

Issues and Challenges of Expanding Financial Inclusion in the North-Eastern States¹

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The North Eastern Region (NER) of the Indian Union constitutes eight states namely Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. It covers 8 percent of the geographical area of the country, accounts for 3.9 percent of the population and 2.7 per cent of the all-India net domestic product (NDP). The region is rich in development potential in terms of natural resource endowment, tourism and exports. However, with lack of basic infrastructure facilities, the states in the region lagged behind other regions in economic development. In absence of industrial and service sector development, the economy in the region reflects primarily the character of agrarian economies with two-thirds of its workforce dependent on agriculture. The gains of the rapid growth witnessed of the Indian Economy during the last two decades have not reached this region in an equitable manner. Recognizing the need for the region to catch up with other regions in economic development, the Government of India has categorized the North-Eastern states as Special Category States for allocation of Central Plan Assistance. Special attention has been given to the development of the region from Eighth Plan period onwards.

The formal banking development in the NER was only a post-nationalization phenomenon. Prior to nationalization of banks in 1969, not a single branch of commercial banks existed in Arunachal Pradesh and Mizoram. Two branches of commercial banks served the entire state in Manipur and Nagaland. Only Assam with tea and oil industries was historically better served by banks among the states in the region. The nationalization of the major private sector banks in 1969 was a turning point in the modern banking development in the North-Eastern states. A remarkable progress was made in the banking development both geographically and demographically. Starting from a low base, the branch network of commercial bank expanded significantly in the North-Eastern states.

However, the banking development in the region is considered lagging far behind all-other states in India. Even within the region, the inequalities in the availability of banking services are found very wide and glaring. The banking penetration ratio, defined as the percentage of households availing banking services, according to the Census 2001 data reveals that it is as low as 8.7 percent in Manipur as against the national average of

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35.5 percent. Credit to Net State Domestic Product (NSDP) ratio ranges from 9 in Nagaland to 41 in Meghalaya and is lower than the national average of 62. The NSS 59th Round (2003) reveals that the farm households excluded from accessing credit from institutional sources as a proportion to total farm households is as high as 96 percent in North-Eastern states. All these banking development indicators show the dismal state of banking development in North East states.

A well-functioning banking system is *sine quo non* for achieving faster and sustainable higher economic development of a region. Recognizing the dismal state of banking in the NER, the Reserve Bank of India (RBI) has set up in 2006 a Committee on Financial Sector Plan for North Eastern Region chaired by the Deputy Governor for formulating a master plan for financial services development in the region on a war footing basis. Given the special difficulties faced by the NER, the RBI has been undertaking number of initiatives for extending the outreach of banking facilities in the region. Notwithstanding all these initiatives, it is really a sad commentary that even after nearly four decades of public sector banking and directed banking policy, the level of banking penetration in NER remained very low. Consequently, the majority of the households in the region are deprived of banking facilities for taking advantage of growth opportunities.

Access to safe, easy and affordable financial services for poor, vulnerable groups, disadvantaged areas and lagging sectors is

now considered as a key to achieve accelerated growth and for reducing income disparities and poverty. Access to affordable finance enables the poor and vulnerable groups to undertake income generating activities for social and economic empowerment. Concerned about the non-availability of banking facilities in the unbaked areas and at the bottom of the pyramid, the RBI has adopted financial inclusion as a policy objective and thrust of banking policy in the Annual Policy Statement of 2005-06. Following this policy objective, several initiatives were introduced on a 'mission mode' to reach out unbanked and under-banked areas and neglected sections of the society in the country as a whole.

Against this background, there is a need for a thorough review of the existing pattern of the banking development in NER and the extent of inter and intra regional disparity in financial inclusion in terms of branch network, access to banking facilities, flow of credit, deposit growth, credit-deposit ratios and sectoral deployment of credit. With a view to categorize and rank states and districts in each state based on the extent of financial inclusion achieved, an attempt was made in this paper to construct a composite index of financial inclusion by using various banking outreach indicators. The paper also focuses on diagnosing the factors causing financial exclusion in different states in the region for smooth and effective development of the inclusive banking sector and expansion of financial inclusion in NER.

Lopsided Banking Penetration

Historically low level of banking development had much to do with the socio-economic and geographical features of the North-East states. Except the plain areas of Assam, Tripura and Manipur, the rest are hilly states inhabited by divergent ethnic tribes. Besides factors leading to inaccessibility such as poor transport and communication network in hilly terrains with sparse settlement of population, the subsistence nature of a traditional tribal economy had limited the demand for modern financial services and thereby inhibited development of modern banking. Among the eight states, only Assam, Meghalaya and Tripura had the privilege of having commercial banks operating. Before independence, there were only ten commercial banks branches in the entire North-East Region. Eight of them were in Assam and two in present day Meghalaya.

During the period 1949-69, the commercial bank branches in the region increased from 10 to 94. In spite of this growth, prior to nationalization of banks, not a single branch of commercial banks existed in Arunachal Pradesh and Mizoram. Only two bank branches served the entire state in Manipur and Nagaland. Assam had a better banking network due to development of tea and oil industries. The region had as a whole only 88 branches, which constituted only one percent of total bank network in the country. Thus, prior to bank nationalization in 1969, the region suffered from the low level of banking penetration as well as uneven geographic spread of the banking network.

Since nationalization of 14 major banks in 1969, the branch network of commercial banks in the region expanded rapidly. The branch licensing policy of RBI oriented towards opening branches in the unbanked areas in a

Table 1
NER: Expansion in Bank Branch Network

States	Bank Branches (Number)			Population per Branch (Number)			Bank Branches per 1000 Sq km
	1969	2001	2010	1969	2001	2010	2010
Arunachal Pradesh	-	69	80		15813	17282	1
Assam	74	1268	1477	89906	21008	21103	19
Manipur	2	84	81	126111	28436	33602	3
Meghalaya	7	181	213	59432	12741	13916	9
Mizoram	-	79	98	-	11279	11133	4
Nagaland	2	71	90	93287	28009	22007	5
Sikkim	-	47	74	-	11489	8252	10
Tripura	5	183	192	96747	17438	19120	22
NER	88	1935	2342	90523	19894	19465	9
All-India	8262	67525	86960	63000	15209	13916	26

Source: compiled from RBI Basic Statistical Returns and Census Data. Data relate to year ending March

balanced manner across geographical regions in the country under Lead Bank Scheme also favored rapid expansion of branch network in the region. Consequently, the number of commercial bank branches has increased in the region from 88 in 1969 to 1935 in 2001, almost twentyfold increase. During the post liberalization period, trend was, however, reversed. Out of 188111 new branches opened in the country during 2001 - 2010, the region has benefited from additional 407 branches only. The region has now 2342 bank branches. Assam has the largest number of bank branches (1477), followed by Tripura (229) and Meghalaya (213). Other states have less than 100 branches each. The share of bank branches in the region at all-India level increased from one percent in 1969 to about 3 percent in 2001 (Table 1).

The number of branches, however, does not show extent of access to banking services. It is necessary to consider both physical access to banking services and their use in a given region. Two measures of physical access to banking services are (i) geographical penetration, defined as the number of bank branches per 1000 sq km land area and (ii) demographic penetration, defined in terms of population per bank branch. Higher geographic penetration of banking services indicates proximity and convenience to access banking facilities and thus better access. It also enables the bank to reach out and meet the varied credit needs of people and thereby play developmental role more effectively. Without a bank branch nearby and easily accessible,

financial inclusion cannot take place and such areas are financially excluded. Similarly, demographic penetration implies lower population per bank branch and thereby easier access and better service delivery.

From analysis of data in the table, it is clear that though geographic penetration has increased with the expansion of bank branches in the region since bank nationalization, it is still far behind the national average. As against 26 bank branches at the all-India level, the region has only 9 branches per 1000 sq km in 2010. The divergence in geographical penetration is very wide across states in the region. Arunachal Pradesh has only one branch per 1000 sq km; Manipur three, Mizoram four and Nagaland five¹. As against this, Assam has 19 and Tripura 22 bank branches per 1000 sq km.

At the time of bank nationalization, population per bank branch in the region was 90,523 as against the national average of 63000. With the increase in bank branch network after bank nationalization, population per bank branch though declined from 90523 in 1969 to 19465 in 2010 in the region, it is still significantly higher than the national average of 13916. The state-wise banking penetration ratios now ranged between 8252 in Sikkim to 33602 in Manipur. Significantly, three hill states of Meghalaya (13916), Mizoram (11133) and Sikkim (5475), the decline in the population per bank branch was much more rapid and dropped below the national average of 13916. In other states, though it has declined significantly, it still

remained higher than the national average. In Manipur, it is still more than twice of national average.

It is also important to note that the North-eastern region has the highest population per bank branch in India. The population per bank office in the Northern region (19465) is almost double of Southern region (10344), Northern region (10532) and Western region (12907). During the period 2001-10, the banking penetration in the region has only marginally improved from 19894 to 19465, while in other regions and at the national level, it has improved significantly.

The bank network in the region is mainly dominated by public sector banks viz. State Bank of India (SBI) and its associates, nationalized banks and regional rural banks (RRBs)². Out of 2342 branches, the private sector banks have only 112 branches mainly concentrated in Assam. In other states, their

presence is only marginal. Foreign banks have only two branches in Assam (Table 2). With financial liberalization, though the new breed of private banks has dawned on the Indian banking scene, they apparently are making a beeline to only metropolitan and urban centers in developed states. They do not seem to have the slang of opening branches in North-east states.

Banking Outreach: Too Inadequate

Though, the population per bank branch is one of the important indicators for assessing the financial inclusion, it only indicates physical access to banking in terms of availability of banking services. It does not disclose the actual dimension of financial inclusion in terms of coverage or usage of the banking services. In ultimate analysis, the growth performance in the delivery of the banking services is critical for achieving financial inclusion objective. The

Table 2
Bank Group-wise Distribution of Offices
(As on March, 2010)

State	SBI and Associates	Nationalized Banks	Private Banks	Foreign Banks	RRBs	Total
Arunachal Pradesh	44	15	3	-	18	80
Assam	271	733	70	2	401	1477
Manipur	20	31	2	-	28	81
Meghalaya	93	55	10	-	55	213
Mizoram	25	9	5	-	59	98
Nagaland	51	22	7	-	10	90
Sikkim	27	40	7	-	-	74
Tripura	40	40	8	-	104	192
North-East Region	571	982	112	2	675	2342
All-India	17861	42965	10291	295	15548	86960

Source: Basic Statistical Returns of Scheduled Banks, RBI.

¹ Geographical features of the states in the region widely differ. Geographical penetration divergence among the states therefore to some extent reflects on divergence in geographical features of the states.

² Banks have been broadly grouped for comparative purpose according to ownership pattern: SBI & Associates, Nationalized Banks, Private new and old, foreign banks and Regional Rural Banks (RRBs).

geographical penetration in terms of branch expansion and decline in population per bank branch is, no doubt, expected to increase recourse to banking transaction by the people in terms of higher deposit accounts and credit accounts. The progress in deposits and credit, both in terms of number of accounts and amounts can be, therefore, considered important indicators to identify the gap in the outreach of banking services.

With the rapid expansion of bank branch network immediately after nationalization of 14 major banks, all the states recorded higher acceleration in deposit and credit growth. In Table 3, an attempt is made to analyze the trends in annual growth rates in deposits and credit as well as credit-deposit ratios during the last three decades in North-East states¹. The annual deposits growth rates in all states in the region during the period 1981-1991 were ranging between 18 percent in Assam to 26 percent in Arunachal Pradesh as against the

national average of 16 percent. However, this trend was reversed during 1990s, immediately after financial sector reforms. Excluding Tripura, in all other states, the deposit growth decelerated below the national average. During the 2001-10, all the states in the region have achieved slightly higher deposit growth compared to the national average of 18.9 percent per annum. Interestingly, the inter-state variations in deposits growth rates was found not very significant. However, the performance of the North-east region in deposit growth is dismal compared to Northern, Western and Southern regions which witnessed annual deposit growths of above 40 percent during this period.

As for credit, although similar trend and pattern are observed, there was a sharp deceleration in the credit flow in all the states in the region during 1991-2001. At the national level, no such deceleration took place. The worse affected state was Nagaland which

Table 3
NER: Average Annual Growth rates in Deposits and Credit Amounts and C-D Ratios (Percentage)

State	Deposit			Credit			C-D Ratio		
	1981-1991	1991-2001	2001-2010	1981-1991	1991-2001	2001-2010	1981	1991	2010
Arunachal Pradesh	27.2	15.4	24.4	24.1	8.1	34.5	14	28	27
Assam	18.1	16.2	19.7	14.4	11.2	21.7	42	50	36
Manipur	18.2	14.9	20.7	26.0	8.3	23.1	38	72	41
Meghalaya	21.0	15.8	22.6	22.4	12.9	31.5	21	22	26
Mizoram	24.9	14.4	19.1	27.0	12.8	27.2	20	28	24
Nagaland	24.6	15.4	19.4	26.5	1.7	27.7	36	44	30
Tripura	20.6	18.9	20.0	24.1	6.0	21.1	60	68	25
Sikkim			20.3			34.4		14	37
NER	19.4	16.2	19.8	16.7	10.2	22.5	40	47	35
All-India	16.4	16.8	18.9	15.9	15.8	21.9	67	62	73

Note: Deposits include savings and current account deposits. Source: Estimated from RBI Basic Statistical Returns of various issues

¹ In the case of credit, distinction between credit sanctioned, credit disbursed and credit outstanding should be recognized. However, due to non-availability of the data, only credit outstanding data are used. Moreover, credit sanctioned by the banks could be utilized elsewhere in other parts of the country. Similarly credit sanctioned elsewhere in other parts of the country could be utilized in the region. In absence of data, it is difficult to determine net flow. Hence credit outstanding is a better indicator of credit inflow and use.

witnessed 1.7 percent annual growth in credit as against the national average of 15.8 percent. Other badly affected states are Tripura, Manipur and Arunachal Pradesh. During 2001-2010, there was a significant acceleration in the credit flow in all the states in align with national acceleration in the credit deployment. The average regional annual growth rate in the inflow of credit was 22.5 percent as against the national average of 21.9 percent. However, during this period, Northern, Western and Southern regions have witnessed credit growth of 50 per cent per annum. Within the region, Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and Sikkim were the higher achievers in the credit growth, recording above 25 percent per annum.

The credit/deposit (CD) ratio, on the other hand, shows a disturbing trend of widening gap in credit delivery and deposits mobilization. Inter-state differences are also very wide. This is really a matter of serious concern. Throughout 1981 to 2010, the average CD ratio of the region is significantly lower than the all-India average CD ratio. What is more disturbing is that in spite of acceleration in the credit flow during 2001-10, the CD ratio of the region was virtually less than half of the national average. It declined from 47 percent in 1991 to 35 percent in 2010. The gap between the regional average CD ratio and national average CD ratio was thus widened. The region has, at present, the lowest CD ratio compared to other regions in India. As against the 35 percent CD ratio of the region, the national average CD ratio was

73 percent in 2010. In southern region, it was as high as 93 percent. In Western region, it was 79 percent and Northern region, 74 percent. The state-wise comparison shows that Mizoram has the lowest CD ratio of 24 percent followed by Tripura and Arunachal, where CD ratio was 25 percent each. Manipur has the highest CD ratio of 41 percent followed by Sikkim (37 percent) and Assam (36 percent). Other states have lower than the regional average of 35 percent. Except Meghalaya and Sikkim states, all other states in the region witnessed significant decline in the CD ratios during the last decade.

The trends in the growth rates in deposit and credit do not show the level of financial deepening in the economy. There is a need to link them to Gross Domestic Products (GDP) to determine the level of financial deepening in the economy. Table 4 contains computation of ratios of deposits and credit to Net State Domestic Product (NSDP) in North-East states during the last three decades.

The deposits to NSDP ratio increased substantially in all the North-East states during the last three decades. However, instead of narrowing down, the gap between the regional average and national average has increased significantly over the years. The regional deposit/NSDP ratio, which was 17.7 percent in 1980-81 increased to 51.8 percent in 2008-09. As against this, at the national level, the deposit/NSDP ratio increased from 35.6 percent to 74.2 percent during the same period. The gap has gone up from 17.9 percent to 22.4 percent. In the states like Maharashtra,

Table 4
NER: Ratio of Deposits and Credit to NSDP (Percent)

State	Deposit				Credit			
	1981	1991	2001	2009	1981	1991	2001	2009
Arunachal Pradesh	13.7	25.4	36.8	89.0	2.5	8.9	5.4	22.7
Assam	18.0	23.4	29.2	55.2	8.3	12.4	9.3	21.2
Manipur	8.5	12.7	15.3	44.8	4.3	9.2	6.2	16.2
Meghalaya	29.1	41.6	45.8	72.3	6.5	10.5	7.8	20.4
Mizoram	26.2	21.8	25.2	54.2	3.2	7.6	6.1	31.4
Nagaland	21.2	28.6	28.4	41.0	7.8	9.7	3.5	11.9
Sikkim			71.2	112.9			10.3	46.9
Tripura	12.3	20.2	30.6	46.3	8.8	14.8	6.6	16.7
NER	17.7	24.1	30.5	51.8	7.7	12.0	8.3	20.9
All-India	35.6	43.5	49.9	74.2	24.3	26.0	27.3	51.0

Note: NSDP data for 2010 not available. Nagaland data relate to 2006-07 and Tripura 2007-08. Data relate to year ending March.
Source: Estimated from BSR, RBI and Economic Survey, 2010-11

Karnataka, and Tamil Nadu, the ratios are above 100 percent¹. The divergence in the ratios among the states ranges from 41 percent in Nagaland to 113 percent in Sikkim. Nagaland, Manipur and Tripura have ratios lower than regional average of 52 percent. Arunachal Pradesh and Sikkim have ratios above the national average.

In the case of credit, trend emerging is quite different. The credit to NSDP ratio in the region has not only remained lower than national level but also the gap between the two widened significantly. At the regional level, the ratio increased slowly from 7.7 percent to 12 percent during 1980s, but it has come down to 8 percent during 1990s. It once again increased to 21 percent during 2001-09. As against this, at the national level, credit to NSDP ratio was consistently increasing, from 24 percent in 1981 to 51 percent in 2009. The gap between the regional average and national average credit/NSDP ratios has gone up from

16.6 percent in 1981 to 30 percent in 2009. During the 1990s, all north-east states have witnessed significant decline in the credit/NSDP ratios. Though during the last decade, there was some improvement; Nagaland has still the lowest credit/NSDP ratio of 12 percent, followed by Manipur (16 percent) and Tripura (17 percent). Except Sikkim, all states have credit/NSDP ratios less than half of the national average. The divergence is significantly very wide if comparison is made with other states like Maharashtra (138 percent), Tamil Nadu (107 percent) and Andhra Pradesh (71 percent).

The demographic penetration in terms of percentage of population using banking transactions is another important indicator to assess how inclusive the banking sector is in different states. It also shows financial exclusion dimension and the progress made in the banking outreach over a period. Table 5 presents percentage ratios of population

¹ In developed countries, the financial deepening in terms of credit and deposit ratios is usually above 100 percent of GDP. In developing countries, since financial deepening does not reach maturity stage, the ratios are usually less than 100 percent.

Table 5
NER: Ratios of Deposit and Credit Accounts to Population (Percent)

State	2001 - 01		2009 - 2010	
	Deposit	Credit	Deposit	Credit
Arunachal Pradesh	32.7	3.4	37.7	4.1
Assam	29.1	2.4	36.8	4.2
Manipur	13.4	1.8	18.1	2.7
Meghalaya	28.3	3.2	30.9	3.9
Mizoram	15.6	2.9	29.7	5.4
Nagaland	14.7	1.3	24.3	4.6
Sikkim	24.8	2.6	56.9	7.2
Tripura	31.3	6.9	46.2	8.3
NER	27.0	2.7	39.8	4.9
All-India	41.6	5.1	60.7	9.8

Source: Estimated from BSR, RBI

having banking accounts during 2001 and 2010¹.

The analysis of the data in the table clearly shows the glaring gaps in the demographic coverage of banking services between the national level and North-East states. Only 39.8 percent of the population has the deposit accounts in North-East states as against the national coverage of 60.7 percent in 2010. It was found to be 82 percent in Southern and Northern regions and 66 percent in Western region. Compared to other regions, The NER has the lowest demographic penetration in deposit accounts. The state-wise, it was lowest in Manipur (18 percent) and highest in Sikkim (57 percent). The pace of growth in penetration during 2001 and 2010 was the lowest in Meghalaya (9 percent), followed by Arunachal Pradesh (15 percent). Similar trend is observed in the case of credit accounts penetration. The total number of credit accounts in NER constituted only 4.9 percent of the total regional population, while at the

national level; it was 9.8 percent in 2010. In southern region, it was estimated to be 19 percent and Western region, 17 percent. The state-wise comparison shows that Manipur has the lowest credit penetration ratio of 2.7 percent, reflecting highest magnitude of credit exclusion in the state. Excluding Sikkim and Tripura, in all other states, it is around 4.5 percent. Thus, nearly 95 percent of the population in NER was deprived from the benefit of banking credit.

The comparative analysis of per capita deposits and credit in different states and at all-India level would show the gap in the delivery of banking services and financial deepening demographically. Table 6 sets out the estimates of per capita deposits and credit in North-East states during the last three decades.

Though there was a substantial catch up with the national average during the last three decades, the gap between the national average and North-east state averages in both per capita

¹No provision is made for multiple deposit/credit accounts, as no data available on the same.

Table 6
NER: Per Capita Deposits and Credit (Amount in Rs.)

State	Deposit				Credit			
	1981	1991	2001	2010	1981	1991	2001	2010
Arunachal Pradesh	208	1693	5629	29843	17	367	786	8218
Assam	210	981	3701	15590	65	405	1155	5892
Manipur	143	588	1808	9917	34	330	717	4170
Meghalaya	421	2132	7139	25785	50	349	1138	6605
Mizoram	227	1499	4441	20525	25	312	1030	10916
Nagaland	309	1770	4513	21140	42	448	518	6406
Sikkim			11283	51561			1628	19188
Tripura	208	1009	4905	20319	79	576	1015	5999
NER	220	1087	4003	16879	60	410	1068	6255
All-India	642	2370	9245	37688	281	1167	4976	27642

Source: Estimated from BSR, RBI and Census data

deposit and per capita credit still remained the same. In 2010, the average per capita deposit at the regional level was Rs.16879 as against the national average of Rs.37688, less than 50 percent. Among states in NER, the per capita deposit was the lowest in Manipur (Rs.9917) and the highest in Arunachal Pradesh (Rs.29843). Exception was Sikkim, where the per capita deposit was Rs.51561, more than national average.

The analysis of state-wise per capita credit flows shows the dismal performance of the banking sector in North-east states. The region has at present the lowest per capita credit penetration in the country. The national average per capita credit in 2010 was Rs. 27642 as against the regional average of Rs.6255, which constitutes only 22 percent of the national average. Among the states, it ranged from Rs. 4170 in Manipur to Rs.19188

in Sikkim. Manipur, Assam and Tripura have per capita credit flow below the regional average. Except Sikkim, all other North-east states have per capita credit of 75 percent below the national average.

Rural-Urban Gaps in Banking Outreach

Immediately after bank nationalization, the focus of the banking policy shifted from urban/metropolitan orientation to branch expansion in unbanked rural locations throughout the country. While the number of bank branches in the country has increased eightfold from 8262 branches in 1969 to 67529 branches in 2001, the rural bank branches increased almost twentyfold from 1832 to 35396. During this period, the NER also witnessed rapid expansion in rural bank branches. Out of 1935 bank branches in 2001, 1269 were in rural branches. The percentage share of rural branch network in total bank branches worked out to

66 percent as against the 48 percent at all-India level. This trend was, however, reversed during 1990s. Expansion in rural branch network came to almost grinding halt during post-liberalization period. NER has witnessed decline in the number of rural branches from 1269 to 1256 during the period 2001-2010. All 407 new branches opened during 2001 and 2010 in the region were in metro and urban areas (Table 7).

The decline in the number of rural branches took place invariably in almost all states in the NER. Sikkim is the only state where the number of rural branches has gone up from 36 to 48. Assam and Manipur were worse affected, where 27 and 12 rural branches were closed down respectively. Other states adversely affected were Mizoram and Tripura, where seven and six rural branches respectively were closed down. Mergers and swapping and closure of rural branches, rather than expansion in rural areas, became the norm

in the region. The share of rural branches in the total branches has, as a result, declined in the region from 66 percent to 54 percent.

The disparity in the demographic penetration of banking network in rural and urban areas in North-East states is analyzed in Table 8. The analysis of data in the table shows the widening disparity between the banking penetration in urban and rural areas in North-east states. During 2001 and 2010, the population per rural bank branch in urban areas declined significantly, while in rural areas, it has gone up. Though similar trend was observed at the national level, there was a sharp increase in population per branch in rural areas in North-East states. The population per rural branch has increased from 25629 to 29634 in NER, representing an increase of 16 percent. As against this, at the national level, it has increased from 22722 to 25534, accounting an increase of 12 percent. The average population per branch in the rural

Table 7
NER: State-wise Rural Branch network (Number)

State	2001			2010		
	Total	Rural	Percent	Total	Rural	Percent
Arunachal Pradesh	69	56	81.2	80	51	63.8
Assam	1268	818	64.5	1477	791	53.5
Manipur	84	47	55.9	81	35	43.2
Meghalaya	181	130	71.8	213	126	59.2
Mizoram	79	61	77.2	98	54	55.1
Nagaland	71	37	52.1	90	37	41.1
Sikkim	47	36	76.6	74	48	64.9
Tripura	183	120	65.6	229	114	49.8
NER	1935	1269	65.6	2342	1256	53.6
All-India	67525	32562	48.2	85636	32627	38.1

Source: RBI Basic Banking Statistics

Table 8
Demographic Penetration Banking Network in Rural and Urban Areas
(Number per Branch)

State	2001		2010	
	Rural	Urban	Rural	Urban
Arunachal Pradesh	15508	17154	20964	10808
Assam	28422	7532	33856	6398
Manipur	38686	15405	54275	17872
Meghalaya	14254	8882	18801	6839
Mizoram	7377	24500	9797	10825
Nagaland	44211	10382	38023	10660
Sikkim	22067		9499	3448
Tripura	25629	8619	23772	8356
NER	25629	9052	29634	7705
All-India	22722	8162	25534	7114

Source: BSR RBI and Census of India 2010

areas was 2.8 times higher than the average population per branch in urban centers in 2001. Now, it has gone up to 3.8 times higher in NER.

Inter-state disparities are also found to be very wide. Manipur has the highest population per rural bank branch (54275) and Sikkim has the lowest (9499). Only in Tripura and Sikkim, the population per rural branch declined. The rise in average population per branch in rural areas during the last decade is alarmingly higher in Manipur, Nagaland and Assam due to closing down of more rural bank branches.

A wide divergence in use of banking facilities in rural and urban areas in North-East states is also visible in analysis of data in Table 9.

Only 22 percent of rural population has deposit accounts as against more than 100 percent in urban areas in the region. Similarly, in the case of credit, only 2.8 percent of rural

people have access to bank credit as against 15 percent in urban areas. The rural-urban disparity ratio is 1:5.4 in both deposit and credit access at the regional level. The inter-state pattern of disparity in use of banking facilities between rural and urban areas is found to be very wide. Manipur and Nagaland have lowest percentages of rural population accessing deposit and credit facilities. In Manipur, only 7.9 percent deposit account users and 1.3 credit users in rural areas. The respective user percentages in Nagaland are, on the other hand, only 8.7 percent and 1.8 percent. In urban areas, the depositors constituted 59 percent in Manipur and 74 percent in Nagaland. For other states, the proportion of depositors in rural population ranges from 17 percent in Meghalaya to 41 percent in Sikkim. In the case of credit users, it ranges from 11 percent in Meghalaya to 18.6 percent in Assam. The rural-urban disparity

Table 9
Demographic Penetration of Deposit and Credit Accounts (As on March, 2010)

State	Deposit Accounts (percent to population)		Credit Accounts (percent to population)	
	Rural	Urban	Rural	Urban
Arunachal Pradesh	29.5	91.2	2.5	13.1
Assam	23.9	151.5	2.5	18.6
Manipur	7.9	59.2	1.3	7.7
Meghalaya	17.3	103.5	2.6	11.1
Mizoram	24.2	43.4	4.0	8.7
Nagaland	8.7	74.0	1.8	12.7
Sikkim	40.8	118.6	4.8	14.5
Tripura	29.1	114.9	6.6	14.6
NER	22.0	119.4	2.8	15.2
All-India	26.9	135.42	4.5	21.9

Source: RBI Banking Statistical Returns

ratio in deposit was highest in Nagaland (1:8.5) and lowest in Mizoram (1:1.8). In the case of credit accounts, the rural-urban disparity is found to be the highest in Assam (1:7.4) and lowest in Mizoram and Tripura (1:2.2).

Ranking of States and Districts on Financial Inclusion

With a view to categorize and rank states and districts based on the level of financial inclusion so far achieved, an attempt is made to construct a composite index of financial inclusion using main banking outreach indicators. Financial inclusion is broadly defined as easy and affordable access to and use of banking services. The banking services include a range of financial products viz. saving products, loans, payment services, credit cards and remittance facilities. Mere adoption of one product or service cannot be considered as financial inclusion. Thus, the term financial inclusion should refer to both

access to all these banking products and services and their use as and when required by households or people.

Several indicators can be used to assess the outreach of banking services. Some of the important indicators are: demographic penetration of banking in terms of population per bank branch, geographic bank penetration in terms of number of branches per 1000 sq. km., financial deepening in terms of number of deposit and credit accounts in the total population and bank service usage penetration in terms of per capita deposit, per capita credit, credit/deposit ratio, deposit/income ratio, credit/income ratio etc. No one of these indicators, however, captures both outreach dimension of access and use of banking services. Using individual indicator in isolation provides only partial information on the financial inclusiveness and may lead to misleading picture of the extent of financial inclusion in a state or an economy. It is,

therefore, necessary to consider both dimensions of access and use of banking services and construct a composite index for the same. Such a composite index is useful to assess and compare the basic dimensions of financial inclusion in single measure across districts and states and over a period.

In this study, the following three important measures are considered to construct a composite index of financial inclusion,

1. Access to banking services in terms of demographic penetration measured in number of bank offices per one lakh population. Higher demographic penetration in terms of higher number of bank branches for a given number of populations implies easier and better access to banking service. Lower number of banking branches implies difficulties of access and poor access.

2. Use of banking services in terms of number of deposit accounts per 100 people. The number of deposit accounts per 100 people shows the extent of banking outreach in terms of use of saving products in a given population.

3. Use of banking services in terms of per capita credit amounts. Per capita credit not only shows the demographic penetration in the use of credit, but also the extent of use of banking services for socio-economic empowerment.

The first measure reflects physical access dimension of financial inclusion and the later two focus on user dimension of financial inclusion in terms of two main services provided by the banking system viz. deposit

and credit. Higher values of these indicators imply better and more use of banking services. Each of these measures, thus, captures different dimensions of financial inclusion.

The methodology adopted is similar to the formula used for construction of Human Development Index by the UNDP¹. First, for each dimension indicator, a separate component index is constructed. Since higher value of the indicator reflects higher or better outreach of banking services, the maximum value is assigned as 1. The value of index lies in the unit interval and higher value of the index. Zero indicating complete financial exclusion and 1 indicating 100 percent financial inclusion. All three indicators are considered as of equal importance for complete financial inclusion and therefore given equal weightage to construct composite index. For each indicator of financial inclusion, the component index is constructed on the basis of following formula:

$$\text{Component Index} = \frac{\text{Actual } Xi \text{ value} - \text{Minimum } Xi \text{ value}}{\text{Maximum } Xi \text{ value} - \text{Minimum } Xi \text{ value}}$$

The composite financial inclusion index is the sum of the three dimension indices and is computed by adding three indices and by dividing by three.

In order to ensure uniformity and comparison across districts and states, there is a need to fix standardized minimum and maximum goalposts for each of the indicators to reflect 100 percent financial exclusion and 100 percent financial inclusion. In the case of banking penetration, based on empirical data,

¹ For details see Technical note in UNDP 's Human Development Reports published every year

minimum 5000 population per one brick and mortar bank branch would be ideal to achieve 100 financial inclusions. Accordingly, it is assumed that 20 bank branches for 1 lakh population is considered maximum value and zero bank branches for one lakh population minimum value. In the case of banking outreach in terms of deposit penetration, since people have more than one account and in some southern states, maximum number of accounts per 100 people was found to be on an average 150, the maximum value assumed as 150 accounts per 100 people and minimum value zero accounts. Similarly, in the case of per capita credit, based on the empirical data, maximum value is fixed at Rs.50000 and minimum value at zero amounts.

In a given dimensional space, zero unit value represents the minimum value indicating the worst situation of financial inclusion (100 percent financial exclusion), while the value

1 represents maximum achievement in financial inclusion in all the three dimensions. The component and composite indices of financial inclusion for each district and state in NER are constructed based on these assumptions in Annexure.

State-wise Comparison

Table 10 presents values of index for each indicator and composite index of financial inclusion for states of NER together with their ranking.

There are wide variations across states in all three dimensions of financial inclusion. Depending on the index values, states can be categorized as high achiever in financial inclusion if the values are above 0.500, average achiever if the values are above 0.300 and below 0.500 and worst performers if the values are below 0.300. In penetration of bank branch network, Sikkim ranks first with highest value of 0.609 followed by Mizoram

Table 10
Financial Inclusion Index and Ranking of States

State	Banking Penetration		Banking outreach		Banking Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Arunachal Pradesh	0.290	5	0.288	3	0.164	3	0.247	4
Assam	0.237	6	0.279	4	0.118	7	0.211	6
Manipur	0.125	8	0.101	8	0.083	8	0.103	8
Meghalaya	0.360	3	0.233	5	0.132	4	0.242	5
Mizoram	0.505	2	0.227	6	0.218	2	0.317	2
Nagaland	0.227	7	0.184	7	0.128	5	0.180	7
Sikkim	0.609	1	0.379	1	0.384	1	0.457	1
Tripura	0.312	4	0.344	2	0.125	6	0.260	3

with 0.505. Other high achiever states are Meghalaya (0.360) and Tripura (0.312) are found to be average achievers. Manipur ranks the lowest with index value of 0.125 followed by Nagaland with index value of 0.227. Surprisingly, Assam which has the highest number of bank branch network ranks sixth and in the category of worst performers.

In contrast to this, the ranking pattern for bank deposit outreach is found to be quite different. Not a single state is found in the category of high achiever. Sikkim followed by Tripura is the average achievers. Tripura, which is in 4th rank in branch network penetration, has second rank in deposit accounts penetration. All other states are in the category below the index value of 0.300. Manipur has the lowest rank followed by Nagaland and Mizoram. Assam and Arunachal Pradesh have relatively higher index values among these category states. Mizoram and Meghalaya, which ranked second and third in branch penetration, are found to be in sixth and fifth ranks in deposit penetration. Likewise deposit penetration, in the use of credit, no state in NER is in the category of high achiever. Sikkim is the only state found in category of average achiever. All other states are in the worst performer category. Manipur ranks the last followed by Assam, Tripura and Nagaland. Arunachal Pradesh and Meghalaya are relatively in a better position in this regard.

In all three dimensional composite financial inclusion indices, Sikkim stands first in rank and Manipur the last. Sikkim and Mizoram

are in the category of average achievers and other states in the worst performer category. Nagaland and Assam are also the other two states which are relatively in the worst ranks. Mizoram, Tripura and Meghalaya are comparatively in the higher ranks among these states.

District-wise Analysis

Arunachal Pradesh: The analysis of three basic parameters of financial inclusion as well as ranking of districts based on the values of index thereon is given in Table 11.

It is clear from the table that most of the districts in Arunachal Pradesh are in the worst performer category in financial inclusion. Only one district namely Papumpare is in the category of high achiever in all three dimensions of financial inclusion. Inter-district divergences are also very wide in all the three dimensions of financial inclusion. In bank network penetration, Lower Dibang Valley has the lowest value of 0.092 and Papumpare has the highest value of 0.652. Out of sixteen districts, nine are in worst performer category with index values less than 0.300; five are in the average category with index values ranging between 0.300 and 0.500 and only two districts are above 0.500 index value. In the case of deposit penetration, only one district is in high achiever category; four in the average category and eleven in the worst performer category. The position is worse in the case of credit penetration. Only one state is in the high achiever category and all other districts are in the category of worst performers. The ranking based on composite

Table 11
Arunachal Pradesh: District wise Financial Inclusion Index

State	Banking Penetration		Deposit Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Anjaw	0.237	9	0.177	13	0.033	14	0.149	10
Chunglang	0.135	13	0.153	14	0.042	13	0.110	14
Dibang Valley	0.629	2	0.265	6	0.103	6	0.332	5
East Kameng	0.128	14	0.115	15	0.074	10	0.106	15
East Siang	0.454	3	0.417	4	0.153	3	0.341	2
Kurung Kumey	0.112	15	0.031	16	0.009	15	0.050	16
Lohit	0.172	12	0.179	12	0.075	9	0.142	11
Lower Dibang Valley	0.092	16	0.196	10	0.065	11	0.118	13
Lower Subansiri	0.301	6	0.247	8	0.126	5	0.225	7
Papumpare	0.652	1	0.546	1	0.687	1	0.628	1
Tawang	0.300	7	0.409	5	0.095	7	0.268	6
Tirap	0.178	11	0.194	11	0.049	12	0.140	12
Upper Siang	0.283	8	0.260	7	0.075	9	0.206	8
Upper Subansiri	0.180	10	0.217	9	0.080	8	0.159	9
West Kameng	0.402	4	0.459	3	0.137	4	0.333	4
West Siang	0.356	5	0.480	2	0.182	2	0.339	3
Arunachal Pradesh	0.290		0.288		0.164		0.247	

index shows that Papumpare has the highest rank, followed by East Siang, West Siang, West Kameng, Dibang Valley and Tawang. Kurung Kumey has the last rank followed by East Kameng, Chunglang and lower Dibang Valley.

Assam: Among 27 districts, only one district, Kamrup Metro is in the category of high achiever in all the three dimensions of financial inclusion (Table 12). In the branch network penetration, three districts are in the

average category and the remaining 23 districts are in the worst performer category. As against this, in the case of deposit accounts penetration, nine districts are in the average category and 17 are in the worst performer category. In contrast to this, excluding Kamrup Metro, none of the districts in the high or average categories in credit penetration. All 26 districts are in the worst performer category.

Table 12
Assam: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Baksa	0.115	27	0.170	24	0.026	22	0.104	26
Barpeta	0.171	16	0.227	16	0.057	18	0.152	18
Bongaigaon	0.218	13	0.307	8	0.061	15	0.195	13
Cachar	0.253	11	0.269	11	0.112	7	0.211	11
Chirang	0.145	23	0.258	12	0.064	14	0.156	17
Darrang	0.160	19	0.219	18	0.058	17	0.146	20
Dhemaji	0.131	25	0.166	25	0.053	19	0.117	25
Dhubri	0.118	26	0.147	26	0.039	21	0.101	27
Dibrugarh	0.365	3	0.400	2	0.158	3	0.308	2
Dima Hasao	0.351	4	0.320	7	0.124	5	0.265	5
Goalpara	0.163	18	0.179	23	0.050	20	0.131	23
Golaghat	0.264	9	0.298	10	0.084	11	0.215	10
Hailakandi	0.151	20	0.225	17	0.053	19	0.143	21
Jorhat	0.366	2	0.394	3	0.149	4	0.303	3
Kamrup	0.277	7	0.326	6	0.235	2	0.279	4
Kamrup Metro	0.761	1	0.825	1	0.897	1	0.828	1
Karbi Anglong	0.259	10	0.200	22	0.064	14	0.174	15
Karimganj	0.201	15	0.229	15	0.059	16	0.163	16
Kokrajhar	0.135	24	0.238	14	0.058	17	0.143	21
Lakhimpur	0.230	12	0.248	13	0.070	12	0.183	14
Morigaon	0.146	22	0.203	21	0.055	18	0.135	22
Nagaon	0.168	17	0.210	20	0.066	13	0.148	19
Nalbari	0.266	8	0.302	9	0.099	9	0.222	8
Sibsagar	0.291	6	0.328	5	0.120	6	0.246	6
Sonitpur	0.228	13	0.302	9	0.086	10	0.205	12
Tinsukia	0.296	5	0.329	4	0.102	8	0.242	7
Udalguri	0.150	21	0.212	19	0.053	19	0.121	24
Assam	0.237		0.279		0.118		0.211	

The ranking based on the composite financial index also shows that only Kamrup Metro district, which ranks the first is in the high achiever category. Only two districts, Dibrugarh and Jorhat are in the average achiever category. All other districts are in the worst performer category. Among these districts, Dhubri ranks the lowest followed by Baksa, Dhemaji, Udalgiri and Goalpara.

Manipur: Manipur state is the lowest rank in all dimensions of financial inclusion in the region. The district-wise position shows that none of the districts is in the high achiever category in all the three dimensions of financial inclusion (Table 13).

In branch network and credit penetration parameters, all districts in Manipur state are in the worst performer category. The values

Table 13
Manipur: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Bishnupur	0.174	2	0.103	5	0.032	5	0.103	5
Chandel	0.074	9	0.175	2	0.072	2	0.107	3
Churachandpur	0.110	6	0.077	7	0.053	4	0.080	7
Imphal East	0.272	1	0.410	1	0.017	7	0.233	1
Imphal West	0.169	3	0.105	4	0.286	1	0.187	2
Senapati	0.142	5	0.050	9	0.067	3	0.086	6
Tamenglong	0.095	8	0.082	6	0.010	8	0.062	9
Thoubal	0.109	7	0.073	8	0.030	6	0.071	8
Ukhrul	0.149	4	0.156	3	0.010	8	0.105	4
Manipur	0.125		0.101		0.083		0.103	

of index are very low. It is only in the case of deposit penetration, one district Imphal East where capital city is situated qualifies to categorize as average achiever. In the case of branch network penetration, Chandel followed by Tamenglong, Toubal, Churachandpur and senapati have lowest ranks. As against this, in deposit accounts penetration, Senapati has the lowest rank followed by Chandel, Churachandpur, Taenglong and Bishnupur. Imphal East followed by Chandel, Ukhrul and Imphal West have comparatively higher ranks. Surprisingly, Imphal East which ranks the highest in other two dimensions has one of the lowest ranks in credit usage. In credit use, Imphal West ranks first followed by Chandel, Senapati and Churachandpur. In the overall index, Imphal East emerges in the first rank followed by Imphal West, Chandel and Ukhrul. Tamenglong district ranks lowest, followed by Thoubal, Churachandpur and senapati have lowest ranks.

Meghalaya: Table 14 shows the district-wise assessment of three dimensions of financial inclusion and their ranking based on composite financial inclusion index.

The analysis of values of index clearly shows wide inter-districts disparities in all the three basic parameters of financial inclusion. East Khasi Hills, where the capital city Shillong is located, ranks the highest in all three dimensions of financial inclusion. However, it is only in the branch network penetration category, high achiever. In other two dimensions, it is in the average category. In the branch network penetration, out of 7 districts, 5 districts are in the category of worst performer. As against this, in deposit penetration and credit usage, excluding East Khasi Hills, all districts are in the category of worst performer. They have index values lower than 0.200. Based on the composite index values, East Khasi Hills ranks first, followed by Ri-Bhoi and Jaintia Hills. South

Table 14
Meghalaya: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
East Garo Hills	0.252	5	0.140	5	0.049	5	0.147	5
East Khasi Hills	0.607	1	0.435	1	0.319	1	0.454	1
Jaintia Hills	0.357	2	0.167	3	0.054	4	0.193	3
Ri-Bhoi	0.290	3	0.197	2	0.125	2	0.204	2
South Garo Hills	0.105	7	0.056	7	0.021	7	0.061	6
West Garo Hills	0.241	6	0.161	4	0.062	3	0.155	4
West Khasi Hills	0.260	4	0.137	6	0.043	6	0.147	5
Meghalaya	0.360		0.233		0.132		0.242	

Garo Hills has the lowest rank followed by East Garo Hills and West Khasi Hills.

Mizoram: Though Mizoram ranks second among the states in the region, district-wise position of various dimensions of financial inclusion clearly shows that it has relatively higher values of index only in branch network penetration (Table15).

In branch network penetration, 3 districts are in the category of higher achiever and 4 are in the average category. Only one district viz. Lawngtlai is in the worst performer category. In deposit accounts penetration and credit usage, not a single district is in the high achiever category. Only Aizawl district is found in the category of average in deposit

Table 15
Mizoram: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Aizawl	0.561	3	0.323	1	0.360	1	0.415	1
Champhai	0.359	5	0.140	7	0.072	8	0.190	7
Kolasib	0.481	4	0.240	3	0.114	6	0.278	4
Lawngtlai	0.128	8	0.088	8	0.214	3	0.143	8
Lunglei	0.357	6	0.188	5	0.148	4	0.231	6
Mamit	0.583	2	0.149	6	0.078	7	0.270	5
Saiha	0.355	7	0.212	4	0.241	2	0.269	3
Serchhip	0.616	1	0.244	2	0.093	5	0.318	2
Mizoram	0.505		0.227		0.218		0.317	

accounts penetration and credit use. All other districts have index values less than 0.300. In the case of deposit accounts penetration, Lawngtlai ranks lowest followed by Champhai, Mamit and Lunglei. Serchhip, Kolasib and Saiha have relatively higher values of index. As regards credit use, Champhai has the lowest rank followed by Mamit, Kolasib and Serchhip. In composite index, Aizawl ranks first followed by Serchhip, Saiha and Kolasib. Lawngtlai is in the lowest rank followed by Champhai and Lunglei.

Nagaland: Nagaland is second to Manipur in lower ranks in NER. The district-wise position of various dimensions of financial inclusion in Table 16 evidently shows that none of the districts in Nagaland is in high achiever category in the basic parameters of

financial inclusion. Dimapur and Khoima are the only districts, which qualify to categorize as average group. All other districts are in the category of worst performer in all basic parameters of financial inclusion. In branch network penetration, besides Dimapur and Khoima, only districts which have above index value of 0.200 are Mokokchung, Phek and wokha. All other nine districts have values of index less than 100. In the case of deposit accounts penetration and credit use, only Dimapur and Khoima have index values more than 0.200. Based on the composite index, Longleng has the lowest rank followed by Kiphire, Mon and Tuensang. They have values of index lower than 0.100. Dimapur ranks the highest followed by Khoima, Mokokchung, Wokha, Phek and Zunheboto.

Table 16
Nagaland: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Dimapur	0.473	1	0.472	1	0.329	1	0.425	1
Kiphire	0.060	10	0.050	9	0.028	10	0.046	10
Kohima	0.439	2	0.419	2	0.231	2	0.363	2
Longleng	0.041	11	0.034	10	0.023	11	0.033	11
Mokokchung	0.238	3	0.146	3	0.128	3	0.171	3
Mon	0.077	9	0.058	8	0.046	9	0.060	9
Peren	0.110	7	0.086	6	0.058	8	0.085	7
Phek	0.204	5	0.112	4	0.066	7	0.127	5
Tuensang	0.095	8	0.074	7	0.075	6	0.081	8
Wokha	0.218	4	0.112	4	0.080	5	0.137	4
Zunheboto	0.196	6	0.090	5	0.083	4	0.123	6
Nagaland	0.227		0.184		0.128		0.180	

Table 17
Sikkim: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
East Sikkim	0.818	1	0.586	1	0.655	1	0.686	1
North Sikkim	0.808	2	0.361	2	0.137	3	0.435	2
South Sikkim	0.409	3	0.213	3	0.231	2	0.284	3
West Sikkim	0.330	4	0.138	4	0.068	4	0.179	4
SIKKIM	0.609		0.379		0.384		0.457	

Sikkim: Sikkim ranks first in NER. District-wise position on financial inclusion is shown in Table 17.

The analysis of the index values clearly demonstrates that out of four districts three districts have index values for all three basic parameters of financial inclusion relatively higher. East Sikkim ranks highest in all parameters of financial inclusion. It has index values higher than 0.500 and in the category of high achiever. North Sikkim, which is ranked second in composite index, is, on the other hand, high achiever category only in the branch network penetration. In deposit accounts penetration, it is in the category of average and in credit use, in the worst performer category. Similarly, South Sikkim and West Sikkim, which are ranked third and fourth respectively are in the average category in branch network penetration and in deposit accounts penetration and credit use, they are in worst performer category.

Tripura: Table 18 presents district-wise component and composite index values of financial inclusion together with their ranking. From the data analysis in the table, it is clear that unlike other states in the region, inter-district divergence in various dimensions of financial inclusion is only marginal. None of the districts is in the category of higher achiever in any parameters of financial inclusion. West Tripura, which is ranked highest in all parameters as well as on composite index, is in the category of average in branch network penetration and deposit accounts penetration and in the worst performer category in credit use. All other districts are in the worst performer category in all the three dimensions of financial inclusion. South Tripura ranks second, in all the three component indices. Though, North Tripura ranked third and Dhalai the last, in deposit accounts penetration, North Tripura is in the last rank and Dhalai, in the third.

Table 18
Tripura: District wise Financial Inclusion Index

State	Banking Penetration		Demographic Penetration		Credit Penetration		FI Index	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Dhalai	0.211	4	0.248	3	0.065	4	0.175	4
North Tripura	0.260	3	0.247	4	0.080	3	0.196	3
South Tripura	0.286	2	0.289	2	0.081	2	0.219	2
West Tripura	0.368	1	0.432	1	0.178	1	0.326	1
Tripura	0.312		0.344		0.125		0.260	

The broad observations emerging from the analysis of pattern of outreach of banking services across districts and states in NER are: first, the analysis of component indices of various dimensions of financial inclusion evidently shows wide divergences in various dimensions of financial inclusion across districts and across states in NER. The banking access in terms of branch network penetration is mostly concentrated in few districts particularly where state capital and other important urban centers are located. The deposit accounts and credit use penetrations are at very low level and inter-district and inter-state disparities are very wide. Second, though there is a correlation between access to banking service and use of banking services, the inter-state and inter-district divergences observed between the two are very wide. Access to banking services does not necessarily lead to better use of banking services. It is also found that deposit accounts penetration does not correspond to credit use penetration. There has been a differential impact among districts and states. Hence, using individual indicator for assessing

financial inclusion in isolation do not provide real picture of the extent of financial inclusion in a district or a state. The need for multidimensional approach to assess financial inclusion, therefore, needs hardly any emphasis.

Factors causing Financial Exclusion

NER lags behind other regions in economic development. The need for improving financial inclusion in North-east states is considered critical for accelerating its economic development. The NER has unique features, quite different from other regions in the country. About three quarters of the region is covered by hilly terrain and one quarter is made up of the four plain areas of Assam's Brahmaputra and Barak valleys, Tripura plains and Manipur plateau. Given the unique features of the North-east states, the factors causing financial exclusion are, thus, numerous and diverse. Some of them are state-specific emanating from diversity of ecological, ethnic and cultural features of the states, which are beyond the control of the banks. The following are some of the external factors which limit the expansion of banking

outreach in the region:

- The lack of basic infrastructure such as roads, transport facilities, communication and adequate power is the major constraint in development of the region in general and banking outreach in particular. Except in Assam and some parts of Nagaland, there is hardly any rail links. Most of the national highways and the state highways continue to remain in dilapidated conditions in hilly terrains with winding roads. The district and village roads are even worse. The availability of communication, transport and other infrastructure facilities are critically important in development of banking network and thereby improving easy access to banking services. The sparse settlements of population, hilly terrain, low level of commercialization and low business prospects, coupled with increasing fixed and operating costs make branch expansion an unviable strategy.

- **Underdeveloped agriculture:** Agriculture is still mostly at subsistence level. The land base of rural economy in NER is not much promising. Less than 16 percent of the area is under irrigation. About 25 percent of farm families practice shifting cultivation in hilly areas. Scattered producers producing limited volume of outputs individually in the hilly regions result in lack of effective demand for institutional credit. In plain areas, with population pressure, operational size of land holdings is palpably very low. Small and marginal farmers dominate the farming community. Demand for institutional credit from them remains very limited.

- **Absence of organized industrial sector:** In spite of vast potential, the region suffers from non-existence of industries or manufacturing units. There is hardly any large scale industrial sector in the private sector. The traditional industries like handicrafts and weaving are carried out at subsistence level. Absence of industrial development and private sector investment limit the credit absorption capacity, enhance the risk of default and impede expansion in the outreach of banks and flow of credit in the region.

- **Unique land tenure and property right systems:** In hilly areas, the community ownership of land prevails. This results in absence of *pattas* or records of legalized ownership rights, which restricts alienation of land from a tribal to a non-tribal. In absence of legalized ownership rights and proper land records, it is difficult for banks to lend. In plain areas, due to non-segregation of *pattas* on lands inherited over generations, collateralisation of land for bank lending has become a problem.

- **Political insurgency and insecurity:** In ultimate analysis, the inclusive financial system on sustainable basis can be achieved only in a stable and peaceful political environment. The region inherits large number of races, creeds, cultures and languages. Most of the states are adversely affected by the ethnic, linguistic and cultural issues and underlying political conflicts and insurgency. Nagaland, Manipur and to some extent Assam and Tripura have been confronting insurgency

on a continuous basis. All these have adverse impact on banking development in the region.

As regards bank-specific problems, broadly, they can be classified as supply-side factors and demand-side factors. The principal supply-side barriers for exclusion of financial services are lack of adequate access to banking services in terms of branch network particularly in rural areas. In NER, at present, bank branches are concentrated mostly in districts where state capitals and large urban centers are located. The inter-district disparities in branch network are very wide. The RBI has considered 61 districts out of 86 districts in NER as under-banked based on the criteria of demographic and geographic banking penetration¹. In Nagaland and Tripura, all districts are considered as under-banked. In Manipur, 8 out of 9 and in Arunachal Pradesh, 11 out of 16 are considered as under-banked. Even in the case of RRBs, though every state (except Sikkim) has Gramin bank, they do not cover 3 out of 7 districts in Meghalaya, 6 out of 11 districts in Nagaland and 10 out of 16 districts in Arunachal Pradesh.

The demand-side factors mainly emanate from socio-economic status of financial service users. They include mainly lack of awareness, sparse and scattered settlements, difficulty in offering collateral required, low income and low productivity leading to weak and non-viable demand, tribal status and financial illiteracy barriers and information asymmetry. To some extent, in tribal society, there is a deep-rooted perception run through

generations against institutional credit and informal channels are perceived trustworthy for money transactions. For instance, in Manipur, a Chit Fund called '*Marup*' is very popular, which provides people a highly flexible alternative avenue to banks for saving and borrowing purposes. With many government sponsored subsidy programs, the grant culture prevails and repayment culture is lacking in the region. Other factors affecting access to financial services to some extent are: legal hurdles (non-availability of appropriate legal rights documents) and psychological and cultural barriers resulting financial-exclusion

Financial illiteracy and lack of awareness of banking service operations are considered as the main hurdle in limiting the access to banking services to the people particularly in rural areas. The achievement of financial inclusion objective ultimately depends on financial literacy of people at the bottom of the pyramid. Due to insecurity, there are no conscious efforts on the part of lending agencies to spread awareness among people about the banking facilities available under various schemes. Though NABARD has set up a fund for Financial Literacy and Education, the banks have not made any efforts to draw up appropriate training programs and awareness campaign to promote financial literacy of rural people in the region.

Challenges and A Way Forward

The availability of communication network, good roads, transport facility, uninterrupted electricity supply and other infrastructure facilities are important in

¹ RBI: DBOD Circular No. BLBC.36/22-01-2005 dated 8th Sept. 2005.

determining easy and affordable access to financial services by the banking system. The insufficiency of these infrastructure facilities has been hampering the banking development and their operational outreach in North-east states. The political disturbances and law and order conditions are other important factors impeding the expansion as well as smooth functioning of banking operations. Moreover, the real sectors are underdeveloped and economy is lopsided, which restrict absorbing capacity and demand for banking services. Unless the infrastructures and real sectors are developed and political stability is achieved, the provision of easy and affordable access to financial services and reach out the unreached will remain a distant dream. Much of the initiatives in these regards should come from the government and could only be provided over a longer horizon.

For the banking sector, in order to enhance the extent of financial inclusion in the north-eastern region, the strategies should include, as the first step, brick and mortar branch expansion. Three states, Manipur, Nagaland and Assam have an adverse branch-population ratio in comparison with the national average ratio. There are number of potential unbaked centers.

Even to introduce, the branchless banking model with leverage of ICT in these states, there is imperative need for expanding the number of base branches. Strategically, three Kolkata-based public sector banks, Allahabad Bank, UCO Bank and United Bank of India who have larger exposure to these states, would be in better position to take up this task.

State Bank of India, which has lead bank responsibility in most of the districts in the region can play a lead role in this regard. Private Banks are reluctant to expand bank branches outside capital cities in the region.

Though most of the districts in the region are under-banked, given the topography of the region with sparse settlement of population and transport bottlenecks, brick and mortar branch expansion to cover all villages may not be feasible. Most appropriate and suitable alternative to branch expansion for banking outreach in remote areas in NER would be branchless banking through Business Correspondents (BCs). The disadvantages of topography, sparse settlement of population and cultural and language barriers can be overcome through ICT enabled offsite banking. There are number of CBOs, NGOs, and retired officials well dispersed in the region who could be used as BCs to provide door-step banking services at affordable costs. There are about 8000 post offices covering most of the villages in the region. They have goodwill and trusted relationship with the people even in remote hilly areas. They can be used as business correspondent for the banks for branchless banking operations in the region. The real challenge before the banking system in NER is, therefore to achieve the 100 percent financial inclusion in the shortest period by leveraging technology available through branchless banking model.

There are, however, a number of challenges before the banks in leverage of technology for delivery of banking services through BCs peculiar to rural areas in NER. They include

the kind and appropriateness of technology to be used, capacity building of BCs in handling of technology, role of technology service provider, building necessary infrastructure required for viable and sustainable use of technology, scaling up business operations, operational, liquidity and reputational risks, security issues and regulatory concerns. All these require corrective steps. The operation of branchless banking through SHGs is another important alternative to achieve higher banking outreach in the region. SHG-Bank Linkage program of NABARD has proven success in other regions. However, in NER, except in Assam, the program has not taken off. The challenge before the banking system is to promote SHGs in rural areas for deposit and credit linkage.

The financial illiteracy and misconception about banking operations are considered as the main constraints in limiting the access to financial services of the poor and weaker section of the society. This may be more so in tribal dominated NER. The perception of the tribal customers about banking institutions can have important effects on enhancing financial inclusion in the region. This warrants financial literacy and education campaign and setting up a Financial Education and Counseling Office by each bank. The Government of India has already set up Financial Inclusion and Development Fund with NABARD for promotional and development initiatives for financial inclusion. The fund should be used on priority basis to promote efforts of banks for free face-to-face financial counseling and advice in the region.

In order to build inclusive financial system in NER, the focus should be not only on banking sector but on array of other diversified financial institutions such as non-banking financial institutions (NBFIs), insurance companies, MFIs, postal saving banks, consumer credit institutions and most importantly the cooperative banking network at different levels. The cooperatives, which have wide network in NER, suffer from fragile financial health and lagged behind in furthering the cause of financial inclusion. With under capitalization and restrictions on their operations, RRBs, also could not play greater role in promoting financial inclusion. Sikkim has at present no Gramin Bank. The challenge is to involve all these institutions in promoting the cause of financial inclusion.

Banking development and financial inclusion in North-East states cannot take place in isolation. The state and central governments have to create the necessary enabling environment and conducive conditions. In the Twelfth Plan, which has set an objective of achieving faster, sustainable and more inclusive growth, has to consider NER as a special category to allocate sufficient funds for rapid development of requisite infrastructure facilities. The political insecurity has to be changed into one of conducive environment for steady economic development. More both public and private investment on creating basic amenities and generating employment opportunities would help the banking sector to fulfill the task of reaching out to the unreached and achieve 100 percent financial inclusion.

Annexure Tables
Arunachal Pradesh: District wise Financial Inclusion Index

District	Banking Penetration		Deposit Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount	Index	
Anjaw	4.74	0.237	26.50	0.177	1640	0.033	0.149
Chunglang	2.70	0.135	22.90	0.153	2089	0.042	0.110
Dibang Valley	12.58	0.629	39.77	0.265	5133	0.103	0.332
East Kameng	2.55	0.128	17.29	0.115	3679	0.074	0.106
East Siang	9.09	0.454	62.50	0.417	7630	0.153	0.341
Kurung Kumey	2.23	0.112	4.71	0.031	469	0.009	0.050
Lohit	3.44	0.172	26.91	0.179	3757	0.075	0.142
Lower Dibang Valley	1.85	0.092	29.41	0.196	3247	0.065	0.118
Lower Subansiri	6.03	0.301	36.99	0.247	6305	0.126	0.225
Papumpare	13.04	0.652	81.90	0.546	34342	0.687	0.628
Tawang	6.00	0.300	61.32	0.409	4768	0.095	0.268
Tirap	3.57	0.178	29.11	0.194	2464	0.049	0.140
Upper Siang	5.67	0.283	38.99	0.260	3755	0.075	0.206
Upper Subansiri	3.60	0.180	32.49	0.217	3987	0.080	0.159
West Kameng	8.04	0.402	68.82	0.459	6837	0.137	0.333
West Siang	7.12	0.356	72.13	0.480	9100	0.182	0.339
Arunachal Pradesh	5.79	0.290	43.20	0.288	8220	0.164	0.247

Note: Banking penetration in number reflects number of bank branches per 1lakh people. Deposit penetration percent reflects number of deposit accounts per 100 people, Credit penetration amount shows per capita credit.

Assam: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount	Index	
Baksa	2.31	0.115	25.56	0.170	1305	0.026	0.104
Barpeta	3.42	0.171	34.02	0.227	2847	0.057	0.152
Bongaigaon	4.37	0.218	46.07	0.307	3073	0.061	0.195
Cachar	5.07	0.253	40.43	0.269	5600	0.112	0.211
Chirang	2.91	0.145	38.71	0.258	3215	0.064	0.156
Darrang	3.19	0.160	32.79	0.219	2916	0.058	0.146
Dhemaji	2.62	0.131	24.89	0.166	2649	0.053	0.117
Dhubri	2.36	0.118	22.06	0.147	1938	0.039	0.101
Dibrugarh	7.30	0.365	59.97	0.400	7914	0.158	0.308
Dima Hasao	7.02	0.351	48.05	0.320	6202	0.124	0.265
Goalpara	3.27	0.163	26.92	0.179	2494	0.050	0.131
Golaghat	5.29	0.264	44.74	0.298	4184	0.084	0.215
Hailakandi	3.03	0.151	33.78	0.225	2671	0.053	0.143
Jorhat	7.33	0.366	59.04	0.394	7445	0.149	0.303
Kamrup	5.54	0.277	48.90	0.326	11739	0.235	0.279
Kamrup Metro	15.23	0.761	123.72	0.825	44849	0.897	0.828
Karbi Anglong	5.18	0.259	30.01	0.200	3195	0.064	0.174
Karimganj	4.03	0.201	34.33	0.229	2972	0.059	0.163
Kokrajhar	2.71	0.135	35.68	0.238	2943	0.058	0.143
Lakhimpur	4.61	0.230	37.17	0.248	3522	0.070	0.183
Morigaon	2.92	0.146	30.46	0.203	2776	0.055	0.135
Nagaon	3.36	0.168	31.63	0.210	3290	0.066	0.148
Nalbari	5.32	0.266	45.32	0.302	4946	0.099	0.222
Sibsagar	5.82	0.291	49.14	0.328	6027	0.120	0.246
Sonitpur	4.57	0.228	45.25	0.302	4280	0.086	0.205
Tinsukia	5.92	0.296	49.32	0.329	5097	0.102	0.242
Udalguri	3.00	0.150	31.87	0.212	2635	0.053	0.121
Assam	4.74	0.237	41.88	0.279	5893	0.118	0.211

Manipur: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
Bishnupur	3.47	0.174	15.53	0.103	1600	0.032	0.103
Chandel	1.48	0.074	26.30	0.175	3622	0.072	0.107
Churachandpur	2.21	0.110	11.56	0.077	2672	0.053	0.080
Imphal East	5.44	0.272	61.49	0.410	857	0.017	0.233
Imphal West	3.38	0.169	15.82	0.105	14298	0.286	0.187
Senapati	2.85	0.142	7.43	0.050	3348	0.067	0.086
Tamenglong	1.90	0.095	12.33	0.082	514	0.010	0.062
Thoubal	2.18	0.109	10.93	0.073	1482	0.030	0.071
Ukhrul	2.98	0.149	23.42	0.156	496	0.010	0.105
Manipur	2.50	0.125	15.19	0.101	4171	0.083	0.103

Meghalaya: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
Bishnupur	3.47	0.174	15.53	0.103	1600	0.032	0.103
East Garo Hills	5.04	0.252	21.03	0.140	2448	0.049	0.147
East Khasi Hills	12.14	0.607	65.30	0.435	15944	0.319	0.454
Jaintia Hills	7.13	0.357	25.06	0.167	2698	0.054	0.193
Ri-Bhoi	5.81	0.290	29.55	0.197	6228	0.125	0.204
South Garo Hills	2.10	0.105	8.33	0.056	1035	0.021	0.061
West Garo Hills	4.82	0.241	24.09	0.161	3123	0.062	0.155
West Khasi Hills	5.19	0.260	20.49	0.137	2171	0.043	0.147
Meghalaya	7.19	0.360	34.60	0.233	6605	0.132	0.242

Mizoram: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
Aizawl	11.13	0.561	48.44	0.323	17988	0.360	0.415
Champhai	7.18	0.359	21.00	0.140	3606	0.072	0.190
Kolasib	9.63	0.481	35.96	0.240	5708	0.114	0.278
Lawngtlai	2.55	0.128	13.20	0.088	10695	0.214	0.143
Lunglei	7.14	0.357	28.27	0.188	7411	0.148	0.231
Mamit	11.66	0.583	22.32	0.149	3914	0.078	0.270
Saiha	7.10	0.355	31.81	0.212	12074	0.241	0.269
Serchhip	12.33	0.616	36.61	0.244	4650	0.093	0.318
Mizoram	10.10	0.505	34.08	0.227	10917	0.218	0.317

Nagaland: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
Dimapur	9.45	0.473	70.75	0.472	16450	0.329	0.425
Kiphire	1.21	0.060	7.53	0.050	1378	0.028	0.046
Kohima	8.78	0.439	62.92	0.419	11538	0.231	0.363
Longleng	0.82	0.041	5.10	0.034	1129	0.023	0.033
Mokokchung	4.76	0.238	21.95	0.146	6403	0.128	0.171
Mon	1.54	0.077	8.77	0.058	2297	0.046	0.060
Peren	2.20	0.110	12.92	0.086	2893	0.058	0.085
Phek	4.08	0.204	16.79	0.112	3313	0.066	0.127
Tuensang	1.90	0.095	11.07	0.074	3729	0.075	0.081
Wokha	4.37	0.218	16.86	0.112	4011	0.080	0.137
Zunheboto	3.92	0.196	13.46	0.090	4165	0.083	0.123
Nagaland	4.54	0.227	27.60	0.184	6408	0.128	0.180

Sikkim: District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
East Sikkim	16.35	0.818	87.87	0.586	32766	0.655	0.686
North Sikkim	16.15	0.808	54.14	0.361	6844	0.137	0.435
South Sikkim	8.18	0.409	31.97	0.213	11534	0.231	0.284
West Sikkim	6.60	0.330	20.72	0.138	3378	0.068	0.179
SIKKIM	12.18	0.609	56.91	0.379	19198	0.384	0.457

Tripura : District wise Financial Inclusion Index

District	Banking Penetration		Demographic Penetration		Credit Penetration		Financial Inclusion Index
	Number	Index	Number	Index	Amount in Rs.	Index	
Dhalai	4.23	0.211	37.18	0.248	3244	0.065	0.175
North Tripura	5.19	0.260	37.16	0.247	4043	0.080	0.196
South Tripura	5.71	0.286	43.33	0.289	4068	0.081	0.219
West Tripura	7.36	0.368	64.75	0.432	8898	0.178	0.326
Tripura	6.24	0.312	51.59	0.344	6248	0.125	0.260

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