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# DEVELOPMENT PROBLEMS AND PROSPECTS OF MIZORAM



K.K.UPADHYAYA

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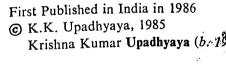
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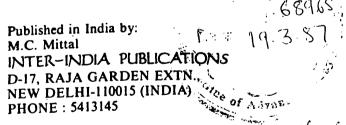
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This is an attempt at visualizing some crucial parameters of the economy of Mizoram in the hope that it will be of some use in choice of a suitable strategy for the economy. The main consideration has been to bring out the problems and prospects for the Union Territory in the relief of national economy so that the constraints and options may be identified.

Partly because the political unit came into being only in 1972 but mainly because of the circumstances of the place itself which are sought to be explored here, there is very little data base for the economy.

Dr. B.D. Sharma, Vice-Chancellor of North-Eastern Hill University, has taken much interest in this endeavour since its inception in 1982. With his long involvement and keen insight in the development of "tribal society" (a term which itself would need to be examined carefully) he has given me much encouragement to rush through this work. I have greatly benefited from his writings, talks and consultations and owe a debt of deep gratitude to him.

I am very grateful to the Faculty whose resourcefulness and insight in this matter I have been allowed to freely draw upon for this work.

I must acknowledge my debt of gratitude to my friends in Government organisations here, several public men and men in the streets who helped me understand the subject.

Aizawl
31 March, 1985

K.K. UPADHYAYA

#### **CONTENTS**

		Page
	PREFACE	v
	LIST OF TABLES	ix
1.	Frame of Study and Overview of Literature	1
2.	The Mizo People and the Beginning of Development	
	Effort	14
3.	The Natural and Manpower Resource, Technical	
	Infrastructure and Industry of Mizoram	27
4.	Emerging Production Relations in Primary Sector	
	and the Prospects in Forestry and Plantation	42
	POSTFACE:	
	A Development Strategy for Mizoram	56
	BOOKS CITED	59
	INDEX	63

#### LIST OF TABLES

		Page
2.1	Public Development Outlay in Mizoram (1972-85)	23
3.1	Occupational Structure in Mizoram (1981)	29
3.2	Forest Area in Mizoram (1982)	32
4.1	Agricultural Output in Mizoram (1951-85)	48
4.2	Terracing Financed by Soil Conservation	
	Department in Aizawl (1972-85)	50
4.3	Commercial Crop Plantation Sponsored by Soil	
	Conservation Department in Aizawl District in	
	the Sixth Plan	54

# FRAME OF STUDY AND OVERVIEW OF LITERATURE

In this chapter, first of all, we will bring out what might appear to us the main consideration in framing a development strategy for a very backward region within a planned developing economy like India which has been very vocal as regards its intentions of setting up a "Socialist Society", removal of poverty, welfare of the poorest of the poor, literacy for all and guaranteed employment to at least one person in a family. Therefore, we need to clarify what has been the concept of development in the country so that the nature of development strategy for our region may be worked out.

#### Some Features of Indian Economic Planning

India did not have its economy shattered in the Second World War because except for some sectors in the North-Eastern parts of the country it was not a theatre of War. On the contrary, the War gave considerable stimulus to several of its industries, many of which had a round of "infant industry" protection earlier. So apart from shortages of certain crucial chemicals, metals and machinery and some overdue replacements and renovations there was no problem relating to the then existing industry and economic infrastructure. And while food shortage emerged due to partition in 1947, there was a sizeable sterling balance due on U.K. which could come handy for this class of problems.

The real problems facing the economy were elsewhere and economic planning was supposed to take these in its stride. On the eve of the First Five-Year Plan in 1951, the real economic problem was of low natural resources compounded by unproportionately large human resource of low quality (in respect of skill for and orientation towards work), low capital assets highly exploitative domestic and international trade relations. This has been variously described as low or zero productivity, low per capita income, low savings, disguised unemployment, and so on. Now, what the First Plan (1951-56) tried to do with the situation was to strengthen the railway and road transport system, renovate and expand textile, sugar and cement industry, develop some hydroelectric and canal irrigation projects and take up some programmes of liberal and technical education and public health. This involved considerable expansion in public expenditure but investment ratio would not go beyond about 13-14 as compared to 9-10 at the start of the Plan and, by design, there was not to be any appreciable impact on backward regions or the very poor sections of the population.

The Second Plan (1956-61) started the era of deliberate "unbalanced growth" of heavy industry and import substitution (which has gradually shaded into export promotion) so that by the end of 1970's there could be a noticeable maturity in balance of payments and neo-colonial exploitation could be contained to a significant extent. The Fifth and Sixth Plans (1974-85) have given more attention to regional development and direct attack on poverty through devices like Tribal Sub-Plans (as since the Fifth Plan), Special Component Plans for the Scheduled Castes beginning with the Sixth Plan (1980-85), Twenty-Point Programme incorporating various projects on employment guarantee, minimum needs, and integrated rural development.

# Some Considerations for framing a Development Policy for Mizoram

Now Mizoram which was carved out of Assam in 1972 as a Union Territory as a part of a major reorganization under North-Eastern Areas (Reorganization) Act, 1971 is a tribal territory with a concentration of 93.5 per cent as in the 1981 Census, being higher than anywhere in country. In 1951, there was only one jeepable road of 180 kilometres for an area of 21,000 square kilometres, an all-weather river navigation of about 170 kilometres, no electricity nowhere, only two high schools for a population of under 3 lakhs, and little medical facility. With forestry as the mainstay, the people eked out a bare existence. It did not turn out to be a mineral belt, or the close hinterland of even a minor port, nor had it been opened out by a rail system. It stood completely landlocked and isolated made all the more so because of emergence of Bangladesh (East Pakistan). What development path would one recommend for it?

This is intricately connected with what have been the provisions of Constitution in respect of tribals and the North-East Region and a most relevant matter here has been the policy of Congress (1), the ruling party at the Centre (with exception of a brief period of 1977-79) to preserve the culture and life-style of the tribal people assiduously. The policy was mooted by Mr. Nehru and loyally pursued by Mrs. Indira Gandhi. In view of this, a paramount consideration here becomes to protect at least the isolated tribals from the onslaught of the emerging socioeconomic forces in the mainland through extension of some sort of "Excluded Area" status given under the constitution of 1931. so as to preserve the essential customs and traditions of these people and to limit governmental intervention to only abolition of most obnoxious practices like chief system and creation of facilities like education, health care, transport, electricity, and agricultural extension. And all this would be with a view to preparing the community to take decisions in the matter.<sup>1</sup>

At the same time great care would have to be taken to put the last man first so that the more vocal, articulate and resourceful among the tribals euphemistically called the "elite" should not be in a position to usurp most of the gains of development. The most important consideration in this exercise on development pattern for these areas would, therefore, be that just as the peripheral economies of poor countries have to be insulated from neo-imperialism of the rich countries through regulation of international trade, promotion of aid and transfer of technology,

the tribal areas are to be protected from the onslaught of the exploitation by national mainstream through several devices for isolation and the helpless vulnerable sections of tribals have also to be protected from their own men who might be exploiting them. One good aspect of these societies is comradeship and fellow-feeling and Mizoram might appear to be one of the most egalitarian regions in the country (to which areas like Jammu and Kashmir might be the nearest approximations) and, therefore, it would be a pity if such regions also go down the way of exploitation which is the lot of several tribal groups in the country. The preservation of egalitarian structure might thus be taken to be a crucial aim of development planning of such regions.<sup>2</sup>

Another very important consideration for development policy of the region emerges from compulsions of three circumstances:

- (1) Mizoram is one of the most inaccessible regions of the country sandwiched between Bangladesh and Burma, and Chinese borders are also not far away;
- (2) 93.5 per cent of the population is of Chinese-Burmese stock, newly converted to western ways of life and Christianity with very strong and live connections with England and U.S., and
- (3) Insurgency that broke out in 1966 and which still continues. All this attaches the greatest sensitivity and urgency to the task of development here.

The literature of regional planning is replete with the seminal concept of "growth pole" (a la Perroux<sup>3</sup>) and its American proliferation into "growth centre." Essentially, the concept tries to capture the most usual geographical features of unassisted growth process and then tries to offer some tips for assisted and supervised growth. The various levels of articulation of settlements have been classified into hamlets, service centres, metropolis, megalopolis and so on and esoteric geometrical (hexagonal and orthogonal, etc.) relationships between these have been worked out to the level of a fad. In fact that seems to be the main thing apart from hurried global comparisons which keep

the people at places like United Nations Centre for Regional Development at Nagoya and the lesser ones occupied.<sup>4</sup>

Now the resistance to the policy prescriptions of "regional planners" of this variety at the hands of public men and planning authorities have been in proportion to the enthusiasm of the former so that with growing disenchantment with them their work is now limited to "reviewing" the development or otherwise of regions.

The fact of the matter is that growth is such an involved and complex process that the spatial generalizations as have been done by "regional planners" are generally too far fetched and laboured and the moment we choose to back up a "pole" depending on its propulsive potential that goes such a long way to "determine" the growth of the "pole" that the process of selection of pole and determination of the level of back-up become subjects of great politicking, agitation, and lobbying. It is common knowledge that "Ozawas" of Tanzania and "Amethies" of India are not identified through any of such theories.<sup>5</sup>

It is, therefore, alright to develop a stretch of settlements embossed on the land form so that transport and energy system may be designed but beyond this there is not much that can and need be decided. But performance of such task is generally not considered to be "regional planning" recept in the fluffy sense.

Especially for a region like Mizoram, in view of the considerations made out above, it is much more important to decide how the most disadvantaged settlement and the most vulnerable family is to be tackled than to find out how best a service centre should be developed. And if the settlement shows no hope of being viable this again has to be made clear to the settlers who have had a long experience of large scale resettlement any way.

Thus the watchward would need to be viability so neatly imbibed in V.K.R.V. Rao's "Cluster Approach" put forward in connection with his studies on development of Tumkur Area (near Bangalore). To quote him:

The unit area for rural development has to be large enough to be viable, diversified enough to enable integration and, at the same time, small enough to establish a sense of community identity and a feeling of belonging.

Thus the schematic map of Mizoram that has been supplied here would seem to indicate that of the 22 Community Development Blocks those of in Western and Southern Mizoram need to be helped most.

At the same time any attempt to pamper the people would make the task of development more and more elusive. Excessively liberal Union assistance would cause same pauperization in a backward Union Territory as is caused in a backward country by excessive foreign aid. B.D. Sharma's warning in the matter is worth repeating:

Path to economic development goes entirely through determined handiwork of the people and any plan which compromises on this is detrimental to its real objective.<sup>7</sup>

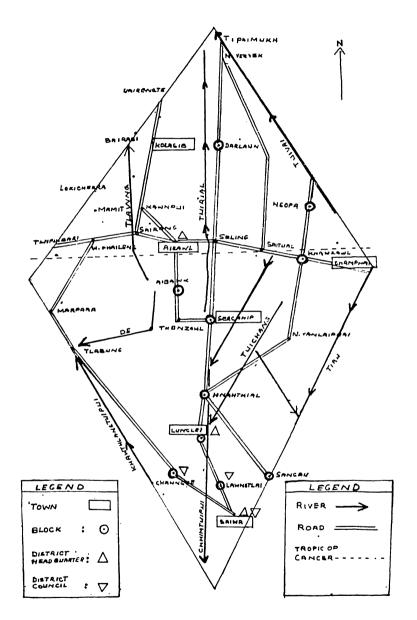
At the same time it is of paramount importance that as far as possible the development should be managed through the local people and just as the outsiders working here should not be allowed to be treated as second class citizens they must not be allowed to boss over the tribal people which is happening in the mainland.

Lastly, the local people must not be allowed to be "museum pieces" so that tourism should be managed strictly according to this consideration and all help offered to the people must be strictly institutionalised so that the self-respect of the people is not affected. In view of this the present practice of allowing Mizo orphans to be adopted by families in England and U.S. by the dozens would appear to have little to commend itself.

# Features of Tribal Society and Special Provisions of Union Assistance for it

An understanding of main features of tribal society would be of crucial importance in a study like this. Now while Indian tribes would appear to be different from that of America, Africa and elsewhere and among the hundreds of tribes in the country there again are important variations.

Then in view of the modernization, westernization and conversion to Christianity some tribes have changed so much that drawing of a line between a tribal and non-tribal society has



Schematic Map of Mizoram

been becoming more and more difficult. In the mainland there has been a remarkable assimilation of tribes with neighbouring communities and some of them are made to appear as and are even listed as Hindus. In the 1930s and 1940s, most of the tribes in Central India were found to be anxious to throw away their identity, and join the mainstream; it appears that the constitutional safeguards given to them and duly extended through constitutional amendments till 1990 have made them overjealous of their special features, whatever these might be.

In any case there is now noticeable a lot of interaction and interdependence between one tribe and another, and a "tribe" and the "mainstream" of the society while belief in a special and different identity persists and the desire to perpetuate and guard it jealously continues unabated.

S.C. Dube, the distinguished anthropologist, very hesitatingly defines a tribe as "an ethnic category defined by real or putative descent and characterized by a corporate self-identity and a wide range of commonly shared traits of culture."

It would appear that some socialization of production relation is a feature of tribal economic formation because it knows of little outside governance and takes care of at least some social overheads through its unique institutions. Thus a typical tribal organization offers a caricature of appropriation of "surplus value", an articulated communist organization. The Mizo tribal chief ("lal") would take several cuts from the produce ("fathang" or "zoram buh chhum" from "tawngya" farmers), a share in salt extracted from the village quarries ("chikhur") and some lion's shares from huntings, a part of which may go to the maintenance of community centres-cumdormitories called "zawlbuk" and general hospitality to the members of community when working on village ways or water reservoirs ("tuikhur").9

At the same time mention of a tribe rightly brings to our minds the notions of a largely egalitarian and non-hierarchic social structure, a general lack of scientific attitude, adherance to low technology and over-dependence on primary sector, low productivity and some kind of communal ownership of land.

Apart from the usual facilities for reservation of vacancies in Government and Government-aided agencies for the members

of tribal class as also in educational institutions there are special considerations for them in industrial and other licensing and grant of loans from Government agencies and banks.

Perhaps the most important provision is Article 275(i) which enjoins the Union to transfer funds for tribe dominated regions for "raising the level of administration of such areas to the level of administration of the rest of the areas in that State". Such transfers are a charge on the Consolidated Fund of India. To ensure fairness, determination of grants under this is left to Finance Commissions.

Now the Seventh Finance Commission (1978) went beyond exploring "revenue deficits" of States and considered "non-plan capital account deficits" also and made recommendations on this account as well. The Eighth Finance Commission (1984) also did same and as the States with tribal population are deficient in resources to that extent because of general poverty of the tribal and the difficulties in taxing them, this has been of help to them.

And when beginning with the Fourth Plan (1969-74) matching grant assistance by Planning Commission was replaced by straight grant under Gadgil formula it was again a great help to such areas because of 60 per cent weightage to population, 10 per cent weightage to per capita income being lower than average national per capita incomes and another 10 per cent to special problems.

The formulae used by Finance Commissions for distributing proceeds of Income Tax has been more and more suited to such areas. While as against 55 per cent of Income Tax being shared with States over the period of the First Finance Commission as high as 85 per cent is being shared now, since the Fifth Commission population has been allowed to have 90 per cent weightage (as against 80 per cent before that).

As regards the sharing of excise duties beginning with the Seventh Finance Commission, 40 per cent of the collections (as against 20 per cent before) were shared with States. Till the period of the Third Commission, 90 per cent of the disposable share was to be allocated by population and 10 per cent by backwardness and the proportion of scheduled castes and tribes in the population. In the Fourth and Fifth Commissions

(covering the period of the Third Plan and the period of Annual Plans) this weightage for backwardness and composition of population was increased to 20 per cent. The Sixth Commission recommending for the Fourth Plan allocated 75 per cent on the basis of population and 25 per cent on the basis of distance of per capita income of a State from the average national per capita income. The Seventh Commission reporting for the period of Sixth Plan reduced the weightage of population to 25 per cent and gave some weightage to three other considerations: income adjusted total population, percentage of the poor in the population and the requirements of a State for revenue equalization.

Beginning with the Fifth Plan, the States have been required to make Tribal Sub-Plans for areas where the population is predominantly tribal and there have been special allocations for it from the Centre. Thus Rs. 200 crores were provided for it apart from Rs. 100 crores to North-Eastern Council.

In the Sixth Plan, special assistance was allocated even for those areas where the population was not predominantly tribal but tribes were there all the same. Special Component Assistance has been made on the principle of supplementation to bring about required changes in priorities in States with scattered tribal population to arrange critical inputs and to make available resources for executing some ongoing projects of special benefit to tribal population. The allocation under this "supplemental assistance" has been made on the basis of a weightage of 5:3:2 for three considerations—total population in Sub-Plan Area, geographical area of the Sub-Plan and per capita gross output of the State.

It would appear that the idea behind these arrangements has been to see that development programmes of special relevance to tribal people should not suffer for want of finance and it is in nature of extension of the facility under which full reimbursements were earlier made for setting up Tribal Development Blocks.

However, as for the Union Territories the above-mentioned principles of awards serve as illustrative principles in deciding various grants by ministries which are discretionary in the ultimate analysis. And as for the Planning Commission it has to override Gadgil formula for areas like Mizoram because of its special circumstances.

To the fact that Central assistance is liberal even the local political parties would testify. Thus a memorandum to the Prime Minister dated 17th September, 1982 by the President of the then ruling Peoples Conference says:

Mizoram as a Union Territory is receiving liberal sums as grant from the Government of India in accordance with allocations made by the Planning Commission and Ministry of Home Affairs. They cover both Plan as well as non-Plan (expenditures) (pp. 6-7).

It is then little wonder that Credit Deposit Ratios in Mizoram hover around 15 per cent which is natural when there is so much of direct Government financing of several production activities and even consumption expenditure. For example, even an I.A.S. officer may get loans amounting to lakhs of rupees for building a house to be rented out to the Government, a lot of advance can be paid to a Mizo supplier just having a semblance of access to the articles intended to be supplied, almost anybody can get three-fourths of the actual expenses of going for treatment to Christian Medical College, Vellore by air and, of course, fake subsidies in thousands of rupees for minor irrigation, contour terracing and plantations are rampant. For those ignorant about all this it will be hard to compromise the figures for "development outlay" with the actually observed build-up of individual or social "productive assets". Nagaland State Incomes show little responsiveness to public development outlay, so it is as well there is no State income series for our region.

#### Review of Literature

The literature on Mizoram is scant. Luckily the army and civil officers responsible for annexing and administering the territory in the later part of the last century and early part of this century have left some detailed and reliable accounts of the life of the people here. For example, Shakespear published a book in 1912 and N.E. Parry one in 1928 and another in

1932. B. Carey and H.N. Tuck's volume came in 1931. Some Mizoram authors have tried to enquire into the passage of the tribe through time. As a sample of this class of publications Lal Biakthanga (1978) and Lalthangliana (1977) may be mentioned. Assam Government has been publishing annual reports on the administration of Lushai Hills District (the former name of the territory) to which A. Roy has had remarkable access which is reflected in his well-researched volumes of 1972 and 1982. N. Nibedon has told the story of Mizo insurgency with great professional competence in his book of 1980.

S. Bose made the first study of farming operations in a village (1967) and the Agro-Economic Research Centre of Jorhat has also been involved in some such studies with which P.C. Goswami (1969)<sup>10</sup> and N. Saha (1973) have been mainly associated.

The Planning Commission has instituted some studies which have resulted in some documents (1967, 1969 and 1982) which relate to, among others, Mizoram also. An earlier report (1963) prepared by K.S. Krishnaswamy was specifically related to Mizoram. Lalkhama prepared a report on behalf of Union Ministry of Industrial Development (1971) and his keynote address to Seminar on Strategy for Planned Economic Development of Mizoram (1976) is an important document. In this seminar C.G. Verghese gave a very important paper on water resources of Mizoram which are now being explored by Central Water Commission in a big way.

There has been no cadastral survey of land in Mizoram and land records are largely in the nature of best estimates through inspection. Survey of India's topo-sheets (Series 83A, etc.) on 1 cm=500 m scale alone are the source for data on topography. Forest in Mizoram have not yet been fully demarcated. The Department of Economics and Statistics conducted a survey of living levels for 1980-81 but owing to several lapses in methodology and deficiencies in investigators the results were highly suspect and have not even been fully tabulated and processed. However, a Socio-Economic Review for 1979-80 (1981) is available which is the most comprehensive compendium of data available now. The quinquennial Agricultural

Census for 1976-77 has been reported but no study under N.S.S. has been reported to date. The 34th Round (1979-80) survey of trade, however, is at an advanced stage of processing and is to be out soon. The family living survey of 526 households for 1983-84 is under processing. The output data of Mizoram have been found so deficient that separate Union Territory income series are not prepared.

Some of the 1981 Census reports are now available, but because of systematic influx of population both from Bangladesh (of Chakmas and Muslims) and from Burma (of Mizos) the net reproductive rate cannot be computed. The population has in fact expanded by 52 per cent in the period 1971-81. We are not aware of any other study relating to population of Mizoram but on the basis of his data-sheet on 150 Mizo families that he has come to know more closely over the period 1982-85 the author has arrived at a demographic growth rate of 2.8 per cent. This is relevant to note here that there is a strong sanction against family planning in Mizo society and this is a derivative of a very strong desire to preserve the indentity and individuality which is not the least affected even through marriage relationship with the outer group.

#### REFERENCES

- Cf. B.D. Sharma, Tribal Development: The Concept and the Frame, 1978, p. 27:
  - "Once the community becomes self-conscious and is able to understand the nature of the socio-economic forces, the path of development could be decided by them."
- 2. The point was very forcefully made by B.D. Sharma who has for long been associated with tribal development and administration and has contributed significantly to the conceptualization in this discipline. Reference may especially be made to his keynote address to the Seminar on Strategy of Development of North-East India at Shillong in April 1984.
- 3. F. Perroux, Economic Space-Theory and Application, March 1950.
- See for example Vol. IV of R.P. Mishra (ed.), Rural Development, Capitalist and Socialist Paths (Agricole Publishing Academy, New Delhi, 1974) on India and Bangladesh for a recent sample of results like this.

- 5. Otherwise also practising planners find the concepts inadequate. The visualization is mechanistic, topological and too technical, and several historical, cultural or traditional features are completely missed. It thus suffers from all those deficiencies from which any static concept which does not take a time-frame into account does. Then, the "percolation effect" is generally found to be unreliable. Compare B.D. Sharma, op. cit., pp. 157-163.
- V.K.R.V. Rao, "Issues and Problems of Development of Tumkur" in M.V. Nadkarni (ed.), Rural Development and the Cluster Approach, A Review of Tumkur Studies, 1981.
- 7. Ibid., p. 44.
- 8. Editor's "Introduction" to S.C. Dube (ed.), Cultural Heritage of India, Vol. I, 1977, p. 4.

Compare it with B.D. Sharma's description of it: "These are endogamous organisations with a simple social structure and a self-contained economy. There is a minimal contact with the other groups. They live in seclusion, are governed by their own social norms and largely manage their own affairs. This is the ideal type for a tribal community. However, the situation has been undergoing such a fast change that today it would be difficult to satisfy all these criteria for a number of communities termed as Scheduled Tribes." Tribal Development: The Concept and Frame, 1978, p. 3.

- 9. Cf. T. Mathews, Editorial Introduction to Tribal Economy of North-Eastern Region, 1981.
- 10. P.C. Goswami who has recently reviewed social science research in North-East India at the instance of Indian Council of Social Science Research has this to say on economic research in this region: "(The North-East has) not received enough attention of research scholars in Economics. . . . There is hardly any worthwhile economic research on Nagaland and Mizoram. In such regions even microlevel village studies will give important information on the functioning of these economies." Status of Research in Economics in North-East India, Proceedings of Seminar on Social Science Research in North-East India, 1983 (mimeo), p. 17.

# THE MIZO PEOPLE AND THE BEGINNING OF DEVELOPMENT EFFORT

MIZORAM is an elongated diamond-shaped territory with one of the elongated corners looking north. The diagonals are of about 250 kilometres north-south and 125 kilometres east-west. It is a landmass of 21,081 square kilometres on an extension of the Himalaya consisting of unformed rocks (young hills) with steep, rugged hills and very little flat land, and plateaus profusely lacerated and flushed by 6 major rivers largely unnavigable fed by an annual rainfall of about 250 cm.

#### Journey through Time and the Burma Connexion

Mizos who form of 93.5 per cent of the population of 4,93,757 as recorded in 1981 Census, are of Tibeto-Burmese stock which is supposed to have originally stationed in Gansu (Kansu) province of China on the borders of Mongolia overlooking the great Gobi desert from where they had moved to Xizang (Tibet) in the 7th century before crossing over to Burma to settle in Kawbaw Valley in 8th century, Khampat village being one of their oldest and dearest and most remembered settlements. They continued to be buffeted around here some time to Chin Hills on other to Lan Ranges (near Tiau river) by Shans or Powi, the latter very much their cousins, till they were forced to cross Tiau to settle on their present home in India.

But the nostalgia for the original home persists. Hmuaki's very pathetic lines about the butchery at the hands of Pawi at Ngente who took Mizos unawares and the village had to be abandoned sometime in the first part of 7th century are very dear to the hearts of Mizos. Then there are various compositions about the banyan tree that their ancestors left at Khampat around 1,800, whose branches touched ground in 1916 and which subsequently died away. And even though there has been wholesale conversion to Christianity the soul after death must pass through Rihdil Lake in Burma as the mourning songs remind. When life became more settled and transport improved following the conquests of this part of the world by the British, the cross-over to Burma and back become a regular feature. The parcelling out of Burma in 1937 was soon followed by the Second World War but as soon as normalcy returned in 1945, a very large population of Mizos returned to Burma where there was extensive resettlement for a decade in Kawbaw Valley. It was in this period that Lalmawia, a havildar in Indian Army, dismissed for embezzlement, canvassed support for a "Hill State" for Mizos from the local people and Burmese Government which under U Nu was not very enthusiastic about it. However, there were soon Ma-Ma operations to hunt out the Mizos and there was again a large-scale cross-over to India and the trickle down continues.

Mizos have never looked back since then, but there continue to be strong familial ties with people on the other side of the border reinforced by intense knowledge of the routes and terrain which has been made good use of by insurgents and smugglers alike.

One may recall that the East India Company got rights over Chittagong from Mir Qasim when he became the Nawab of Bengal in 1760 with their help, but we find them meddling in Assam only around 1840. They generally let the Mizos (Lushai) alone till the last quarter of 19th century but in 1880 Zahuata, a very important chief, was defeated and allowed to free to Burma. But repeated provocations by several chiefs caused a major punishing expedition in 1890 especially made in search of Lienpunga. In onslaught of 1894 about 70 guns were seized but the conquest would appear to have been completed in 1896 after

which regular appointments of Superintendent-in-charge of Lushai District were made, J. Shakespear being the first.

### The British Contact and Influence of Christianity

This was a prelude to a long time contact with the British. The Mizos had been subdued by the British forces but now the Superintendent was there to just supervise that local customs and traditions hold sway and only the roads are maintained through local coolies released from villages as some sort of community tax paid in terms of labour. At about this time some missionary doctors, teachers and preachers started living first at Tlabung (Demagiri) which was already well-connected to Chittagong tract via Rangmati (now in Bangladesh) and then at Aizawl. In 1903 we find a Mizo boy graduating from a primary school and another one embracing Christianity in 1912 when R.A. Lorrain (the physician who was a brother to Rev. J.H. Lorrain who had earlier popularized the Roman script) and his family had become great favourites to Mizos.

A new privileged class thus appeared for which Christianity meant medical care, education, and a richer and fuller material life. The old privileged class of village chiefs must have found its powers slowly waning but it was between the chief and the church, the Government not being a party. Thus when Fraser, a most influential Briton, went out of the way to get "boi" (slavery) system abolished to the chagrin of chiefs here he was promptly ousted.

So church came to occupy a big place in Mizo society with Government taking a back seat. Here some tell-tale comments from N.E. Parry and A.G. McCall, one time Superintendents, will be in order:

"A more active instrument of change than Government is the christian mission".2

"(British) contact has been overshadowed by a full-scale assault upon the people by the missions, and a watching brief by Government, operating chiefly without much positive policy".

That the missions were told to play this role in so many

words would be evidenced by this advice that J. Shakespear had to give to Lakher Pioneer Mission:

"Some of the tribes other than Mizos who came under the influence of Hindus had become more bigoted than the highest Brahmins of Hindustan (and, therefore, it was) incumbent on every one of us who has the interest of the Hill people at heart, to exert himself to prevent other tribes being Hinduised."

While all this resulted in appreciation, admiration and emulation of British ways of life a corresponding detest of their own customs was inevitable and the orientation gradually became to out-British the British which was to ultimately lead to formation of a personality with inadequate roots in the soil.<sup>5</sup>

On the backdrop of general westernization in the country since Independence the process in Mizoram as in some other North-Eastern tribes has been particularly fast suitably fanned by facility to smuggle modern gadgets and dresses and the increased availability of used dresses from abroad imported as "rags".6

#### Isolation from Rest of the Country

Seen in this perspective the declaration of most of the tribal areas of North-East India as "Excluded Areas" in the Constitutions of 1919 and 1935 and imposition of "inner-line passes" or "inland passes" resembling "Entry Permits" and "Visas" would appear to be a device to make sure that the areas remain insulated from other natives of the country. And while it did protect them admirably from exploitation by fellow countrymen it exposed them completely to Britishers who would create serious problems regarding their psyche, disenchantment from the main land and alienation.

Mr. Nehru's insistence on "regional identity" gave full accommodation to the feelings of the people and the Sixth Schedule of the Constitution of 1950 which has been hailed as "a constitution within constitution" and which opens with the clause "Notwithstanding anything said in the Constitution" gives a

long rope to them as epitomized in the status of Article 271(a) for Nagaland which is being considered also for Mizoram.<sup>7</sup>

The formation of District Council for Lushai Hill renamed as Mizo Hills in 1954 was a fit instrument for letting the local people have their own way of life. The District Council took a large chunk out of the powers of Deputy Commissioner of the District. There were 28 members in the Council with a Chief Executive Councillor and a Speaker. The power consistently lay with local parties especially the Mizo Union born in 1959 and the influence of Congress Party could be felt only around 1970. There was some confusion which persisted when Mizoram became a Union Territory in deference to the wishes of the local people but the scene was soon to be dominated by People's Conference headed by an ex-Brigadier with Indian Army hailing from a Chief family, Thangphunga Sailo.

#### Growth of Mizo National Front and Insurgency

But the Council did not prove very effective in spearheading developmental efforts in the region partly because of the indifference, apathy and inefficiency of the State Government which became manifest in the unsure handling of 1959 famines leading to much disenchantment among the local people. This was converted into serious discontent by the very important circumstance of abolition of chief system in 1954 which made the Chief fight from the position of underdog under the burgeoning power of church—with education, modernization and political set-up all on its side. It may in this atmosphere of general despondency and very little developmental activity indeed (with few roads, little electricity, and very little of water supply) that the militant organization, Mizo National Front (M.N.F.) grew in 1961 accommodating ex-chiefs, desparadoes and even radicals.

By mid-1960s the M.N.F. had become a very important clement in Mizoram politics and it could side with this on that faction to decide who would become the Chief Executive Councillor. It was to soon declare open insurgency against the Indian Union but on several occasions and in course of Peace Talks (of which there have been several rounds) Laldenga, the legendary figure, who leads it, has insisted that he is interested only in some special constitutional safeguards in view of the social, cultural and

religious traditions of Mizos. Thus he says in a letter addressed to Government of India in 1973:

I have no doubt in my mind that the solution to the Mizoram's political problems will have to be achieved within the Constitution of India... (but) our social, cultural and religious traditions and customs would necessitate some special safeguards.

Views of moderate like Thangphunga Sailo put this in perspective:

Thus every State will have its flower colour. This is what we want, when we talk of regional identity. It is a regional identity with a positive national outlook.<sup>10</sup>

The M.N.F. counted on the 7,000 guns that were supposed to be in Mizoram (of which 5,000 were licensed) and thousands of ex-servicemen back in village who did not find life very happy and exciting in Mizoram and especially the over 100 Mizos lately discharged for disorderly behaviour and indiscipline in the Indian Army. By 1964, the aims and aspirations of M.N.F. were clear to the State Government of Assam and Laldenga was arrested while trying to cross over to East Pakistan (now Bangladesh) on a forged passport, but he submitted apologies and assured that he would not do any harm consequent upon which B.P. Chelia, the Chief Minister of Assam, hurriedly ordered his release. He was soon to repent over it at leasure because in 1966 there was open insurgency, the administration at Aizawl was completely paralysed and the para-military Assam Rifles were encircled and were about to lay down arms when the town was bombed by Indian Air Force. Since then it has been a hit-and-run, selective killing and terrorizing monitored from headquarters now in Bangladesh and now in Arakan (the trijunction of Mizoram, Bangladesh, and Burma) in collusion with the rebels of Tripura, Manipur and Nagaland. Incidentally the support from neighbouring countries is now on wane.

Their ranks soared to 10,000 by 1976 when their morale was

at its peak after the infamous triple murder of Inspector-General of Police, a Deputy Inspector-General of Police and the Super-intendent of Police at Aizawl in 1974, but following a series of splits in the ranks, severe restrictions at the borders and heavy bombing operations resulting in arrests and surrenders, it is supposed to have shrunk to about 500.

Perhaps the most daring exploit of M.N.F. was the ambushing of Lt. Governor's party in 1972 off Kawnpui, in which he was wounded but 1974 was the year of largest number of activities when there were 120 incidents in all. The killings have generally been limited to army, para-military forces and the road-building tribals from South Bihar who work for Border Road Transport Force. In 1979, there was a serious escalation of activities when a "Quit Mizoram" notice was served on all non-Mizo civilians and there was considerable selective killing to punish the defaulters. In this and subsequent gushes of violence more and more civilians were made preys till in 1982 even a Mizo journalist and M.L.A. and a teacher were involved following the second "Quit Mizoram" notice.

The violence has an interesting pattern. There would be a place talk the first one having begun in 1970 and the last one only this year. It would fail. The M.N.F. would have a punishing operation. The police and army would swing into action. There would be a lull for some time till they go about the whole thing again collecting "taxes" with proper receipts right in Aizawl town and, of course, everywhere else.

Developmental work has been a major casualty in this atmosphere of complete uncertainty. But as soon as normalcy began to return which has been pronounced since the middle of 1982 as a result of Brigadier Sailo's policy of prompt rehabilitation of those who laid arms together with general firmness in dealing with insurgency (there were 500 surrenders and 200 captures between 1979 and 1982) there has been a remarkable spurt in development activity. Already there have been two important fall-outs from insurgency and counter-insurgency operations, regrouping of villages and building of roads which have given a great fillip to development.

#### Beginnings of Planned Development

Among the earlier development activities in Mizoram was the broadening of the 145 kilometres bridle path into 4-metre jeepable road on which work was slow till 1952 but when it was taken over by the Lushai Hills District Council it went about it with due enthusiasm. By March 1953 the road was ready with some special allocations from the Planning Commission. One feature of the road construction was extensive use of voluntary labour so that total money expenditure on it had come out to be only Rs. 2 crores.

The famine of 1959 and general instability that prevailed ever since then did not allow this kind of enthusiasm to continue. However, the general alertness about the borders following the Chinese invasion of 1962 and the atmosphere of insurgency in Mizoram and neighbouring areas made it imperative for State and Central Governments to go for road-building in a big way.

As for the regrouping of villages on a scale never done anywhere in the country, not even in Nagaland, it is significant that a Study Team under the chairmanship of Tarlok Singh had recommended a large-scale reorganisation of settlements in 1966 irrespective of its unavoidability for countering insurgency. The Study Team was satisfied that in view of the highly dispersed and disadvantageous location of villages no scheme of rural development could be viable. For example, there were about 1,000 hamlets with population of 100 each and it would not be easy to provide for schools, medical care, water supply on postal services for these.

As it turned outre-organisation of settlements off the roads into villages along the roads became part and parcel of security operations consequent upon insurgency. Here the settlers were allotted housing sites, building materials was allocated and sustenance for the period of transition was provided. The houses were numbered and the inmates were issued identity cards. Postal facilities were arranged for every village and the Administrative Officer who attended to Group Centre looked after the general welfare of about 5 villages for which was responsible) including availability of ration. While resettlements were obnoxious to settlers to begin with and he

Accession No. 68965

various cases it did permanent damage to farming operations at the original sites, gradually these started beaming with life and then the ungrouped villages complained about not getting the same facilities as given to these.<sup>11</sup>

By 1970 when these operations were over about 80 per cent of rural population was affected totalling about 1 lakh 60 thousand people (about 65 per cent of the population of Mizoram) a large number of which had moved to urban settlements or what became ones, so that by 1971 the urbanisation ratio at 25 per cent was highest in the North-East as a result of what may be called "forced urbanisation" which would be very flattering to "regional planners".

The road over which the operations were mainly concentrated was the Vairengte-Aizawl-Seling-Lunglei road over which 110 erstwhile settlements were compressed into 26 Protected Progressive Villages (P.P.V.) as such resettlements were called. Sixty-three villages with a population of 40,000 were reorganised into 17 P.P.Vs. along the sensitive borders with Burma and Manipur. The Khawzawl-Bungzung-Khawbung-North Vanlai-phai-Serchhip road was intensively involved. However, the Pawi District Council and Lakher District Council areas with head-quarters at Lawngtlai and Saiha were left out because these were not being used for shelter by the hostiles. Again, there was no regrouping along Aizawl-Thenzawl road (60 kilometres) because the habitation around here were already mostly on the road-side. 13

Now as the tide of insurgency has subsided several subvillages have been allowed to come up and concentration of population mainly over 700 villages has gone a long way to giving a fillip to development activity in the region, but since the operation was mainly supervised by army, the patent difficulties which the people must feel in such operation generally antagonized them against the Government.<sup>14</sup>

Separate data on plan expenditure in Mizoram as a district of Assam State till 1972 could not be worked out because of the difficulty of imputing administrative and other overhead expenses for it, 15 but the figures in Table 2.1 would show the phenomenal growth in expenditure since the formation of Mizoram into a Union Territory on 21st January, 1972.

					(No. Cores)	
Sector	1972-74	74 1974-79	1979-80	1980-85 (	1984-85 Approved)	
Agriculture	2.00	16.46	4.80	35 24	14.0	
Industry	0.31	1.83	0.53	4.58	2.0	
Energy	1.10	4.49	2.10	18.00	6.0	
Transport and Communication	3.41	12.87	4.60	32.50	10.0	
Social Science and Education, etc.	2.20	10.48	5.25	36.33	8.0	
	9.30	46.58	17.72	130.00	40.0	

TABLE 2.1: Public Development Outlay in Mizoram (1972-85)
(Rs. Cores)

Source: Government of Mizoram, Annual Report of various Departments.

Now at Rs. 40 crores for 1984-85, the per capita public development expenditure comes to about Rs. 800 per year which is next only to Jammu and Kashmir. With approved Plan outlay for Rs. 50 crores for 1985-86 it is expected to be highest in the country. Understandably, there is a large concentration in transport and communication and in energy sector and with little local initiative and little prospects of mineral allocations to industry have been a bare Rs. 2 crores. Social services like drinking water supply, health, education and other components of Minimum Needs Programme cannot but have a high priority in a tribal area for which there are liberal allocations in revenue budget also.

We may now proceed to see what has been the impact of such a scale of public expenditure in the economy which together with non-Plan budgetary provisions of Rs. 15 crores in 1984-85 has been Rs. 55 crores. With remarkable articulation of Directorates and Bureaus and the paraphernalia of so many Directors, Joint Directors, drivers and peons we have public employment of about 20,000 now so that we have overall structure of the economy something like this: about 73 per cent of the working population is engaged in agriculture and forestry, less than 1 per cent in industry and about 26 per cent in service sector.

The present state of the economy would appear to be far from satisfactory for these reasons. There is little sign of improvement in productivity in ihum or any appreciable sign of waning away of families from it. Smuggling in all sort of things—huge tape-recorders, quilts, dresses, footwears, bags, umbrellas and cosmetics—is rampant, effectively killing any incentive for local production while at the same time damaging national economy. And while the easy money got in the form of relief and subsidies and loans (which need not always be repaid) makes Mizoram a big market for such things there is a "demonstration effect" which spoils the consumption habits of elite, while at the same time over large tracts of land even along international borders there is abject poverty. 16 Mizoram has to make do with only 22 MW electricity and it is very inadequate even in the capital town of Aizawl. Drinking water is a problem even for towns and it is grossly inadequate even for Aizawl in spite of 5-stage pumping from Tlawng about 20 kilometres away. Silchar-Lunglei road has been declared a National Highway only now and with only 2,000 kilometres of surfaced roads the road transport system is very inadequate.

On the other hand, road transport, electricity supply and water supply are a big drag on the budget resources with the rates highly subsidised and the facilities highly inefficient. The budgetary resources of Mizoram are unbelievably weak in additional resource mobilization. Very little revenue is raised on agricultural land which is largely communally owned. There is a tax of about Rs. 5 per hectare. Rs. 2 are payable as house tax and Rs. 2 are payable as plough tax. Owners of pond have to pay Rs. 15. The sales tax is collected perfunctorily, and only since 1984 some enthusiasm has been shown in collecting taxes on wine. All this still yields less than a crore of rupees.

It is significant that Mizoram is seriously deficient even in poultry and vegetables, more than half of the requirement being brought in from outside the territory. Canned milk from Gujarat has to be carried over the length and breadth of the territory as cattle-farming is still in a nascent state.

All these are unmistakable signs of weakness and if there is a semblance of prosperity it is through a generous flow of money from the Centre. The subsequent discussion would shed light on how the structure of the economy can be made more balanced and viable.

#### REFERENCES

- 1. Cf. A. Ray, Mizoram: Dynamics of Change, 1982, p. 65.
- 2. N.E. Parry, The Lakhers, 1932, p. 19.
- 3. A.G. McCall, Lushai Chrysalis, 1949, p. 228.
- 4. J. Shakespear's communication quoted in A. Ray, op. cit., p. 69.
- 5. This provoked B.K. Nehru, one time Governor of 5 states of North-East India to write in the Foreword to L.B. Thanga's, *The Mizos*, 1978, p. viii, thus "(With) unequational dominance in the epoch of Western civilization (the Tribals) began to give up even such of the customs and traditions as in no way conflicted with their requirements of modern life and forget history, mythology, legends and folklores which give personality to a society."

The main thing behind this approach had been search for identity, equality, and dignity. It must have been lying deep in their hearts to beat the Britishers in their own game and to prove that they can be equal to them so that even if they lost to British in one way in yet another way the victory would be theirs. Cf. N. Nibedon, op. cit., p. 23.

- 6. Thus what B.R. Ambedkar has to say about them in 1949 is dated: "(The mainland tribal people are) Hinduised, more or less assimilated with civilization and culture of the majority of the people in whose midst they live. (As regards the North-Eastern tribal people) their roots are still in their own civilization and their own culture and they have not adopted. (Their position is) somewhat analogous to the position of the Red Indians in the United States as against the white immigrants there." Constituent Assembly Debates, September 6, 1949, Vol. X, No. 27, p. 1025.
- The Article provides for insulation of the State from any Central enactment while giving special powers to Governor in respect of law and order.
- 8. Cf. N. Nibedon, op. cit., p. 31, and 53-56.
- 9. Ibid., p. 209.
- 10. Ibid., p. 223.
- 11. Cf. A. Roy, op. cit., p. 177.
- C. Nunthara's Grouping of Village in Mizoram—Its Social and Economic Impact, 1981 offers some documentation on it.
- 13. See for the administrative consideration, procedures and some interesting insights into the process, A. Roy, op. cit., pp. 169-175.
- 14. Ibid., p. 179.

- 15. However, the First Plan of Assam was of Rs. 63 crores, the Second Plan was of Rs. 211 crores and the Third Plan was of Rs. 562 crores.
- 16. Cf. Lalmachhuana, "Some Aspects of Mizoram Economy and Prospects of Development" in T. Mathew (ed.), Tribal Economy of North-Eastern Region, 1981, p. 176: "Quite a large proportion of the money incomes thus generated through relief works has been grasped by a few rich (inclusive of big contractors) and spent on luxuries. This has had something of a "demonstration effect" and now many people are in great hurry to get easy money and are less willing to do manual work. This has brought about a change in social values which tends to create and perpetuate economic and social injustice in society. It is no wonder that in spite of huge expenditure incurred in monetary terms after the formation of Union Territory in 1972 the economy remains more or less stagnant."

Another striking aspect of the management of Mizoram economy is the refusal to apply the same principles of protection of religious and ethnic minority and correction of regional imbalance to the three District Councils of Lakher, Pawi and Chakma, all safely tucked in Chhimtuipui district. In terms of expenditure on roads, electrification, soil conservation, settled farming and terracing or development of fisheries this would appear to be a wretchedly undeveloped pocket wrapped within a backward region.

# THE NATURAL AND MANPOWER RESOURCE, TECHNICAL INFRASTRUCTURE AND INDUSTRY OF MIZORAM

THE PRESENT chapter aims at giving some configuration of the natural resources of Mizoram and what technical infrastructure has been put up till date to exploit it and the resulting economic structure. The sketching of industrial development would also be made here reserving agriculture and forestry for the following chapter.

#### Land Form and Climate

Mizoram is a 21,000 kilometres squares of landmass mostly made up of unformed rocks arranged in steep folds swept by six major rivers and about a hundred tributaries and streams. The rainfall is a staggering 250 centimetres very evenly spread over seven months (April to October). It sprawls over 22.12 degrees North to 24.90 degrees North latitudes with a very moderate climate and, therefore, with a rich growth of rice, jowar (large maize), mustard, chilli, sugarcane, brinjal, tomato, pumpkin, gourd, radish, banana, papaya, jackfruit, various types of citrus, litchi, mango, teak, coffee, rubber and pine, it seems almost anything can grow here. However, flat land is very scarce here, the largest flat land of Champhai being of the size of 5 square kilometres

only and although there has been no cadastral survey and watershed surveys have been commissioned for just a few river basins so far, one has a hunch that not more than 5 per cent of the geographical area will be with gentle slopes of up to 5 degrees. And not all such stretches are accessible. Experiments with plantations for silkworm, rubber and coffee, etc. date back to 1960s and 1970s only so that people have been using slash-andburn farming (elsewhere called jhum but tawngya here) traditionally coupled with pig rearing; poultry farming being introduced as late as in 1906 by A.G. McCall, the Superintendent and as for cattle-farming it was little known even at Aizawl till 1950s and at Lunglei (another district headquarters) till 1960s. Breast-feeding being the only source of nourishment, infants were traditionally buried with their mothers not very long ago; it was preposterous but as well for the infant who would die in any case.

#### Manpower and Occupation Pattern

But the jhum cycle has shrunk to about 7 years now with a remarkable fall in productivity so that even with an involvement of about 58,000 families (as in 1981) and 5,000 square kilometres or about 25 per cent of the land not even half the required rice is grown here.

The 1981 Census records 81,341 families in Mizoram spread over 736 villages (and about 400 sub-villages called thlawhbawk) and 6 towns (Aizawl, Lunglei, Kolasib, Champhai, Saiha and Serchhip) with population ranging from 7,000 to 76,000. The urban population of 1,21,814 with the urbanization ratio of 25 per cent (the highest in North-East) is interesting in the backdrop of the 14 per cent ratio for the country as a whole.

Main workers with a minimum of 200 days of work formed 42 per cent of the population to which if 4 per cent of marginal workers are added we get a ratio of 46 per cent of working population as compared to 47 per cent in 1961 and 46 per cent in 1971. Thus a work force of 2,25,000 is at work. This is very high but is explained by the presence of a large number of adult male workers from South Bihar, Cachar and Bangladesh estimated as 30,000. Incidentally, it is this floating population which makes

the sex ratio appear 936 which in fact will be much higher in view of very high male mortality because of cancer and other causes.

There is a negligible unemployment although the Employment Exchanges have 15,000 people on their registers with over 1,000 with technical qualification and about half a dozen engineers actually need a placement (and expect it anytime now) and some 3,000 matric certificate holders and 500 graduates would like a placement in some government office in exchange for their less lucrative jobs. Mizoram offers a very different job market as compared to anywhere else in the country. Few posts are advertised in outside papers and it is a very cut-off, difficult place so that almost all of the Government vacancies for positions for which local talent is available are filled locally. And with a roll of 20,000, Government is a very big employer.

As for the outsiders they are mostly recruited by BRTF or other government agencies, or Mizo businessmen or contractors to help them, and on this basis alone they can get an "Inner Line Pass". So that one often finds outsiders manning several establishments (workshops, hotels, transport agencies and shops) on some sort of arrangement with a Mizo who would be having the necessary licence, from a fixed payment to a commission. Or else, the outsider agrees to make a fixed periodic payment for using the licence which is given strictly to a Mizo.

The 1981 Census records that 73 per cent of the population is engaged in agriculture and forestry, about 1 per cent in industry and 26 per cent in other occupations. Assuming that "outside workers" do not upset this pattern substantially we can then take the family-wise occupation pattern of Mizos as given in Table 3.1.

	Families	Workers
Agriculture and Forestry	58,400	1,40,000
Industry .	1,000	3,000
Other activities	21,000	52,000
Total	80,000	1,95,000

TABLE 3.1: Occupational Structure in Mizoram (1981)

Now, aside from the 1,40,000 workers at farms some of the 15,000 Mizo Government employees (out of the total of 20,000 Government employees here) are supposed to work on their farms and have regular allotment of farms in their villages which would supplement their earnings. At the same time several households on farms would work part-time on household looms to weave their favourite dresses (puan) or engage themselves on bee-keeping, silk-making, carpentry and blacksmithy. As regards the 30,000 outside workers they are largely needed in other activities like Government offices, over 3,000 shops and other business establishments including building and road contract on which the Directorate of Statistics has some very sketchy data for the year 1977 from the Economic Census conducted by them (and identified as 2,859 then).

Building construction (brick and concrete) is one very important activity offering employment to labourers from Cachar and the Bangladesh Muslims. Aizawl town, for example, has witnessed fantastic building construction activity since 1980 and author's own observations would suggest existence of a task force of some 2,000 men in this industry itself working with 6 truck loads of cement, 4 truck loads of bricks and 5 truck loads of iron bars daily arriving from Silchar. The figure for whole of the Mizoram for this would be around 3,000 men.

Now as the 58,400 farming families work their farms sprawling over 5,000 square kilometres or 5,00,000 hectares of land of which (because of the average jhum cycle of 7 years) about 71,000 hectares would be under cultivation in any year which gives a per family holding of about 1.3 hectares being higher than anywhere else in the North-East as noted by F.K. Wadia (1976).

This may be compared with the holding of 50,000 hectares reported for the Agricultural Census of 1976-77 of which about three-fourths was worked in holdings of 0-2 hectares. Thus while in the rest of India about 10 per cent of the families actually hold 50 per cent of the agricultural land, here land is for asking as there are the immense forests to draw upon. Of course, there would be over 2,000 influential families who own large areas some even of several sequare kilometres and in

name of gardens and plantations under special garden passes ("huan pass"). Some of these are adjacent to towns like Aizawl.

#### Forest Resource of Mizoram

All the land mass spared from jhumming and habitation may be supposed to be under forests. Thus, 15,936 square kilometres of forests of different categories have been reported for the month of March 1982 by the Chief Conservator of Forests.

Forest types in Mizoram would fall under three groups according to Champion and Seth classification: (1) tropical wet evergreen forests, (2) tropical semi-evergreen forests and (3) montane sub-tropical forests. Thick bamboo forests, supple and of high pulp grade, are the most prevalent and in view of their quick growth and high effectiveness to check soil erosion wild banana would also appear to be pervasive. Among the valuable timber species are michella champace, messua ferrea, schima wallichii, chikrasia tabularis, pinus keseya, and dipterocarpus macrocarpa. Various orchids are found all over the region. Teak (tectona grandis) plantation (of about 1,000 hectares) has been done in a big way on the Silchar-Aizawl National Highway mainly in the north of Kolasib where a breakthrough has been made in coffee and rubber plantation also. In the Sixth Plan, total new plantations of various categories (including quick-growing varieties, commercial plantations and firewood) have been made of the extent of 60,000 hectares.

One difficulty is of in inaccessibility of large part of forests because of little road development and the fact that only four rivers (Tlawng, Turial, Khawthlangtuipui and Chhimtuipui) have water all round the year. And in fact it remains a forest because it is inaccessible, the more accessible parts being already under jhum. The Forest Department, however, have built 42 kilometres of forest roads and demarcated have 1,517 square kilometres of forest area by the end of the Sixth Plan.

The area under different types of forests is shown in Table 3.2.

The fully protected forests (1) are those where felling of trees is prohibited. In Aizawl and Lunglei districts these are under the control of State Government but where they fall in

TABLE 3.2: Forest Area in Mizoram (1982)

1.	Fully "Protected" Forest	1,647
	of this	
	1a. State Owned	1,300
	2b. District Council Owned	347
2.	Partially Protected "Reserved" Forests and	
	Wildlife Sanctuaries	6,401
	of this	
	2a. State Owned "Reserved" Forests	5,255
	2b. District Council Owned "Reserved" Forests	363
	2a. (i) State Owned Wildlife Sanctuaries	573
	2b. (ii) District Council Owned Wildlife Sanctuaries	210
	Total 1+2	8,048
3.	Least Protected Village Safety and Supply Reserved	
	Forests	2,648
	of this,	
	3b. District Council Owned	866
	3c. Village Council Owned	1,782
4.	Unprotected "Unclassed" (Revenue) Forests Owned by	
	Village Councils	5,240
	Total 1+2+3 4	=15,936
5.	State Owned Forests [1a+2a+2a (i)]	7,128
6.	District Council Owned Forests [1b+2b+2b (ii)+3b]	1,786
7.	Village Council Owned Forests (3c+4c)	7,022
	Total $(5+6+7)$	=16,936

the Chakma, Pawi and Lakher District Councils (in Chhimtuipui district) these are in control of District Councils. Such forests are limited to 1,647 square kilometres. Interestingly, even these forests have not been fully demarcated so far. "Reserved" forests (2) enjoy slightly less protection then (1) and these are generally the riverine and roadside forests. District Councils have again their share of such forests. Wildlife sanctuaries of Dampa, Ngenpui and Phawngpui also have this treatment.

The two classes (1) and (2) claim a forest wealth of 8,048 square kilometres and this may be taken to be the size of virgin or almost virgin forest. This makes 46 per cent of total land surface of the Union Territory (as compared to 23 per cent for India as a whole) and accounts for the excellent ecological balance here.

Next is the class of forests which is used sparingly by the village people and it is either directly under village council (3c) or the District Councils have control over them (3b). Such forests cover 2,648 square kilometres of land.

"Unclassed" forests (4) are what are called "revenue" forests elsewhere in the forestry jargon. Their use is under the discretion of village councils and these are, in fact, very freely used against a nominal payment.

Mizoram forests are richly endowed with wild animals and birds. The more common animals are elephant, tiger, leopard, bear, deer, sambhar, wild buffaloes and several species of monkeys. There are great potentialities for several types of plantations (chiefly rubber, coffee, teak and for the eastern regions, pine) and bee-keeping and sericulture. As we will note in the Chapter 4 productivity under jhum (both the labourer and of land) is already very low and there is soil erosion at a fantastic rate. There are, again serious limitations to settled farming because of scarcity of gentle slopes. It needs, therefore, to be explored if because of the special configuration of natural resources forestry could be the main thrust of planning, of course with full back-up of road transport, energy development and water resource development.<sup>2</sup>

#### Water Resource

Mizoram is particularly gifted in water resource. With a rainfall of about 250 centimetres there are six major rivers and hundreds of tributaries. Of these Tuivai, Turial and Tlawng empty themselves in Barak, Khawthlawngtuipui crosses into Bangladesh and Chhimtuipui flushes into the Bay of Bengal via Arakan Yomas. Now only four of these have water all round the year and even these have not been navigable all through their lengths because of rapids, gorges and obstructions. Of these, Tlawng which meets Barak in the west of Silchar has been most used traditionally especially Sairang downwards (a town 30 kilometres to the west of Aizawl). Turial (Sonai) has been navigable only in the last lap of its journey to meet Barak near Tipaimukh at the borders of Manipur and has also been traditionally used. The third one Khawthlangtuipui (Karnaphooli) has been of use to connect Mizo Hills to Tripura and the Chitta-

gong tract for which road transport, however, has been more important. Chhimtuipui (Kaladhan) is navigable in lower reaches only. Total navigable route before independence was 170 kilometres which stayed put till 1969. Between 1969 and 1972 some obstructions were removed so the length came to 200 kilometres and about there it stands now.

Inland water transport is to receive a big blow soon when work on a 90 metres dam starts on Tlawng at Bairabi (on the border of Cachar) and on some other rivers also as we will note in the section on Energy Development. There could, of course, be many more projects for putting up dams and barrages across Tlawng, Tuirial, Khawthlangtuipui and Chhimtuipui, as suggested by C.G. Verghese.<sup>3</sup> The benefits of Verghese-type low dams would be several: development of fishery, availability of water for drinking and irrigation (among other devices, by hydrams) along the river banks because of rise in water columns, alternate means of transport for otherwise inaccessible villages and, of course, energy. The Central Water Commission has been lately generating lots of valuable data which would help working out cost-benefit ratios for such projects.

#### **Energy Development**

Electricity came to Mizoram in 1962 when Aizawl was electrified with a generator of 837 kilowatts. In 1969, Kolasib, and Lunglei got electrified with generators of lesser capacity. Serchhip and Hnahthial were electrified in 1971. Lawngtlai and Champhai had generator in 1976 and 1977, respectively. The cost of laying transmission lines and their maintenance is so high that even diesel power costing Rs. 1.50 per unit (and sold at about Rs. 0.50 per unit) seems economic.

A string of microhydel facilities at points which are at considerable distance from distribution lines also appear economic.

The first diesel set was installed at Aizawl in 1962 and the town later got connected to the 66 KV line from Dulabcherra (from which about 4 MW electricity is available), the Serlui microhydel of 1 MW started functioning recently and some new generators were set up in the year 1983-84. At the moment, Mizoram is forgoing use of its quota of 5 MW of the capacity

of Loktak and is able to use only 4 MW out of its quota of 10 MW from Kopili system available through the Assam grid at Dulabcherra. Loktak quota may be used only in 1986 when Ziribum-Aizawl transmission line would be completed and by that time the transmission line between Dulabcherra and Aizawl would also be charged to a higher capacity.

Outside availability of electricity by 1986 would thus be 15 MW as against 4 MW now. Total availability in March 1984 was 10 MW inclusive of this 4 MW and 6 MW of diesel electricity. Local generation is now jacked up to 14 MW by 1984-85 (inclusive of 1 MW of microhydel) and with doubling of availability from grid to 8 MW through charging at 66 KV total availability is 22 MW. With RE of another 20 villages mainly of the more backward areas of the North-Eastern part of Mizoram over Suangpuilawn, Khawlian, Ngopa and Sialkal ranges a total of 150 settlements out of 722 settlements (over 20 per cent) have been electrified and per capita electricity consumption is 80 units as against the all-India average of 130 and the North-Eastern average of 30. This may, then, be considered a big jump from zero in 1961-62 when the Second Plan was over, to 17 units in 1982-83 and 40 units in 1983-84.

Work would continue on the only two ongoing microhydel projects—Khawiva (450 KW) and Vanva (300 KW). However, 8 out of 13 schemes for microhydel electricity are being investigated.

Rural electrification appears to cost about Rs. 6 lakhs per village on an average with the present method of generating diesel power which costs Rs. 1.50 per KW while only 47 paise is charged from the consumer. Thus the costliest form of electricity is being produced in Mizoram in the name of exigencies of circumstances while actually the circumstances justify full dependence on hydel power from large plants profusely supplemented by microhydel facilities.<sup>3</sup>

#### Road Transport

Among the oldest road links in Mizoram is the one connecting Demagiri to Lunglei which was extended to Haka (160 kilometres in all) on the eastern borders towards the close of last century. But this was a bridle-path only. Another such path was built

in 1890 connecting Aizawl to Changsil and it had a length of 33 kilometres. The first cart ways were then made in and around Demagiri, Lunglei, Aizawl. On the eve of Second World War the total length of cartways was 40 kilometres and of bridle paths 800 kilometres. Then by 1942 the 180 kilometres Silchar-Aizawl bridle path was converted to jeepable road and the 145 kilometres Aizawl-Lunglei bridle path was made jeepable by 1953. And there the matters stood at the end of Second Plan in 1961, there was then only 2 kilometres of black-top road (around the Deputy Commissioner's Office and Dawrpui) and only 190 kilometres of gravel road.

At the end of Third Plan, there was no black-top highway in Mizoram. It was, however, only after insurgency that road construction work was started in a big way and Silchar-Aizawl-Lunglei black-top road (409 km) could be completed only in 1971, Lunglei was connected to Tlabung/Demagiri (89 km) by such road in 1972. Thus surfaced road length could go up to 660 kilometres by 1972 when Mizoram became a Union Territory. Seling in the east of Aizawl, along the Silchar-Lunglei road was connected to Champhai around the eastern borders in 1973 extending the route length by 188 kilometres. This was soon followed by Aizawl-Tipaimukh (181 km), Aizawl-Tuipuibari (187 km), Lunglei-Tuipang (162 km), Lawngtlai-Diltlang-Chawngte (203 km), and West Phaileng-Marpara-Tlabung (167 km) Tlabung-Chawngte (39 km). Serchhip Thenzawl (25 km), and Kawnpui-Sairang (34 km) all of which were more or less complete by 1980, but there has been striking widening and straightening in the 1980s.

At the end of the Sixth Plan, surfaced road length stands at 2,000 kilometres and unsurfaced road length at 2,500 kilometres to total to 4,500 kilometres giving a rate of 22 kilometres for both surface and unsurfaced road per 100 square kilometres and 10 kilometres for only surfaced roads.

Aside from these there are 1500 kilometres of agricultural link roads, just jeepable tracks which fail in the long monsoon here. Including these we have somehow a road length of 6,000 kilometres which yields a rate of 30 kilometres per 100 square kilometres so that the national average of 40 kilomitres for black-top all-weather road is still a long way ahead.

There are many important missing links and most roads need a lot of straightening, broadening, chopping and bolstering of edges. Mention may be made of two missing bridges which would make a big difference to road transport in Mizoram. The first one is a possible 50-metre bridge cross Tuichang near Serchhip which would cost about Rs. 25 lakhs but would shorten the distance between Aizawl and Serchhip by 30 kilometres. Another bridge could be put up across Chhimtuipui at a cost of Rs. 30 lakhs to shorten the present circuitous road between Lunglei and Saiha by 40 kilometres. Then as a look on the map would show the western and southern parts of Mizoram are very inadequately covered and major attention would need to be given to them.

Road transport has taken long strides in Mizoram in recent years. On the basis of interviews with transport operators and forwarding agents it appears that on normal days and times (without landslides and insurgency, that is) only 10 trucks came from Silchar to Aizawl in 1972. On investigation at Bawngkawn on every 5th day over the month of November in 1984 and the month of February in 1985 it was found that, on average, about 100 trucks are plying between Silchar and Aizawl, both ways. Around 55 trucks were noted to be going to the Seling side with destinations towards Tipaimukh, Champhai, Lunglei and Saiha.

With still few operators in this side, given the road condition and uncertain turnround the typical truck fare between Silchar and Aizawl (180 km) is Rs. 3000 and between Aizawl and Lunglei (230 km) Rs. 4,500. These would appear to be more than three times the fares on the plains and seriously effect the business, industry and cost of living in the region. It appears that consumer prices of sugar, vanaspati (hydrogenated vegetable oil), mustard and groundnut oil, potato, onion, toothpaste, tooth brush, Tata coconut hair oil and Dabur amla hair oil, long cloth and two brands of Dalima biscuits, exercise books, and some medicines are on average 50 per cent above Siliguri prices as in March 1985. A large part of it is explicable in terms of high cost of transport. There has been a spurt in motorized vehicles registered in Mizoram gives only some idea of traffic, because vehicles which

of Meghalaya, Tripura, Manipur and Assam also ply. In 1974, 830 jeeps had been registered, by 1980 these were 1,550, and in 1985 the number rose to 2,500 the number of Government jeeps being 2,000. The number of buses and trucks has increased from 850 to 3,500 over this period. In the backdrop of very low credit-deposit ratio in Mizoram (about 15 as compared to about 30 for the whole of North-East) the banks are only too pleased to accommodate requests for bank finance for any type of commercial vehicle.

#### Industrial Development

The above scenario of energy and transport in Mizoram does not augur well for industrial development. This is more so in view of Mizoram being quite a cut-off place looked at from. say, Calcutta or Siliguri. Interestingly, when straight rail communication via Sylhet stopped in 1947 following partition of India it took about 15 years to put the first bridge across Brahmaputra so that transhipment at Amingaon and Pandu assisted by steamers could be avoided. Now even though B.G. line is ready up to Gauhati connecting Calcutta and Delhi via Farakka barrage and Delhi again North-of-Ganga (via Barauni, Gorakhpur and Lucknow), the speed of trains is very low because of defective or single-line tracks. And, then, while the lines are still MG beyond Gauhati and there are no direct MG trains connecting Silchar, the funnel to Mizoram, with Barauni or even with Siliguri. Then, the capacity of Badarpur (about 30 kilometres off Silchar), Lumding (on Gauhati-Dibrugarh main line) section is woefully inadequate at about 150 wagons a day which is about three-fourths of what the Badarpur paper mill (now nearing completion) would need. Significantly, it can change only marginally till Jagiroad-Halfong by-pass of 50 kilometres is put through, but it is only in investigation stage. This, then, would continue to be a long-run constraint on industrialization of our region. Mizoram is in company of Arunachal Pradesh, Manipur and Meghalaya in not having a rail point within its territory and like all of them it is expected to have one by 1990 which is to be at Bairabi just at the border of Cachar on the left bank of river Tlawng.

These infrastructural infirmities seem to enhance project costs by 20 per cent.<sup>6</sup>

There is little trace of minerals in the Union Territory. Only a little coal has been sighted at Bairabi and at Saiphai (near Bilkhawthlir) and near Chawngte along Tuichawng a quarry of 6m×6m size has been located. Some investigation for petroleum was done around 1980 in Lockicherra area but it could not be completed because of disturbances and the initial results are not very encouraging either. Some limestone has been spotted at Sairang and Tuirial.

There are no medium or large industrial units here. Only there are about 1,100 small industrial units engaged in carpentry, shoe-making, confectionery, ice-making, metal working, body building of automobiles and garage work, vulcanizing, food processing and silk-making.

Of these, only the product of silk units, which would be dealt with in Chapter 4, is marketed outside Mizoram also. Mizo "puan" (a short striped sheet of bright colours used as skirt or "lungi" by ladies and also used as shawl by men) also has some market outside. These are woven from cotton and now also from synthetic yarns procured from outside Mizoram on loin loom without Dobby and Jacquard. This is a widespread industry which goes a long way to supplementing the otherwise low incomes of tawngya farmers. The units are run as cottage industries with considerable marketing and raw material support from Mizoram Apex Weavers Service and Marketing Cooperative Society but priced very high as compared ot handloom and khadi fabric in the mainland.

Gur-making (for which crushers are provided at subsidized rates by Directorate of Agriculture) and oil-pressing are other important industrial activities in the informal sector.

Apart from two District Industries Centres, there are three Industrial Estates at Zemabawk, Ramhlun and Kolasib. The Kolasib Estate houses 3 units of aluminium conductors and utensils. The Zemabawk-Tuirial area, a few kilometres off Aizawl along the Aizawl-Seling road, may have a mini-cement factory. A mini sugar mill is also being contemplated. For Sairang there is a proposal for a 200 T.P.D. mini paper plant at a cost of Rs. 1.44 crores with an eye to exploiting the immense forest

wealth of Tuirial valley. There is also a proposal for a plywood factory of the capacity of 2.5 lakh square metres at Sairang at a cost of Rs. 1.66 crores. It may be hoped that in view of serious transport constraints these units will have considerable comparative advantage over outside supplies.

Bairabi is being considered for a ginger processing plant where ginger powder and oil could be produced which are highly prized as a beverage and relish besides being of medicinal use also. This is essential for expanding local ginger output which is now stagnating as transport constraint has put serious limits (at about Rs. 1 crore) to its export to North India

One does not know about the possible outcome of these proposals because little interest is seen for these among private Mizo businessmen who have very good return for their capital through house construction for letting to Government department (which are largely in rented premises) and through road and building contracts. Outside businessmen are ruled out by Government's policy. And even if these are all taken up direct and indirect employment would total to 5,000 and may not cause any sea change in Mizoram economy for which we should better look to agriculture, forestry and plantation.

#### REFERENCES

1. A comparison with the figures of 1961 and 1971 Censuses would create some difficulties here because of changed classifications and definitions as also possibly some "farmers" or "fishermen" who are so styled only to be able to get some loans and subsidies which are very liberally given, and relatives who are supposed to "help" in the kitchen, smugglers or just idlers.

Occupational data in percentage on the work force for these Censuses was thus as follows:

	1961	197 <b>1</b>
Farming and Forestry	87	84
Industry and Manufacturing	5	00.5
Construction	00.4	1.2
Other Services	7	14
Total	100 per cent	100 per cent
Total Work Force	1.26 lakhs	1.51 lakhs

- 2. Cf. B.D. Sharma, op. cit., pp. 231-32.
- 3. Refer to C.G. Verghese, "The Mizoram I Dream of", Seminar on Strategy for Planned Economic Development of Mizoram, July 1976 (mimeo).
- 4. For a more detailed description of energy sector in Mizoram, see author's Import-Replacement in Energy and Petro-Chemical Sectors in India in 1980s (mimeo), March 1984.
- 5. Cf. A. Ray, op. cit., p. 210.
- This has been estimated by North-Eastern Council, Shillong for the North-Eastern Region as a whole in their study released in October 1984.

# EMERGING PRODUCTION RELATIONS IN PRIMARY SECTOR AND THE PROSPECTS IN FORESTRY AND PLANTATION

#### Aspects of Production Relation in Farming

THE MOST remarkable thing about agricultural formations in Mizoram is the appearance of some features of capitalistic farming of late<sup>1</sup>. Thus while in early 1950 sharecropping was very unusual it is not frequent in flat lands of Champhai, Matphai, Chemphai, Saiphai, Tuiphai, North Vanlaiphai and South Vanlaiphai ("phai" standing for flatland). Where the sharecropper sets apart a share for the landlord in kind it is called "tharsen" and where it is in cash it is known as "pawisa chawi".

The erstwhile system of "inlawm" wherein the neighbours, relatives and farmers of neighbouring villages come to help in exchange for a similar help is disappearing very fast and in a great majority of cases purchased labour is used. Of course, there is no bonded labour in Mizoram even if three cases were reported in 1975, and generally as much of "lo", that is, jhum-land is available as one can take care of. Still the more vulnerable section of the population is available for hiring without any inhibitions regarding social status, marriage or other relationship, age or sex. The development of plantation

cropping, though still on a marginal scale, has given a further fillip to hiring of labour.

The promptness with which just a rupee worth of disposable chilli or gourd is offered to a close neighbour and the readiness with which it is purchased cash down, is very striking for its clear commercial connotation.

As regards the "lo" lands these are the property of village council, no family having any foreclosure on any specific plot in any jhum cycle and allotments being made strictly through drawing of lots. No Mizo of another village can hope to be considered till he manages to settle with no allotment being made to a Gurkha or any other non-Mizo settler. However, some sort of absentee farmer allotment is possible which is tacitly passed on to some friend or helper but not for any consideration except some insignificant nominal gift.

On flat lands and where settled farming of commercial crops like vegetable, groundnut or sugarcane is done as, say, in Matphai (about 3 square kilometres of flattish land near Serchhip) farmers are having permanent holding with full rights over land with respect to sale to a Mizo only as a non-Mizo is not allowed to purchase a landed property in Mizoram.

Possession of housing site along a surfaced road in a village and all towns is subject to transfer against specific and significant consideration. In the town it is a prize possession having a quick sale prospect and an object of considerable chicanry and politicking. The site for restaurant was a cause for ministerial havoc around late 1960s.

Village Council in a town acquired a 4-acre plot of a Mizo ex-serviceman which he had procured in 1960 for Rs. 2,000 on the pretext of building a road. It was not wholly true. A large chunk of the plot finally went to another exserviceman (then a first class contractor) and is now valued at Rs. 1 lakh.

Cultivable land is relatively plentiful and the composition of population is so uniform that the life in villages is free from the strife noticed elsewhere in the country.

Under the influence of tradition not only usury but charging of interest itself is taboo. You get back only what you

gave, exactly that much. However, when an institution like a bank or some other Government agency is involved the tribal would gladly pay or receive interest. Also, Synod (Supreme Association of Churches) may give away some of its funds which it does not need at the moment to some businessmen for a modest charge, but this would be done only lately (in 1981) and that too in the capital town of Aizawl, nowhere else.

#### Survey for Capitalist Features in Mizoram Farming

We are reporting here on the essentials of farming practices in four villages of Mizoram (Keitum, Hortoki, Tuipuivari (I) and Aivapui) for the year 1983-84 so that it can be judged to what extent there are capitalist features in it.<sup>2</sup> The data will be very important in determining a model for reorganization of the economy to make it more viable.

The villages have been probed for the following signs of capitalist farming:

- 1. Lending of money or harvest for interest.
- 2. Presence of landless labourers and prevalence of wage employment.
- 3. Leasing in and leasing out of agricultural land.
- 4. Sale and purchase of agricultural land.
- 5. Generation of disposable surplus for the market system.
- 6. Significant rate of capital formation.

### Keitum (Serchbip Block)

Keitum village is along the highway connecting Lunglei, Aizawl and Silchar and is on the left bank of the river Tuichang. According to provisional totals of 1981 Census, there were 206 families in the village with a population of 1,226.

All agricultural land of the village is communally owned and there is no record of commercial sale of land. The Village Council President (VCP) together with members of Land Allocation Group decided which strips of land will be allocated to a family. Only 180 families were interested in getting "lo" (fields for jhum cultivation) and once the "Jhum Sector" for

1983-84 was decided by the group the families got their strips by drawing of lots. This was complete by the summer of 1983 itself. The size of "lo" (jhum fields) allocation to a family "ramtheh" depended on its resourcefulness in terms of labour power and availability of seed. The area for which a tinful seed of paddy was enough was called "tin khat hmun" which was supposed to yield a "phur" of paddy so that it was also a "phur khat hmun".

For the year of reporting agricultural land supply was about infinitely elastic in the sense that interested families of the village got allotted as many "Allocation Units" (tin khat hmun) as they really wanted. And should the need blow up or population explode the "Jhum Sector" for the year could be expanded with the result that given the "Jhum Area" for the village (which was total land minus forests, river-bed, steep land and residential area) the jhum cycle would shrink. The current cycle was of 7 years which meant that village "Jhum Area" was currently divided into 7 Jhum Sectors.

The "Jhum Sectors" for 1983-84 did not include any virgin land (ngaw) or encroachment on some other "Jhum Sector". The clearing of fields for harvesting was done at family level occasionally with the help of borrowed labour from other peasants (lawm) who assisted in exchange for similar help. No money was involved in this, only the helpers shared food and drinks with the family on whose farm work was going on.

The clearings (chap) were gathered, dried and burnt (char) before February and March when monsoon came and the end of this vital operation of preparing the field was celebrated as "chapcharkut" festival of dancing, feasts and drinking.

There were few cases of paid labour being used for these clearing operations for which the going rate was Rs. 20. In fact, using of paid labour for the operation attracted disapproval of the community; it was proof enough that the family had got allotted more land for itself than it could really work which was the only consideration with the land allotment group and the V.C.P

When due to illness or absence of some workers there was inadequacy of labour the established practice was to surrender the "Allocation Units" or at best to exchange it with some other

more resourceful family for a consideration which was often a trifle. All this was very different from a "lease out" in consideration for a certain significant share in yield on some sort of "rent" in money terms in the neighbouring areas of Assam or Tripura.

Plantation was done around April. No mechanized implements were used. There was not even a wooden plough. Spade and hoe were the only implements. Paddy was the main crop interspersed with some pulses, chilli and green vegetables.

None of the families had any paddy to be disposed of in Serchhip market or elsewhere, in fact, all of them were regular customers of fair price shops carrying buhfai (polished rice) home in their "om" (the basket on the back).

The only disposable surplus was green vegetables like lady's finger, some beans, chilli, gourd, pumpkin, cucumber, various leaves including mustard leaves, "iskut", brinjal, and tomato. Thus a dozen basketfuls of these would reach Serchhip on most of the days except Sundays over the month of August to November when the supply is more plentiful.

In fruits also Keitum village has a surplus. These are banana, papaya, pear, guava and pineapple. The supply is of about half a dozen basketfuls of these spread over the year.

The villagers did not report any significant additions to their assets in terms of house, cattle, pigs or ponds for fishery.

About 50 families had access to some subsidy from the Government and two had received bank loans.

#### Hortoki (Thingdawl Block)

Hortoki is on the banks of Tlawng and a part of it is expected to be submerged when the dam on Tlawng is erected at Bairabi. It is along the jeepable road connecting Bairabi to Kawnpui and is about 15 kilometres from the latter. The village is inhabited by 317 families and has a total population of 1895.

Only 250 families took "ramtheh" allocations for 1983-84. Jhum cycle is of 6 years. Very little paid labour was used on farming operations. Little could be had from surrendering one's land allotment to some other family.

The village is palpably in deficit for paddy but is able to send out some two dozen "oms" of fruits and vegetables to Kawnpui market a day all round the year as also 40 litres of milk.

Almost every third family in the Hortoki village expected some Government subsidy and 15 families had received assistance from cooperative or commercial banks.

There was no noteworthy improvement in capital assets of the villagers over the past decade. There was no sale or purchase of land.

# Tuipuibari (I) (West Phaileng Block)

Tuipuibari (I) accommodated 103 families with a population of 669. The village was on the banks of Khawthlangtuipui at the end of an all-weather road joining West Phaileng and Aizawl.

Ninety families accepted land allotment. No paid labour was used for agricultural operations. Jhum cycle was of 8 years. No farmer sold any paddy but supplies of vegetables and fruits to West Phaileng (which was the only outlet for it) was about half a dozen baskets a day.

One-third of the families received subsidies from Government. Ten families had access to loans from cooperatives or commercial bank. There was no sale or purchase of land.

# Aivapui (West Phaileng Block)

Aivapui is further downstream on the river Khawthlangtuipui and is not on a road, the nearest road point being Phuldungsei village on West Pahileng-Marpara jeepable road. There are 14 families in the village with a population of 86.

The jhum cycle is of 8 years and all the 14 families accepted "remtheh" allotments. The village had a chronic shortage of rice whose supply was in fact a serious problem. No vegetables or fruits or milk were sent out of the village.

Six families received subsidies and none had received bank or cooperative loans.

Aivapui village does not show any noticeable improvement in assets over the past decade.

There is no practice of hiring farm labour. Land could not be sold or purchased.

#### **Agricultural Produce**

Table 4.1 gives an idea of main agricultural produce in Mizoram overtime. Table 4.1 shows that output of paddy has about quadrupled over the Sixth Plan, but the progress over the Sixth Plan has been remarkable. This has resulted from the stabilisation of population in regrouped villages and a big increase in use of fertiliser, pesticides and HYV seed. The output of ginger has also quadrupled though it has stabilised at the level of 70,000 quintals just because of transport bottleneck as there are limits to its being sent out. The growth in the output of green vegetables has also been phenomenal although at 2.8 lakh tonnes it is now still about half of the estimated requirement. Over the last three years, however, there has been a breakthrough in radish, carrot, tomato, lady's finger and pumpkin as a result of new species lately developed by the Centre of Indian Council of Agricultural Research at Shillong and acclimatised at its Research Station at Kolasib.

TABLE 4.1: Agricultural Output of Mizoram (1951-85)

	Paddy ' (lakh tonnes)	Maize (qtl.)	Ginger (thous- and qtl.)	Sugar- cane (qtl. of gur)	(quintal)	Pulses (qtl.)	Sesame (qtl.)
1950-51	1.22	372	15	585	4	500	51
1971-72	0.99	520	38.38	2,860	20	900	142
1977-78	1.60	672	67	3,500	30	1,360	170
1979-80	2.90	2,500	70	6,500	45	4,175	200
1983-84	4.00	4,200	68	8,000	65	5,000	220
1984-85 (Estimated)	4.50	5,200	70	9,000	70	5,000	250

Source: Directorate of Agriculture and Department of Economics and Statistics.

Potato farming is done mainly in the eastern parts in Champhai and North Vanlaiphai and in Sialsuk a potato farm has also been opened to try suitable varieties. Since 1978-79 when farming was first tried acreage has been under 10 hectares and highest output was at 175 quintals in the year 1981-82. There is a Regional Ginger Station at Thingdawl where

improved agricultural practices are being tried on 33 hectares of terraced land. Papaya and banana are grown in plenty. Guava and orange plantation has greatly expanded in recent years. Topioca and sweet potato were introduced here long time back. In Tlabung area over the Chakma District Council sesame is an important crop with remarkable expansion in output. Comilla cotton is grown in villages of West Aizawl.

The predominant form of farming is jhum and although because of difficulties of transport and the inflated price level it is profitable to the farmer, the social costs are very high and it is a very wasteful way of getting agricultural crops. Per hectare productivity considerably went down in later parts of 1960s and 1970s but because of increased agricultural inputs it has, of course, been contained in 1980s. Still, overall productivity would be around 10 quintals of paddy per hectare much below the mid-1960s level.\*

It has been estimated that along the "lo" area the denudation of top soil is at least 5 centimetres annually even at moderate slope so that the organically rich top soil built over centuries through leaf fall gets disturbed exposing the less fertile substratum and the manuring through charring of vegetation at an average cycle of 7 years is an adequate compensation for it.

While the speedily shrinking cycle pressed by lowered productivity as well as by growing population has brought "tawngya" to critical level there are serious limits to development of sedantary farming because of inacessibility of suitable land estimated at only 1,000 square kilometres or about 5 per cent of total land surface.

#### **Progress of Settled Farming**

We, therefore, need to review what have been the achievements in and prospects for settled farming and then see to what extent plantation may absorb the families sought to be weaned away from "tawngya".

Total terrace/wet rice farming is indicated as about 15,000 hectares with about 8,000 families depending on it. This has been a result of several soil conservation and contour terracing measures taken by various agencies and, of course, some flat land farming has always been there since long back.

People have been building Gabion structures (wire net with boulders) of various sizes to check the stream from eating up the banks where plantation and terracing could then be done and retention dams have also been put up to control the stream in the upper reaches.

Other agencies encourage puretorican terracing (quickgrowing plantation along contours) to avoid land-slips. There is then plantation of fast growing species like neem, chikresia (Poona), and biscaria on deforested or overgrazed hillocks called "Soil Conservation Plantation", similar to "afforestation" programme of Forest Department.

Table 4.2: Terracing Financed by Soil Conservation Department in Aizawl (1972-85)

Year	Hectares of land terraced	Cost in lakhs of rupees
1972-73	175	1.5
1973-74	259	2.5
Total	434	4.0
1974-75	267	5.0
1975-76	413	6.4
1976-77	1,047	16.9
1977-78	1,663	26.6
1978-79	1,019	16.3
1979-80	446	4.8
Total ·	4,855	76.0
1980-81	271	4.3
1981-82	279	5.5
1982-83	201	5.2
1983-84	431	1.3
1984-85	500	5.0
(Estimated)		
Total	1,682	21.3
Grand Total	6,971	101.3

The performance of Soil Conservation Department in respect of terracing in the period 1972-85 for Aizawl district (which as accounts for about two-thirds of jhum farm land in Mizoram) in Table 4.2 would give an idea of pace of development in this respect.

While the record of the Department is satisfactory in view of the low resources with which it is working and the work around Chamdur and Sihphir and Bilkhawtlir is a treat to the eyes, the figures of Table 4.2 conceal more than they reveal. The work has been of uneven quality and perhaps far more funds would need to be funnelled into it to have any significant impact on Mizoram farming.

To put 50,000 families on sedantary farming about 1 lakh hectares of gentle to moderate slopes would need to be developed through putting up retention dams along the streams, Gabion structures along the banks, puretorican terracing along the more steep ranges and bench-terracing on gentle slopes. All this would need necessary backing of road development and river water development. Experts indicate an expenditure of Rs. 200 crores on this and to the extent the economy is proved to have no absorption capacity for this recourse has to be made to forestry and plantation.

North Eastern Council has commissioned some Watershed Management Projects to identify such areas for resettlement. The report on Teirei (a tributary of Tlawng) Valley encompassing 690 square kilometres or 69,000 hectares of land was completed in 1984 and one on Tuiphai region near North Vanlaiphai is nearing completion. The Teirei Project has a focus on Darlawn, Bawngwa, Mamit, Kawrtethawveng and Nalzawl villages which are situated within the 7 kilometres flanks of Teirei's 58 kilometres stretch. The physiography is in the range of up to 300 metres high hills and the lowest beds have a height of 50 metres from M.S.L. The drainage is poor, the dominant pattern being of trellis type.

Only 1,352 hectares or 2 per cent of the total area of the water-shed management was found to be having gentle or gently moderate slopes of up to 15 degrees. It has been recommended that up to gentle slopes of 5 per cent potato and several other vegetables could be grown as also sugarcane and maize. Beyond

this but up to 15 per cent slopes bench-terracing supported by puretorican type terracing could be done to grow paddy and winter maize. Horticulture is recommended for strong slopes beyond 20 degrees supported by stubble-mulching.

The Teirei Project is limited to area closely surrounding the river to be able to concentrate on soil conservation so we get very little of gentle and moderate slopes but over a broader ring the 5 per cent ratio might hold. In any case, the development of Teirei Project would be able to provide for settlement only of 626 families at the rate of allotment of 2 hectares to a family.

The pilot projects for complete weaning away of farmers from jhum have not given very encouraging results and have one important lesson. The projects must have liberal back-up of road transport, power development and irrigation water and must be drawn on a fairly large scale to have the advantage of momentum. Half-hearted and sporadic action all along the line would be self-defeating. In view of this, watershed management projects would be needed to precede resettlement programmes and the coverage would need to be limited to small selected belts, the belts themselves being splashed all over the Union Territory. In view of this it is disappointing that no watershed management project has been conceived for the more backward pockets of Chhimtuipui district.

#### Development of Fisheries of Mizoram

Like in farming the development administration has had to wean the people from faulty ways of just killing the fish in ponds and rivers through explosives and mixing poison in water resulting in permanent damage to fish culture. From an output of perhaps 100 metric tonnes in 1950-51 culture and capture fishing yields are expected to touch the 12,000 metric tonnes level in 1984-85 recording an increase of over 300 metric tonnes over last year's mark. Cultured water areas is now about 1,500 hectares spread over various streams, 10 Government farms and about 3,000 private ponds which are liberally subsidised as regards masonry work, and the Fishery Department delivers the seeds in oxygen packing right on the fish farms to thousands of greedily and eagerly waiting pisciculturists lined all along the Union

Territory. The fishery officers would carry the seeds to the interior villages on Burma border, to the ill-connected western region, and to hamlets several kilometres off Saiha, where it is very skillfully nursed to yield one of the more relished things in Mizoram usually sold for Rs. 20-30 a kg, perhaps the highest price among all the towns of the country.

There is a clear prospect for doubling the output over the next five years about so long as adequate seed of the right type can be supplied at subsidized rates as at present, but the problem of logistics often becomes unsurmountable and the solution is only in the direction of opening up more seed farms. To the existing two at least three more need to be added. This would make possible more research work in some high altitude species which could be acclimatized to suit the climate of different regions in Mizoram.

With more development of water resources in Mizoram and expansion of facilities for irrigation there would be more prospects for paddy-cum-fish culture also.

It might appear that development of fishery would go a long way to switching farmers to sedantary farming by supplementing their incomes.

#### Plantation Cropping in Mizoram

Breakthrough in plantation cropping in Mizoram occurred in respects of plants for sericulture, rubber, coffee and cardamom. The Department of Sericulture has planted 100 hectares with castor, tapioca, mulberry (litsaia polyantha) to rear silkworms apart from utilizing 10 hectares of natural pine (quercus) plantation. There are about 3,200 private sericulturists who have their own plantations estimated at about 3,200 hectares.

The plantations are in Vairengte, Kolasib, Bilkawthlir, Darlawn, Kawnpui, Durtlang, Zemabawk, Ruangmual, Lengpui, Champhai, Khawzawl and Lawngtlai.

It has been estimated that in 1984-85, 3500 kg. of cocoons were collected which yielded 1,000 kg. of yarn sold for Rs. 3 lakhs. The Sericulture Department has set up a reeling and spinning unit in Chaltlang (close to Aizawl town). As the Department feels that there is scope to expand the output of cocoon to 55,000 kg. with very little of extra infrastructure and it is

already taking upon itself the responsibility of carrying it to the reeling and yarn-making facility.

If the forest department agrees to promote plantations of a hybrid strain of an Amur and Southern China variety of pine (or of Yamamai strain of Japan) it will give a boost to tassar production in Champhai valley and surrounding areas in the east of Mizoram.

Rubber plantation was experimented with first in 1959 in Bilkhawthlir area where about 1,000 hectares are now covered with rubber plantations. Coffee plantations are also of about the same area in that belt itself. Cardamom plantations amount to 500 hectares. Much of this is centred around Rengdil.

The Soil Conservation Department has promoted the plantation of rubber, coffee and cardamom in Aizawl encouraging each family to take up one hectare of plantation each to attain a modest acreage over the Sixth Plan as given in Table 4.3.

TABLE 4.3: Commercial Crop Plantation Sponsored by Soil Conservation Department in Aizawl District in the Sixth Plan

(in hectares)

Year	Rubber	Coffee	Cardamom
1980-81	80	45	130
1981-82	120	69	40
1982-83	66	85	50
1983-84	49	170	100
1984-85	70	88	41
(Estimated)			
Total	275	457	361

Source: Soil Conservation Department, Aizawl.

As in case of bench-terracing, wet rice cultivation, horticulture, vegetable farming and cattle farming such small-scale commercial plantations would need a very elaborate and careful back-up from the concerned Government departments and service, industrial or marketing cooperatives. There are only about 350 cooperatives in Mizoram with about 250 in Aizawl and only 50 each in Lunglei and Chhimtuipui with a total share capital of Rs. 3 crores, so that till many more of these come up Government agencies will have to play a strong role in the modernization of farming and forestry while making sure that elements of peasant farming are kept intact and capitalistic exploitation of large scale farming is avoided.

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- 2. This section draws on author's Pre-Capitalist Agricultural Formations in North-East India: Mizoram, March 1984 (mimeo).
- 3. S. Bose's study of Hmunpui village (near Sairang) for the year 1964-65 reports per hectare productivity of paddy at about 13 quintals which was larger than what was worked out for whole of Mizoram (11.5 quintals) in 1972-73 by F.K. Wadia. See S. Bose, Carrying Capacity under Shifting Cultivation, 1967 and F.K. Wadia, "Control of Shifting Cultivation in North-Eastern Region" in T. Mathew (ed.), Tribal Economy of North-Eastern Region, 1981.
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#### **POSTFACE**

#### A DEVELOPMENT STRATEGY FOR MIZORAM

THE MOST important circumstance that needs to be kept in view while considering a development strategy for Mizoram is the low viability of significant part of production activity. Open unemployment here is perhaps lower than anywhere else in the country, and, in fact, the ease with which jobs can be had here (or in Arunachal Pradesh) is a relief from the sight elsewhere in the country. But the fact remains that of the 21,000 square kilometres of land surface of this Union Territory with about half of it covered with forests of different descriptions and with perhaps the best ecological balance in the country it is hardly able to sustain even 5 lakh of population.

This population includes a work force of about 30.000 from Bangladesh. Assam and from elsewhere in India, which helps in road building, construction, shops, public administration, engineering and medical service. But the main means of livelihood for about 58,000 of the families living in villages is jhum farming and forestry spread over 5 lakh hectares so that with jhum cycle of about 7 years they have about 71,000 hectares of effective landholding in any year which amounts to about 1.3 hectares per family, the highest for jhum anywhere in the North-East region. Then, there are several thousands of hectares of holdings for sedantary farming. And still the productivity is so low that with paddy as the main crop about two-thirds of requirement of rice has to be brought from outside. There is an acute shortage of milk and large quantities of vegetables, poultry, fish, and cattle and goat for meat have to be brought in. And only ginger worth about one crore of rupecs is sent out.

Handloom weaving engages several thousands of families,

Postface 57

but the favourite fabric is the millmade synthetic one, a large quantity of which is even smuggled in. The capital town of Aizawl has several workshops for building bodies of trucks and buses and all over the territory there are carpentry shops which meet almost all the requirement of furnitures and doors and windows, but there is no factory/industry and all the cement, plywood and other building material has to be brought in from outside.

This picture of dependence on the rest of the country is dramatized by the figure of inflow of resources from Union Government to the tune of about 80 crores of rupees so that per capita assistance compares with that for Jammu and Kashmir which has been the highest in the country.

This circumstance of low productivity and dependence is compounded by inaccessibility of Mizoram. It would be on railway time-tables perhaps only late in the Seventh Plan and while air service to capital town of Aizawl was re-opened last year after a gap of about 7 years, there are some minor difficulties with it once again. There are about 2,000 kilometres of black-top roads and about as many kilometres of unsurfaced roads, but there are many missing links and while frequency of services on several routes is one, there is no service on Sundays. This thwarts development efforts with respect to electrification, health care, education and forestry, and heavy industry gets ruled out.

However, urbanization at 25 per cent which is the highest in North-East and which compares with national average, has been a great help in improving the quality of life. Thus, even though only about 20 per cent of the settlements are electrified, electricity has reached about half of the population with effective electricity use of 22 MW. Safe water supply has been assured in all towns and larger villages and medical facility is reasonably good even in far corners through the courtesy of military and para-military services. Literacy in Mizoram is 60 per cent, there are over 150 high schools, and a thousand junior high schools and primary schools. Again, there are 12 colleges and a University Campus.

But perhaps further enrichment of the life in Mizoram would need bigger strides in transport, communication and

electricity generation and supply. The Seventh Plan could be devoted to filling the several gaps in road transport, and work might start on extending rail line to Sairang and preparing Lengpui air trip. Bairabi hydroelectric project may near completion during the Seventh Plan as also the one at Serlui near Bilkhawthlir. We may expect some kind of chain of mini and micro hydel stations to cater to areas far off the grid and distribution lines.

But a major segment of the strategy of development of Mizoram may perhaps be the utilization of the economy at the base. It is a compulsion of the circumstances that about 50 thousand farming families have to be weaned from tungya, and put on some sort of settled farming and forestry.

About 5 per cent of land surface, the I lakh hectares of gentle slopes could be developed for the purpose so that these families may be allotted 2 hectares of land each. Mizoram has such an altitude, soil formation and weather that many things can grow here, but trees can survive best both supporting the soil and the sons of the soil. There are excellent prospects for rubber, tea, coffee and even the precious teak, and test plantations over thousands of hectares are giving good results. Several types of timber woods including the precious teak may be grown. The setting is good for sericulture and apiary and settled farming would give a lot of impetus to cattle-farming and dairy.

This programme would involve an investment of about Rs. 200 crores on approach roads to the sites, on terracing and on making barrages on rivers for irrigation and drinking water and also for hydel power. While the absorption capacity of the bureaucracy here is already showing severe strains, this colossal investment would not only take in all the surplus manpower in Mizoram, it would have a lot of potential for labour-force from outside.

Already there are no landless labourers or bonded labourers in this region. Such a strategy of settlement of the most deprived and weak section of the population will be very rewarding. The resources used on it would directly hit at poverty and over a decade it would help reduce the dependence of the economy of the region significantly.

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# **INDEX**

Administration, 8	mandustics 20.40
Agricultural produce, 48-49	production, 38-40 Finance Commission, 7th, 8
Agriculture, 22, 26	Finance Commission, 8th, 8:
Aivapui, 47	recommendations, 8-9
Assam Rifles, 18	Five Year Plans, 8-9
Assam Rines, 10	Five Year Plan I, 2
Bairabi Hydroelectric project, 34,	Five Year Plan II. 2
46, 58	Five Year Plan IV, 8
Bonded labourers, 54	Fisheries:
Border Road Transport Force, 19	development, 52-53
Burma connexion, 13-14	Food shortage, 1
Bullia com-	Forest resources, 31-33
Chelia, B.P., 18	Forestry, 54
Chinese invasion, 20	Famine, 18, 21
Chittagong tract, 15	<b>,,</b>
Christianity, 4:	Gadgil formula, 8, 10
influence, 15	Gaugii formula, 8, 10
Climate, 24-25	Handloom Weaving, 39
Communication, 21	Hindus, 17
Credit deposit ratios, 10	Hmuaki, 15
	Hortoki:
Development:	agriculture, 46-47
expenditure, 21	•
Development policy, 4	Income Toy 9
Drinking water, 23	Income Tax, 8 Industrial development, 38-40
East India Co., 14	Industries, 38-40
East India Co., Economic Planning, 1	Infrastructural facilities, 35
Education, 53 Education, 53 31-32, 53	Insurance policy, 19
Education, 33, 31-32, 53 Electricity, 23, 31-32, 53	Investment, 58
Energicity, 26 Employment, 26	Isolation from rest of the country, 16
Employments, 31-32 Energy, 21, 31-32	Insurgency, 17, 21
E core (U	insuigency, i', 2.
Engineers, 25 Excluded Areas, 16	N A 20
EXCINGED 74-	Jhum Arca, 30
Farming: capitalist features, 40;	Kawnpui, 20
Capitana	

	2. colems and 1 respects of 111201.
Keitum:	Quit Mizoram Notice, 19
agricultural land, 44;	D . 1111 D 11 4
farming, 45;	Rao, V.K.R.V., 5
fishery, 46;	U.N. Centre for
Jhum area, 45;	Regional Development at Nagoya, 5
vegetables, 46	Religious traditions, 17
	Reservation, 7
Lakher Pioneer Mission, 15	Resettlements, 21
Laldenga, 17-18	Resources, 23
Land, 23:	Road transport, 35-38
cultivable, 39;	Rural development, 2
farm, 24	Rufai development, 2
Landless labourers, 54	Safe water supply, 57
Literacy, 57	Sailo's policy, 20
Literature, 10-12	Sedantary farming, 58
Location of Mizoram, 2-3	Sericulture, 54
Lorrain, R.A., 16	Settled farming, 58
Lushai, Hill, 16	Settlements:
Lushai Hills District Council, 19	organisation, 21
·	Seventh Plan, 57-58
Ma-Ma operation, 14	Shakespear, J., 16, 17
Manpower, 28-30	Smuggling, 22
Marginal workers, 25	Soil conservation, 46-47
McCall, A.G., 18, 25, 28	Toolsh Clash Committee 21
Minerals, 2:, 35	Tarlok Singh Committee, 21
Minimum needs programme, 23	Teirei Project, 51, 52
Mir Qasim, 15	Thangphunga Sailo, 18
Mizos, 16	Tibeto-Burmese stock, 14
Mizo National Front:	Transport, 21, 53
growth, 18-20	Tribal development:
Mizo tribal chief, 7	blocks, 9
Mizo union, 18	Tribal organisation, 7
Nobres Jamobarlal 17	Tribal society, 6
Nehru, Jawaharlal, 17	Christian impact, 6
North East Region, 3	Tribal territory, 3
Occupation pattern, 25-28	Tribes:
Parcy N.E. 15	inter-dependence, 7
Parry, N.E., 15	Tuipuibari:
Plan-expenditure, 21	farming, 47
Planned development, 21	The same to the sa
Plantation cropping, 49-50	Unemployment, 26
Population:	Urbanization, 22, 57
educated, 26;	Village chiefs, 16
rural, 20;	
farming, 38-40;	Wadia, F.K., 30
socialization of—, 7	Water resources, 33-34
Public Development outland	Westernization, 16
Public expenditure, 22	Work Perce, 28-30
	) Se
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