposes are generally repayable out of the income from the next harvest.

(2) Medium-Term Credit: Comparatively large amounts of loan may be necessary for purchasing agricultural implements. The duration of such loans is generally two to five years because repayment cannot be made at the next harvest. It will have to be spread over to two to five years.

(3) Long-Term Credit: Still a larger sum the farmer may have to borrow if he wants to purchase additional land to increase his holding for cultivation or to sink a well in his farm and for land reclamation and other agricultural long term investment purposes. It will take him a relatively longer period of time to repay this kind of loan.

It can now be appreciated that the needs of agriculture for credit have some peculiarities distinct from that of industrial credit on various counts. First, the need for agricultural credit in general remains stable. There are no

quick or big changes in the amount required in response to change in output. The reason is that it takes time for changes in production to show themselves in terms of changes in requirement for credit. For instance, an increase or decrease in the output in a season is no indication for greater or less need for credit. This will be so if these changes are sustained over a period of time.

Secondly, it is difficult to estimate correctly the credit needs in advance as is possible in the case of non-agricultural industries. This is because agriculture is largely dependent upon nature. One is not sure of the output.

Thirdly, its only tangible asset that agriculturist can offer as security against loan is land. But it is an asset which cannot be easily and quickly converted into cash. Hence, vis-a-vis non-agriculturists who can offer an easily encashable security for loan, agriculturists are differently placed.

Fourthly, distinct from non-agricultural industries, agriculturist cannot pass on the risk of his business to other people through the sale of shares. He alone has to organise credit, bears the risk of using it, and be responsible for its repayment.

Fifthly, an agriculturist, being dependent on nature, has the least command over the quantity and quality of his product.

Finally, the need of credit for consumption by agriculturist constitutes an important ingredient of the credit requirements. The interval between sowing and harvesting is quite long. Besides agriculture is a seasonal occupation. But the consumption needs of agriculturists have to be met throughout the year. Irrespective of the production process, credit is needed to meet the consumption needs of farmers to sustain them for agricultural work. Thus there are certain peculiarities of agricultural credit which place it on a different footing from that of credit for non-agricultural industries. To provide agriculture with adequate credit, it is of utmost significance that the agencies supplying credit should ensure that the availability of credit corresponds to the special needs of agriculture.

We would now look into the institutional sources of agricultural credit in India and in particular in the State of Meghalaya. The sources are as follows:

A. Institutional Sources

1. <u>The Co-operative Credit Societies</u>

They are the popular and highly favoured sources of finance and also cheaper than the other sources for rural areas. In addition, the problem of agricultural credit and also agriculture as a whole can be tackled more effectively through co-operative societies. The primary agricultural credit societies provide largely short-term and medium-term

loans to the farmers. Long-term credit are usually provided by Land Development Banks. During the successive Five-Year Plans, despite impressive progress made by co-operative Credit Societies, their contribution to total agricultural credit has been far from adequate. Besides, the development of credit co-operatives has been very uneven between different states. But the most unfortunate development is that the co-operative credit societies have so far largely benefited the highland holders leaving the small farmers and landless agriculturists unprovided although it is they who need their assistance badly. We also suggest that co-operative credit societies cannot solve the problems because they suffer from a number of defects, for example, (a) overdues have greatly accumulated; (b) co-operatives are generally faction-ridden so that loans are given not on the basis of needs but other considerations which are non-economic; (c) credit has not been linked with marketing and (d) misuse of credit is very common.

2. Regional Rural Banks (RRB)

In view of the liquidation of money lenders as supplier of rural credit, it has become necessary to set up alternative agency to supply credit in sufficient amount at reasonable rates and as far as possible in an informal manner and by simplifying its procedure. Initially five Regional Rural Banks were set up on October 2, 1975 to meet the needs

of the rural poor and to extricate them speedily from the clutches of the money lenders. There are now 196 Regional Rural Banks in 23 states with 14,500 branches. As at the end of June 1996, the Regional Rural Banks had raised aggregate deposits of Rs.14,200 crores and had advanced Rs.7,500 crores by way of short-term crop loans, term loans for agricultural activities and for rural artisans and consumption loans. State-wise, the largest number of offices in a single State is to be found in Uttar Pradesh. The RRB was not set up to replace co-operative credit societies, but to supplement them. These Banks have distinct characters from the co-operative credit societies and the commercial banks. Each such bank is sponsored by a Nationalized Commercial Bank. The share capital is provided by the Central Government, the State Government and the sponsoring Bank in the proportion of 50:15:35. These Banks grant loans and advances, mainly to small and marginal farmers, agricultural labourers, rural artisans, small entrepreneurs and persons of modest means engaged in trade or other productive activities. It might be concluded that the performance of the Regional Rural Bank has been encouraging and further that despite several constraints the Regional Rural Banks have achieved the main objective of helping the weaker sections of the community in rural areas by providing credit to meet their requirements.

3. The Reserve Bank of India (RBI)

Since 1949 the Reserve Bank of India has a separate agricultural credit department, and as it has an expert staff for studying all questions relating to agricultural credit, it provides expert advice to the Central and State Co-operative Apex Bank. The R.B.I. finances the movement of crops and other agricultural operations through provincial co-operative banks and other suitable agencies providing rural credit.

The R.B.I. provides assistance by way of short term loan to state Co-operative Banks for seasonal agricultural operation at 3 per cent below the Bank rate for marketing of crops and for the purchase and distribution of fertilizers. Medium term loan for specified agricultural purposes are provided at 1½ per cent below the Bank rate. These are the advances to finance a wide range of economic activities including production and marketing of agricultural and animal husbandry produce and processing of agricultural goods. The R.B.I. purchases a portion of debenture issued by the Central Co-operative Land Development Banks by making long term loan to such banks. It has long term credit agencies which give long term loans to the farmers through the State Government. The State Government encourages the farmers to subscribe the share capital of co-operative institutions.

Apart from the agricultural activities, the Reserve Bank also systematically undertakes research investigation and surveys relating to rural finance. The Bank has been giving very valuable advice to the Central and State Governments and to the State Co-operative Banks on matters relating to rural finance. The R.B.I. has conducted a number of All India Rural Credit Surveys, and since 1957, the Bank has also been conducting a series of Annual Rural Credit follow up surveys of a moderate scope in pursuance of the recommendation of the All India Rural Survey Committee, 1951-52. It is in the light of the recommendations of the Rural Credit Committee that the Reserve Bank has formulated an integrated policy of Rural Credit.

4. The Government

Another agency providing credit to the agriculturists is the Government. The government help is extended directly and indirectly. Directly, the State Government lends in the form of Taccavi loans especially in times of emergencies such as flood and famines. These loans are given both as short-term and medium-term loans as also long-term loans and at low interest rates and their repayment conditions are easy. However, this source has not been of much avail due to the smallness of the credit available and dilatory procedures of grant of loans. Indirectly, the government help is provided through co-operative societies. The government helps these

societies in he initial stages to stand on their own feet by purchasing their shares which are later taken over by the Reserve Bank. The Land Improvement Loans Act and the Agriculturist Loan Act passed respectively in 1883 and 1884 authorised such loans. Generally, the big landlords derive benefit from these Acts in normal years. Red-tapism and corruptions amongst subordinate revenue officials also make these loans costly for the small cultivators.

5. Commercial Banks

Another institutional agency is the Commercial Banks. For decades they had been fighting shy of financing agricultural activities, and there also whatever help they were extending was meant for the richer landlords leaving the small farmers unprovided although they are the ones who are in greater needs of financial help. In view of this the Reserve Bank of India advised the Commercial Bank to ensure that 50 per cent of the agricultural credit should be to the small and marginal farmers at the end of the Eighth Plan. The distribution of Commercial Bank finance has so far remained very uneven as among different states. Commercial Banks have also been facing operational problems arising from scattered lending over wide areas, inadequate recoveries, lack of experience in the field of agricultural finance. But the most unfortunate development is the rivalry between the Commercial Banks and the Co-operative Banks in rural areas.

It has affected adversely the Co-operative Societies. The rational view in this regard is that the combined activities of commercial banks and co-operative banks can prove very useful. The co-operative banks can be a better judge of the credit worthiness and fixed credit limits of the borrowers while the commercial banks are in a better position to mobilize savings. Therefore proper co-ordination between these two leading agencies is necessary to avoid wasteful competition. Until recently Commercial Banks were negligible source of rural credit providing hardly one per cent of the total credit to agriculture. But since July 1969, 21 Commercial Banks were nationalized so that they can provide credit to the primary sector in our country.

6. The NABARD

A National Bank for Agriculture and Rural Development (NABARD) was set up in July 1982 by an Act of Parliament to take over the agricultural credit function of the Reserve Bank of India (RBI) on the one hand and the refinance function of Agricultural Refinance Development Corporation (ARDC) in relation to Co-operative Banks and Regional Rural Banks (RRB).

The NABARD is linked organically with the RBI by the latter contributing half of its share capital - the other half being contributed by the Government of India - and is managed by a Board of Directors comprising 15 members and

consists of Chairman, Managing Director, two experts in Rural Economics, three experts from Co-operative and Commercial Banks, three sitting Directors from the Board of RBI, three Directors from Government of India and two members representing the state governments. The Board of Directors can constitute an Advisory Council.

The authorised share capital of the NABARD is Rs.500 crores and the paid up capital is Rs.100 crores, contributed equally by the Central Government and the Reserve Bank. To meet its loan requirement, NABARD draws funds from the government of India, the World Bank and other agencies; raises funds from market and also uses the resources of the National Agricultural fund for long term operation which stands transferred to the NABARD. As regard short-term credit and working capital requirements, the NABARD depends upon R.B.I.

NABARD has primarily (a) Credit dispensation, (b) Developmental and (c) Regulating functions. It provides different types of refinance to State Co-operative Banks (S.C.Bs), Regional Rural Banks (R.R.Bs) and other financial institutions approved by R.B.I. for a short period upto 15 months, a medium term credit for a period between 18 months and 7 years is being financed to S.C.Bs, R.R.Bs and other financial institutions approved by R.B.I. Besides these, a long term credit upto a maximum of 25 years is also provided

to S.C.D.Bs, R.R.Bs, C.Bs, S.C.Bs and other institutions approved by R.B.I. The NABARD provides refinance for conversion and rescheduling of loans under conditions of drought, famine or other natural calamities, military operations, and enemy action. Generally, it also finances cottage, village and small scale industries with a term loan not exceeding a period of 7 years.

The NABARD has two fundamental functions to carry out, namely, the developmental functions and the regulatory functions. The developmental functions like the co-ordinating operation of rural credit institutions, ensures institutions - building to improve absorptive capacity of the credit delivery system; develops expertise to deal with agricultural and rural problems, assists government, R.B.I. and other institutions; acts as agents to government and R.B.I. in the transaction of business; provides facilities for training, research and dissemination of information in rural banking and development; and provides direct loans in cases approved by Central Government.

Its regulatory functions include the enforcement of the Banking Regulation Act, 1949, which empowers it to undertake inspection of R.R.Bs and Co-operative Banks other than primary Co-operative Banks. Any R.R.B. or Co-operative Bank seeking permission of R.B.I. for opening branches will have to obtain the recommendation of NABARD.

7. Land Development Banks

These banks have a two tier structure in most states with Central Land Development Bank at the state level and primary land developments at the blocks, sub-division and district levels. The number of Central Land Development Bank increased from 5 in 1950-51 to 19 in June 1985 while that of primary banks increased from 286 to 21,450 during the same period. In some states like Jammu and Kashmir, Gujarat, Bihar, Maharashtra and Uttar Pradesh, these Banks are unitary in character with branches at different places. During 1989-90 these Banks provided about Rs.830 crores of loans to individual farmers. Since the declaration of emergency, under the 20-Point Economic Programme, the government had established 50 more rural development banks in the country and with these the disbursement of loans exceeded Rs.3,360 crores in 1996-97.[1] They supplemented the credit availability at the institutional level and contributed towards eventual elimination of the money-lenders. However, it is important to note that whatever progress was achieved was concentrated in only a few states like Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra and Gujarat.

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1. Ruddar, Datt and K.P.M. Sundaran (1999), *Indian Economy*, S. Chand and Company Ltd., Ram Nagar, New Delhi-110 055, p.540.

8. Agro-Industries Corporation

Agro-Industries Corporation has been set up in almost all the major states in India for spreading the benefit of mechanization to a large number of farmers who cannot afford to buy costly farm machinery. The Agro-industries corporation also provides agricultural credit. It advances loans for the purchase of tractors and agricultural machinery under hire-purchase scheme.

B. Non-Institutional Sources

Besides the institutional sources, we would also like to deal with the non-institutional sources. The non-institutional sources have been operating in our country since time immemorial. They are as follows :

1) The Money Lenders

The money lenders constitute the traditional sources of agricultural finance. Other agencies have also come in the field of money lending but the supremacy of the money-lenders continues practically unchallenged since ancient times. There are two types of money-lenders in rural areas, they are the agricultural money lenders who combine farming with money lending, besides there are professional money lenders whose only occupation or profession is money lending.

The money lenders are slowly losing ground to institutional agencies in spite of the fact that they still

occupy a significant position in the agricultural economy of our country. This is because the village money lenders freely supplies credit for some purposes whether productive or unproductive; he is easily accessible and he maintains a close and personal contact with the borrowers or friends having relation with the family extending over generation. His methods of business are simple and elastic. He has local knowledge and experience and therefore can lend against land as well as against promissory notes.

2) Trades and Commission Agents

These supply finance to farmers for productive purposes made before the crop mature. The share of traders and commission agents in agricultural finance has been within the range of 5 to 10 per cent for agricultural needs. The share of the traders and commission agents to the total supply of agricultural credit seems to be increasing over times.

3) Relatives

Farmers also borrow from their own relatives in cash or in kind in order to tide over temporary difficulties. But this source of finance is uncertain and with the increasing needs of modern agriculture, the farmers cannot depend upon this source for a large amount of loan. Moreover, the socio-economic development, namely, the kind of joint family system has reduced the significance of this source of credit.

4) Landlords and Others

Many farmers, particularly small farmers and tenants depend upon landlords and others, to meet their financial requirements. But unfortunately the landless agriculturists are not free because of bonded labour in many parts of the country which is still prevailing in spite of the attempt of abolition by the government in recent years.

We shall now consider the relative importance of banking as sources of credit in Meghalaya with particular reference to Ri Bhoi District of the State.

INSTITUTIONAL BANKING IN MEGHALAYA

In Meghalaya, there are 216 offices of banking institutions with 128 Commercial Banks, 51 Regional Rural Banks and 37 State Co-operative Banks as on 30th September, 1999. The average population per bank office works out to 7773. If the R.R.Bs and the State Co-operative Banks are excluded, the average population per commercial bank office works out to 9380. The rural-urban branch network in the State as on March, 1998, is given in Table-5.1.

The table reveals that out of 216 bank branches in the State, 141 branches are in rural areas accounting for 65.28 per cent, while 23 are in the sub-urban and 52 are in the urban areas accounting for 10.65 and 24.07 per cent respectively. Thus the rural areas of the State are well

served with 141 branches out of the total of 216 banks accounting for more than 65 per cent.

Table-5.1

Rural-Urban Bank Branch Network in Meghalaya (March 1998)

Sl.No.	Banks	Rural	Sub-urban	Urban	Total
1.	Allahabad Bank	0	0	1	1
2.	Bank of Baroda	1	0	1	2
3.	Bank of India	0	0	2	2
4.	Canara Bank	0	0	2	2
5.	Central Bank of India	0	1	3	4
6.	Federal Bank	0	0	1	1
7.	Indian Bank	1	0	1	2
8.	Indian Overseas Bank	0	0	1	1
9.	Punjab National Bank	3	2	1	6
10.	State Bank of India	68	7	10	85
11.	Syndicate Bank	0	0	1	1
12.	United Bank of India	6	2	4	12
13.	UCO Bank	3	0	1	4
14.	Union Bank of India	1	1	1	3
15.	Vijaya Bank	0	1	1	2
	Sub-Total	83	14	31	128
16.	Regional Rural Bank	43	3	5	51
	Sub-Total (All Commercial Bank)	126	17	36	179
17.	Meghalaya Co-operative Apex Bank	15	6	16	37
GRAND TOTAL		141	23	52	216

Source: State Bank of India, State Level Banker's Committee Meeting for Meghalaya, 7th December, 1999.

We will now look into the individual performances of each bank. The total deposit mobilisation made by different banks as on September 1999 and the total advances made by them during the same period are given in Table-5.2.

Table-5.2

Banks Deposits and Advances in Meghalaya (September 1999)

(Rupees in lakhs)

Sl.No.	Name of the Banks	Total Deposit	Total Advances	C:D Ratio	Total Invest-ment	C+I:D Ratio	Recovery (%)
1.	Allahabad Bank*	700.00	128.00	18.29	65.00	27.57	64.56
2.	Bank of Baroda	3355.00	425.00	12.67	4795.00	155.59	26.00
3.	Bank of India	2120.00	375.00	17.69	500.00	41.27	58.00
4.	Canara Bank	5749.98	426.97	7.43	2155.00	58.22	49.35
5.	Central Bank of India	3406.00	725.00	21.29	416.00	33.50	23.00
6.	Federal Bank*	4161.33	289.78	6.96	60.00	8.41	48.12
7.	Indian Bank	4412.51	684.70	15.52	560.00	28.21	20.07
8.	Indian Overseas Bank*	7608.01	802.35	10.55	1545.00	30.85	9.97
9.	Punjab National Bank	2543.62	422.49	16.61	4039.50	175.42	20.72
10.	State Bank of India	57133.00	8270.00	14.47	9768.00	31.57	35.80
11.	Syndicate Bank*	2734.88	210.96	7.71	340.00	20.15	40.77
12.	United Bank of India*	11349.48	1346.94	11.87	312.00	14.62	10.81
13.	UCO Bank	4637.00	378.00	8.15	516.00	19.28	12.12
14.	Union Bank of India	2083.14	462.31	22.19	150.00	29.39	19.80
15.	Vijaya Bank of India	7994.00	1052.00	13.16	1685.00	36.00	35.00
Sub-Total		119987.95	15999.50	13.33	26906.50	35.76	
16.	Regional Rural Bank	9088.49	2405.43	26.50	100.00	27.60	NR
Sub-Total(All Commercial Banks)		129076.44	18407.93	14.26	27006.50	35.18	
17.	Meghalaya Co-operative Apex Bank*	22352.98	7849.04	35.11	3517.36	50.85	41.00
GRAND TOTAL		151429.42	26256.97	17.34	30523.86	37.50	

* These banks have not submitted any data for this quarter. Latest available data in each head has been reported.

NR: Not reported.

Source: State Bank of India, State Level Banker's Committee Meeting for Meghalaya, 7th December, 1999.

The above table reveals that the performance of the Meghalaya Co-operative Apex Banks (MCB) is far better than all the banks in terms of the credit-deposit ratio with 35:11

per cent as on September, 1999, while Regional Rural Bank with 26.50 per cent is the second best performance as against the State level credit-deposit ratio of 17.34 per cent. If Regional Rural Banks and Meghalaya Co-operative Apex Banks are excluded the average performance of all commercial banks works out to 13.33 per cent which is below the total state credit-deposit ratio.

Now we would like to look into the district-wise branch network of the Commercial Banks, the Regional Rural Banks and the State Co-operative Banks of Meghalaya from Table-5.3.

Table-5.3
District-Wise Branch Network in Meghalaya (1999)

Sl.No.	Banks	East Khasi Hills	West Khasi Hills	Jaintia Hills	Ri-Bhoi	East Garo Hills	West Garo Hills	South Garo Hills	Total
1.	Allahabad Bank	1	-	-	-	-	-	-	1
2.	Bank of Baroda	2	-	-	-	-	-	-	2
3.	Bank of India	1	1	-	-	-	-	-	2
4.	Canara Bank	2	-	-	-	-	-	-	2
5.	Central Bank of India	3	-	-	-	-	1	-	4
6.	Federal Bank	1	-	-	-	-	-	-	1
7.	Indian Bank	1	-	-	1	-	-	-	2
8.	Indian Overseas Bank	1	-	-	-	-	-	-	1
9.	Punjab National Bank	6	-	-	-	-	-	-	6
10.	State Bank of India	22	5	5	9	13	26	5	85
11.	Syndicate Bank	1	-	-	-	-	-	-	1
12.	United Bank of India	5	-	4	2	1	-	-	12
13.	UCO Bank	4	-	-	-	-	-	-	4
14.	Union Bank of India	1	-	-	-	-	2	-	3
15.	Vijaya Bank	2	-	-	-	-	-	-	2
16.	Regional Rural Bank	21	15	13	2	-	-	-	51
17.	Meghalaya Co-operative Apex Bank	12	3	5	2	4	9	2	37
	Total	86	24	27	16	18	38	7	216

Source: State Bank of India, State Level Banker's Committee Meeting for Meghalaya, 7th December, 1999.

The above table reveals that Ri-Bhoi district is the least served district (excepting South Garo Hills) with only 16 bank branches accounting for only 18.6 per cent of the total number of bank offices in East Khasi Hills District and 7.4 per cent of the total number of banks offices in the whole State. Of the 16 banks, only 5 banks open their branches in the district which works out to 29 per cent of all banks that exist in the State.

Now we look into the banks' performances in different districts of the State in terms of their credit-deposit ratio. The relevant data are given in Table-5.4.

The table reveals that the banks in Ri-Bhoi district performed somewhat better as compared to all other districts except East Garo Hills and South Garo Hills in terms of credit-deposit ratio. While the ratio in Ri-Bhoi district was about 44 per cent, in East Garo Hills it was about 66 per cent. While the area of the East Garo Hills is bigger than Ri-Bhoi by 155 sq.km., yet the difference in the credit-deposit ratio is as high as 22 per cent.

Table-5.4

District-Wise Credit:Deposit Ration in Meghalaya
(September, 1999)

Sl. No.	Banks	East Khasi Hills	West Khasi Hills	Jaintia Hills	Ri-Bhoi	East Garo Hills	West Garo Hills	South Garo Hills
1.	Allahabad Bank	18.29	-	-	-	-	-	-
2.	Bank of Baroda	12.67	-	-	-	-	-	-
3.	Bank of India	17.69	16.81	-	-	-	-	-
4.	Canara Bank	7.42	-	-	-	-	-	-
5.	Central Bank of India	18.29	-	-	-	-	51.51	-
6.	Federal Bank	6.96	-	-	-	-	-	-
7.	Indian Bank	14.73	-	-	72.42	-	-	-
8.	Indian Overseas Bank	10.55	-	-	-	-	-	-
9.	Punjab National Bank	16.61	-	-	-	-	-	-
10.	State Bank of India	9.51	26.10	9.47	22.55	23.00	30.00	29.97
11.	Syndicate Bank	7.71	-	-	-	-	-	-
12.	United Bank of India	10.30	-	11.58	35.24	125.35	-	-
13.	UCO Bank	8.15	-	-	-	-	-	-
14.	Union Bank of India	28.10	-	-	-	-	17.50	-
15.	Vijaya Bank	13.16	-	-	-	-	-	-
	Sub-Total	13.37	21.46	10.53	43.40	74.18	33.00	29.97
16.	Regional Rural Bank	34.89	33.62	15.38	25.65	-	-	-
	Sub-Total	14.72	25.51	12.14	38.97	74.18	33.00	29.97
17.	Meghalaya Co-operative Apex Bank	50.95	33.93	9.44	62.63	49.00	45.67	80.02
	Grand Total	16.85	27.62	11.47	43.70	65.78	36.17	55.00

Source: State Bank of India, IBID.

THE NON-PUBLIC BUSINESS WORKING DAYS (NPBWDs)

The NPBWDs were introduced in 1985 by Reserve Bank of India according to whose guidelines, all commercial banks and

RRBs are to observe a non-business working day in a week at their rural branches.[2]

Table-5.5

Rural Bank Branches Observing Non-Public Business Working Days (NPBWDs), 1999 in Meghalaya

Sl. No.	Name of Banks	No.of Branches	No.of Rural Branches	No.of Branches handling Govt. Business	No.of Branches exempted from observing NPBWDs	No.of Branches which should observe NPBWDs	No.of Branches which observed NPBWDs
1.	Bank of Baroda	2	1	-	1	-	-
2.	Indian Bank	2	1	-	-	1	1
3.	Regional Rural Bank	51	43	-	4	39	39
4.	Punjab National Bank	6	3	-	1	2	2
5.	State Bank of India	85	68	17	35	50	58
6.	United Bank of India	12	6	2	-	6	6
7.	UCO Bank	4	3	-	-	2	2
8.	Union Bank of India	3	1	-	-	1	1
9.	Meghalaya Co-operative Apex Bank	37	15	-	-	-	-
10.	Allahabad Bank	1	-	-	-	-	-
11.	Bank of India	2	-	-	-	-	-
12.	Canara Bank	2	-	-	-	-	-
13.	Central Bank of India	4	-	-	-	-	-
14.	Federal Bank	1	-	-	-	-	-
15.	Indian Overseas Bank	1	-	-	-	-	-
16.	Syndicate Bank	1	-	-	-	-	-
17.	Vijaya Bank	2	-	-	-	-	-
	Total	216	141	19	41	101	109

Source: State Level Banker's Committee Meeting for Meghalaya, State Bank of India, 7th December, 1999.

2. Department of Business Development No.Leg.B.C.84/C 672-86 dated 8th August, 1986.

In Meghalaya, the NPBWDs was introduced on the first of October 1992.[3] The banks which are required to observe the NPBWDs and those which are exempted are shown in the above table:

The above table shows that 109 bank branches in rural areas are observing NPBWDs instead of 101 branches that should observe non-working days according to the guidelines of the Reserve Bank of India.

The significance of the NPBWDs is:

1) to derive maximum advantages in mobilisation of deposits; to monitor the end use of credit extended and recovery thereof; to meet the potential customers in the villages itself; and to look after the business in the branches;

2) to get over the problem of inadequate staff as most of the rural branches were not provided with adequate field/support staff for development work and recovery of dues;

3) to provide the Branch Manager with sufficient time to acquaint himself with rural conditions and to establish proper rapport with the rural community, and

4) to enable the Bank staff for attending meetings and seminars held from time to time.

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3. Circular letter No.30 of 1992, dated September 9, 1992. Agricultural Banking Department, State Bank of India.

It is indeed strange to discover that the banking industry in India has found it not necessary to remain for public transaction for all the six days in a week. This would certainly affect the productivity and profitability of the banks in the country.

The combined performances of all scheduled commercial banks in the State is given in the table below:

Table-5.6

Performances of All Scheduled Commercial Banks in Meghalaya (1985-1999)

Year	No. of Bank offices	Deposit (Rs.in lakhs)	Advances (Rs.in lakhs)	Credit Deposit Ratio %
1985	127	127	35	27.6
1986	132	154	42	27.3
1987	133	204	47	23.0
1988	134	250	54	21.6
1989	-	270	64	23.7
1990	155	298	70	23.5
1991	164	357	72	20.0
1994	178	486	75	15.3
1999	179	1200	160	13.3

Source: 1) *Basic Statistics*, North-East India.
2) Meghalaya Statistical Handbook, 1987, 1988, 1992 and 1994.
3) State Bank of India, State Level Committee, 7th December, 1999.

The above table reveals that along with the increase of all bank offices by about 41 per cent from 1985 to 1999, the total deposit mobilisation of all banks during the same period tremendously increased by about 845 per cent while advances also tremendously increased by more than 357 per cent.

But unfortunately, the combined credit-deposit kept on decreasing during the same period upto 1988 and went up slightly during 1989 but again kept on decreasing till 1999 when it dipped down to 13.3 per cent only.

COMPARATIVE PERFORMANCES OF RRBs and CO-OPERATIVE BANKS

We may now look into the performances of the two types of banks, namely, the RRBs and the Co-operative Banks which did much better than the Scheduled Commercial Banks in terms of credit-deposit ratio during the last five years.

1) <u>The Regional Rural Bank</u>

The first Regional Rural Bank in Meghalaya "*Ka Bank Nongkyndong Ri-Khasi Jaintia*" started functioning on the 29th December 1981 at Shillong, the State capital. On the 30th October 1982, another branch was opened at Umpling and thereafter 49 more branches were opened in the State operating in 4 out of the 7 districts of the State with 21 in East Khasi Hills, 15 in West Khasi Hills, 13 in Jaintia Hills and 2 in Ri-Bhoi District. Out of the total of 51 branches,

43 are in rural areas which account for 84.31 per cent. The performance of this bank can be seen in the following table:

Table-5.7

Performance of Regional Rural Banks in Meghalaya (March 1995 to March 1999)

Year	No. of Bank Branches	Deposit (Rs.in lakhs)	Advances (Rs.in lakhs)	Credit Deposit Ratio
1995	51	4473.36	949.49	21.23
1996	51	6222.42	1185.96	19.06
1997	51	6858.48	1568.42	23.00
1998	51	7262.85	1965.76	22.07
1999	51	8173.84	2333.34	28.54

Source: State Bank of India, State Level Committee Meeting for Meghalaya.

The table reveals that during the 5-year period from 1995 to 1999 the number of branches of the Regional Rural Bank remains at 51. However, the deposit mobilisation increased tremendously which increased from more than Rs.44.73 crores in 1995 to more than Rs.81.73 crores in 1998 accounting for more than 82.72 per cent in 5 years' time. It has been found that 5 branch offices of RRB are functioning in urban areas of the State (as can be seen from Table-5.1 ante). This does not appear to be in consonance with the policy objective under which RRB has been sponsored by the RBI.

The advances have also increased from more than Rs.9.49 crores to more than Rs.23.33 crores accounting for more than Rs.145.75 per cent during the same period. Thus the

performance of the RRBs in terms of both deposits and advances is tremendous during the 5-year period. But the credit-deposit ratio of these banks fluctuated every alternate year. But its performance in 1999 was as high as 28.54 per cent whereas the Scheduled Commercial Banks could achieve only 13.33 per cent in the same year.

2) Meghalaya Co-operative Banks

There were 37 co-operative banks in the State upto 1999. On 24th March, 2000, one more branch was opened at Byrnihat in Ri-Bhoi district having a total number of 38 co-operative bank offices in the State. The performance of the Meghalaya Co-operative Bank is shown in the following table:

Table-5.8

Performance of Meghalaya Co-operative Apex Banks in Meghalaya (1995-1999)

Year	No. of Bank Branches	Deposit (Rs.in lakhs)	Advances (Rs.in lakhs)	Credit Deposit Ratio %
1995	32	10168.10	3026.43	29.76
1996	34	12985.47	4349.60	33.50
1997	37	15791.47	4561.12	28.88
1998	37	16966.67	5452.38	32.14
1999	37	22353.00	7849.00	35.11

Source: Meghalaya Co-operative Apex Bank, Shillong

The above table reveals that the number of co-operative bank branches increased from 32 in 1995 to 34 in 1996 and to 37 in 1997 - an increase of 5 banks in 5 years' time. The deposits increased tremendously from more than Rs.10.16

crores to more than Rs.22.35 crores during the 5-year period accounting for more than 119 per cent. So also the advances increased very much from more than Rs.30.26 crores in 1995 to Rs.78.49 crores in 1999 accounting for an increase of more than 159 per cent. But the credit-deposits ratio which was low at 29.76 per cent in 1995, went up to 35.11 per cent by 1999. But in between, i.e. in 1997, it decreased from the previous year's performance.

A comparative analysis between Commercial Banks, Regional Rural Banks and Co-operative Banks on the latest position of their respective performances would be interesting. The relevant data is given in the table below:

Table-5.9

Performance of Commercial Banks, Regional Rural Banks and State Co-operative Banks in Meghalaya (September 1999)

Sl. No.	Types of Banks	No. of Branches	Deposit (Rs. in lakhs)	Advances (Rs. in lakhs)	Credit-Deposit Ratio
1.	Commercial Banks	128	1199.88	160.00	13.33
2.	Regional Rural Banks	51	90.88	24.08	26.50
3.	Meghalaya Co-operative Banks	37	223.53	78.49	35.11
	Total	216	1514.29	262.57	17.34

Source: State Bank of India, State Level Banker Committee Meeting for Meghalaya, December 1999.

The table reveals that the highest credit-deposit ratio was attained by the Meghalaya Co-operative Banks with more than 35 per cent in 1999. The lowest was attained by the Commercial Banks with less than 14 per cent during the same

period. This has resulted into a very poor overall performance of the three types of banks in terms of credit-deposit ratio which was only 17.34 per cent in 1999.

Agricultural Financing in State

All the different banks in Meghalaya have been providing agricultural finances to the farmers of the State. The extent of the financial credit and the relative shares of each bank in 1999 are given in the table 5.10 below.

The table reveals that the State Co-operative Bank beat all other banks by providing more than Rs. 21 crores of agricultural credits in 1999 to the farmers of the State accounting for 41.55 per cent of the total agricultural advances made by all 17 banks. This is a very tremendous achievement made by the co-operative banks in serving the agricultural sector. The second best achievement was made by the State Bank of India by advancing a total amount of more than Rs.14.19 crores accounting for more than 28.07 per cent of the total agricultural advances made by all the banks.

Considering only the scheduled commercial banks, the achievements of these banks other than the State Bank of India, appear to be insignificant in extending the agricultural credit to the Meghalaya farmers. Regional Rural Bank is in the third place by extending more than Rs.10.29 crores accounting for 20.37 per cent of the total advances

made by all banks in the State. The RRB should have achieved more than what the SBI has performed since the former is exclusively sponsored for rural finance.

Table-5.10

Bank Advances to Agriculture in Meghalaya (As on 30th September, 1999)

(in lakhs)

Sl.No.	Name of the Banks	Total Advances	Agricultural Advances	% of Agri-cultural Advances
1.	Allahabad Bank	128.00	15.00	11.72
2.	Bank of Baroda	425.00	32.55	7.66
3.	Bank of India	375.00	1.00	0.27
4.	Canara Bank	426.97	78.40	18.36
5.	Central Bank of India	725.00	10.00	1.38
6.	Federal Bank	289.78	0.09	0.03
7.	Indian Bank	684.70	19.19	2.80
8.	Indian Overseas Bank	802.35	3.97	0.49
9.	Punjab National Bank	422.49	21.57	5.11
10.	State Bank of India	8270.00	1419.12	17.16
11.	Syndicate Bank	210.96	1.40	0.66
12.	United Bank of India	1346.94	92.69	6.88
13.	UCO Bank	378.00	82.00	21.69
14.	Union Bank of India	462.31	49.78	10.77
15.	Vijaya Bank of India	1052.00	98.16	9.33
	Sub-Total	15999.50	1924.92	12.03
16.	Regional Rural Bank	2408.43	1029.89	42.76
	Sub-Total(All Commercial Banks)	18407.93	2954.81	16.05
17.	Meghalaya Co-operative Apex Banks	7849.04	2100.96	26.77
	Grand Total	26256.97	5055.77	19.25

Source: State Bank of India, Lead Bank, Zonal Office, Shillong.

Considering the proportion of the agricultural credit in the total advances made by the respective banks, Regional Rural Bank appears to have done better than all the banks by extending an agricultural credit to the tune of 42.76 per cent of its total advances followed by the State Co-operative Banks with 26.77 per cent and the United Commercial Bank with 21.69 per cent. The total contribution of these three banks alone comes to 91.22 per cent. Thus the shares of all the remaining banks appear to be insignificant and one of them viz., the Federal Bank, contributed as little as 0.03 per cent to the agricultural credit in the State.

It is felt necessary to consider at least one type of short-term credits, namely, the crop loan extended by only 8 banks out of the 17 banks of the State. The relevant data are given in the following table:

Table-5.11
Banks Financing of Crop Loan in Meghalaya
(1999)

Sl. No.	Name of Banks	No.of Beneficiaries	Amount (Rs.in lakhs)
1	Bank of Baroda	131	9.22
2	Indian Bank	133	8.10
3	Punjab Bank	50	2.88
4	State Bank of India	2107	146.80
5	United Bank of India	33	2.37
6	Union Bank of India	4	0.34
7	Regional Rural Bank	205	13.27
8	Meghalaya Co-operative Apex Bank	17533	451.33
	Total	20196	634.31

Source: State Bank of India, Lead Bank Office, Shillong.

From the table it can be seen that the 8 banks were financing the crop loan in the State in 1999 to the extent of more than Rs.6 crores to more than 20,000 beneficiaries. In this respect the State Co-operative Banks did the best by advancing more than Rs.4 crores of the total crop loan accounting for more than 71.15 per cent. The next best contribution was made by the State Bank of India with more than Rupees one crore accounting for more than 23.14 per cent. The remaining 6 banks thus contributed an insignificant total of less than 6 per cent.

We would now look exclusively at the banking development in the Ri-Bhoi district.

BANKING DEVELOPMENT IN RI-BHOI DISTRICT

Ri-Bhoi district has been allotted to the State Bank of India (SBI) under the Lead Bank Scheme. The first bank that started in Ri-Bhoi district headquarters, i.e. Nongpoh, is the SBI on 8th November 1975. By 1999 this bank expanded to eight branches. The Byrnihat branch was opened on 10th December, 1979; the Barapani branch on 11th August, 1980; the Nayabunglow branch on 19th August, 1980; the Jorabat branch on 29th December, 1981; the Umroi Cantonment branch on 3rd December, 1983; the Khanapara branch on 30th March, 1991; the Zero Point branch on 29th June, 1991 and the Patharkhmah branch on 31st March, 1992. It is significant to note that

the SBI had also opened a wing of its Agricultural Development department in its branch at Nayabunglow.

The United Bank of India (UBI) also opened its branches in Ri-Bhoi district, one at Byrnihat in 1976 and the second branch at Mawhati on 28th March, 1990. But its Mawhati branch was later shifted to Umsning.

The Meghalaya Co-operative Apex Bank Ltd. was started at Ri-Bhoi district on 14th November, 1997 at Nongpoh. Thereafter, two more branches were established at Umsning on 12th November 1981 and at Byrnihat on 24th March 2000.

The Regional Rural Bank started its first branch in the district on 31st January, 1984 at Bhoilymbong and the second branch at Umling on 28th February, 1985. The Umling Branch was later shifted to the district headquarters of Nongpoh on 29th December 1994.

A branch of the Indian Bank was also established in the district at Umden on 19th November, 1991. Thus a total of 17 bank branches exist in the district with 12 Scheduled Commercial Bank branches, 3 Co-operative Banks and 2 Regional Rural Banks.

We may now look into the performances of the State Bank of India with its 9 branches in Ri-Bhoi district with the data given in the following table:

Table-5.12

Performance of the SBI in Ri-Bhoi District for Three Years (1998-2000)

Sl.No.	Name of the Branches	Deposits (Rs. in lakhs)	Advances (Rs. in lakhs)	Credit-Deposit Ratio
1.	Nongpoh	226,542	29,845	13.17
2.	Byrnihat	148,170	131,060	88.45
3.	Barapani	316,478	16,638	5.26
4.	Nayabunglow	91,002	39,803	43.73
5.	Jorabat	118,050	18,046	15.29
6.	Umroi Cantonment	49,436	1,642	3.32
7.	Khanapara	123,061	7,058	5.73
8.	Zero Point	24,110	3,811	15.80
9.	Patharkhmah	11,138	5,627	50.52
	Total	11,07,987	253,530	22.89

Source: State Bank of India, Lead Bank, Zonal Office, Shillong.

The above table reveals that the Barapani branch did the best in collecting a total amount of more than Rs. 31 crores in 2 years (1998-99 to 1999-2000) followed by the Nongpoh branch with more than Rs. 21 crores and Khanapara with more than Rs. 12 crores. With regard to the credit-deposit ratio, the best performance was made by the Byrnihat branch by advancing more than Rupees one crore recording a credit-deposit of 88.45 per cent in a 2-year period and the

least performance was made by the Umroi Cantonment branch which advanced only Rs.16.42 lakhs recording a credit-deposit ratio of only 3.32 per cent during the same period. The overall performance of the 9 branches of the SBI amounts to more than Rs.110 crores recording a credit-deposit ratio of 22.89 per cent only.

The performance of the two State Co-operative banks can be seen in Table-5.13.

Table-5.13

Performance of the Co-operative Apex Banks in Ri-Bhoi District (1997-1999)

(Rs. in lakhs)

Name of Branches	1997		Credit-Deposit Ratio	1998		Credit-Deposit Ratio	1999		Credit-Deposit Ratio
	Deposits	Advances		Deposits	Advances		Deposits	Advances	
Umsning	121.76	70.44	57.85	94.77	74.48	78.59	112.05	89.30	79.38
Nongpoh	199.41	57.43	28.80	232.86	60.79	26.11	168.86	67.88	40.20

Source: Meghalaya Co-operative Bank, Head Office, Shillong.

The table reveals that of the two branches, the Umsning branch did much better than the Nongpoh branch during the 3-year period from 1997 to 1999. But the deposit mobilisation of the Umsning branch was less in the following two years than in 1997. However, its credit-deposit ratio kept on improving during the three years. The ratio increased from 57.85 per cent in 1997 to 79.38 per cent in 1999. The

performance of the third branch opened in Byrnihat on 24th March, 2000 is yet to be seen.

The performance of the 2 branches of the Regional Rural Bank at Bhoilymbong and Nongpoh is shown for a two-year period in the following table:

Table-5.14

Performance of Regional Rural Bank in Ri-Bhoi District (1998-2000)

(Rs. in lakhs)

Name of the Branch	Deposits		Advances		Credit-Deposit Ratio	
	1998-1999	1999-2000	1998-1999	1999-2000	1998-1999	1999-2000
Bhoilymbong	198.49	291.82	44.90	60.44	22.62	20.71
Nongpoh	165.54	218.06	63.43	83.86	38.32	38.41

Source: Regional Rural Bank Head Office, Shillong.

The above table reveals that while the Bhoilymbong branch performed better in deposit mobilization than the Nongpoh branch in the 2 years under report, the Nongpoh branch did better than Bhoilymbong branch in loan advances recording a credit-deposit ratio of more than 38 per cent in both the years. The credit-deposit ratio of the Bhoilymbong branch is below 23 per cent in 1998-99 and below 21 per cent in the following year.

The combined performances of all banks in the Ri-Bhoi district from March 1997-98 to March 2000 is shown in the following table:

Table-5.15

Performance of the All Banks in Ri-Bhoi District (March 1997-March 2000)

(Rupees in lakhs)

Year	Deposits	Advances	Credit-Deposit Ratio
March 1997	3,322.05	807.79	24.32
March 1998	3,597.69	901.34	25.05
March 1999	4,365.36	1,382.32	31.66
March 2000	11,285.10	3,091.45	27.39

Source: State Bank of India, Lead Bank Department, Zonal Office, Shillong

The above table reveals that the performance of all banks in the district is tremendous in terms of deposit mobilisation which increased from more than Rs.33.22 crores in March 1997 to more than Rs.112.85 crores in March 2000 accounting for more than 70.56 per cent in four years' time. The loan advances have similarly increased from more than Rs.8.07 crores in March 1997 to more than Rs.30.91 crores in March 2000, accounting for more than 73.87 per cent. Though the credit-deposit ratio was rising during the first three years but it fell down in the fourth year.

Agricultural Financing in District

All the banks that exist in the Ri-Bhoi district have been providing agricultural finance to the farmers. The extent of the financial credit and the relative shares of each bank in 1999-2000 are given in the table below:

Table-5.16

Bank Advances to Agriculture in Ri-Bhoi District (1999-2000)

(in lakhs)

Sl. No.	Name of Banks	Total Advances	Agricultural Advances	% of Agri-cultural Advances
1.	State Bank of India	84.54	37.13	43.92
2.	United Bank of India	13.89	11.13	80.12
3.	Indian Bank	3.10	2.51	80.96
	SUB-TOTAL	101.53	50.77	50.00
4.	Regional Rural Bank	113.98	34.90	30.61
	SUB-TOTAL(All Commercial Banks)	215.51	85.67	39.75
5.	Meghalaya Co-operative Apex Bank	66.19	3.92	5.92
	GRAND TOTAL	281.70	89.59	31.80

Source: Data collected from State Bank of India, Lead Bank, Zonal Office, Shillong.

The table reveals that the two commercial banks, viz., the United Bank of India and the Indian Bank did very well in terms of percentage proportion of the agricultural advances

made among all the Banks in Ri-Bhoi district in 1999-2000. But looking at the actual advance made by the United Bank of India amounting to only Rs.11.13 lakhs and by the Indian Bank amounting to only Rs.2.51 lakhs, their contribution to the agricultural credit in the district is not so significant. It was the State Bank of India which performed the best by advancing to agriculture about 44 per cent out of its total advances of more than 84 lakhs in the district.

The two other banks, namely, the RRBs and cooperative banks, which did very well at the state level in terms of their agricultural advance in the same period could not fare well in the district. The contribution of the RRBs in the district is less than 31 per cent as against its state average contribution of about 43 per cent. The contribution of the Co-operative Banks is still far less than its state average. Its contribution in the district is less than 6 per cent as against its state average contribution of about 27 per cent.

The overall contribution of all banks in the district is, however, much better than the state average. While the banks in the district advance about 32 per cent towards agricultural credit, the aggregate contribution of all banks in the State constitutes only 19.25 per cent.

The credit Plan for the year 1998-99 for all the banks in Ri-Bhoi district as prepared by the Lead Bank office (SBI) Shillong is shown in the following table:

Table-5.17

Bank-Wise/Sector-Wise Credit Plan (1998-99)

(Rs. in lakhs)

Name of Banks	Agriculture	Small Scale Industries	Services	Total
State Bank of India	60.31	23.47	56.72	140.50
United Bank of India	4.98	1.32	15.19	21.49
Indian Bank	5.93	0.80	1.70	8.43
MCAB Ltd.	22.00	2.00	22.00	46.00
Regional Rural Bank	100.77	29.05	109.81	239.63

Source: District Credit Plan for **Ri-Bhoi** District of Meghalaya, State Bank of India, Lead Bank Department, Shillong.

The Credit Plan for the **Ri-Bhoi** district as summarised in the above table does not look good enough in so far as the provisions made by the two scheduled commercial banks are concerned especially the provisions for small scale industries which are very low as compared to those for other two sectors and they account for about 12.15 per cent only. Thus even if the entire amount is fully utilised, it would not be able to bring about an improvement in the industrial sector of the district. This can be said even before the report of implementation is made available.

At the end of our analysis of the institutional financing of agriculture in Meghalaya with particular reference to the Ri-Bhoi district, it may be stated that the credit-deposit ratio in the district is indeed higher with 31.66 per cent in 1998-99 than the all Meghalaya figure of 17.34 per cent for the same year. But the performance of the banks in the following year 1999-2000 declined with a credit-deposit of 27.39 per cent in the district. The district is poised for agricultural revolution if only the agricultural credit is facilitated by the banks concerned.

Chapter-VI

CASE STUDY AND DATA ANALYSIS

INTRODUCTORY

This is a crucial chapter where we are going to analyse the data collected from our field survey of the four villages selected for our case study. As already mentioned, the four villages are Umsning, Nongthymmai, Ingsaw and Sohphoh. These villages are selected, as already explained, because they have similar agricultural and other economic traits except that the first two villages have been adopted by the State Bank of India (SBI) for financial assistance for agricultural purposes while the other two villages are not so adopted. It may, however, be mentioned that the two "adopted" villages are not far away from the National Highway-40 while the two "unadopted" villages are at a distance of about 40 kilometres only.

Our intention here is to find out the extent to which the financial assistance provided by the SBI to the adopted villages of Umsning and Nongthymmai. These villages have been able to modernise their agricultural practices, to increase productivity and to enlarge the income of the cultivators in contrast to the unadopted villages of Ingsaw and Sohphoh which have not been so financed by the SBI.

LEAD BANK SCHEME

Village Adoption Approach

Before we actually undertake the analysis of the data collected from our field survey we would like to briefly give a background description of the Lead Bank Scheme Plan and the informal sector lending that is still in existence in the Ri-Bhoi district.

In Meghalaya as we had mentioned in the previous chapter, the State Bank of India is the Lead Bank in the State. One of the basic objectives of the Lead Bank Scheme has been that the bank is expected to adopt villages in the districts for intensive development. Under this scheme, the Lead Bank is also expected to act as a leader to bring about co-ordination of Co-operative Banks, Commercial Banks and other financial institutions in their respective districts in the interest of the district development. The Lead Bank is to make an economic survey of the district to identify the unbanked centres where Bank branches could be located and to prepare a phased programme for branch expansion in the district. On the basis of the surveys, the Lead Bank is to estimate the deposit potential and the credit gaps so that steps could be taken to tap the basic potential and fill the credit gaps. The district credit plans are also prepared annually for this purpose.

Apart from its own Agricultural Development Department, the Reserve Bank of India (RBI) has assigned the task of helping and accelerating the agricultural development in Meghalaya to the SBI. Thus the SBI has been able to make a significant contribution to the development of agriculture by extending credit facilities to the farmers.

In the course of its working as a Lead Bank, the SBI follows the "village adoption approach" under which a unit selected is either a village or a cluster of villages. In the village adopted, efforts are made to assist all the viable or potentially viable farmers irrespective of their holdings. A special feature of this approach is that loans granted to individual farmers are generally secured by the guarantee of the group of farmer-borrowers. In addition, the SBI is also participating in all schemes of lending to rural areas formulated by the government and the RBI.

The Lead Bank scheme of development refinance is being administered in two stages. In the first stage, economic needs are attended to and during the second stage, social and cultural needs are being looked after. Apart from the village adoption scheme, the SBI group has been extending assistance for agricultural development through its special Agricultural Development branches as had been discussed in the previous chapter. The aim is to refinance agricultural development of the area rather than merely financing of

agriculture. Naturally, in Meghalaya the SBI has introduced village adoption scheme and agricultural development branches because they are inter-linked. The Nayabunglow branch of the SBI was opened on the 19th August 1980 and its first ever agricultural development branch was opened on the 1st May 1981. The Bank has adopted Umsning, Nongthymmai (our sample villages) and 62 other villages (the names of the village are given in Appendix-II) of the Ri-Bhoi district for intensive agricultural development. The second agricultural development branch of the SBI was opened at Garobadha in West Garo Hills. The Bank assists all the viable farmers irrespective of the extent of their land holdings, and loans are granted to individual farmers who have generally secured the guarantee of the village headmen.

The Agricultural Development Branch of the SBI is able to meet the needs of the farmers but agricultural finance varies with the production of crops in the area. Thus the cultivation of rice requires particular type of credit which differs from that of ginger, potato, pine-apple, and other crops. For the purpose of village adoption, the Agricultural Development Branch has to make a careful study between the need for credit and the nature of product because the needs for agricultural finance remain stable and steady depending more on the nature of agricultural operations rather than upon the volume of output. The agricultural output in a year

may be more or less depending upon the monsoon, but the amount of finance needed for the purpose of cultivation will be approximately the same from one year to another over a period of time. With the technological breakthrough the amount of finance needed will definitely increase.

INFORMAL SECTOR LENDING

The informal sector lending still exists in the four selected villages as elsewhere in the district. Thus the poor farmers in these rural villages still continue to depend on money lenders for loans borrowing in cash or in kind for agricultural operations including allied activities. It is a fact that many borrowers use part of these loans in meeting their consumption needs during the period in which they remain busy in productive activities. In many cases they also spend borrowed money to meet the expenditures relating to marriages, death ceremonies and other family functions, as such expenditures are still unavoidable under the existing social practices.

Under the informal sector lending, the rural borrowers follow a system of borrowing and paying on short term basis. The average period of payment is generally one year. The rate of interest charge is usually very high and the interest amount payable in a year may be higher than the principal amount of the loan. The rate of interest is in the range of 8

to 10 per cent per month or 96 to 120 per cent per annum. In many cases, the cultivators repay the principal amount and the interest of the loan in kind to the money lenders. Besides the money lenders, there are traders, rich cultivators and big land owners who lend money to the farmers at high rates of interest. There are also cases where cultivators borrow food-grains at a time of sowing for consumption on terms of repayment at the time of harvest along with 100 per cent interest payable in the form of same grains.

Some Socio-Economic Aspects of the Four Villages

Before we look into the sources of agricultural credit (both informal and institutional) and the proportion of households borrowing from each source, we would like to discuss some aspects of the characteristic features of the four sample villages like location, area, population, number of households, etc. We have already stated in our Methodology in the first chapter, the basis and the reasons for the selection of these villages, namely, Umsning, Nongthymmai, Ingsaw and Sohphoh. Umsning is 32 kms., Nongthymmai 34 km., Sohphoh is 72 and Ingsaw is 75 kms. respectively from Shillong the state capital.

The Umsning village has an area of 400 hectares, Nongthymmai 240 hectares, Ingsaw 625 hectares and Sohphoh 740

hectares.[1] All the four villages are approachable by motorable roads. They have also other facilities for catering to the elementary needs of health and education.

The basic data of population and households of the four villages are given in Tables 6.1 and 6.2.

Table-6.1

Population of Umsning, Nongthymmai, Ingsaw and Sohphoh Villages (1971 and 1991)

Sl. No.	Name of the Villages	Population		+ Increase - Decrease	Percentage Decrease
		1971	1991		
1	Umsning	940	740	- 200	21.2
2	Nongthymmai	271	251	- 20	7.3
3.	Ingsaw	247	194	- 53	21.4
4.	Sohphoh	296	169	- 127	42.9

Source: 1) *District Census Handbook*, United Khasi and Jaintia Hills, Part-XA & B.
2) *Census of India*, Part XII, Series 16, 1991.

The table reveals that during the two decades, the number of population in all the four villages coincidentally decreased. The population of Umsning village decreased by 21.2 per cent, that of Nongthymmai by 7.3 per cent, of Ingsaw by 21.4 per cent and of Sohphoh by 42.9 per cent.

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1. List of villages circle-wise under Community and Rural Development Block Umsning according to 1991 Census, Block Development Office, Umsning, Ri-Bhoi District.

The number of households in the four villages is given in the following table:

Table-6.2

Number of Households in Umsning, Nongthymmai, Ingsaw and Sohphoh

Sl. No.	Name of Villages	Number of Households		Number of Households selected for the study	+Increase -Decrease	Percentage Increase
		1971	1991			
1	Umsning	217	280	150	+ 63	29.0
2	Nongthymmai	55	88	50	+ 33	60.0
3.	Ingsaw	52	71	50	+ 19	36.5
4.	Sohphoh	54	56	50	+ 2	3.7

Source: 1) *District Census Handbook*, East Khasi Hills, Village and Town Director, Directorate of Census Operations, Meghalaya.
2) *Census of India* - 1991, Part XII, Series 16.

The number of households in all the four villages increased during the two decades. The households in Umsning increase by 29 per cent, in Nongthymmai by 60 per cent, in Ingsaw by 36.5 per cent and in Sohphoh by 3.7 per cent.

A strange common phenomenon is evident in all the four villages during the period of 2 decades when the population decreased in every village. The biggest decline of population occurred at Sohphoh village with almost 43 per cent while the smallest decline is seen at Nongthymmai with more than 7 per cent. The decline at Umsning and Ingsaw is more or less same

with more than 21 per cent each. In contrast to the decline in population, the number of households increased in all the four villages. The largest increase of households occurred at Nongthymmai accounting for 60 per cent while the lowest increase is seen at Sohphoh with about 4 per cent only. Umsning and Ingsaw account for 29 per cent and 36.5 per cent increase respectively. The strange phenomenon could be explained only by the high death rate due to the prevalence of the malarial diseases coupled with the expansion of small nuclear families thereby increasing the number of households.

As already indicated in our methodology, since Umsning, an adopted village, is the most populous among the four selected villages with the largest number of households, 150 sample households have been selected. But from the remaining three villages only 50 sample households have been selected for investigation.

A comparative study can be made in respect of educational attainment by the heads of the households. This is seen in Table-6.3.

Table-6.3

Educational Status of the Heads of the Households Selected for Investigation

Sl. No.	Name of Villages	Educational Status			
		Illiterate	Primary Education	Middle School	High School
1.	Umsning	84 (56)	33 (22)	18 (12)	15 (10)
2.	Nongthymmai	25 (50)	10 (20)	10 (20)	5 (10)
3.	Ingsaw	45 (90)	2 (4)	3 (6)	0
4.	Sohphoh	33 (66)	7 (14)	10 (20)	0

(Figures in parenthesis indicate percentages)

Source : Data obtained through field survey.

From the table it can be seen that out of 50 selected household heads, 45 are illiterate at Ingsaw, 33 at Sohphoh and 25 at Nongthymmai, while 84 out of 150 selected household heads are illiterate at Umsning.

It is to be noted that Nongthymmai which is 2 kms. away from Umsning and being adopted by the State Bank of India, could enjoy all the amenities available at Umsning like the high schools, the middle schools and primary schools. There are 33 household heads who have primary education, 18 who have middle school and 15 who have high school qualification in the total of 150 households. Nongthymmai has 10 household heads with primary education, 10 with middle passed and with 5 high school passed out of the total 50 household heads. But

at Ingsaw there are only 2 household heads who passed the primary level of education and 3 heads who passed the middle school level while Sohphoh has three and seven respectively.

It is apparent that the two adopted villages of Umsning and Nongthymmai are better off educationally than the other two unadopted villages of Ingsaw and Sohphoh. Yet the second stage of the Lead Bank schemes which are meant for cultural and social needs are introduced only in the two former villages and not in the other two villages. Thus the two adopted villages of Umsning and Nongthymmai could further improve their cultural and social status thereby enjoy a qualitatively better standard of living while the other two non-adopted villages of Ingsaw and Sohphoh continue to lag behind.

Table-6.4

Occupations of the Heads of the Households (50 Households each for Nongthymmai, Ingsaw and Sohphoh, 150 Household for Umsning)

Name of Villages	Occupation		Total
	Cultivators	Agricultural Labourers	
Umsning	141 (94)	9 (6)	150 (100)
Nongthymmai	48 (96)	2 (4)	50 (100)
Ingsaw	47 (94)	3 (6)	50 (100)
Sohphoh	46 (92)	4 (8)	50 (100)

(Figures in parentheses indicate percentages)
Source: Data obtained through field survey.

The occupations of the heads of the households as shown in the above table-6.4 are now considered:

It can be seen from the above table that out of 50 households each at Nongthymmai, Ingsaw and Sohphoh and 150 at Umsning, the proportion of the household heads who are categorised as cultivators is more or less the same (above 90 per cent) with 94 per cent at Umsning, 96 per cent at Nongthymmai, 94 per cent at Ingsaw and 92 per cent at Sohphoh. The remaining family heads of 3 households at Ingsaw, 4 at Sohphoh, 2 at Nongthymmai and 9 at Umsning are classified as agricultural labourers. They are differentiated from cultivators because they do not have adequate land for cultivation and hence they are compelled to work for wages in the lands belonging to others after cultivating their own limited amount of lands. It is very interesting to note that in spite of being adopted by the SBI along with the existence of the Meghalaya Co-operative Bank and the United Bank of India at Umsning and Nongthymmai, the proportion of the household heads in these two villages who availed the bank credit, is more or less the same as at Ingsaw and at Sohphoh villages which are unadopted by the SBI. We can, therefore, now look into the major crops grown in these four villages as follows:

Major Crops of the Four Villages

Three products, viz. paddy, ginger and pineapple are the major agricultural crops cultivated in the four villages. Besides, vegetables are also grown in abundance like French beans, Brinjal, Lady fingers, Tomato, Pumpkin and Radish. Maize is also cultivated in all the four villages. The amount of paddy produced in the four villages according to the capacity of the households as per the data we collected through field survey is given in Table-6.5.

Table-6.5

Production of Paddy at Umsning, Nongthymmai, Ingsaw and Sohphoh

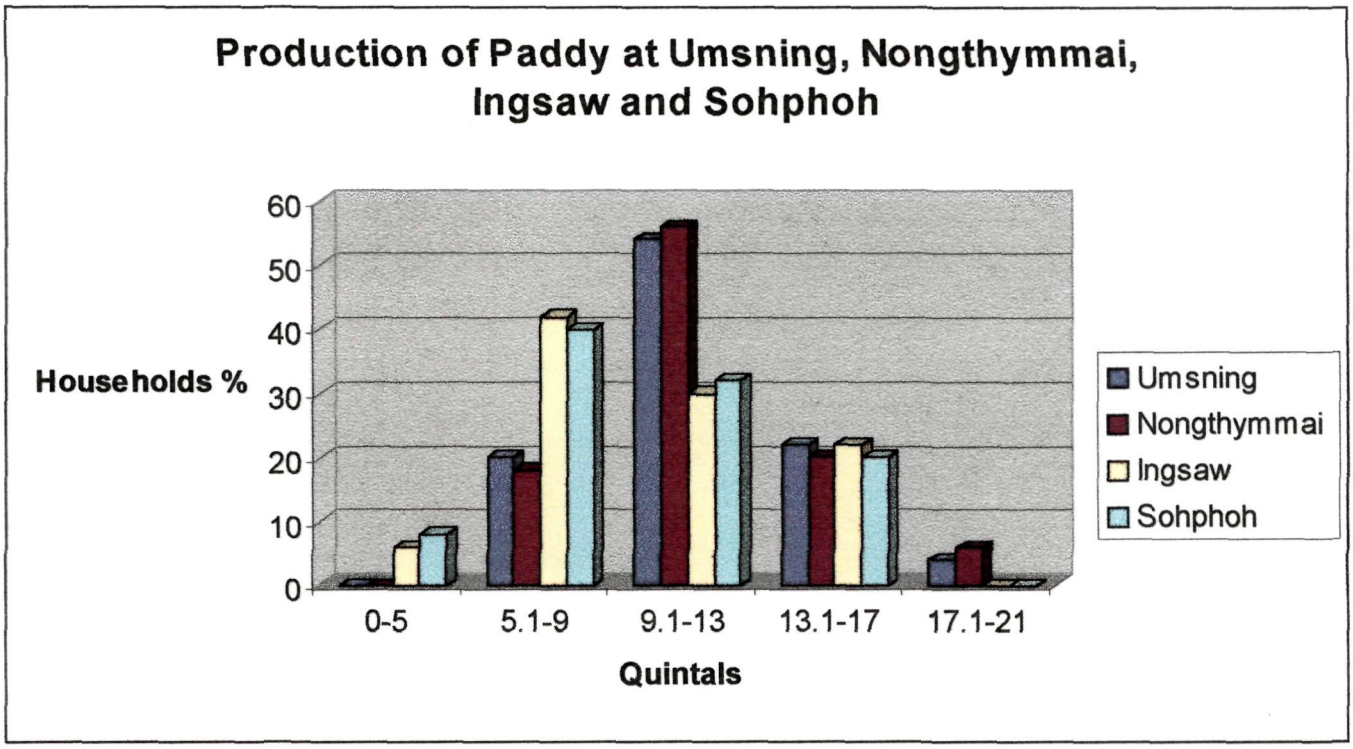
Amount of Production (in Quintals)	Number of Households			
	Umsning	Nongthymmai	Ingsaw	Sohphoh
0 - 5	0	0	3 (6)	4 (8)
5.1 - 9	30 (20)	9 (18)	21 (42)	20 (40)
9.1 - 13	81 (54)	28 (56)	15 (30)	16 (32)
13.1 - 17	33 (22)	10 (20)	11 (22)	10 (20)
17.1 - 21	6 (4)	3 (6)	0	0
Total	150 (100)	50 (100)	50 (100)	50 (100)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

From the above table, it can be seen that there is no household producing 5 quintals or less in adopted villages of Umsning and Nongthymmai. The lowest range of production in

Figure 6.5


Production of Paddy at Umsning, Nongthymmai, Ingsaw and Sohphoh
Households %
60
50
40
30
20
10
0
0-5
5.1-9
9.1-13
13.1-17
17.1-21
Quintals
Umsning
Nongthymmai
Ingsaw
Sohphoh

these two villages is above 5 quintals. Even in the unadopted villages of Ingsaw and Sohphoh, there are less than 10 per cent households producing 5 quintals or less. It is interesting to note that while the largest number of households in the adopted villages is found producing between 9.1 and 13 quintals of paddy; in the unadopted villages, the largest number of households are producing between 5.1 and 9 quintals. A substantial number of households in the unadopted villages is also found producing between 9.1 and 13 quintals of paddy with Ingsaw accounting for 30 per cent and Sohphoh for 32 per cent. There is almost equal proportion of households in all the four villages (adopted and unadopted) producing between 13.1 and 17 quintals. While there is no households in the unadopted villages producing above 17 quintals, the number of such households in the adopted villages is very less. The difference is, however, revealed between the largest number of households in the adopted villages producing a larger range of 9.1 to 11.3 quintals, and the largest number of households in the unadopted villages producing a smaller range of 5.1 to 9 quintals. Thus it can be said that the adopted villages comparatively fare better than the unadopted villages with regard to paddy cultivation. But the performance of the adopted villages is less impressive as compared to that of the unadopted villages.

With regard to ginger production similar conditions appear to be obtaining in the four villages. This is shown in Table-6.6.

Table-6.6

Ginger Production in the Four Villages

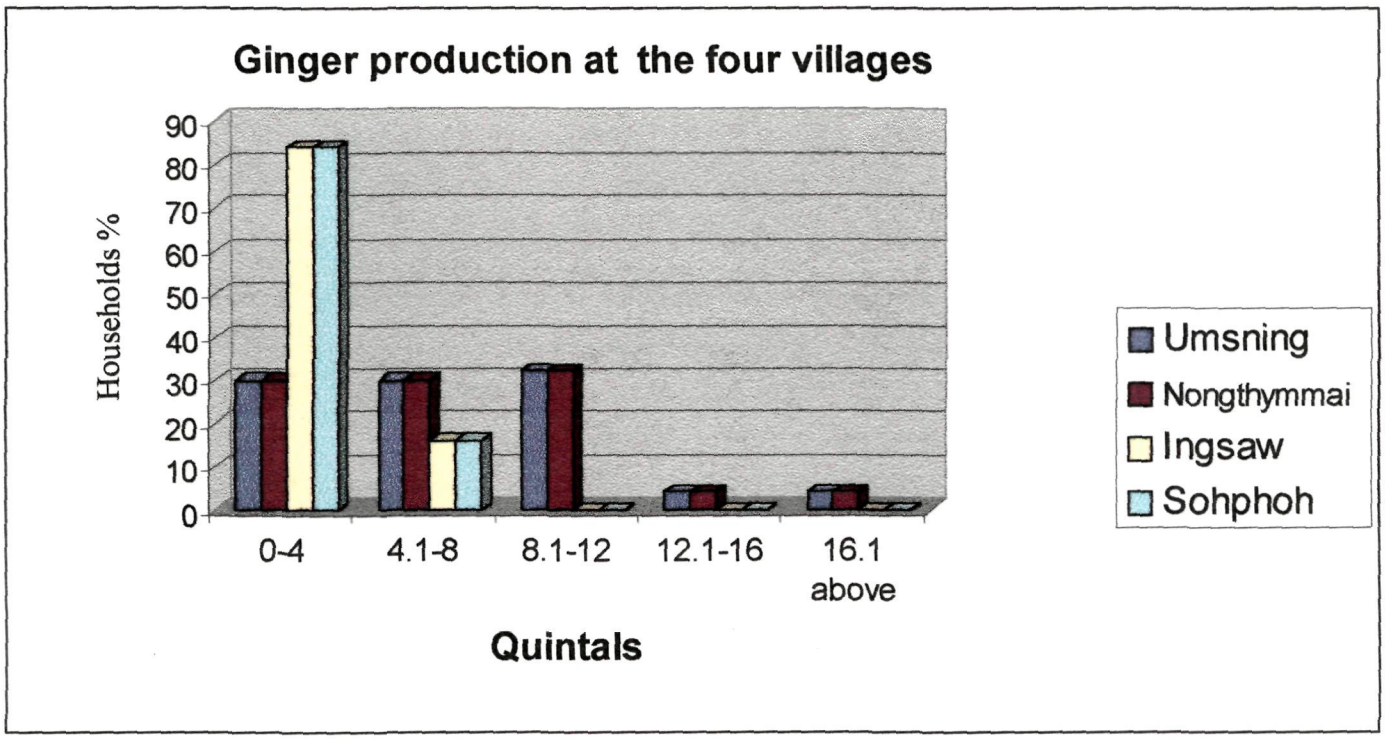
Amount of Production (in Quintals)	Number of Households			
	Umsning	Nongthymmai	Ingsaw	Sohphoh
0 - 4	45 (30)	15 (30)	42 (84)	42 (84)
4.1 - 8	45 (30)	15 (30)	8 (16)	8 (16)
8.1 - 12	48 (32)	16 (32)	0	0
12.1 - 16	6 (4)	2 (4)	0	0
16.1 above	6 (4)	2 (4)	0	0
Total	150 (100)	50 (100)	50 (100)	50 (100)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

From the table it can be seen that most households accounting for 84 per cent in each unadopted villages of Ingsaw and Sohphoh are producing only 4 quintals or less of ginger, one of the three important crops in Ri-Bhoi district. But in each of the two adopted villages of Umsning and Nongthymmai, the majority of households amounting to 32 per cent is producing between 8.1 to 12 quintals. The remaining households in the two unadopted villages accounting for 16 per cent each are producing between 4.1 to 8 quintals. But in

Figure 6.6


Ginger production at the four villages
Households %
90
80
70
60
50
40
30
20
10
0
0-4
4.1-8
8.1-12
12.1-16
16.1 above
Quintals
Umsning
Nongthymmai
Ingsaw
Sohphoh

the adopted villages, 30 per cent each of the households are producing between 4.1 to 8 quintals. This same proportion in the adopted villages is producing 4 quintals or less. The remaining households in the adopted villages accounting for 4 per cent each are producing between 12.1 and 16 quintals while another 4 per cent each is producing more than 16 quintals. No household in the unadopted villages is producing more than 8 quintals of ginger. Thus the adopted villages perform better than the unadopted villages in the production of ginger.

The amount of production of pineapples another important crop in Ri-Bhoi district, in the four sample villages is given in the following table:

Table-6.7

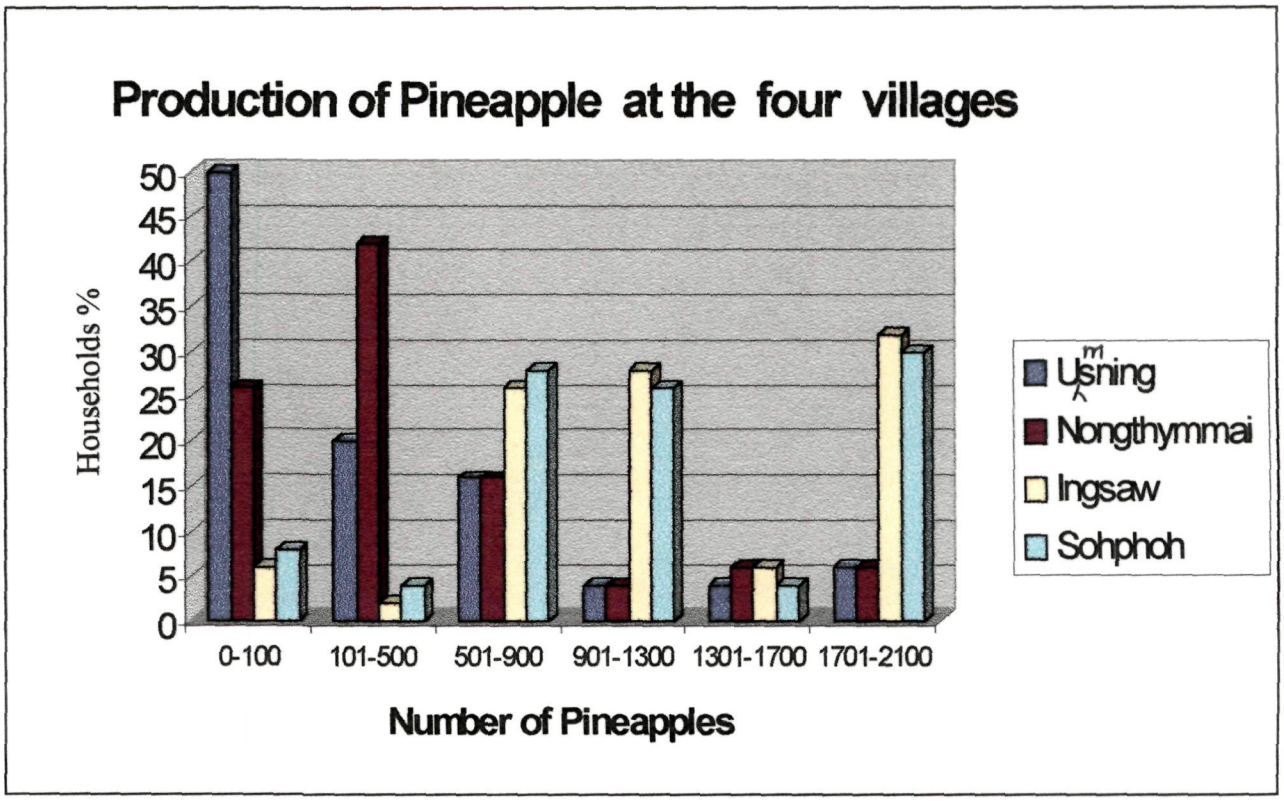
Production of Pineapple in the Four Villages

Number of Pineapples Produced	Number of Households			
	Umsning	Nongthymmai	Ingsaw	Sohphoh
0 - 100	75 (50)	13 (26)	3 (6)	4 (8)
101 - 500	30 (20)	21 (42)	1 (2)	2 (4)
501 - 900	24 (16)	8 (16)	13 (26)	14 (28)
901 - 1300	6 (4)	2 (4)	14 (28)	13 (26)
1301 - 1700	6 (4)	3 (6)	3 (6)	2 (4)
1701 - 2100	9 (6)	3 (6)	16 (32)	15 (30)
Total	150 (100)	50 (100)	50 (100)	50 (100)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

Figure 6.7


Production of Pineapple at the four villages
Households %
50
45
40
35
30
25
20
15
10
5
0
0-100
101-500
501-900
901-1300
1301-1700
1701-2100
Number of Pineapples
Usning
Nongthymmai
Ingsaw
Sohphoh

The table reveals that in the highest range of production of 1700-2100 pineapples, the unadopted villages did far better than the two adopted villages. While 32 per cent of the households at Ingsaw and 30 per cent at Sohphoh are producing in the highest range of production, only 6 per cent each at the adopted villages of Umsning and Nongthymmai could produce in the same range. It may be seen that as much as 50 per cent of the households at Umsning could produce the lowest range of 100 pineapples or less. At Nongthymmai upto 42 per cent of the households produce the lower range of 101-500 pineapples. The unadopted villages give the next best result where 54 per cent of the households in each village could produce between 501 and 1300 pineapples whereas only 20 per cent of the households in the adopted villages could produce in this same range of production. Thus even if the villages are not adopted by the SBI for the purpose of institutional credit they could fare better in the production of one of the three most important crops in the district.

Sources of Agricultural Credit and Borrowers

The sources for agricultural credit prevalent in the Ri-Bhoi district are (1) Village Money Lenders, (2) Relatives, and (3) Banking Institutions. The proportion of households availing credit from each of these three sources is shown in Table-6.8.

Table-6.8

Proportion of Households Borrowing Credit from each Source of Credit

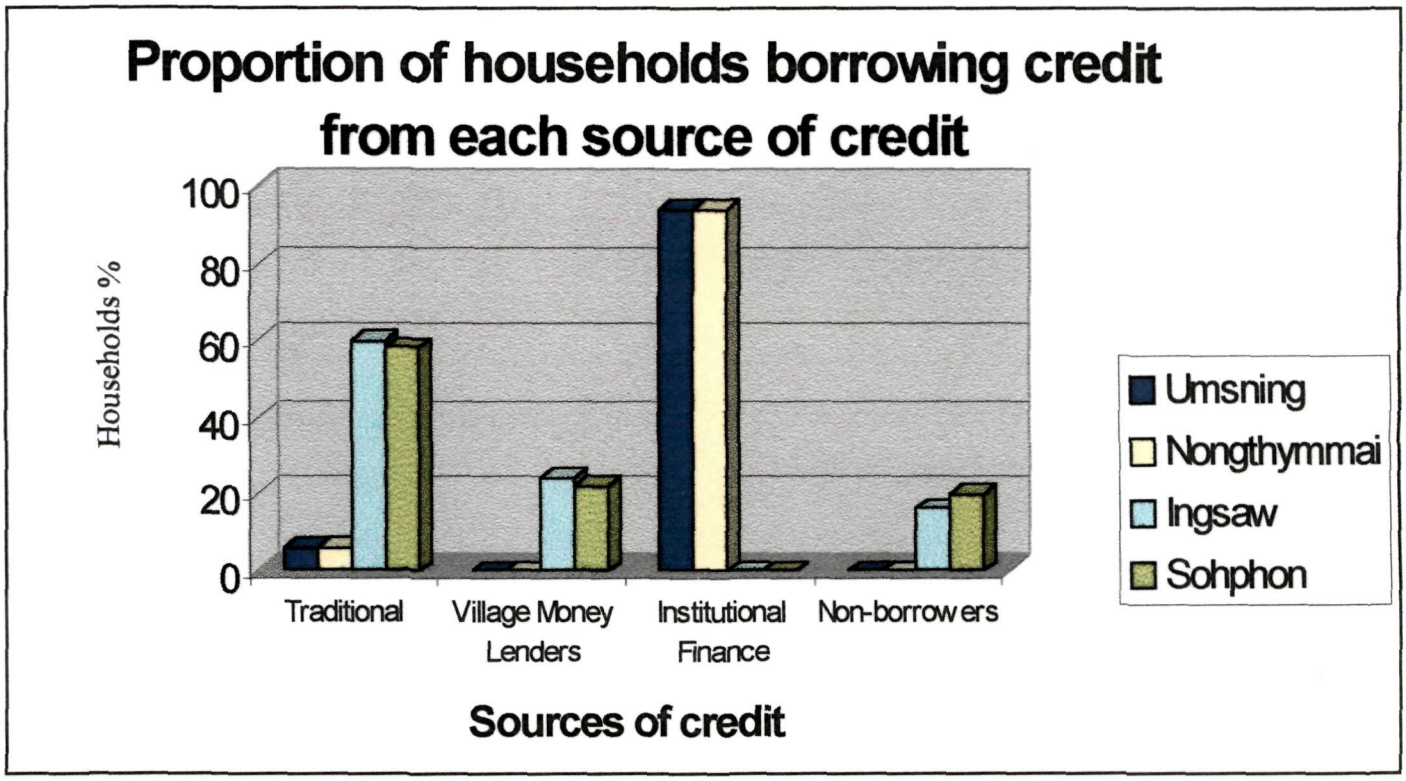
Village	Traditional Sources		Institutional Finance	Non-Borrowers
	Relatives	Village Money Lenders	State Bank of India	
Umsning	9 (6)	0	141 (94)	0
Nongthymmai	3 (6)	0	47 (94)	0
Ingsaw	30 (60)	12 (24)	0	8 (16)
Sohphoh	29 (58)	11 (22)	0	10 (20)
Total	150 (100)	50 (100)	50 (100)	50 (100)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

The above table reveals that all our sample households in the two adopted villages of Umsning and Nongthymmai, are borrowing for their agricultural operations. But in unadopted villages, there are 8 and 10 households respectively at Ingsaw and Sohphoh which do not borrow at all. Considering all the 300 sample households randomly selected from the four villages of our case study, it will be seen that only 18 households, accounting for only 6 per cent, do not or could not borrow. All these 18 households belong to the unadopted villages. Had these villages been adopted, the 18 households might have availed themselves of institutional credit. It can, however, be inferred from this fact that self-financing

Figure 6.8


Proportion of households borrowing credit from each source of credit
Households %
100
80
60
40
20
0
Traditional
Village Money Lenders
Institutional Finance
Non-borrowers
Sources of credit
Umsning
Nongthymmai
Ingsaw
Sohphon

in rural areas is limited which validates one of our hypotheses of the study.

From the table it can be seen that upto 94 per cent of the households in each of the adopted villages is availing the institutional credit while merely 6 per cent each is taking loans from relatives and none borrows from village money lenders. In contrast to this, in the unadopted village of Ingsaw 60 per cent borrow from relatives and 24 per cent borrow from the village money lenders. In the other unadopted village of Sohphoh, upto 58 per cent is borrowing from relatives and 22 per cent borrow from village money lenders. None in the unadopted villages avails institutional credit from any bank.

It is evident that wherever institutional finance is made available to the cultivators, they have taken to it and the money lenders have been completely wiped off. This happens in the two adopted villages of Umsning and Nongthymmai. Thus our hypothesis that the institutional credit from sources like banks and co-operatives is a preferred and reliable way to finance agricultural operations, has been validated. But in the two unadopted villages of Ingsaw and Sohphoh where financial institution is not available, the dominant position of the money lenders is still evident. Relatives are still playing a role in both sets of villages though their role in the adopted villages is

less impressive than in the unadopted villages. In fact, the role of relatives is very significant indeed in the unadopted villages as already analysed above. Less than 25 per cent of the households in the unadopted villages are borrowing from the money lenders. As much as 20 per cent of the households at Sohphoh and 16 per cent at Ingsaw are incapable of finding a source of finance. This is not so small a proportion as to ignore the two unadopted villages without extending the financial support to their poor farmers.

Purpose of Borrowing

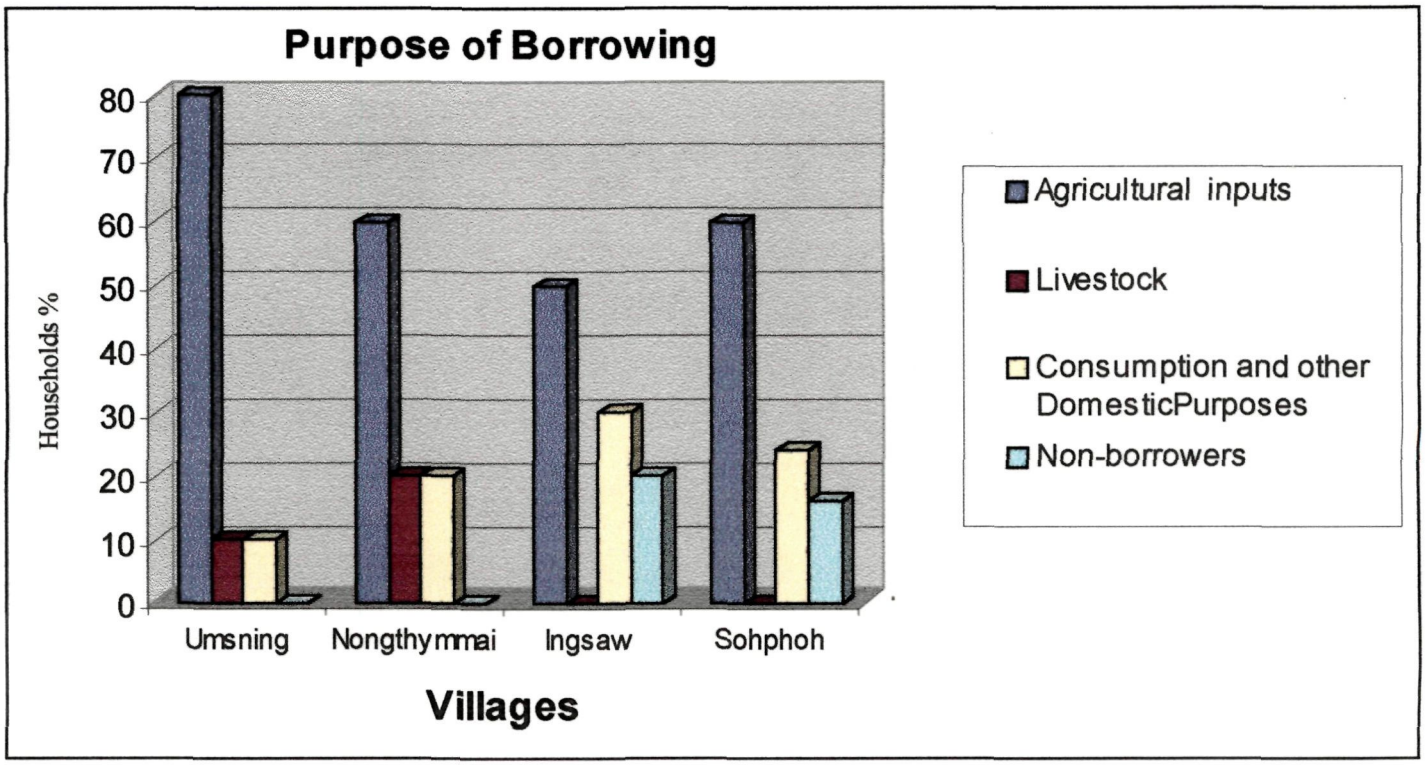
We would like to give the broad purposes for which borrowing is resorted to in the four sample villages of our study. The purposes include the purchase of agricultural inputs, livestock and even consumption and other domestic use. The data collected are given in the following table:

Table-6.9
Purpose of Borrowing

Village	Agricultural Inputs	Livestock	Consumption and other Domestic Purposes	Non-Borrowers
Umsning	120 (80)	15 (10)	15 (10)	0
Nongthymmai	30 (60)	10 (20)	10 (20)	0
Ingsaw	25 (50)	0	15 (30)	10 (20)
Sohphoh	30 (60)	0	12 (24)	8 (16)
Total	150 (100)	50 (100)	50 (100)	50 (100)

(Figures in parentheses indicate percentages)
Source: Data obtained through field survey.

Figure 6.9


Purpose of Borrowing
Households %
80
70
60
50
40
30
20
10
0
Umsning
Nongthymmai
Ingsaw
Sohphoh
Villages
Agricultural inputs
Livestock
Consumption and other DomesticPurposes
Non-borrowers

The table reveals that in both the adopted and unadopted villages the largest proportion of borrowers are borrowing mainly for the purchase of agricultural inputs. While the adopted village of Umsning has the largest number of borrowers (80 per cent) for the purpose, another adopted village of Nongthymmai and the unadopted village of Sohphoh have 60 per cent each of the borrowers who borrow for this purpose. At Ingsaw, another unadopted village, 50 per cent of the borrowers borrow for this very purpose. While there are no borrowers for the purpose of purchasing livestock in the unadopted villages, the two adopted villages have 10 per cent and 20 per cent respectively at Umsning and Nongthymmai.

There are quite a good number of borrowers who utilise their loan for consumption and domestic purposes in both the adopted and unadopted villages. While the adopted village of Umsning has the smallest proportion of 10 per cent of borrowers in this category, the unadopted village of Ingsaw has the largest proportion of 30 per cent.

It can be said that there is not much difference in the borrowing pattern of the farmers so far as the purpose of borrowing is concerned whether they belong to the adopted or unadopted villages.

The borrowers in the unadopted villages do not borrow for the purchase of livestock because the farmers in these villages are *Jhum* cultivators. If institutional credit is

made available to them, they may perhaps be weaned away from *Jhumming* and made to resort to either permanent cultivation using the animal power for the purpose or horticultural farming.

Loan Repayment

The farmers in both the adopted and unadopted villages prefer to repay their loan in kind wherever practicable. The proportion of borrowers who make repayment in cash or in kind is given in the following Table-6.10.

Table-6.10

Terms of Loan Repayment

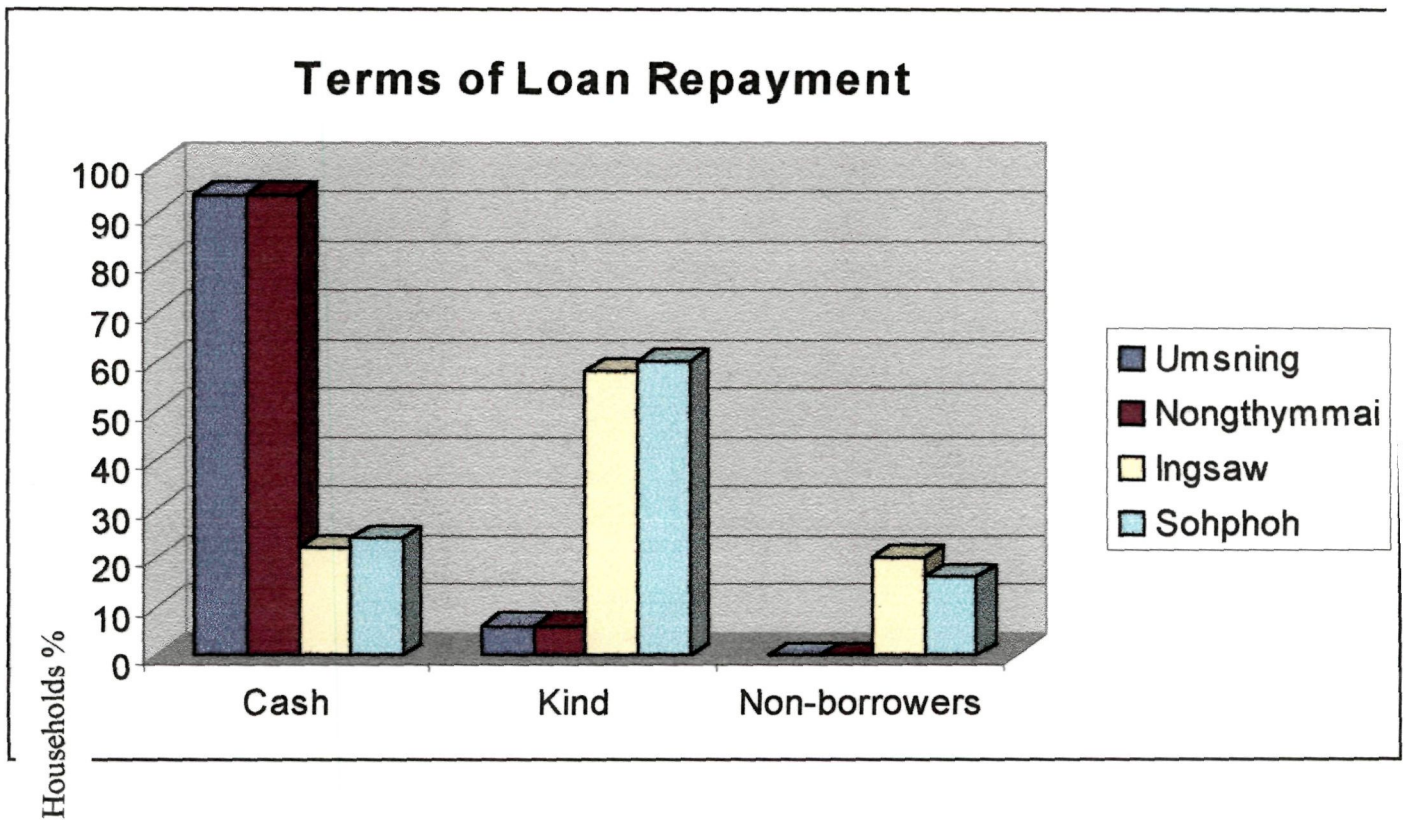
Village	Cash	Kind	Non-Borrowers
Umsning	141 (94)	9 (6)	0
Nongthymmai	47 (94)	3 (6)	0
Ingsaw	11 (22)	29 (58)	10 (20)
Sohphoh	12 (24)	30 (60)	8 (16)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

From the table it can be seen that 94 per cent of the households in both the adopted villages of Umsning and Nongthymmai villages make their repayment of the loan in cash. This proportion is the same as that which avail the institutional finance from banks (see Table-6.8 ante).

Figure 6.10


Terms of Loan Repayment
100
90
80
70
60
50
40
30
20
10
0
Households %
Cash
Kind
Non-borrowers
Umsning
Nongthymmai
Ingsaw
Sohphoh

Although the farmers prefer to pay in kind yet they cannot be allowed to do so by banking institutions. Thus the adopted villages are made to resort to commercialisation of agriculture which would ultimately benefit the agriculturists of the district. Even so, they continue to repay in kind for the loan they borrowed from their relatives as evident from the above table.

In so far as the farmers in unadopted villages are concerned, they do have the option in certain cases either to pay in cash or in kind depending on their ability and the convenience that they would like to avail since permanent cultivation is still absent from those villages where institutional finance is not available. There are many cases in the unadopted villages of Ingsaw and Sohphoh who borrow in kind like food-grains and repay in food-grains along with 100 per cent interest payable in the form of same food-grains. The village money lenders who lend in cash insist on mortgages to be given by the farmers in terms of gold, silver, paddy land and other landed properties. Thus in most cases the farmers lost their gold, silver and landed properties to the money lenders and were turned into landless farmers.

In this way, the farmers in the unadopted villages are exploited by the village money lenders. The banking

institutions should come forward to save the agriculturists in rural areas from the clutches of the money lenders.

Loan Repayment Defaulters

Farmers have to borrow for their agricultural operations, purchase of livestock, meeting their consumption needs and other domestic purposes. But their total production may not be sufficient to repay their loans. Agricultural production depends on the climatic conditions while the sale of the produce depends on market prices and competition. That being so, there are times when the farmers have to make delay in payment of loans. If they cannot repay the loan in time, we consider them as defaulters. The reasons for defaulting were obtained and the data are given in the following table:

Table-6.11

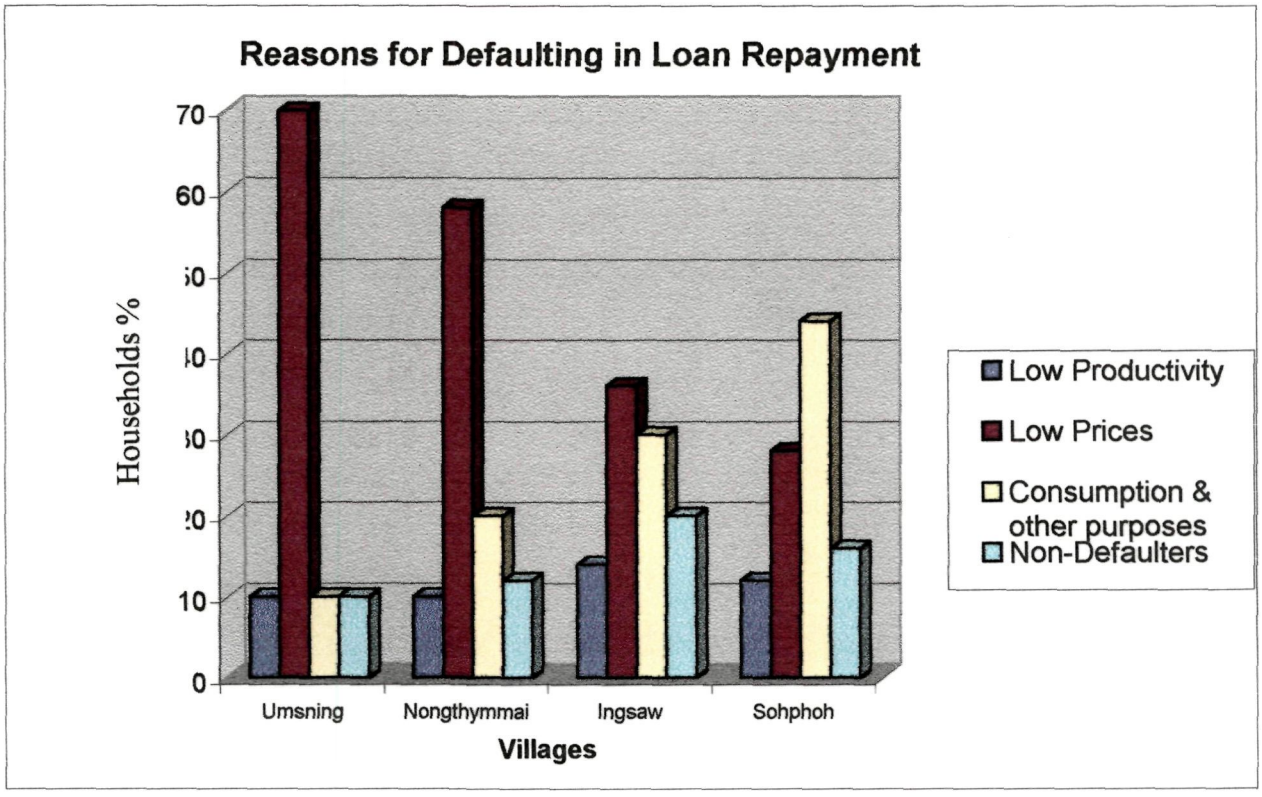
Reasons for Defaulting in Loan Repayment

Villages	Reasons for Defaulting in Repayment			
	Low Productivity	Low Prices	Consumption and other Purposes	Non-Defaulters
Umsning	15 (10)	105 (70)	15 (10)	15 (10)
Nongthymmai	5 (10)	29 (58)	10 (20)	6 (12)
Ingsaw	7 (14)	18 (36)	15 (30)	10 (20)
Sohphoh	6 (12)	14 (28)	22 (44)	8 (16)

(Figures in parentheses indicate percentages)

Source: Data obtained through field survey.

Figure 6.11


Reasons for Defaulting in Loan Repayment
Households %
70
60
10
0
Umsning
Nongthymmai
Ingsaw
Sohphoh
Villages
Low Productivity
Low Prices
Consumption & other purposes
Non-Defaulters

The Table reveals that 90 per cent of the households at Umsning and 88 per cent at Nongthymmai are defaulters for not being able to repay the loan in time. The largest number of defaulters at Umsning (adopted village) constituting 70 per cent are defaulting because of low prices resulting to low level of profit from the turnover of their marketable surplus. The largest number of defaulters at Nongthymmai (another adopted village) constituting 58 per cent also belong to this category. Only 10 per cent of the households each at Umsning and at Nongthymmai are defaulting for reason of low productivity caused by natural adversity. But 10 per cent of the households at Umsning and 20 per cent at Nongthymmai are defaulters due to their high consumption and other domestic needs.

With regard to the unadopted villages, the highest number of defaulters constituting 36 per cent is at Ingsaw because of the same reason of low level of profits from the turnover being experienced in the two adopted villages. But at Sohphoh the largest number of defaulters constituting 44 per cent is due to diversion of their sale proceeds toward consumption needs. In fact the number of defaulters at Ingsaw for the same reason is also high amounting to 30 per cent. The number of defaulters in the unadopted villages is 14 per cent and 12 per cent at Ingsaw and at Sohphoh respectively.

The provision of adequate, timely and easily available finance for agricultural operation plays a very crucial role in increasing productivity, thereby increasing the income of the agriculturists and helping them to raise their living standard. This is amply demonstrated by the conditions obtaining in Umsning and Nongthymmai villages especially after the establishment of the agricultural development branch of the SBI in those villages. This has not only enabled the villagers to increase their agricultural production but also has enabled them to improve their quality of life through higher income. With higher income, the farmers of the adopted villages could send their children to schools and they could avail health facilities and amenities better than before. But the farmers of the unadopted villages of Sohphoh and Ingsaw where traditional practices in cultivation are still followed, the income of the agriculturists is low. Thus they cannot avail of the modern amenities for the betterment of life. But if the farmers of these villages could also avail of the financial assistance from institutional sources like the adopted villages, they could also bring about improvement on their agricultural activities in their villages. Thus our hypothesis that the traditional or informal money lending continues to be exploitative and incapable of financing for productive investment, holds true.

CONCLUSION

At the end of our analysis of the data collected from the four sample villages, it may be said that the adopted villages perform better in agricultural production although the unadopted villages also did very well in one of the three major crops cultivated in these villages. There is an urgent need for extending of institutional finance to all unadopted villages in the district not only to save them from the clutches of the money lenders, but also to enable them to adopt the modern methods of cultivation. For those who already followed permanent cultivation, institutional lending would enable them to bring further improvement on their agricultural activities.

Chapter-VII

SUMMARY OF FINDINGS AND CONCLUSION

At the end of our fairly long and detailed investigation into the availability and use of agricultural credit by the farmers of the Ri-Bhoi district of Meghalaya and the analysis of the data collected from our field survey of the four villages as a case study of the needs and utilization of agricultural credit by the farmers of these villages, we may now summarise our findings and note the conclusions that emerge from the analysis.

SUMMARY AND FINDINGS

I

As a background to our investigation into this important input in the agricultural development, we cannot but make a quick review of the literature that deals with the rural indebtedness in our country and the Government concern with the plight of the Indian farmers. In the course of this review we are amply reminded that money lenders have universally been recognised as the great exploiters of the illiterate farmers in the distant past and even now. The exorbitant rate of interest exacted by the money lenders had and still have impoverished the poor and innocent farmers in the rural areas of the country. In the case study that we have undertaken for investigation, it was found that a 100 per cent interest was even exacted from the farmers in the case of credit taken in kind.

But the state authorities in the past and now appear to be equal to the task of bringing relief to the agricultural debtors in the country. Such relief measures were begun in the previous century and the most notable action taken was the introduction of the co-operative credit societies in the rural areas. But this measure did not prove successful enough due to the mass illiteracy of the Indian farmers. Another praise-worthy act done was the appointment of the All-India Rural Credit Committee soon after independence. Many volumes of reports were produced by this committee from time to time but the problems of the farmers could not be totally removed. It was during the 1960s that the All-India Rural Credit Review Committee was set up which recommended novel ideas of electrification of the rural areas, simplification of lending procedures and diversification of rural credit for rural development. It may be said that the recommendations of this Review Committee had largely changed the face of rural India but did not touch upon the farflung areas of the North-Eastern Region including Meghalaya.

Eventually the Reserve Bank of India (RBI) had to come forward in a big way to ameliorate the conditions of indebted farmers. The Agricultural Development Department was established in the RBI with a view to liquidating the money lenders. What followed thereafter were measures that have substantially helped the indebted farmers. The Regional Rural

Banks were initiated in October 1975 but which spread to the North-Eastern Region only in the 1980s. The National Bank for Agriculture and Rural Development was set up subsequently which has greatly reinforced the measures already taken. Nevertheless, the poor and illiterate farmers in Meghalaya still continue their dependence on informal sector lending as evident from our case study undertaken in the four villages of **Ri-Bhoi** district of the State.

II

We had also to make a bird's eye view of some aspects of the economy of Meghalaya to know the development of the economy at the state level. It has been found that the State is very rich in coal and lime deposits. It has also the world's largest deposits of sillimanite. There are other minerals found in the State. Even Uranium is believed to have a rich deposit in the State. Immense potential of hydro-electric power generation exists due to its various north-flowing and south-flowing rivers. The climate of the State is also very congenial for all types of economic activities. The development potential in the State is thus very great. It only depends on the development of the right infrastructure to enable it to forge ahead in economic development in all sectors.

Unfortunately the infrastructure in the State is still weak to sustain economic development in the State. We have

compared the contribution of infrastructure to the generation of State income in 1973-74 with that in 1998-99. It is relevant to state here that the contribution of banking and insurance increased from 0.5 per cent in 1973-74 to 2.3 per cent in 1998-99. The contribution, though positive, appears to be too less to be capable to support the development in other sectors including agriculture.

The sectoral analysis of the economy of Meghalaya has shown that the State offers immense potential for growing a large varieties of agricultural and horticultural crops. In the mountainous regions, land utilization under horticultural crops can yield the highest level of both social and economic benefits. *Jhum* farmers can be weaned away through the development of horticulture. The State is blessed with tropical, semi-tropical, and temperate climates which can permit the cultivation of a wide variety of fruits and vegetables. Adequate infrastructure including the availability of agricultural credit has to be ensured for the development of the agricultural sector.

Presently, Meghalaya is industrially backward. The contribution of the industrial sector to the State Domestic Product is a little more than 11 per cent. An increase has been registered but it is too small to indicate any substantial development of industries in the State.

The services sector has all along dominated the State's economy in terms of its contribution to the State Domestic Product. This is not unusual for a developing economy.

In the long 25 years of its existence, Meghalaya has not been able to build its capability necessary for its industrial development. Clearly, unless all the districts are uniformly developed industrially, the lopsided development of the State will continue in all sectors.

III

The focus of our present investigation is on the Ri-Bhoi district of Meghalaya where a case study has been undertaken on the four villages of the district. Though only one important mineral, namely granite, has been found in the district, yet it is very rich in forest resources and hydel power potentials. The district is rich in natural vegetation ranging from tropical to temperate dense jungles which abound in flora and fauna. Very fine varieties of Sal trees are grown in the district.

The five major rivers of the district provide great potentiality for the development of hydro-electric power. Two hydel projects have already been constructed to generate power from the Umtrew and Umiam-Khwan rivers with a generating capacity of 11.20 MW and 174 MW respectively,

which supply power not only within the State but also to other States as well.

With the low literacy rate of 30.66 per cent as compared to the state average of 49.1 per cent and the weak infrastructural facilities including banking facilities, the district has not been able to forge ahead in any sector. However it has been found that only in this district that the State sponsored industrial areas have been thriving with activities unlike in other such industrial areas in other districts. Large-scale industry yet to emerge in the district. The district has, however, the largest number of small industrial units including small scale and cottage industries among all districts in the State. In spite of various incentives, there is absence of local entrepreneurs for establishing major industries both in the manufacturing and services sectors.

IV

In the brief survey of the agricultural economy of the Ri-Bhoi district, it is found that the district has the potentials to develop its agricultural sector even to exceed the national level of productivity in certain crops like rice and maize. In the case of other crops, it is competing to reach the national level of productivity. The inter-district comparison shows that the district performs more excellently

in the production of rice and maize. It did the best in the production of sesamum oil seed among all the districts. It is the largest producer of many items of vegetables and did very well in some items of spices.

Ri-Bhoi district in particular is suitable for the development of horticulture. Pineapple is the most important horticultural crop grown in the district. The yield per hectare in respect of this crop is always above the state average yield. Horticulture and tea plantation would indeed help the district to get rid of the wasteful *Jhum* cultivation. Along with the development of horticulture, permanent occupation of lands would take place thereby solve the problematic system of traditional land tenure. It may be added that marketing facilities would have to be provided by the State to encourage the horticulturists in the district to expand production. Thus, the introduction of horticulture will go a long way in solving both *Jhum* cultivation and complicated land systems.

V

The analysis of the institutional credit of agriculture in the State and the **Ri-Bhoi** district has shown that there has been tremendous increase in bank offices in the State as well as in the district. But the agricultural advances of banks as a proportion of their total advances, work out to 19.25 per cent only in the whole State. It is also discovered

that of the 17 banks in the State, only 8 banks extended short-term crop loan to the farmers. But in both these aspects, if the performances of the co-operative banks and the Regional Rural Banks are excluded, the contribution of other scheduled commercial banks, except the State Bank of India, becomes negligible.

Although the cooperative banks and the RRBs did very well in terms of their percentage share in agricultural advances at the state level, their performances in the Ri-Bhoi district were not satisfactory. Their contribution is 30.61 per cent and 5.92 per cent respectively out of their total advances in the district and against their state average contribution 42.76 per cent and 26.77 per cent respectively.

VI

From our analysis of the data collected from our four sample villages - two adopted by the SBI and two not so adopted - it has been found that agricultural performances of the two sets of villages are not much different. The performance of the adopted villages is less impressive as compared to that of the unadopted villages. In fact, in the case of production of one of the three major crops produced in the four villages, namely, pineapple, the unadopted villages did far better than the adopted villages.

Although they have been adopted by the SBI, still there is 6 per cent each in the two villages amounting to 9 households at Umsning and 3 households in Nongthymmai which borrow from relatives. This shows that in spite of the availability of institutional credit, the people of the district still resort to the informal sector lending. While all our sample households in the adopted villages borrow for their agricultural operations, in the unadopted villages there are many farmers who cannot borrow accounting for 20 per cent and 16 per cent in the two villages respectively.

There is no farmer in the adopted villages borrowing from the village money lenders. But in the unadopted villages upto 22 per cent and 24 per cent respectively borrow from money lenders. The largest number of households in the unadopted villages borrow from relatives accounting for 58 per cent and above. It is of course true that while in the adopted villages money lenders are completely wiped off, in the unadopted villages more than 20 per cent of the farmers still depends on money lenders. It is found that in both the adopted and unadopted villages the majority (50 to 80 per cent) of the farmers is borrowing mainly for the purchase of agricultural inputs. Again in both sets of villages, many farmers in the range of 10 to 30 per cent, are utilising their loan for their consumption needs and other domestic purposes.

With regard to the terms of loan repayment, the farmers in the adopted villages make repayment of the loan in cash in respect of the loans they took from banks as they have no other option. But for the loans they took in kind, repayment in kind is made. So far as the farmers in the unadopted villages are concerned, the majority of farmers make their repayment of loans in kind as usually is the practice under the informal sector lending where the rate of interest is mostly 100 per cent. But where repayment is made in cash, the rate of interest is in the range of 8 to 10 per cent per month or 96 to 120 per cent per annum.

The most discouraging reason for defaulting in loan repayment is the failure of the farmers in both sets of villages to sell their marketable surpluses at the market price having been compelled to part with their products at low prices. In one of the unadopted villages, however, the main reason for defaulting is the large diversion of the loan money towards consumption needs. It is also to be noted that the largest number of non-defaulters in loan repayment is found among the farmers in the unadopted villages.

CONCLUSION

Coming to the end of our investigation of the needs and utilization of agricultural credit by the farmers of the Ri-

Bhoi district by making a case study of four villages, certain conclusions emerge from the findings summarised above.

First of all, it must be concluded that the adopted villages selected for our case study have been able to bring about improvement on their agricultural activities by increasing the productivity and enlarging the income of the cultivators. But the unadopted villages studied by us have not been able to do so although they have the capability to increase production.

Secondly, where institutional finance is made available to the cultivators, the village money lenders appear to have been wiped off. But where institutional finance is not available as in the unadopted villages of our case study, the dominant position of the money lenders is still evident. Thus the position in the unadopted villages calls for financial support in the form of institutional credit facilities for promoting their agricultural development and small scale and cottage industries.

Thirdly, it may be true that all our respondents in the adopted villages do not resort any longer to borrowing from the money lenders but we have information that many farmers are still borrowing from the money lenders, traders, rich cultivators and big land owners. In our two adopted villages themselves there are a number of respondents accounting for 6

per cent each who replied that they borrowed from relatives. This shows that in spite of the availability of institutional credit, the farmers still resort to borrowing from the informal sector lenders. Many reasons were given by many poor farmers in both the adopted and unadopted villages for their preference to borrow from money lenders, traders, rich cultivators, land owners and relatives. These reasons are stated to be: (1) Borrowing from the banks is time consuming, (2) Banking procedures are complex and not intelligible to the illiterate and semi-illiterate poor farmers; (3) Banks do not consider poor and illiterate farmers for advancing credit, and (4) Poor farmers usually have the impression that banks provide financial credit only to rich farmers. It would also appear that the indifferent attitude of the bank employees as reflected in their lack of interest in explaining the terms and formalities of loans to the prospective borrowers and their uncordial treatment of the customers, keep away most farmers from banks.

Fourthly, there is a fairly large number of farmers who dare not borrow from the informal sector of lending for fear of losing their land and other properties. If institutional credit is available and if the right motivation is created for them, they would readily response and avail themselves of such institutional credit capable of raising their methods and techniques in agricultural production. This conclusion is

supported by our finding that the borrowing patterns are similar in both sets of our sample villages selected for our case study.

Fifthly, the availability of institutional credit for agricultural sector in the **Ri-Bhoi** district where *Jhum* cultivation is practised fairly extensively, would go a long way in enabling the *Jhum* cultivators to avoid this wasteful practice. Horticulture and tea and rubber plantations have now been encouraged through state efforts. If these activities are backed up with the readily available agricultural credit, the problems of *Jhumming* and complicated land system could be overcome in the district in the near future.

Sixthly, with the improvement of transport and communication, the **Ri-Bhoi** district in particular will no longer remain isolated from the national economy. Hence cropping pattern in the district will also have to be changed. This lends support to the conclusion that horticultural and plantation activities would revamp the economy of the district.

Seventhly, our finding that a good number of borrowers of agricultural loans, is utilizing their loan for consumption needs and other domestic purposes, suggests that short-term loans during the busy sowing and harvesting

seasons would go a long way in ameliorating the financial need of the farmers.

Eighthly, as the emergence of entrepreneurs in the manufacturing and services sectors may take some time more, the development of agriculture in Ri-Bhoi district should continue unhampered with the flow of agricultural credit to a great possible extent.

Ninthly, above all, the capability building of both the human resources and the district itself should precede before it can forge ahead and achieve the level of development that would ensure welfare and prosperity to the people. In this regard, the district should be opened up with better roads and communication. The infrastructural facilities, both economic and non-economic, have to be extended rapidly. This should, of course, include the availability of agricultural credit facilities from banks and other financial institutions to serve the credit needs of the farmers who are poor, illiterate and uneducated.

Finally, the informal sector lending should be totally eliminated from the district. To free the rural poor from the clutches of the private money lenders and to bring them instead to the fold of the banking institutions, simplifications of lending procedures and diversification of rural credit for rural development are the need of the hour. This conclusion is suggestive of the following measures:

One, to involve local bodies and traditional organisations for the preparation of a list of farmers taking loans from private money lenders thereby enabling the lending institutions to extend the required credit to them in an easy manner.

Two, to involve the non-governmental organisations formed by persons well-known to the farmers in the rural areas for their honesty and integrity, which would monitor the sanction and disbursement of loans in their own areas and to help in the recovery of such loans after the period of repayment is over.

Three, to give wide publicity to the available schemes of agricultural finances for different categories of farmers.

Four, applications for loans may be processed in public meetings held for the purpose in the concerned locality itself.

Finally, the sanction and the disbursement of the loans may also be made in such meetings to be held at regular intervals.

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APPENDICES

APPENDIX-I

List of 59 Registered S.S.I. Units in Ri-Bhoi District

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
1.	M/s. Nongpoh Rice Mills Prop. Smti Abina Maring Pahamsyiem, Nongpoh	20,000	320 Qts. 20 Qts.	3
2.	M/s. Meghalaya Rice Mills Byrnihat	48,779	1176 MT. 20 Qts.	5
3.	M/s. Jenifer Rice Mills Umsning (Nayabunglow)	-	-	
4.	M/s. Mawlaismai Rice Mills Mawlaismai, Ri-Bhoi Dev. Block Prop: Sri Yoreshan Mawlong	19,000	300 MT. 20 Qts.	3
5.	M/s. Killing Rice Mills Killing Via. Khanapara 9th Mile	24,000	300 MT.	3
6.	M/s. Meghalaya Saw Mills Khanapara, G.S. Road	1,65,838	99,600 Cft.	8
7.	M/s. Syiemlieh Saw Mills Khanapara, Prop: Sri Wasslal Syiemlieh	2,78,000	24,000 Cft.	11
8.	M/s. Motherland Saw Mills Khanapra	1,00,000	-	11
9.	M/s. Meera Saw Mills Prop. Smti Meera Marak, Byrnihat	1,20,000	80,000 Cft.	5
10.	M/s. Khanapara Saw Mills Prop: T.I. Syiemlieh Khanapra (Marwet)	84,000	6,500 Cft.	9
11.	M/s. Timpack (P) Ltd., 15th Mile G.S. Road, Byrnihat	21,38,063	-	65
12.	M/s. Diengdoh Handicraft Mawsahew Via Tynrong BPO Prop. Shri Esterwell Diengdoh	3,500	8,520 Cft.	3

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
13.	M/s. Willis Handicrafts Mawsahew Via Tynrong BPO Smti Willismon	3,000	Murrah 100 Nos. Basket 200 Nos. Mats 100 Nos. Decora- 80 Nos. tive Items	2
14.	M/s. Mohen Industry Rongphaihong, Nongpoh Prop. Sri Mohendro Nongrum	2,800	6 MT	8
15.	M/s. Pahamrioh H.B. Industry Pahamrioh via Nongpoh Prop. Shri K. Nongkynrih	4,500	1,20,000 Cft.	4
16.	M/s. Meghalaya Hume Pipe Industry Basantabari, Byrnihat	7,57,000	30,00,000	21
17.	M/s. Meghalaya Steel & Concrete Products (P) Ltd., Byrnihat I/E	7,00,000	PSC Fencing Posts - 10 lakhs PSC Poles - 9600	27
18.	M/s. Meghalaya Towers & Trusses Ri-Bhoi, Umsning	8,43,836	9000	39
19.	M/s. Umiam Calcinate (P) Ltd. Barapani I/A.	14,48,178	6000 MT	34
20.	M/s. Meghalaya Lime & Minerals Industry, Byrnihat	5,48,000	3500 MT	25
21.	M/s. Hiks Industry, G.S. Road, Khanapara Prop.: D. Dkhar	1,20,000	Stones 27,000 MT	41
22.	M/s. Blah Brothers Stones Crusher Lower Paradise, BPO Bhoilymbong Prop.: D. Lyngdoh	2,35,000	3750 CM	10
23.	M/s. Pathar Paham Stone Crusher Industry, Khanapara	1,75,000	5334 CM	17
24.	M/s. Meghalaya Biscuit Factory Byrnihat	3,000	9,00,000 Nos.	7

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
25.	M/s. Umsning Bakery Prop. Smti. Rout Kylla, Umsning	41,300	92 MT	8
26.	M/s. S.B. Industries 9th Mile, Khanapara	20,000		5
27.	M/s. Premier Roller Flour Mill I/A. Barapani	18,40,000	19,000 MT	32
28.	M/s. Meghalaya Candle Industry Khanapara Prop. Smti Phiri Shullai	7,230	30 MT	13
29.	M/s. Meghalaya Plasic Industry Khanapara Prop. Celine Rymbai	65,000	3,50,000 MT	13
30.	M/s. Arcay Estate Barapani Prop.: N. Narang	7,066	3,000	4
31.	M/s. North Eastern Essential Oil Product (P) Ltd. Ri-Bhoi Saiden, Nongpoh	10,000	266.4 Lit.	6
32.	M/s. A.T.C. Service Company 15th Mile, Byrnihat	12,55,242.3	4,800 Nos.	14
33.	M/s. Umroi Blacksmithy Association Umroi	6,000	Agril. Tools 2,000 Nos.	10
34.	M/s. Meghalaya Construction and Engineering, G.S. Road, Khanapara	49,595	1. Bus Body - 4 Nos. 2. Trucks - 6 Nos. 4. Van - 4 Nos.	34
35.	M/s. Nongkynrih Weight Bridge 4th Mile Khanapara, Baridua Prop.: S.S. Nongkynrih	5,25,000	18,250 Nos.	4

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
36.	M/s. Sri Krishna Udjoh Khanapra Prop.: Shri Jagadish Prasad Agarwal	87,000	1,50,000 Nos.	5
37.	M/s. Lymba Bakery, Umsyiem Sri Will Press Lymba	37,000	3,24,000 Nos.	5
38.	M/s. Umsaw Nongbri Rice Mills Prop.: Smti Trenbon via Nongpoh Umsning	-	-	5
39.	M/s. K.L. Industries Baridua Prop. Sri B.K. Agarwal	1,25,000	-	10
40.	M/s. Aurovalley Flour Mill Baridua Prop.: Sri A.K. Deorah	60,000	16	14
41.	M/s. Lapang Furniture Mawtnum, Nongpoh Prop.: Shri J. Lapang	5,000	81,000 Cft.	6
42.	M/s. Sai Rice Mill 9th Mile Khanapara Prop. Sri Shanbor Lyngdoh	-	-	6
43.	M/s. Rynjah Amalgated Industries, Byrnihat	1,02,641	Sawn Timber - 8100 Cft. Waster Timber - 5200 Cft.	14
44.	M/s. Dolly Rangkhlem Rice Mill Umtasor, Nongpoh Prop.: Dolly Rangkhlem	70,500	450 MT	3
45.	M/s. Ri-Bhoi Food Products Garikhana, Nongpoh, NH-40 Prop. Smti S. Blah	20,000	Atta - 324 MT Wheat - 2.4 MT Bran	3
46.	M/s. Nongkynrih Steel Products Umtru Power House, Byrnihat	9,03,000	Steel Tabular Poles - 8 Mt. Steel Tabular Poles - 75.1.2600	10

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
47.	M/s. Byrnihat Chakki Mill Byrnihat	1,61,812	Atta - 2624 MT Wheat - 233.38 MT Bran	7
48.	*M/s. Aiti Store for Fashionable* Clothes, Garikhana, P.O. Nongpoh Prop.: Sri Jeta Khonglah	*12,500*	*2,68,930*	4
49.	M/s. Marsyiem Lime Works Nongthymmai BPO, Umsning Prop.: Shri S.M. Syiemiong	27,50,000	Unslaked Lime - - 6000 MT Slaked Lime - 200 MT Hydrated - 200 MT	61
50.	M/s. Kylla Automobile Umsning P.O., Nayabunglow Prop.: Shri Rogesson, Nayabunglow	60,000	Repairing & Servicing of Trucks - 120 Nos. Jeep - 100 Nos. Ambassador - 80 Nos. Others - 50 Nos.	6
51.	M/s. Mavi (Ice Cream) Prop.: Smti C. Mavi, Lahai	-	-	
52.	M/s. Dhomsingh Pariong Cane & Bamboo Handicrafts Prop. D. Pariong, Nongpoh, Umlangkdait	5,000	Cane & Bamboo Crafts - 84,000	3
53.	M/s. Lyngdoh Chakki Mill Prop.: Sri Koste Lyngdoh Them Marwet, Khanapara	38,000	Atta - 1080 MT Wheat Bran - 96 MT	3
54.	M/s. Umden Cane & Bamboo Handicraft, Umden, Raidongtluh Prop.: Sri J. Shylla	3,500	Mula & Stools - 600 Nos.	2
55.	M/s. Myrthong Tailor Nongpoh P.O., Ri-Bhoi Prop.: Sri Ailingstar Myrthong	-	-	

Sl. No.	Name and Location	Capital Investment (Rs.)	Installed Capacity	Number of Workers Employed
56.	M/s. Umling Atta Chakka Mills Umling, Ri-Bhoi	60,000	Atta - 1620 MT Wheat - 144 MT Bran	4
57.	M/s. Shanbok Bakery 9th Mile, Khanapara Prop.: Sri Shanbok Lyngdoh	86,000	Atta - 800 MT Wheat - 100 MT Bran	4
58.	M/s. Premier Bakery I/A. Barapani Prop. Shri Mohendro Rapsang	60,700	Bread - 1200 MT	30
59.	M/s. K. Kurbah Atta Chakki Mills Byrnihat	25,700	Atta - 432 MT	3

Source: Government of Meghalaya, Directorate of Industries, Shillong.

APPENDIX-II

LIST OF VILLAGES ADOPTED BY THE STATE BANK OF INDIA NAYABUNGLOW

1. Umsning
2. Nongthymmai
3. Umran-Dairy
4. Umran
5. Syad-Rit
6. Syad-Heh
7. Syad-Lyngdoh
8. Thad
9. Mawthei
10. Nongkya
11. Raitong
12. Umran-Umniang-Byrnai
13. Mawlyngkhung
14. Umkei
15. Laiphewdingngan
16. Lumniangdot
17. Tihwieh
18. Myrdon (Mawlong)
19. Myrdon (Mawtari)
20. Myrdon (Nongmahir)
21. Tdohumsiang
22. Mawkohngei
23. Bandudai
24. Mawlein-Mawkhan (Lalcharai)
25. Mawrong
26. Lumnongrim
27. Sohliya
28. Nongjri
29. Myrdon (Nongbah)
30. Zero-Point
31. Kyrdemkulai
32. Mawkhap
33. Paitklong
34. Umtham
35. Umtrew
36. Umsaitsning
37. Umpih
38. Myrdon
39. Sohpdok
40. Sumer
41. Umsohlang
42. Umsalem
43. Nongdewsaw
44. Umsnu (Gunte)
45. Lawbyrwa
46. Umrnong
47. Rilong
48. Myrdon (Umksih)
49. Ratiang
50. Umdiker
51. Mawkynrong
52. Umsohlait
53. Umtangling
54. Syngku
55. Umshiaw
56. Mawhati
57. Umlatar
58. Umaiteng
59. Umjapung
60. Mawlyndep
61. Umrleng
62. Umhir
63. Nongumtrew

APPENDIX-III

QUESTIONNAIRE SCHEDULE

FOR

Ph.D. Thesis

on

AGRICULTURAL CREDIT IN RI-BHOI DISTRICT OF MEGHALAYA
(A CASE STUDY OF FOUR VILLAGES)

Supervisor:

Prof. P.M. Passah

Investigator:

Mrs. Ñiewkor Syngkon

DEPARTMENT OF ECONOMICS
NORTH-EASTERN HILL UNIVERSITY
SHILLONG

NOTE: INFORMATION collected through this Questionnaire will be used only for academic purpose and will be kept strictly confidential.

Date:

Place:

Signature of Investigator

1. Name of the Farmer:

2. Sex: M ☐ F ☐

3. Age ☐ years

4. Caste: SC/ST General

5. No. of dependents ☐

6. Education: Literate ☐ Illiterate ☐

7. How long staying in the village/locality:

   Since by birth ☐ Recently ☐

8. Occupation: Farmer ☐ Artisan ☐

   Landless Farmer ☐ Others ☐

9. House/Hut: Permanent ☐ Temporary ☐

   Owned ☐ Rented ☐

10. Health:		Respondent	Family Members
	Sound health	☐	☐
	Sickness occasionally	☐	☐
	Affected by major diseases	☐	☐
	Physically handicapped	☐	☐

11. Do you have relatives in the village? Yes ☐ No ☐

12. **Sources of Credit**

a) From whom: Money lender ☐ Friends & relatives ☐

Others ☐

b) Since how long (average): _____months

c) Amount borrowed (average): Rs. _____

d) Do you know what is a period of loan repayment?

Yes ☐ No ☐

If yes, state the period _____ months.

e) Do you know how much to repay? Yes ☐ No ☐

13. For what purposes you have borrowed?

Personal: Consumption ☐ Sickness ☐

Marriage ☐ Other social Ceremony ☐

Festivals ☐ Death in the Family ☐

House repairs ☐ Court case ☐

Any other purposes ☐

Farming: Purchase of seeds ☐

Purchase of fertilizers ☐

Harvesting ☐

Digging a well ☐

Repayment of old loan ☐

Others ☐

Busines: Purchase of materials ☐

Purchase of small machinery ☐

Repayment of old loan ☐

Others ☐

14. State the rate of interest (average) _____

15. Have you signed any document/s Yes ☐

If yes, state what the document/s that you have signed?

16. Have you given any asset as security? Yes ☐

If yes, which asset you have offered as security _____

17. Mode of repayment Cash ☐ Kind ☐

18. Details about a Money Lender

(1) Since how long you know the present money lender_____ years.

(2) When did you borrow for the first time? ___ years back.

(3) Did your father/elder brother borrow from him?
Yes ☐ No ☐

(4) Reasons for preferring to borrow from a money lender?

He is a local person, speaks in my language ☐

No formalities ☐

Money is available even in odd hour and too in just few minutes ☐

Purpose of loan is immaterial to him ☐

Friendly to me ☐

No security/No guarantor asked for ☐

Known to me for a long time ☐

(5) Does he tell you in plain and simple words about the period of loan, rate of interest and loan repayment schedule etc. while giving loan amount?
Yes ☐ No ☐

19. Perceptions about Bank Credit

- Name a bank in your village/in nearby village
Government office ☐ Organisation meant for rich people ☐
I do not know ☐

- Have you visited the bank branch in your village?
Yes ☐ No ☐

- Did you borrow from the branch Yes ☐ No ☐

If yes, give details:

When borrowed _____ years back. Amount of loan_____ (average)

Purpose of Personal, farming and business

20. Repayment of loan Yes ☐ No ☐

If No, reasons for default_____

- Have you any plan to borrow from the branch in future?
Yes ☐ No ☐

If yes, give details of your plan

Loan amount Rs._____

Purpose/s of loan_____

21. Do you know about the following:

Purposes for which bank loans are available ☐

Maximum loan that can be obtained ☐

Interest rate ☐

Loan repayment ☐

Security ☐

Guarantee ☐

Loan application form ☐

Bank formalities ☐

22. It is said that banks are not meant for poor people. Do you agree? Yes ☐ No ☐

If yes, what are views?

They first ask for deposits and then agree for loans ☐

They are educated but we do not understand what they talk. They do not explain bank formalities in a convincing manner ☐

They ask us to produce rich guarantors who are not known to to us ☐

For rich people, a good treatment is given but we poor ones are looked down ☐

Others ☐

23. It is also said that branches are not much involved in development of poor people. Do you agree?

Yes ☐ No ☐

If yes, please state your views.

Manager and his staff do not stay in the village ☐

Manager and his staff do not speak in local language ☐

They do not participate in local social functions ☐

They are not present in the marriage, local functions, etc. ☐

Others ☐

Bank branch is far away ☐

Bank employees are alien to us ☐

Bank borrowing is time consuming ☐

Bank procedures are complex and not easy to understand ☐

24. **Other Questions**

Are you aware of benefits from bank? Yes ☐ No ☐

If yes, please state such benefits:

_____

_____

_____

_____

Please offer suggestions to banks so that you are happy and made free from borrowing from a money lender:

_____

_____

_____

Signature/Thumb Impression of Respondent