Border Trade in Mizoram: An Economic Spatial Analysis

B.S. Mipun
Charles Romalswama

1. Introduction

Today, foreign trade becomes one of the most important economic activities in the world. All nations whether developed or underdeveloped is covered by this phenomenon because there is not a single nation who is self sufficient in its economy. So nations have to depend on the foreign trade in one way or the other. Sometimes foreign trade is considered as an indicator of a nation's economic well being. However, the high volume of foreign trade does not always necessarily mean that the economy concerned is well advanced rather the per capita foreign trade is a better indicator of economic development.

Mizoram is one of the most backward states in the Indian Union in regards to socio-economic development. In spite of the rich natural resource endowments she still lags behind in the economic development. This is because of the natural resources that have not been properly utilised which are because of lack of technical know-how and financial assistance.

Mizoram is a hilly region where the topography is rugged with deep gorges and narrow valleys. The hills are aligned with

north-south direction in a parallel ranges. The influence of the north-south trending mountain ranges can be observed in the drainage pattern, which is generally flowing towards north or south. The region is situated in the tropical belt therefore the vegetations are tropical in nature.

Before the advent of the British trade was carried on barter basis whereas cash transaction was introduced only after the advent of the British. But the British did not show interests to develop the region. After the Independence of India the Assam Government also have not taken steps for the development of the region to the contentment of the people. Due to non-implementation of developmental programs the people tilted towards Myanmar border in their vicinity for trade and other relations.

2. Objectives

The basic purpose of this paper is to :

(1) Study the Mizo-Myanmar border trade in the light of its causes and tracing its development till date.

(2) Focus the ethnic-cultural affinities that have played its role over the on-going border trade between Mizoram and Myanmar.

(3) Bring out the impact of border trade on the economy of Mizoram namely – distribution of market centres, hierarchical pattern of market centres, sphere of influence of market centres, per capita income of traders, contribution of the border trade to the economy of Mizoram.

(4) Study the social impact of border trade in Mizoram such as – growth and distribution of population, urbanisation, social change, social values, literacy, percentages of traders as well as non-traders.

3. Methodology

In order to carve out the impact of border trade in Mizoram data has been collected through scheduled questioners and personal interviews of traders and non-traders in order to portray the competitiveness between them and as a yardstick for the measurement of the impact that is being felt on any one of them. This study takes into account only the border trade between Mizoram and Myanmar. The Mizo-Myanmar border trade has not been reciprocal by Mizoram. Therefore, the study emphases mainly on the import of goods from the Myanmar side. Import data has been collected mainly from Custom check gate located at Champhai. Besides these some cartographic and statistical methods have been applied to analyse the data, draw charts and maps to substantiate the study. For purposes of illustration, trade routes and its other characteristics of Mizoram are shown in Maps 1 to 3.

4. Distribution of Market Centres and Processes

The distributions of market centres are closely related to the process of urbanisation and it also depicts the level of economic development of a region. When a town/centre is developed into a market centre, market centres exert a spatial interaction because of the pull factors over the surrounding areas. According to Saxena (1984) market towns/centres provides (i) trade and commerce service to the region, (ii) act as a nodal centre for transportation, and (iii) serve as a growth centre by providing various services to the region. Therefore, economic progress and market development is inter-dependant and their growth is mutual and symbiotic in association. The variation in spatial distribution of market is an indicator of development/backwardness of a region. The existence of more market centres or their clustered pattern shows the availability of larger quality of marketable surplus and vice-versa.[1]

There is a need for proper interaction between market towns and the surrounding rural areas/settlements. An idea has been put forward in one of the seminars on Market Towns and Spatial Development organised by National Council of Applied Economic Research (N.C.A.E.R.) that there should be one market town for every 40 to 50 villages.[2] Though this is not practicable in every region there should be a balance between the number of villages and market centres. In some district/blocks there may be two to three market centres whereas in some other district/blocks there may be only one or not at all. This variation in distribution sometimes may result in an unbalanced regional development. In order to integrate the spatial variations in distribution and to propagate concrete suggestions it is necessary to have thorough studies of the distributional pattern. Besides this, the weakness and strength of the spatio-functional organisation of a region can be best understood and proper planning strategies can be developed from the study of the distributions of market.

In Mizoram there are 36 market centres with almost all of them corresponding with the administrative headquarters. The spatial distributions of market centres in Mizoram have been calculated with the help of Nearest Neighbours Analysis.3 When applied for spatial distributional pattern of market towns/centres in Mizoram the resultant pattern is as follows –

(See Wide Table 1)

Analysis of the above table reveals that as many as seven R.D. Blocks are having a pattern of approaching uniform while eight R.D. Blocks are having an approaching random pattern. Two R.D. blocks have a pattern of random while only one-block accounts for a uniform pattern. The state as a whole has an approaching random pattern with an Rn value of 0.84. The

Table 1: Block wise Pattern of Rn Value

Sl. No	Name of Block	No. of market	rA	rE	Rn	Nature of Pattern
1.	N.Thingdawl	5	13.8	9.04	1.52	Approaching Uniform
2.	Zawlnuam	2	17.5	12.03	1.45	Approaching Uniform
3.	Darlawn	1	28	15.37	1.82	Approaching Uniform
4.	Ngopa	1	35	16.28	2.14	Uniform
5.	Reiek	2	17	11.09	1.53	Approaching Uniform
6.	W.Phaileng	1	15	16.06	0.93	Approaching Random
7.	Tlangnuam	3	5.3	7.05	0.75	Approaching Random
8.	Thingsulthliah	2	7.5	10.45	0.71	Approaching Random
9.	Aibawk	1	15	13.02	1.15	Random
10.	Khawzawl	3	13.3	11.43	1.16	Random
11.	Serchhip	2	5	12.08	0.41	Approaching Clustered
12.	E.Lungdar	3	7.5	10.59	0.70	Approaching Random

P.T.O.....

13.	W.Bunghmun	1	27.5	19.04	1.44	Approaching Uniform
14.	Lunglei	1	16	17.02	0.94	Approaching Random
15.	Hnahthial	1	16	16.06	0.99	Approaching Random
16.	Lungsen	2	18	12.01	1.49	Approaching Random
17.	Sangau	1	35	11.89	2.94	Uniform
18.	Chawngte	1	26	12.85	2.02	Uniform
19.	Lawngtlai	1	22.5	18.25	1.23	Approaching Uniform
20.	Tuipang	2	22	13.21	1.66	Approaching Uniform
21.	Mizoram	36	10.16	12.09	0.84	Approaching Random

Source: Survey done by the author through Questionnaires, 1999.

Rn value suggests that Mizoram has an underdeveloped market system. The state as a whole accounts for an approaching random pattern, which means that there are various settlements, which are not served by the market centres, or the level of development is unbalanced. On an average the market centres has 19.19 hinterlands which is quite sufficient but almost all of the market centres were of the lower order, i.e., they have no potentialities for further development on its own. So they have to depend on the larger/higher order markets for their development. It is also apparent that in all the R.D. Blocks where there are inlets or trade route the region tends to develop because in all these blocks there are trading facilities, which come from outside Mizoram. Take for instance, Khawzawl Block and Tuipang Blocks where there are border transit centres viz., Champhai and Saiha respectively the region accounts for three market centres and two market centres respectively. In these two centres there are surplus trading items which attract peoples from the settlement around. As such market centres evolved in these regions. This is attributed to the trade route from Myanmar, which is the only inlet into Mizoram.

(See Wide Table 2 and 3)

Table 2 and 3 show the movement of surplus items that had entered Mizoram through the two channels viz., Champhai and Saiha. In Champhai the total surplus of Betel nut is worth Rs. 831,56,751 which is 52 percent of the total Betel nut procurement in Mizoram. In Saiha the figure is worth Rs.125, 806,048, which accounts for 22 percent of the total betel nut procurement. Taken together 74 percent of the total betelnut procurement has been distributed among other R.D. Blocks. Of all the items, household utensils account for highest figure (90 percent) that moved out from the border transit centres. Vegetables records only 11.5

Table 2: Movement of Surplus Items from Champhai, 1997-98

Name of Item	Jan-Feb	%	Mar-Apr	%	May-Jun	%	Jul-Aug	%	Sep-Oct	%	Nov-Dec	%	% to total value
Electronics	3640726	90	1888797	83	2544548	81	2240083	85	4344100	79	2068503	73	52.20
Synthetic Fibres	959356	85	87055	86	1315195	76	766934	68	78283	71	999286	70	47.31
Betel nut	9389112	74	25590153	77	12019086	81	19311737	84	8743445	80	8103218	68	60.52
Household Utensils	275627	82	247929	79	314791	81	186867	76	3607807	80	164588	72	44.00
Meat	214062	84	243412	81	228412	87	255149	80	194910	78	204821	77	42.00
Others	5935834	88	11134640	84	11204217	87	8895250	72	1872743	74	471269	73	48.20
Vegetables	7792	24	19998	15	37638	21	26228	7	29034	8	18797	12	6.50

Source: As in Table 1

Table 3: Movement of Surplus Items from Saiha, 1997-98

Name of Item	Jan-Feb	%	Mar-Apr	%	May-Jun	%	Jul-Aug	%	Sep-Oct	%	Nov-Dec	%	% to total value
Electronics	1895045	87	789980	81	887876	85	799402	78	2121914	82	1319894	76	24.60
Synthetic Fibres	838361	91	584421	88	829318	89	789680	80	51058	86	429455	78	33.40
Betel nut	5844284	89	94198662	76	6551714	82	7418376	79	4191231	82	7601779	79	22.00
Household Utensils	188233	84	293981	90	200950	92	200800	85	1881800	81	115821	76	48.00
Meat	164592	78	222711	87	218114	90	238468	81	199908	80	174111	80	38.00
Others	4746215	86	9269399	89	9182830	91	6319031	80	1015164	74	452896	76	35.00
Vegetables	2697	9	12487	11	21633	16	34972	14	46407	20	10121	7	5.00

Source: As in Table 1

percent of the total procurement. This is because the region is far from self-sufficient in vegetables and that almost every vegetable item that entered was consumed within the Blocks itself. Moreover, in these two Blocks because of their distance commodities especially vegetables could not be circulated so they have to depend on their internally produced and the one coming from Myanmar. Of all the seasons November-December is the lowest surplus season because during this time consumption of different items rises due to Christmas shopping. On the other hand surplus items account for the highest consumption during January-February season.

Table 4: Number of Bus Services to different Markets, Weekly

Names of Towns/Markets	M.S.T.	Private	Total
Aizawl to			
Lunglei	6	24	30
Champhai	6	36	42
E. Lungdar	6	6	12
Ngopa	3	6	9
Vairengte	3	24	27
Zawlnuam	2	6	8
Saiha	6	12	18
Lunglei to			
Saiha	3	12	15
Tlabung	6	12	18
Sangau	2	-	2
Chawngte	3	-	3
Saiha to 3			
Tuipang	6	6	12

Source: Mizoram Statistical Handbook 1998, pp. 125-126 and Household Survey.

Economic development and the resultant spatial processes are interrelated phenomenon. Higher the economic development of a region higher is the degree of spatial processes of a region. A region endowed with surplus resource is bound to have a higher degree of interaction within the region itself and also with other regions. This is because people come into this region or town to commute or make use of those surplus products or facilities. Means of transport and communication helps in the understanding of the degree of interaction. Higher the degree of interaction, higher is the frequency of transport network with other regions. So when a region or town is endowed with surplus facilities transport frequency will always be higher because those surplus facilities would have to be transported to other regions via road, air, water or pipeline transport, etc.

From Table 5 it is seen that Champhai accounts for highest volume of commutation with 42 buses a week, and Saiha accounts for 18 buses a week from Aizawl, whereas from Lunglei it accounts for 15 buses weekly. Vairengte accounts for 27 and Tlabung shows 18 buses a week. It is apparent that Champhai and Saiha, because of surplus facilities coming from Myanmar the frequency of bus service tend to be higher. The surplus facilities are being transported to Aizawl to be distributed to other markets, whereas in case of Saiha the surplus facilities are less than Champhai and the frequency of bus services are low. It can be inferred from here that there is a positive correlation between the value of surplus facilities and the frequency of bus services. Besides Champhai and Saiha, towns like Lunglei, Vairengte and Tlabung show a higher frequency. Vairengte is situated on the Aizawl-Silchar route, the only link with the mainland, whereas Tlabung receives some amount of surplus facilities from Bangladesh and immediate larger/higher order centres or markets happens to be Lunglei. As such these three market centres show a higher frequency or higher degree of spatial interaction.

Table 5: Mizoram, Market Sphere of Influence

Market Centres	Population	Radius
Thingdawl	1390	2
Bairabi	2421	3
Kawnpui	5290	4
Kolasib	13482	6
Vairengte	5607	4
Zawlnuam	3455	3
Mamit	3546	3
Darlawn	3609	3
Ngopa	2590	3
Reiek	1241	2
Lengpui	1808	2
W.Phaileng	3059	3
Aibawk	1246	2
E.Lungdar	2470	3
N.Vanlaiphai	2804	3
Biate	2325	3
Khawzawl	7104	5
Champhai	20809	8
Khawhai	2102	3
Thingsulthliah	3692	3
Saitual	8402	5
Tlangnuam	2179	2
Aizawl	155240	21
Sairang	3527	3
Serchhip	13688	6
Thenzawl	4502	4

P.T.O.....

W.Bunghmun	983	2
Lungsen	2186	3
Tlabung	3409	3
Lunglei	35599	10
Hnahthial	5548	4
Sangau	2428	3
Chawngte	1022	2
Lawngtlai	9514	5
Tuipang	2379	3
Saiha	13669	7

Source: As in Table 1.

4.1 Market Areas

A market centre cannot exist in isolation. Its growth, origin and prospects of developments depend upon the surrounding area, which may be termed as market area. In fact market area is a geographical area from which a market draws its customers and offers retail as well as other services. Market areas are complex areal phenomenon and are a result of (i) size of the market, (ii) economic structure, (iii) nature of accessibility, (iv) range of goods, (v) consumer behaviour, etc. and sometimes physical and political factors become effective in the delimitation of the market area boundaries. In fact, there can be no specific boundaries for market or trade areas and whatever boundaries that have been drawn are generalised otherwise each commodity has its own trade area which overlaps similar areas of other centres.[4]

There are various techniques and methods used in determining the market area which can be grouped under two heads, viz., empirical and theoretical. The empirical method of delimiting the market area boundary is based on

the information incurred from the field survey, whereas the theoretical method is based on gravity model. Basically, all these models are based on some presumptions or hypothesis. Regarding the gravity model the works of William Reitly (1931), Converse (1965), Huff (1963), Siddall (1961), Lakshmanan and Hansen (1965), are noteworthy. In the present study, delimitation of market area boundaries has been based on the population[5] and on two working hypotheses.

(1) Every trade centre with facilities superior to that of its neighbours always attracts customers from outside, and

(2) Larger the population of a market town larger will be its trade area.

Based on this presumption, a radius of 36 market centres in Mizoram has been calculated and has been shown in Table 5.6. There are 4, 9 and 23 market centres in the first, second and third order respectively. The first order accounts to be Aizawl, Lunglei, Champhai and Saiha. These were the centres from which the lower centres draw their facilities. In other words, all the other centres depend on these four centres for their development. On these four centres Champhai and Saiha draws their trade facilities from Myanmar, while the mainland serves Aizawl and Lunglei via Bangladesh through the Tlabung market centres. In Champhai the surplus items accounts for net worth of Rs.150,864,433, which is 55.5 percent of the total procurement. In Saiha, the surplus items accounts for net worth of Rs.439,797,53, which is 16.2 percent of the total items procured in Mizoram during 1997-98. As mentioned earlier any surplus items in a region attract people from the surrounding areas/settlements. Table 5.6 shows the surplus items.

Table 6: Value of Surplus Items in Champhai and Saiha (1997-98) (value in Rs)

Name of Items	Champhai	Saiha	Total	Percentages
Electronics	16726757	7814111	24540868	9.04
Synthetic Fibres	4989109	3522294	8511403	3.13
Betelnut	83156751	54240135	137396885	50.61
Household Utensils	4997610	2881587	2881587	2.94
Meat	1340766	1217905	2558671	0.94
Vegetables	139487	128319	267806	0.09
Others	39513953	29045537	68559490	25.25
Total	150864433	43979753	194844186	71.77
	55.57%	16.20%		

Source: Surveyed by the author through questionnaires, 1999

Betel nut accounts for highest surplus compared to other items, whereas vegetables accounts for 0.09 percent of the total items procured during the same year, 1997-98. Taken together the surplus items from Champhai and Saiha accounts for net worth of Rs.194,844.86, which was 71.77 percent of the total items procured in the state from Myanmar. This is why the market sphere of influence for Champhai and Saiha stood in the highest-ranking order of hierarchy as the criteria for market sphere of influence is based on population. The degree of growth of population or the degree of attraction that these two centres exerted upon the other market/settlements can be best understood from Table 7. Zawlnuam Block registered the highest growth during 1991-97 with 71.48 percent whereas Khawzawl block registered a 20. 5 percent growth rate and Tuipang block registered 39.64 percent which hosts the Champhai and Saiha centre respectively. The market growth rate of Champhai and Saiha together accounts

for 3.45 percent. The state as a whole records a 19.54 percent growth rate out of which 17.66 percent is accounted for by Champhai and Saiha together. During the same period Ngopa, E. Lungdar and W. Bunghmun R.D. Blocks registered a negative growth rate with -17.91, -42.18 and -1.85, respectively. This may be due to the carving out of two blocks – Phullen Block and Khawbung Block, which accounted for 12086 and 20012 of the populations, respectively. Moreover, in these three blocks there are no surplus facilities, which could attract the people, whereas in their vicinity Khawzawl block, which offers surplus facilities, attracts people from its surroundings. It is also noteworthy that N. Thingdawl block and Zawlnuam block records a high growth rate of 35.70 and 71.48 percent, respectively. This is because the N.H. 54, the only road link with the mainland cuts across N. Thingdawl block and items from the mainland move into the state. So naturally there is bound to be surplus in this block, hence it has a higher degree of attraction. As such population registered a high rate of growth. In case of Zawlnuam block, the rapid population growth is because of the Riang refugees who had migrated from different parts of Mizoram and also from Tripura.

Table 7: Block wise Population of Mizoram, 1981, 1991 and 1997

Name of R.D. Block	1981	1991	1997	Growth Rate (%)
Zawlnuam	24838	30853	52909	71.48
W. Phaileng	16838	21591	24676	14.28
Reiek	10973	12128	13749	13.36
N. Thingdawl	35351	44833	60840	35.70
Darlawn	18066	20983	25521	21.62
Tlangnuam	93769	170667	213153	24.89
Aibawk	11671	14439	16398	13.56

P.T.O.....

Serchhip	23428	29993	34751	15.86
Thingsulthliah	20638	27095	32944	21.58
Ngopa	20956	23347	19332	-17.91
Khawzawl	35807	50192	60513	20.50
E. Lungdar	28885	32344	18700	-42.18
W. Bunghmun	12239	15549	15261	-1.85
Lungsen	31127	26496	29634	11.89
Lunglei	34530	48493	57058	17.66
Hnahthial	8615	20877	24054	15.21
Chawngte	16983	24870	31357	26.08
Lawngtlai	18517	29330	-	-
Sangau	8777	10746	12815	19.25
Tuipang	22143	34930	48779	39.64

Source: Statistical Handbook Mizoram, 1982, 1990 and 1998.

4.2 Hierarchy of Market Centres

The study of the hierarchical pattern of market centre is an important phenomenon in urban geography. Although each market has its individual status at the same time it is also an integral part of a regional system, which has its functional and spatial inter-relationship with other markets. A study of the hierarchical pattern is essential in order to understand the (i) spatial interdependence, (ii) functional wholeness of the system, (iii) discrete stratification of centres, (iv) for interstitial placement of orders. Another advantage of the study of hierarchy is that it will provide a base for regional development and planning. The essence of Christaller (1931) theory is that a certain amount of productive land supports a centre, which exists because essential service must be performed for the surrounding land. He based his theory on certain assumptions as priority foundations of the model. These assumptions are:

(1) a plane with soil of equal fertility and an uneven distribution of resources;

(2) an uneven distribution of population and purchasing powers;

(3) a uniform transportation network in all directions;

(4) a constant range of any one central goods.

Taking the above-mentioned assumptions in view Christaller (1931) developed three controlling principles for the central place hierarchy. These assumptions are:

1. The marketing principle K = 3. All areas are served from a minimum set of central places.

2. The transport principle K = 4. In this category the distribution is such that as many places as possible lie on the main transport routes connecting the higher order centres.

3. The administrative principle K = 7. Better administration is the controlling factor of the principle.

Christaller's central place theory is a much discussed theory and very few accept all the aspects of his work, but there is no doubt that his work has stimulated some of the most advanced and scientific works in geography. Among his principles only the marketing principle finds its place in real world application in most of the studies and K = 4 and K = 7 have not been applied anywhere in the world. In this study, the following variables have been selected for determining the hierarchical pattern of market centres in Mizoram. They are: (i) education, (ii) health, (iii) recreation, (iv) communication, (v) administration, (vi) transport, (vii) financial institution, (viii) trade, and (ix) industry.

(See Wide Table 8)

On the basis of the above variables the weighted scores for every market centres were calculated, in which there is I,

Table 8: Nature of Functional Hierarchy in Mizoram, 1998

Order Name	No. of Centres	No. of Service/ Facilities	Population Size	Availability of Services/ Facilities
1. Service Towns (State Capital)	1	20-22	50,000 above	All educational, medical, recreation, postal facilities including telephone, banking, trades & transport. Highest order of administration, wholesale market, small-scale industry
2. Service Centres (District or Sub-Div. HQ)	3	18-20	10,000-5000	College, High School, JBS, all medical, telephone exchange, post office, district or sub-divisional HQ., bus terminal centres, wholesale, small-scale industry
3. Service Centers (Block HQ)	7	16-18	5,000-10,000	High School, JBS, C.H.C., P.H.C., sub-centre, post office, sub-divisional or block HQ, bus station, metalled road, bank, wholesale market, small-scale industry
4. Service Village (Dependent Centres)	25	Below 16	Below 5,000	JBS, sub-centre, post office, block HQ, bus terminus, metalled roads, market daily or periodic, co-operative society.

Source: own estimates

3, 7 and 25 in first, second, third and fourth orders, respectively. Aizawl is the first order market centre; the second orders are Lunglei, Champhai and Saiha. The third order market centres are Bairabi, Kolasib, Zawlnuam, Mamit, Khawzawl, Serchhip, Tlabung and Hnahthial. The hierarchical analysis reveals that the existing classes of central places in Mizoram are tied up with 'marketing norms' as K = 3 and therefore primary in the vertical distribution and functional gapping in space are exhibited. When scatterness of these functional components is plotted, the primacy of Aizawl town on all the scale brings out its highest order due to its identity as state capital with more than one lakh population. Besides this, Aizawl happens to be the destination of all the trade items coming from the mainland as well as from Myanmar. As stated earlier, at least 71 percent of the total surplus items from Myanmar are destined to Aizawl and it is distributed to other market centres within the state.

Application of Rank Size Rule[6] shows that in the second, third and fourth orders centres; the functional facilities were very weak, which is apparent from the concavity of the distribution. The deviation of the actual distribution from the theoretical population decay is very wide, which shows that in the middle and lower centres, functional facilities have to be strengthened in order to have a balanced growth.

Table 9: Difference of Actual and Theoretical Market Centres, Mizoram

Hierarchical Order	Actual	Theoretical	Difference
I Order	1	1	0
II Order	3	2	1
III Order	7	6	1
IV Order	25	18	7

Source: own estimates

As seen from Table 9 the actual population decay nearly corresponds to the theoretical population decay upto the third order, whereas in the fourth order there is a deviation of 7; but in the second and third order centres there is a deviation of only 1 each. The fourth order, which is also the dependant centres accounts for being the most numerous with 25 centres therein. These centres lack potentialities for further development therefore proper planning strategies are required for the strengthening of facilities in order to minimise the gap between their immediate higher order centres. The availability of various types of goods and services unevenly distributed in their horizontal nature are road-route biased, which creates differentiation in the features of functional interactions and people's mobility. Thus areas situated on the main road and which act as a nodal centres for trade like Aizawl, Champhai and Saiha is noticeable for the emergence of intensive interaction patterns. It should also be noted here that the only means of transport is the land route for the conveyance of passenger and goods. Of all the centres, Aizawl emerged as the primate market centre because it functions as a major terminal of all the land routes from all directions. Champhai in the east, from Saiha via Lunglei in the south, from Mamit in the west and from Silchar via Vairengte in the north are connected. As such all the trade items and surplus products destined to Aizawl. This fact resulted in the acceleration of spatial interaction around these centres and hence possessed the highest number of facilities and services.

5. Income of Families

As already stated Mizoram is one of the most backward states in respect of economic development. She is not self-sufficient even on the essential goods and has to procure almost all the commodities required for the consumption of the people from outside. She is solely depending on the financial assistance

from the Central Government of India the State. Rice the main staple food of the Mizos is also far from sufficient. The production of rice within Mizoram could meet only about 49 percent of the total state's requirement. Therefore, at least 50 percent of the state's requirement has to be procured from outside Mizoram.

As seen from Table 10 essential items produced within Mizoram could not meet the requirement. The production of wheat could meet only 0.06 percent of the total requirement and the production of sugar could meet only 65.55 percent of the total requirements. Mizoram does not produce kerosene and edible oil so the state has to depend 100 percent on the procurement from outside the state.

Table 10: Production and Procurement of Essential Commodities in Mizoram, 1997-98

Items	Total Production in Mizoram (MT)	Total Procurement from Outside Mizoram (MT)	Total	%age of Production in Mizoram to Total
Rice	110573	112444	223017	49.58
Wheat	11	16980	16991	0.06
Sugar	7488	3934.80	11422.80	65.55
K. Oil	-	7872	7872	100.00
E. Oil	-	100	100	100.00

Source: Statistical Handbook, Mizoram 1998, pp. 46, 65.

The traders in Champhai and Saiha have been divided into five income groups, viz., below Rs. 6000, Rs. 6000-7000, Rs. 7000-8000, Rs. 8000-9000 and above Rs. 9000. In Champhai and Saiha 350 families are within Rs. 7000-8000 income group accounting for highest income group with 95 percent families in it, which is 27.14 percent of the total traders in both Champhai

and Saiha. This is followed by Rs.6000-7000-income group accounting for 24 percent of the total traders in both the transit centres. The Rs.9000 and above income group are the lowest income group which is 12 percent of the total traders in both the towns. But this income group accounts for at least 40 percent of the total income of the traders. Income groups of Rs. 8000-9000 and above Rs.9000 traded mainly on electronic goods and betelnut respectively. The Rs.7000-8000 income group dealt mainly with electronics, vegetables, synthetic fibres. While those below Rs.6000 and 6000-7000 income group traded mainly on household utensils, vegetable and others.

Besides the financial assistance from the Central Government there is a supplementary source of finance from Myanmar which resulted in the higher per capita income in the two border transit centres viz., Champhai and Saiha. In order to bring out a clear picture the state per capita income has also been highlighted (Table 12) as well as the per capita income of the non-traders in both the transit centres.

Table 12 : Per Capita Income of Mizoram, 1991-92 to 1997-98

Particulars	1991-92	1992-93	1993-94	1994-95	1997-98
Persons	684756	689756	689756	689756	689756
Total Income	40978403 4078070	963930 86600	919444 964920	518489	585253
State Per Capita Income	5941	5699	7517	7743	9570

Source: Statistical Handbook, Mizoram, 1998, p. 46.

As seen from Table 13 the per capita income during 1991-92 for the state was Rs. 5941 whereas in 1997-98 it was Rs. 9570, registering a growth rate of 61 percent during 1991-99. The total income for the state during 1991-92 was

Rs. 4097,840392, whereas in 1995-96, it is Rs. 5340,780708 and during 1997-98, it is Rs. 6600,964920. The per capita income on both the transit centres showed higher values than the states per capita income. The per capita income of non-traders registered lower mark than the traders in both the centres.

Table 13 : Per Capita Income of Traders and Non-Traders in Champhai and Saiha and Mizoram, 1997-98

Particulars	Champhai		Saiha		Mizoram
	Traders	Non-Traders	Traders	Non-Traders	
Persons	1756	1731	711	782	689756
Income	23815364	17093625	8808423	7513670	6600964920
Per Capita Income	13562	9875	12388	9685	9570

Source: Surveyed by the author through questionnaires, 1999 and statistical Handbook of Mizoram, 1998, p. 46.

It is clear from Table 5.13 that the total income for traders and non-traders were Rs. 238,15364 and Rs. 170,93625, respectively registering a difference of Rs. 67,21739 in Champhai, whereas the total income for traders and non-traders were Rs.88,08423 and Rs.75,73670, respectively. showing a difference of Rs. 12,34753 in Saiha. The per capita income of traders and non-traders in both the centres has registered higher than the states per capita income. In both the centres again, the impact of border trade manifests higher per capita income for traders than non-traders. The non-traders in both the centres however may not directly reap the benefits of border trade, but it is evident that the border trade have its impact even on the non-trader, because their per capita income is still higher than the state's per capita income. The per capita income of traders in Champhai registered a high of Rs. 13562 and traders

in Saiha showed a per capita income of Rs. 12388. The per capita income of non-traders was noticed as Rs. 9875 and Rs. 9685 for Champhai and Saiha, respectively. The per capita income in both the centres is higher than the states per capita income because of the border trade. The two centres account for 25 percent of the total value of items coming from Myanmar.

6. Contribution to the Economy of Mizoram

As noted in the preceding paragraphs the economy of Mizoram depends mainly on the assistance from the Central Government. She has to procure almost every essential commodity from outside the state. As such, any break in the supply of these essential commodities leads to acute shortage in Mizoram. So to cater to these needs and other factors, border trade is carried on with Myanmar where small amounts of essential commodities and other items enter Mizoram through Champhai and Saiha transit centres. It contributes substantially in the economy of Mizoram through border trade.

Table 14: Income of Traders in Champhai, Saiha, Mizoram and State's Total Income 1997-98

State/Transit Centres	Income (in Rs.)	Per Capita Income	Percentage of Total Income to Total State's Income
Champhai	23815364	13562	0.36
Saiha	8808423	12388	0.13
Mizoram	271447726	393	4.11
State's Income	6600964920	9570	

Source: Statistical Handbook of Mizoram, 1998, p.46 and surveyed by the author through questionnaires, 1999.

As seen in Table 14, the total income of Mizoram is Rs. 6600,964920 during 1997-98, while the per capita income for the state as a whole is Rs. 9570 during the same period. As mentioned earlier that trade item comes through the two border trade transit centres, viz., Champhai and Saiha. The estimated amount of trade items coming from Myanmar accounts for net worth of Rs. 271,447726 during 1997-98, which is 4.11 percent of the total state's income for the same period. The two transit centres Champhai and Saiha accounted for Rs. 326,23787, which is about 0.49 percent of the total state's income. Here the share of Champhai is Rs. 238,15364 and Rs. 88,08423 for Saiha, which also accounts for 0.36 and 0.13 percent of the total state's income, whereas it accounts for 55 and 16 percent of the total value of items coming from Myanmar. Therefore, the Mizo-Myanmar border trade has contributed to about 4.11 percent in the economy of Mizoram during 1997-98.

Table 15: Number of Families Engaged in Border Trade, 1997-98

Town/State	No. of families	No. of Persons	Percentage to Total State's Population
Champhai	250	1756	0.25
Saiha	100	711	0.10
Mizoram	8992	44964	6.51

Source: Surveyed by the author through questionnaires, 1999 and Statistical Handbook, 1998, p. 48.

Financially, the contribution of Mizo-Myanmar border trade is 4.11 percent whereas the total persons who earned their livelihood through the border trade accounts for 6.51 percent of the total persons. In Champhai, 250 households and 1756 persons are engaged in border trade, in Saiha 100 households and 711 persons are engaged in border trade, which is 0.10 percent of the total state's population. In the state there are 8992 families

who earn their livelihood through border trade. At least 44964 persons 6.51 percent of the total state's population are dependant on border trade. The number of families in the state is estimated to be 98536 and accordingly the Mizo-Myanmar border trade gave livelihood to 9 percent of the total families in Mizoram.

7. Major Findings

Mizos have close ethnic and cultural affinities with their neighbours. All the tribes like, Kuki, Chin, Mizo, Paite, Hmar, Khyang, etc. were different names to denote the same people. All these tribes speak the same language Mizo, with different dialects.

There are 36 market centres in Mizoram. They all correspond to the administrative headquarters like District, R.D. Block, Sub-division, etc. At present each market centre has at least 19.41 settlements. Application of Nearest Neighbour Analysis reveals that Mizoram accounts for an Approaching Random pattern with an Rn value of 0.84. This shows that market centres do not serve some settlements. It is observed that a block through which trade items enter Mizoram from outside the state accommodates more market centres. Khawzawl Block, the route of border trade from Myanmar accommodates three market centres. Besides this, Tuipang Block, which is also a trade route for Mizo-Myanmar border, accommodates two market centres. The hierarchical analysis of market centres in Mizoram reveals that the existing hierarchical classes of central places in Mizoram are tied up with 'marketing norms' as K = 3.

Application of Rank Size Rule shows that in the lower order centres the functional facilities were very weak, which is seen from the concavity of the distribution. This is because the lower order centres lack potentialities like trade inlet facilities and have to depend on the higher order centres for their development. The per capita income of traders in Champhai is Rs. 13562 and for non-traders Rs. 9875, whereas

the per capita income for traders in Saiha accounts for Rs. 12,388 and for non-traders it is Rs. 9,570 during 1997-98. The per capita income for the state is Rs. 9,570 during the same period. The total value of items which is coming from Myanmar accounts for 4.11 percent of the total state's income, whereas it gave livelihood to 6.51 percent of the total population of Mizoram. Out of the total families of 98,536 in Mizoram, at least 9 percent earn their livelihood through the Mizo-Myanmar border trade. Application of potential model reveals that maximum number of people is within reach of the places around Aizawl situated in the north-central part of the region. The population potential ranges between 77 per kilometres in Tuipang Block to 460 per kilometres in Tlangnuam. The actual density and expected density nearly corresponds to each other with the exception of Zawlnuam, Khawzawl, Tuipang, N. Thingdawl and Tlangnuam Blocks, where the actual density is higher than the expected density. This is because except for Zawlnuam, trading items coming from outside Mizoram influences all the four blocks.

Urbanisation in Mizoram has its beginnings since 1951 with a total population of 6950 which was concentrated in Aizawl town. By 1971 the number of urban centres increased to two Aizawl and Lunglei, with a total population of 37759. During 1971-81, it registered a rapid progress with 222.61 percent growth rate and a total population of 121814 persons is distributed among 6 towns. In 1991 the total urban population accounted for 317040, which was 46.20 percent of the total population. With regards to standard of living the figure against traders registered a higher quality than the non-traders. The total trading families in Champhai who owned houses accounted for 92.8 percent whereas for non-traders the figure was only 70.8 percent. The survey revealed that educated youth sought employment in this border trade because the

highest percentage of literate traders is at the age group of below 30 years in Champhai and Saiha. In Saiha the total trading families who owned houses accounted for 97 percent while for non-traders it was 82 percent of the total families for traders and non-traders respectively. Again in Champhai, total vehicles owned by traders were 209 by 74 families, whereas for non-traders the figure was 44 vehicles by 38 families. In Saiha total vehicles owned by traders accounted for 71 vehicles in 37 families and for non-traders it was 28 vehicles in 25 families. In Champhai cumulative percentage of the number of trading families who owns luxury kitchen items was 355 families whereas for non-traders it was 235 families. In case of Saiha the cumulative percentage was 356 whereas for non-traders it was 281 percent.

With regard to luxury items the cumulative figure of trading families accounted for 355 percent while for non-traders it was 264 percent. In case of Saiha the cumulative percentage for traders was 472 and for non-traders it was 368 percent. In Champhai, the trading families recorded 96.01 percent literacy and for non-traders, it was 94.85 percent. In case of Saiha, the trading families recorded a literacy percentage of 83 per cent and non-traders registered 81.20 percent.

8. Concluding Remarks

To conclude it can be said that the Mizo-Myanmar border trade has contributed to the socio-economic development of Mizoram to a great extent, since 4.11 percent of the total income of the state comes from this border trade. It also gave livelihood to at least 6 percent of the total population of Mizoram.It is evident from the discussion that border trade in Mizoram act as a boon to the prevailing economy. The total value of items that entered Mizoram from Myanmar is estimated at Rs. 2717,447726 during 1997-98. The distribution of market and spatial interaction among markets bear the impact of border trade. Mobilisations

of the means of communication are enhanced because of border trade. Trade items which entered Mizoram through the transit centres attracted traders from different markets which resulted in the increase of interaction.

FOOTNOTES

1. H.M. Saxena, *Geography of Marketing*, Sterling Publishers, New Delhi, 1984, p. 129.
2. National Council of Applied Economic Research, *Market Centres and Spatial Development*, New Delhi, 1972, as quoted in H.M. Saxena, *op.cit*, p. 130.
3. Nearest Neighbours Analysis is calculated by dividing the measured mean distance between the nearest neighbours points observed in a given area (rA), by the mean distance expected from a similar number of points randomly distributed in the same area (rE) or R = rA/rE

   Thus rA = Er/N, where r is the distance between each point and its nearest neighbours divided by total no. of points (N) while rE = 1/ NA, while N is the total no. of points and A is the given area.

   The R-value ranges between 0 and 2.1491, while the extreme value point to the clustered and the even distribution pattern respectively, the random distributions is denoted by the R-value of O.
4. H.M. Saxena, *op.cit*, p. 80.
5. Delimitation based on population can be based expressed as -

   $D = PixAj/Pj$, Where

   $$R = \frac{\sqrt{(pixAj)}}{Pj}$$

   D = Degree of market area of influence,
   Pi = Population of the ith market
   Pj = Population of the jth region
   Aj = Area of the jth region
   R = Radius of the circle.
6. According to Zipf (1949), rank size regularities evolving in the distribution of town-size are logarithmically marketed as :

   $Pr = P1(r-q)$, Its linear form is

   $Log\ Pr = Log\ P1 - q\ log\ r$

   Where, Pr = Population of town rank r,

P1 = largest town where

r = 1, and

q = constant.

If q = 1.0,

then established relationship, as Zipf further asserts, is simply reciprocal which follows the best condition of settlement (town) sizes distributed in whole of the system.

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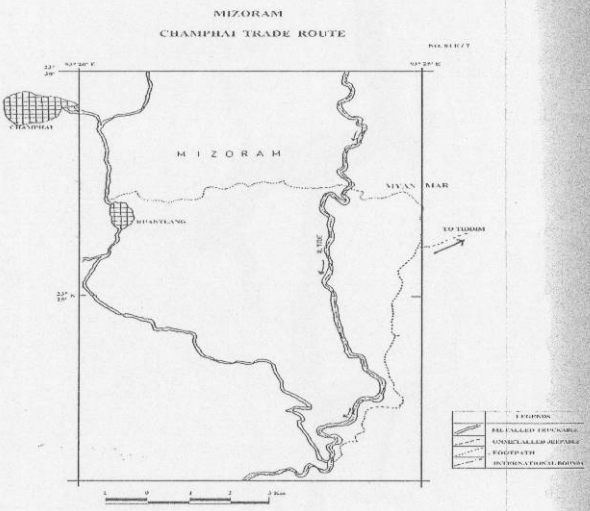
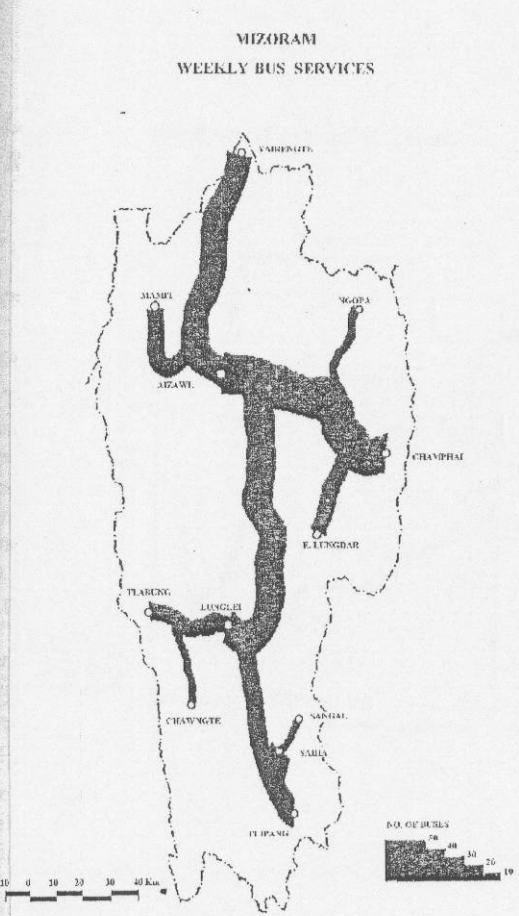
Map 1: Mizoram Trade Route



Map 2: Weekly Bus Service and Trade Rotes



Map 3: Champai Trade Route in Mizoram