A Study on Regional Disparity of Devolution of Rural Infrastructure Development Fund - Evidence for India

Sen, S K and Guha, S and Chakraborty, N

Tripura University

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By

S. K. Sen[¥], S. Guha & N. Chakraborty

Abstract: *The present paper attempts to examine the normative criteria of RIDF devolution by NABARD in reducing inter and intra state disparity in terms of sanction of per capita RIDF over the study period 1996 to 2010. Following Spiezia (2002), Adjusted Geographic Concentration index has been used to test the nature and sources of concentration of per capita sanction of RIDF. The empirical findings support a relatively high degree of concentrations in devolution of such fund among the states. The study also identifies the sources of such concentration. The underlying reasons behind such inter and intra state disparity in per capita sanction of RIDF is mainly the matching grant scheme applied to all the states and the twenty percentages reward formula under such devolution criteria. This study strongly recommended the review of the normative criteria for devolution of RIDF set by the NABARD by removing the matching grant scheme and restricting the twenty percentage reward formula, for the less developed states including the states in the north eastern region only for achieving the goal of balanced regional development of rural infrastructure.*

Key Words: Rural Infrastructure, Regional Disparity, Geographic Concentration, Matching Grant Scheme, Reward Formula

JEL Classifications: G18, H53, R58.

1. Introduction: Balanced regional growth has always been a significant objective of the Indian national plans. Starting from the First Plan, to achieve the goal of balanced regional development, the Finance Commission and the Planning Commission always determines the funds devolution to state governments by assigning a significantly high weight on relative backwardness of the states. The contemporary literature on balanced vis-à-vis unbalanced growth doctrine differs significantly in this devolution formula of transfer of funds from the central government to the different state governments. The proponents of the unbalanced growth doctrine argued for selection of investment projects purely on the basis of larger total linkage effects which is the sum of backward linkage effect and forward linkage effect. The benefits arising out of such investment projects are expected to trickle down to the other sector. If it is established that national growth will lead to convergence in regional incomes then growth in richer states will trickle down to poorer states in due course of time. In that case, emphasis should be on economic growth rather than regional backwardness while distributing resources to the state governments. This policy of deliberate unbalanced growth strategy is likely to be useful for any economy which is yet to 'take off' or just reached the take off stage. The convergence theorem as propounded by Barro (1991) postulates that when the growth rate of an economy accelerates, initially some regions with better resources would grow faster than others. But after

[¥] Corresponding author (E mail: subirkumarsen@gmail.com)

sometime, when the law of diminishing marginal returns set in, first growth rates would converge, due to differential marginal productivity of capital (higher in poorer regions and lower in richer regions), and this in turn would bridge the gaps in the levels of income across regions over time. Though, the cross country empirical results are some time controversial, the reduction in the level of regional disparity in China after economic reform supports this proposition.

On the other hand, the alternate hypothesis advocated for achieving balanced regional growth and proposed in favour of sacrificing some growth if divergence in regional incomes has stronger ground. Needless to mention that in India, different regions with different resource bases and endowments level would have a dissimilar growth path over time. One of the reasons why centralized planning was advocated earlier on the expectation that it could restrain the regional disparity. In spite of planning, however, the regional disparity remained a serious problem in India. In India, the growth rate of gross domestic product (GDP) accelerated since 1980s. The average annual GDP growth rate in the first three decades (1950s to 1980s) was only 3.6 percentages. During the 1980s, the GDP growth rate accelerated to 5.6 percent, and after economic reforms in the 1990s, it has further accelerated to 6.0 percentages or even expected up to 8.5 percentages. The pattern of sectoral composition of GDP growth in India is predominantly service led growth coupled with a declining trend in its contribution from the primary sector which becomes a serious concern among the development planner and policy makers.

During the Budget speech of 1995-96, the then finance minister of Government of India expressed the consciousness over the declining trend in public investment in agriculture and rural infrastructure mainly due to severe resource crunch experienced by the different state governments on the one hand and the inability of the Commercial Banks to channelize 18 percentages of their total lending to agriculture as required under priority sector guidelines due to inadequate infrastructural base in rural and agricultural sector. Against this backdrop, the Government of India announced a scheme for setting up of Rural Infrastructure Development Fund (RIDF) with NABARD as the nodal agency towards financing of, at that point of time, the ongoing rural infrastructure projects in irrigation sector. Subsequently, RIDF was made available for new projects as well and its ambit was broadened to cover almost all important aspects of rural infrastructure.

During the launch of RIDF schemes by NABARD, the devolution of state wise allocation of this fund was decided to be made available in accordance with the normative criteria which include geographical area, population, inverse of infrastructure index, inverse of rural CD ratio and the previous performance under RIDF sanctions and disbursements. Clearly, this was a move towards performance based programme budgeting system to achieve the twin goal of generating infrastructural base for rural economy and reducing the intra and inter rural disparity among the different states and or region of India.

Against this backdrop, the objective of this paper is to investigate the nature of disparity of per capita availability of such RIDF sanction across the different states and evaluate its actual performance against the expected standard. For this, we consider the Adjusted Geographic concentration (AGC) index over the period of study and analyse the trend of disparity of per capita devolution to understand the nature and extent of such spatial concentration of sanction of per capita RIDF for the different states.

To pursue the aforesaid objective, the present paper has been divided into five sections. Including the present **Introductory** one, the remaining paper is organized as follows: **Section 2** provides the theoretical exposition and related studies with this study. **Section 3** deals with sources of data and the methodological framework utilized to test the nature of regional disparity

in devolution of per capita RIDF fund across the states. Results are discussed in **Section 4**. Finally, this paper concludes in **Section 5**.

2. Related Studies: Since the balanced regional growth is one of the principal objectives of the developing world, the major precondition for attaining such goal, however, is the availability and flow of required quantum of infrastructure in the economy. Since, the deficiency of infrastructure will definitely slow down the growth process. In most of the developing countries including India, the status of actual availability of infrastructure, particularly the in rural sector, is quite low against its actual requirement by the respective countries. The demand for infrastructure is growing at a much faster rate for the last three decades where as the supply is more or less stagnant mostly due to structural reasons. The rapid pace of urbanization and globalization across the world further aggravates the demand supply gap of infrastructure day by day. Lewis (1955) pointed out that the development of infrastructure in rural sector is anticipated to stimulate economic growth, create jobs, diversify economy and improve the quality of life in the country

In a nutshell, it has long been assumed that the balanced government investment paved the way for further investment from the private sectors. But, it is a fact that the nature of investment in the infrastructural sector never attained any significant attention from the private investors in a large scale. Even the classical economists, who identified the private sector as the 'main' engine of growth of an economy through efficient utilization of resources of any country or region also admitted this particular fact and advocated for larger state intervention. They also believed that the state should take utmost care to provide the required infrastructural facility for proper functioning of the private sector. This particular aspect of market failure in infrastructural sector was raised by Hirschman (1958). Since, infrastructural base is necessary and may not be sufficient for the proper functioning of private sector organisations.

In a country like India, where the major proportions of the population lives in rural areas, the rural infrastructure is crucial for overall economic development of the country as a whole and development of the rural areas, in particular. As mentioned earlier, the infrastructure projects, particularly in the rural sector, involve huge initial investments, long gestation periods, high incremental capital output ratio, high risk and a very low rate of returns on investment. This simply creates a barrier for inducement to invest into infrastructure by the private player. Investment in infrastructure in rural sector is necessary for increasing the productivity and efficiency of agriculture in the form of improving the credit absorbing capacity, enhancing the productivity of crops and livestock, generating employment and increasing farmers' income etc. which ultimately directly reduce the incidence of rural poverty (Rostow: 1960)

However, the micro aspect of need for rural infrastructure was first raised by Wharton (1967) who classified the agricultural infrastructure into three distinct categories. It may be of capital intensive type or of capital extensive type or transport related infrastructure. He further pointed out that these infrastructures will generate positive externalities at the micro level since infrastructural base in the rural sector will pave the way for inducement to investment potential in rural sector by the local producers. Following the same line, the World Development Report of 1994 (World Bank, 1994) broadly defined the term infrastructure as following:

(i) Public utilities-power, telecommunications, piped water supply, sanitation and sewerage, solid waste collection and disposal and piped gas.
(ii) Public works-roads, major dam and canal works for irrigation and drainage.

(iii) Other transport sectors-urban and inter-urban railways, urban transport, ports and waterways, and airports.

2.1 Infrastructure for Rural Economy: The models of development which focuses on agriculture also bring about the role that infrastructure play in agricultural development in particular. The spread of technology in agriculture depends critically on both physical and institutional infrastructure. Rural infrastructure leads to agricultural expansion by increasing yields, farmers' access to markets and availability of institutional finance. World Bank (1994) identified that rural infrastructure plays a key role in reaching the large mass of rural poor. When rural infrastructure has deteriorated or is nonexistent, the cost of marketing farm produce will be prohibitive for poor farmers. Poor rural infrastructure also limits the ability of traders to travel to and communicate with remote farming areas, limiting market access from these areas and eliminating competition for their produce. Construction of rural roads almost inevitably leads to increase in agricultural production and productivity by bringing in new land into cultivation or by intensifying existing land use to take advantage of expanded market opportunities. Later, World Bank (1997) estimated that 15 percentages of crop produce is lost between the farm gate and the consumer due to inefficient and inappropriate storage facilities, thereby adversely influencing the income of farmers. Previously, Mellor (1976) pointed out that strengthening rural infrastructure can help to lower production costs which can further augment agricultural output and income for rural farmers. It is also indicated that infrastructure plays a strategic role in generating multiplier effects in the economy with agricultural growth. Since, the kind of infrastructure put in place also determines whether growth does all that it can to reduce poverty. Most of the poor are in rural areas, and the growth of farm productivity and non-farm rural employment is linked interdependently to infrastructural provision. In the same line, Ahmed (1996) observed that development of transport and communication infrastructure enhances the mobility of people and information through reduction in cost and time. The resulting increase in interaction contributes to changes in attitudes and human capital development.

Binswanger, Deininger et al (1993), in a study of 13 states in India, examined the impacts of investments in rural infrastructure in terms of lowered transportation costs, increased farmers' access to markets and concluded that the agricultural sector expanded substantially during the study period. Fan, Hazell and Haque (1998) extend these results to show that rural infrastructure is not only an important driver for total productivity growth, but also directly contributes to a substantial reduction in rural poverty. They find that the investment in rural infrastructure can be treated as a cause and result of total factor productivity (TFP) changes, thereby reducing the extent of rural poverty through increase in the productivity in the agricultural sector. From their study, it is clear that these two goals are complementary in nature rather than substitute. According to their analysis, it leads to new (non) agricultural employment opportunities, higher wages, and increases in productivity. They further pointed out that among the different components of rural infrastructure; government expenditure on rural roads has the highest degree of linkage effect in reducing rural poverty. They also estimated the elasticity of incidence of rural poverty reduction and TFP with respect to government expenditure on rural roads. If the government were to increase its investment in roads by Rs 100 billion (at 1993 constant prices), the incidence of rural poverty would be reduced by 0.87 percentage and TFP would increase by 3.03 percentages and investment in agricultural research extension would contribute to 6.08 percentages growth in total factor productivity and 0.48 percentage reduction in rural poverty.

From this brief survey of literature, it is clear that the importance of infrastructure in agriculture and rural development is well documented. However, the existing literature is mainly concentrates on the effect of rural infrastructure in reducing poverty and change in TFP. But in a federal structural like India, how far the nature of devolution of rural infrastructure fund attributes towards balanced regional development has not yet been tested considering capita sanction of such funds across the states. In this sense, this paper shall attempt to fill that caveat in the existing literature.

3. Data & Methodology

3.1 Data: In order to investigate the regional disparity of sanction of RIDF in India, secondary data regarding state wise disbursement figure as on March 31, 2010 have been collected. For this, state wise disbursement of RIDF in different tranches (I to XV) has been compiled for all the states except the data for the Union Territories. For ambiguity in using interpolations and extrapolations methods to calculate year wise rural population in three newly constituted states, their data are combined with their mother states from where they were bifurcated (the data for Jharkhand, Uttaranchal and Chhattisgarh are combined with the data for Bihar, Uttar Pradesh and Madhya Pradesh, respectively). The year wise rural populations figure are extrapolated from the Census of 1991, 2001 and 2011. The data regarding state wise disbursement of RIDF are prepared on the basis of various reports of NABARD where as area share of the states are approximated from the various reports published by the Registrar General of India, Government of India, New Delhi. Due to non availability of data on rural area of any state for the study period, we use actual area figure off all the states accepting the downward bias in aggregation. The present study consider the period 1995-96 to 2009-10 as per the annual reports of the NABARD are concerned where as the actual rural population for that period is approximated by the year end figure for the respective states.

3.2 Methodology: The study has utilised the Adjusted Geographic Concentration index (AGC) proposed by Spiezia, (2002) to through light on the RIDF disbursement procedures of NABARD. The per capita disbursement of RIDF in different states in each period with their corresponding ranges at all India levels as well are also considered for participating states in different years.

We start with the common measure of concentration is the Herfindahl index (H), may be defined as:

$$H = \sum_{i=1}^{N} y_i^2 \qquad \text{Equation (1)}$$

where y_i is the RIDF disbursement share for State *i* and N stands for the number of States. The index lies between 1/N (all states have the same disbursement of RIDF share, *i.e.* there is no concentration) and 1 (all sanction of RIDF is concentrated in one state, *i.e.* maximum concentration). In general, however, states have different areas so that a correct measure of geographic concentration has to compare the sanction of RIDF share of each state with its share in the national territory.

3.2.1 The Adjusted Geographic Concentration (AGC) index: In order to cope up with this type of regional differences, Ellison and Glaeser (1997) proposed:

$$EG = \sum_{i=1}^{N} (y_i - a_i)^2 \qquad \text{Equation (2)}$$

where a_i is the area of state *i* as a percentage of the country area. If the disbursement of RIDF share of each state equals its relative area, then there is no concentration (EG equals 0) and larger value of EG indicates higher geographic concentration. However, the major drawback of the EG index is that it is very sensitive to the level of aggregation of regional data. This feature is due to the fact that the differences between the disbursement of RIDF share and relative area of each state are squared.

To correct this bias related to aggregation, Spiezia (2002) reformulated the EG index further to correct this bias due to aggregation into the following index of Geographic Concentration (GC):

$$GC = \sum_{i=1}^{N} |y_i - a_i| \qquad \text{Equation (3)}$$

where | | indicates the absolute value. Obviously, the aggregation bias would be smaller for the GC index than for the EG index.

The maximum value of the GC index is the equal to:

$$GC^{MAX} = \sum_{i \neq \min} a_i + 1 - a_{\min} = 1 + 1 - 2a_{\min} = 2(1 - a_{\min}) \qquad \text{Equation (4)}$$

where $a_{\min}$ denotes the relative area of the smallest state under study.

The GC index, therefore, is not regionally comparable if the size of regions (states) differs systematically within the country. A natural correction for this second aggregation bias is provided by the adjusted geographic concentration index (AGC), which may be defined as

$$AGC = GC / GC^{MAX}; \text{ AGC } \in [0,1] \qquad \text{Equation (5)}$$

3.2.2 Decomposition of the AGC index: The AGC index can further be decomposed into two components: geographic concentration of population and territorial disparity. In the case of per capita sanction of RIDF across the states can be considered as:

$$y_i - a_i \equiv (y_i - p_i) + (p_i - a_i) \qquad \text{Equation (6)}$$

where p_i is the population share of state i.

Therefore, the AGC index for per capita sanction of RIDF across the states can be rewritten as

$$AGC = \sum_{i=1}^{N} \frac{y_i - p_i}{y_i - a_i} |y_i - a_i| + \sum_{i=1}^{N} \frac{p_i - a_i}{y_i - a_i} |y_i - a_i| \qquad \text{Equation (7)}$$

The first term on the right-hand measures the effect of territorial disparity in sanction of RIDF per capita and the second term the effect of geographic concentration of population. Obviously, the AGC index lies between 0, indicating no concentration and 1, implying maximum concentration for all states.

4. Results and Discussions: The empirical results are summarised in Table 1. For analytical purpose, we divide the states in two broad categories viz. Major states and the states in the north eastern region.

Table 1: Projects, Sanctions, Disbursements, Outstanding as on March 31, 2010 (Rs. In Crores)

States		No. of Projects	Cumulative RIDF Loan			RIDF Tranches (Share Percentage of states)		
			Sanctioned	Disbursed	%	I to XV	I to X	XI to XV
1	**Andhra**	23,944	11,749.73	8,090.34	69	**7.58**	14.24	9.35
2	**Bihar (Combined)**	17,551	6315.27	3067.23	49	**9.24**	2.25	8.69
3	**Goa**	198	328.13	200.29	61	**0.95**	0.16	0.42
4	**Gujarat**	43,155	8,210.32	6,280.94	77	**6.22**	9.08	7.12
5	**Haryana**	2,337	2,621.09	1,815.75	69	**3.48**	2.63	2.46
6	**Himachal Pradesh**	6,153	2,691.20	1,714.95	64	**2.91**	2.42	2.71
7	**J & K**	4,171	3,156.40	2,082.07	66	**4.18**	2.43	3.46
8	**Karnataka**	26,741	5,555.21	3,491.45	63	**4.20**	5.56	5.22
9	**Kerala**	3,374	2,950.71	1,910.69	65	**2.26**	3.18	2.62
10	**M. P. (Combined)**	4836	9100.79	5929.58	65	**8.07**	9.94	7.98
11	**Maharashtra**	24,143	6,633.54	4,643.33	70	**5.85**	6.91	6.04
12	**Orissa**	87,875	4,870.75	2,617.13	54	**4.86**	4.43	4.88
13	**Punjab**	6,871	3,925.11	2,914.59	74	**3.54**	4.00	3.64
14	**Rajasthan**	23,604	6,331.96	4,197.40	66	**6.50**	4.91	6.92
15	**Tamilnadu**	23,767	7,194.40	5,585.10	78	**5.44**	7.34	6.66
16	**U. P. (Combined)**	44431	10450.01	7298.87	70	**11.46**	10.16	10.01
17	**W. Bengal**	52,207	6,259.58	3,825.98	61	**5.90**	6.87	5.47
	Total	**395,258**	**98,344.2**	**65,665.69**	**67**			
	N. E. States							
18	**Arunachal Pradesh**	87	734.66	457.89	62	**0.36**	0.57	0.80
19	**Assam**	1,102	1846.20	1163.75	63	**1.92**	1.57	1.92
20	**Manipur**	2,782	57.71	24.88	43	**0.02**	0.03	0.08
21	**Meghalaya**	566	445.31	261.53	59	**0.86**	0.31	0.51
22	**Mizoram**	229	215.78	160.79	75	**0.48**	0.21	0.20
23	**Nagaland**	787	627.18	255.73	41	**1.20**	0.30	0.81
24	**Sikkim**	1,140	396.78	154.60	39	**1.14**	0.13	0.55
25	**Tripura**	769	916.85	271.45	30	**0.91**	0.37	1.23
	Total	**7,462**	**5,240.47**	**2,750.62**	**52**			
	RIDF Total	**402,806**	**103,718.00**	**68,439.74**	**66**			
	NRRDA, Delhi		18,500.00	18,500.00	**100**			
	Grand Total		**122,218.00**	**86,939.74**	**71**			

Source: *Authors' Calculation based on Annual Reports of NABARD*

Note:

1. 'Tranche': RIDF loans sanctioned during a financial year are covered under that tranche.
2. 'Disbursement': After the sanction, disbursements take place during the following 4-5 years, as per progress of the implementation of projects.
3. 'Ongoing Tranches': During any given year, disbursements take place concurrently from several ongoing tranches.

The above table clearly shows that as on March 31, 2010 the states in the north eastern region jointly receive only 7462 number of projects which is only 1.853 percentages of the total projects under RIDF scheme over the study period. Again, actual disbursement figure against the sanctioned amount for different project shows that it is 52 percentages for the states in the north eastern region but the averages for the major state is near about 67 percentages. This figure goes up to a maximum of 77 percentages for Gujarat and the minimum figure is only 30 percentages with Tripura. The planner also realised this fact. It is evident from the fact that the disbursement pattern of RIDF tranches in terms of share percentages of different states revealed that during the first ten Tranches of RIDF, the share of the states in the north eastern region received only 3.50 percentages but it reached the level of 6.11 percentages during the next five RIDF tranches. This clearly implies that the level of regional convergence of disbursement of RIDF in different tranches hardly realised the objective of balanced regional disbursement of such fund, at least at the state level. Moreover, the pattern of disbursement of such fund also revealed that among the major states, Bihar (Combined) is lagging from the other major states with a significantly low percentage of disbursement of RIDF. Perhaps, due to the criteria of matching grant scheme of RIDF. The same argument is applicable to the north eastern states, too. This matching grant scheme renders the deficit pronged states to apply for such schemes avoiding the actual need of their respective backwardness in rural infrastructure on the one hand and it also gives an opportunity to the relatively larger states with greater financial strength to increase their share in RIDF schemes in the current tranches on the basis of their performance in earlier tranches. Ultimately, it creates a double liability for the planner as it simply widens the gap between the relatively richer states with the states suffering from huge infrastructural backlog, particularly in their rural sector.

Further, the per capita sanction of RIDF for the different states over the study period is also not satisfactory. The minimum per capita RIDF actually sanctioned ranges from Rupees 2.00 in 1996, 2005 and 2010 for Bihar (Combined), Manipur and Karnataka, respectively. The maximum per capita sanction of RIDF for the same period is Rupees100.00, Rupees 399.00 and Rupees 1114.00 for Goa, Gujarat and again Goa, respectively. The same macro trend of regional concentration of sanction of state level RIDF, discussed above is maintained in per capita sanction of RIDF for the states, too. The minimum figure for Karnataka in 2010 is little bit surprising when the state is continuously receiving a good average of such fund. It is perhaps due to some administrative reason that it has not applied for the fund in a mass scale following previous trend.

Among the states in the north eastern region, performance of the per capita sanction of RIDF is not satisfactory, again. Manipur has been sanctioned RIDF only four time. Tripura has not participated in RIDF scheme for seven years. Starting from the fifth tranche of RIDF, Arunachal Pradesh continuously is getting relatively higher per capita sanction of RIDF. Arunachal Pradesh receives the four digit per capita sanction of RIDF in sixth tranches which is highest per capita sanction of RIDF for the states in the north eastern region till the end of fifteenth tranche of RIDF introduced by the NABARD.

These are summarised in Table 2 (See Appendix-A)

4.1 Adjusted Geographic Concentration (AGC) Index: From the information reported in Table 3, it is revealed that out of fifteen trances, the degree of extent of effect of territorial disparity on per capita sanction of RIDF overcomes the degree of extent of effect of geographic concentration of population on per capita sanction of RIDF for one third of the tranches in influencing the value of the index. It implies that the normative criterion of fund devolution

under RIDF scheme by the NABARD emphasized more on the relative size of the rural population than that of the area figure of any state. For the remaining tranches, we observe just the opposite result. The effect of territorial disparity on per capita sanction of RIDF as a source of concentration reaches its maximum in sixth tranche and reaches its minimum in twelfth tranche with values 54 percentages and only one percentage, respectively. The relative contribution of the effect of geographic concentration of rural population on per capita sanction of RIDF as a source of concentration has the same minimum value of one percentage in eighth tranche where as it reaches its maximum of 47 percentages in eleventh tranche.

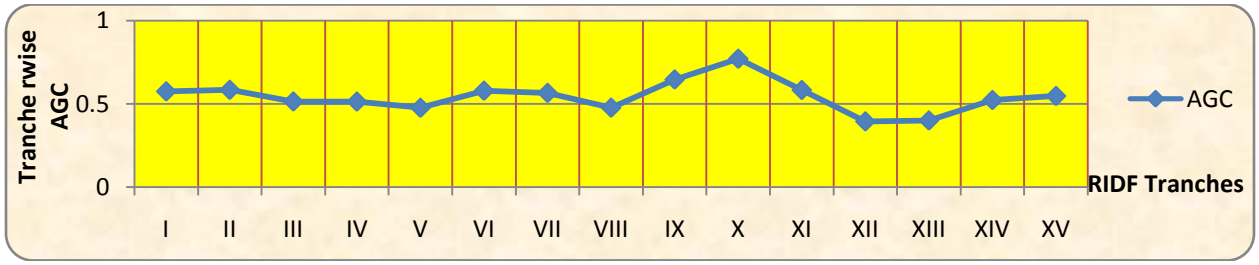
Table 3: Decomposition of AGC Index of Per Capita Sanction of RIDF during the Study Period 1996-2010

Sources of Concentration → / RIDF Tranches ↓	Effect of Territorial Disparity on PC Sanction of RIDF	Effect of Geographic Concentration of Rural Population on PC Sanction of RIDF	AGC Index
I	0.31	0.26	0.57
II	0.21	0.37	0.58
II	0.19	0.32	0.51
IV	0.20	0.31	0.51
V	0.15	0.33	0.48
VI	**0.54**	0.04	0.58
VII	0.43	0.14	0.57
VIII	0.47	**0.01**	0.48
IX	0.31	0.34	0.65
X	0.46	0.31	**0.77**
XI	0.11	**0.47**	0.58
XII	0.14	0.39	0.53
XII	**0.01**	0.39	**0.40**
XIV	0.07	0.45	0.52
XV	0.10	0.45	0.55

Source: *Authors' Calculation based on various Annual Reports of NABARD*

As noted earlier, the AGC index lies between 0 (no concentration) and 1 (maximum concentration) for all states. The AGC values are all positive for all the fifteen tranches thereby implying that there is concentration of sanction of RIDF among the states. The index reaches its maximum of 77 percentages in tenth tranche where as the minimum appeared for twelfth tranche with a value of 40 percentages. Even if, we assume 50 percentages as a benchmark, only three cases fall below this assumed value, implying a tendency towards greater degree of concentration, whatever the sources may be. This trend is depicted in the following figure:

Figure 1: Trend of AGC over the different RIDF Tranches



Source: *Authors' Calculation based on various Annual Reports of NABARD*

The tendency of AGC index towards a larger value clearly indicates that the sanction and disbursement of per capita RIDF among the states raises some question about the objective of balanced regional development of rural infrastructure across the country so far as its normative devolution criteria is concerned. When the national planners at all levels are trying to emphasize a more balanced regional development, the present criteria of sanction of RIDF across the states is mainly boosting the relatively developed states to utilise the fund in desired direction at the cost of the relatively financially deficit pronged states or the special category states like the states in the north eastern region. The matching grant scheme for participating in this scheme further render the relatively deficit pronged states to apply for fund according to their actual requirement. Consequently, the excess fund that could have been utilised by these states ultimately goes to the major states on the basis of the 20 percentages reward formula as prescribed by NABARD.

5. Conclusions: The present paper reveals that the criteria of fund devolution of RIDF Schemes as prescribed by NABARD should undergo a massive change towards reducing the wide spread disparity of sanction of per capita RIDF which can promote inter and intra rural disparity among the states. Firstly, the matching grant scheme may be withdrawn, particularly for all those states which are predominantly backward. Secondly, the 20 percentages reward formula of RIDF disbursement should be extended only to the identified backward states and not to the others in order to maintain a progressive structure of the fund devaluation among the different states. Thirdly, the RIDF Schemes should be tagged with other central and state initiatives of integrated rural development programme; and last but not the least, the initiatives taken by the central government and the respective state governments should be complementary in nature and not the substitutes for effective use of this fund towards reducing inter and intra state disparity in rural infrastructure.

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APPENDIX-A

Table 2: Per Capita Sanction of RIDF in different Tranches: 1996- 2010 (Rupees)

States/ RIDF Tranche	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
Andhra Pradesh	41	58	47	50	65	93	101	136	117	217	181	101	122	90	42
Bihar (Combined)	2	0	4	11	11	0	4	16	10	16	44	39	60	53	20
Goa	100	0	0	129	0	134	151	160	0	0	0	0	150	1518	1114
Gujarat	49	38	44	29	57	146	7	91	284	399	234	101	145	225	109
Haryana	14	44	43	33	54	41	95	161	83	101	107	147	116	78	80
Himachal Pradesh	28	101	93	146	198	233	326	284	203	138	314	293	202	278	236
Jammu and Kashmir	9	0	34	141	145	204	280	209	191	55	98	504	419	175	153
Karnataka	48	54	48	49	47	79	62	59	75	105	111	112	121	31	2
Kerala	38	32	32	24	50	67	69	75	34	82	62	85	91	128	43
Madhya Pradesh (Combined)	46	51	57	48	55	51	53	120	91	78	59	91	86	55	53
Maharashtra	32	38	46	51	60	74	81	72	10	13	6	73	138	94	37
Orissa	55	47	57	38	32	28	45	68	50	89	86	110	56	62	8
Punjab	40	40	54	47	57	124	131	125	159	175	150	277	163	182	79
Rajasthan	30	32	34	12	28	57	82	65	28	52	105	109	118	126	50
Tamilnadu	0	62	53	41	62	66	96	104	143	161	140	203	218	150	91
Uttar Pradesh (Combined)	23	33	31	31	23	16	21	27	36	51	48	54	55	44	28
West Bengal	15	26	29	34	31	62	65	58	33	51	60	56	53	58	29
Arunachal Pradesh	0	0	0	0	264	1061	773	0	127	245	714	929	115	461	152
Assam	0	28	7	23	51	19	0	26	58	5	135	70	16	16	21
Manipur	6	0	0	0	0	43	0	0	0	2	0	84	0	0	0
Meghalaya	20	0	39	49	158	155	89	77	68	0	102	82	204	107	113
Mizoram	49	0	0	0	968	84	160	43	284	143	393	163	438	20	375
Nagaland	11	0	0	0	103	295	6	41	105	180	221	138	97	278	192
Sikkim	0	0	0	382	156	95	106	101	68	166	133	339	765	847	22
Tripura	0	0	0	69	68	106	0	152	12	0	0	170	68	332	0
MINIMUM PC SANCTION	2	26	4	11	11	16	4	16	10	2	6	39	16	16	2
MAXIMUM PC SANCTION	100	101	93	382	968	1061	773	284	284	399	714	929	765	1518	1114

Source: *Authors' Calculation based on Annual Reports of NABARD*

Note: Range of Per Capita (PC) Sanctions of RIDF is calculated only for the participating states in a given Tranche, thereby omitting unnecessary zero figures.