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**SOCIAL AND ECONOMIC
CHANGE MONOGRAPHS 14**

**AGAINST GRAVITY?: RIDF AND
THE CHALLENGES TO BALANCED
DEVELOPMENT OF
INFRASTRUCTURE**

Meenakshi Rajeev

**Institute for Social and Economic Change
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Foreword

India has been experiencing considerably high economic growth in the recent years. However, one of the shortcomings of this spectacular growth is its non-inclusiveness as benefits of economic growth remain illusive to a large majority of rural populace. Given the crucial linkages of infrastructure with economic growth, poverty alleviation and human development, emphasis on rural infrastructure in this context assumes critical importance.

Recognising the role of the state for rural infrastructure development, the Hon'ble Finance Minister announced in the Union Budget Speech of 1995-96 a funding provision for the state to improve the status of rural infrastructure. As a result, the Rural Infrastructure Development Fund (RIDF) was created under NABARD with corpus from the commercial banks. This fund was initially developed to provide resources for the projects that remained unfinished due to want of resources, but later extended to new projects as well. RIDF-I was launched in 1995-96 with an initial corpus of Rs 2,000 crore through contributions from both public and private sector banks. Except for a brief period of break, this funding provision has been continuing till today. After more than a decade of its inception, it is useful to scrutinise the status of RIDF, its coverage and the extent to which it has helped the states in rural infrastructure development. This study has been taken up with this broader objective. While we examine these issues at the national level, the current monograph also takes up Karnataka as a particular case and analyses these aspects in some detail.

When RIDF-I was first introduced in 1995-96, its major emphasis was to finance irrigation projects. However, development of rural roads became a major activity under RIDF II (1996-97) onwards. In addition, RIDF can now be used for development of integrated market yards, cold-storage chains, godowns and other such activities. In recent years, RIDF has been used for developing social infrastructure like improvement of school buildings or anganwadi programmes as well. During 2001-02, a fixed amount has been kept separately for projects in the power sector in rural areas¹. Also, loans have been sanctioned of late to the state governments under RIDF for projects to be implemented through local government, like panchayats. The state government, however, remains the responsible authority for repayment of such loans.

¹ Annual Report, NABARD.

The implementation of the RIDF projects is monitored strictly as NABARD is involved. Thus the outcome of the projects is much more satisfactory than many other state-financed projects.

Given this background, it is of interest to examine how funds have been allocated by the states for different purposes and how is it linked to the current state of infrastructure facility in a region. In other words, are resources being channelised to the rural areas which have comparatively the more inadequate infrastructures? This is an important issue as most of the discussion of rural infrastructure is based on rural-urban disparity (NCAER Report 2006, pp.5²) and the equally vital issue of intra-rural disparity often gets sidelined. Undoubtedly, it is essential to look at divergence within the rural areas and see how inequalities can be reduced between rural regions as well, through provision of infrastructure. This study, therefore, makes a modest attempt to analyse the state-wise allocation patterns across Indian states as well as district-wise allocation pattern across different rural areas in the state of Karnataka.

Another concern that has been raised in the context of infrastructure projects which are state-financed is that infrastructures are often merely constructed without careful analysis of resulting welfare gain from such projects. Ensuring these benefits means involving local communities in planning, implementing, and maintaining infrastructure projects³. In recent years, with a view to involving the stakeholders, local bodies have been enabled to borrow from RIDF. In this study, we examine to what extent this has been successful.

Flow of Funds to Different States in India

Ideally, allocation of funds for any purpose should be need-based. The need for funds for rural infrastructure development in turn depends on the status of rural infrastructure and the economic and social situations of the rural poor.

RIDF is mainly used to establish two major items of rural infrastructures, viz., roads and irrigation facilities. One can arrive at deficiency indicators based on these two infrastructures by using measures like 'percentage of villages not connected by roads' or 'percentage of net or

² India Rural Infrastructure Report, NCAER, 2006

³ Policy issues for the ESCAPE region: Balanced development of urban and rural areas and regions within the countries of Asia and the Pacific, UNESCO, 2001, <http://www.unescap.org/57/e/e1199e.pdf>

gross sown area not covered by irrigation facilities'. In addition, one can consider certain proxy measures as general measure of deficiency and the need for infrastructure. In this context, rural poverty can be considered an indirect but relevant indicator of the need for infrastructure as strong positive correlation between rural poverty and deficiency of infrastructure is a well-established phenomenon.

When we look at the relation between the flow of funds and infrastructure availability, the following results are obtained in this analysis:

- States with higher rural poverty rates are minimal users of RIDF for rural infrastructure developments. In fact, if we look at the correlation between the total flow of RIDF funds and rural poverty rates, we observe a highly significant negative correlation (-0.4). In other words, the higher the rates of rural poverty (indicating greater need for infrastructure), the lower are the flow of funds. Poorer states utilise lesser funds.
- The poorer the road and irrigation infrastructure in a region, the lesser is the fund allocation for these purposes under RIDF.
- States with higher fiscal deficit per rupee of revenue earned also take more loan. This indicates that the more developed states are more proactive. In spite of having higher fiscal deficits, they are ready to incur more loans for the purposes of development. Less developed states, on the other hand, are passive in this respect. From this analysis it is difficult to infer the direction of the causal relationship.
- If we now examine the status of the projects, it has been observed that even after 10 years, some 234 projects have remained incomplete. About 6,000 projects taken up from RIDF I to V have remained incomplete till date. One may recall in this context that the main idea behind introduction of RIDF is to enable the state governments to complete the hitherto incomplete projects which remained so due to lack of funds. However, if projects taken up under RIDF I itself have remained incomplete, (may be due to a state's inability to borrow funds under the given terms and conditions), then the whole purpose of introduction of such a scheme becomes meaningless.
- Furthermore, it was decided in 1999 that RIDF can be given to local-level institutions like the Panchayati Raj Institutions (PRIs) or prominent self-help groups (SHG) of the locality. The respective state government remains the guarantor of the loan taken. One of

the main objectives of making funds available to the local-level institutions is to ensure efficient utilisation of funds. Since local governments themselves are stakeholders, one may expect funds to be employed according to the local needs. During the first year one observes as high as 17% of funds diverted to the local level institutions. However, over time this share shows considerable decline to 0.7% in 2004-05. Even in absolute terms, funds diverted to PRIs declined from about Rs 500 crore in 2001-02, to about Rs 50 crore in the next two years.

After observing these trends at the national level, the monograph next examine these issues in some detail for the state of Karnataka.

Utilisation of RIDF in Karnataka

First, it is interesting to note that though in comparison with other states the irrigation facility in Karnataka is rather poor, the State is pouring more resources into development and upgradation of roads. Secondly, a careful examination of the flow of funds and economic status of the districts of Karnataka reveals the following: Most of the low receivers of loans are also low-income districts barring some exceptions like Bangalore-U and Mysore which are mainly urbanised districts. Consequently, the correlation between total flow of funds (from RIDF I to IX) per hectare of rural area and per capita income of a district shows a positive relation implying that more funds flow towards richer districts and it is statistically significant. We also observe a mismatch between availability of road and irrigation infrastructure and flow of funds for these purposes to different districts. Though correlations values are not statistically significant, signs are in wrong directions. Furthermore, out of the top 14 receivers of loans for public health centres, 50% districts fall in the category of comparatively richer districts according to per capita income classification. These districts, one expects to have comparatively higher capabilities to afford private services; while the poorest of the poor regions need prioritised attention.

However, concentrating on the funding for schools, we observe that the comparatively poorer districts (in terms of per capita income) are getting more funds towards development of schools and this is unquestionably an encouraging trend. Interestingly, for the first time we observe a negative and statistically significant correlation between rural literacy rate and loans directed towards schools across districts.

Moving below district level to the taluka level, we examine the funds allocated by certain departments taluka-wise. We in particular consider

water-shed department in Karnataka as the state is one of the driest state in India. Here too we observe that there is no significant relation between extent of problematic area in terms of availability of water resources and the flow of funds to that area.

Thus there is a need on the part of the states to make a careful analysis of inadequacy of infrastructure of a certain type in a region and allocation of funds so that intra-rural disparity can be reduced and one can make an optimal use of such a useful facility.

September 2008
Bangalore

R S Deshpande
Director, ISEC

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Preface

Balancing the growth process and bridging the urban-rural divide is a major challenge for India's economic reform programme. Infrastructure is the key, if rural areas have to be active partners in processes of economic and social change, and rural consumers and producers are to be made an integral part of the processes of wealth creation and distribution.

Infrastructure is traditionally financed through budgetary mechanism. In recent times, the public-private partnership model for infrastructure financing is being written about and discussed in a big way. Within this matrix, financing of infrastructure by NABARD under the dispensation of Rural Infrastructure Development Fund (RIDF) is an institutional variation, located between the 'classical' and the public-private mechanism. Experience of financing under RIDF will be of great value to the government, the policymakers and also to the private sector.

On this background, analytical works like the present monograph, which looks into the performance of RIDF, are welcome. Using secondary data across all states, the study has dealt with some of the important issues like allocation of funds by states for different purposes and their utilisation. Using poverty as an indirect but relevant indicator of need for infrastructure, the study shows that states with higher rural poverty rates are minimal users of RIDF, implying that the higher the rates of rural poverty, the lower are the flow of funds. The analysis also hints that more developed states are more proactive while less developed states are 'passive'. Within the state, the poorer the road and irrigation infrastructure in a region, the lesser is the fund allocation for these purposes under RIDF. The study recommends that the states should make a careful analysis of the inadequacy of infrastructure and allocation of funds in such a way that intra-rural disparity can be reduced.

Large incidence of incomplete projects is a major concern raised in the study. Another concern relates to linking of infrastructure projects with maximising welfare gains from such projects. For ensuring the maximisation of welfare involving local communities in planning, implementing and maintaining infrastructure is critical, which was found to be wanting.

I am sure that the study findings will merit attention of the state governments, particularly from the point of view of infrastructure planning and prioritisation.

Y S P Thorat
Chairman, NABARD.

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Meenakshi Rajeev

CHAPTER I

INTRODUCTION

In spite of the fact that most developing countries are predominantly rural in nature and with globalization the rural-urban gap is increasing in a number of countries, not enough attention has been paid to rural infrastructure development. Given the crucial linkages of infrastructure with economic growth, poverty alleviation and human development, emphasis on rural infrastructure is indeed critical for a balanced and inclusive development. Stressing the need for developing rural connectivity and other social sectors, Mark Meassick comments¹, “It makes no sense for isolated regions to produce more efficiently if they can't get their products to market. And without infrastructure for health, it becomes difficult for rural families to be productive when one has to constantly confront illness”². While public- private joint ventures are now being considered as the means of increasing efficiency in the provision of urban infrastructure, this strategy for development has to be modified in the case of rural infrastructure (Bery *et al*, 2004)³. Private investors normally tend to shun rural areas because of low expected rates of return, especially those regions that need highest attention, i.e., remote areas characterized by backwardness and low incomes. Recognizing the role of the state for rural infrastructure development, the Chinese Government, which so far have spent considerable resources on urban infrastructure development, has decided to “let the sunlight of public finance shine in the countryside”⁴, by promoting construction of roads, provision of water, electricity and other facilities in rural areas.

In India, while the importance of rural infrastructure has been well recognized, adequate measures to improve the same are not forthcoming. Amongst many other constraints, the poor financial health of the states is one of the major causes for the state of affairs we observe today. Recognising

¹ A strategic planning specialist with the Inter-American Institute for Cooperation on Agriculture (IICA)

² Revitalizing the drive for rural infrastructure, IFPRI Forum, 2003, <http://www.ifpri.org/pubs/newsletters/ifpriforum/IF200309.htm>

³ Strategies to implement universal access to rural infrastructure, Bery, S; Gupta D.B; Mitra, S; National Council of Applied Economic Research, India, 2004, www.ncaer.org.

⁴ China to shift infrastructure focus from cities to country side, China economic Net, 01-2006, http://en.ce.cn/National/Rural/200601/01/t20060101_5702109.shtml

this fact, in the Union Budget Speech of 1995-96, the Hon'ble Finance Minister announced a funding provision for the state to improve the status of rural infrastructure. As a result, the rural infrastructure development fund (RIDF) was created under NABARD with corpus from the commercial banks. This fund was initially developed to provide resources for the projects that remained unfinished due to want of resources, but later extended to new projects as well. RIDF-I was launched in 1995-96 with an initial corpus of Rs.2000 Crores through contributions both from public and private sector banks. Contributions for the fund are received from scheduled commercial banks (excluding foreign banks operating in India), to the extent of shortfall in agricultural lending in the priority sector target, subject to a maximum of 1.5% of the net bank credit⁵. Thus this is a demand-driven, non-concessional lending facility, fully funded by schedule commercial banks (Rajaraman, 2003). Over time its corpus has been growing and the total corpus under RIDF stands at over Rs 72,000 crores by 2008. Loans are disbursed from these deposits to the state governments for carrying out projects for rural infrastructure development. However, the state governments also need to supplement this loan through their contributions. Thus, all loans from the fund are project-based. Project proposals received from state governments are appraised for technical feasibility, financial viability and economic benefit.

When RIDF-I was first introduced in 1995-96 its major emphasis was to finance irrigation projects. However, development of rural roads became a major activity under RIDF II (1996-97) onwards. In addition, RIDF can now be used for development of integrated market yards, cold chains, godowns and other such activities. In recent years, RIDF has been used for developing social infrastructure like improvement of school buildings or anganwadi programmes as well. During 2001-02 a fixed amount has been kept separately for projects in the power sector in rural areas⁶. Also, loans have been sanctioned of late to the state governments under RIDF for projects to be implemented through local government - like panchayats. The state government, however, remains the responsible authority for repayment of such loans.

Except for a brief period of break, this funding provision has been continuing till today. In the last twelve years of operations, large sum of money has been disbursed as loans under this scheme. There is a need therefore, to take a stock of the situation by analyzing the demand and use of this fund by different states of India.

⁵ From NABARD publication on RIDF.

⁶ Annual Report, NABARD.

In the process of such an assessment, several concerns can be raised for an initiative like RIDF. First, since this funding facility involves terms and conditions of a loan, do all states could take advantage of the available funds? In other words, whether the states that are not financially well off (characterized by say, low per capita income) and consequently have comparatively much poorer state of rural infrastructure can take advantage of this facility. This can be easily examined by looking at the allocation of funds for different infrastructure facilities by the states of India and the status of the particular infrastructure in that region. However, another issue crops up here. After the initial decision to borrow for specific purposes, have the states been able to make their contributions and eventually finish the projects ? If there are sizeable number of unfinished projects then the entire purpose of this facility is defeated. It then also becomes important to understand the reasons behind projects remaining unfinished.

The second important concern is the allocation mechanism followed within a state. More precisely, when a state already makes a decision to borrow a certain amount of funds for rural infrastructure development, how is it allocated across different regions (say, districts) and for different purposes? Does the existing stock of infrastructure any way enters this decision function or the decision making rule is an adhoc one? This issue assumes importance from the point of view of reducing intra rural disparity at least within a state. Even in an economically advanced state like Karnataka intra rural disparity is quite striking.

The third important concern is how decentralized is the decision making process. Is the particular infrastructure to be developed in a particular region is as per the need of the region? How far the local level institutions such as the panchayats involved to come up with the optimal use of limited resources? This is an important concern as it has been argued in the context of infrastructure projects which are state-financed as creations without careful analysis of resulting welfare gain from such projects.

This monograph attempts to address some of these issues using mainly secondary data but supplemented by information collected through discussions with various officials associated with this scheme. To prepare a background for the study we first take a stock of the rural infrastructure across different states in India. This provides us with an all India level picture and sheds light on regional (rural) disparity as well. We pay special attention to the state of Karnataka as the study goes in detail into the allocation of funds under RIDF in Karnataka. To understand the allocation problems a complete knowledge of the funding facility is a necessary pre-requisite. A

detail description of the scheme therefore is presented before looking at various concerns.

While examining the effectiveness of such a scheme in providing rural infrastructure the allocation issue assumes importance. Though allocation of funds depends on the demand in such a demand driven funding facility, it is necessary to examine whether the terms and conditions indeed hinders the most infrastructure-wise inadequate states to remain away from this scheme. If that is so , RIDF would not be sufficient to address the problem of rural infrastructure. The study goes in depth to the sector-wise availability of rural infrastructure in different states of India and allocation of funds for the sector under RIDF. A closer examination reveals that the states with most inadequate infrastructure are the ones that failed to avail the facility of RIDF- possibly due to the inability to repay with interest. More striking revelation however is that when a state like Karnataka decides to borrow certain amount of funds and allocate across rural regions for infrastructure development, this allotment issue is also not addressed by looking at the existing stock of infrastructure in a region. Further, involvement of local level institutions is found to be minimal. Thus the entire allocation problem is appeared to be solved centrally (at the state level) and possibly following certain adhoc procedures. This problem is compounded by a large number of projects remaining unfinished. Even the projects started under RIDF I remaining incomplete defeats the very purpose of the scheme and in turn prompts us to look into the possible reasons.

Given this background the study is organised as follows. The next chapter looks at the status of rural infrastructure in India and Karnataka. In particular, the infrastructural services funded through RIDF are taken into consideration. Chapter 3 discusses in some detail the scope and coverage of RIDF. Analysis of state-wise allocation of funds for different purposes is taken up in Chapter 4 followed by a district level analysis of RIDF funding in Karnataka in the next chapter. The penultimate chapter briefly examines funds allocated by two selected departments, viz., watershed development and Panchayat Raj, under RIDF in Karnataka. A concluding section follows thereafter.

CHAPTER II

STATUS OF RURAL INFRASTRUCTURE IN INDIA

2.1. Introduction

In a country where more than 50 per cent of the population live in rural areas, rural infrastructure naturally plays a very important role in achieving balanced economic growth. Good infrastructure is necessary not only for economic development of the rural areas but also for an overall human development and attainment of decent standards of living. In India, the status of rural infrastructure is far from satisfactory and significant regional disparities are also present with respect to the provision of infrastructure. Though rural infrastructure encompasses many areas, in this study we are concerned with only those infrastructures that are of major focus for funding under the RIDF.

After liberalization, private sector-led growth has become the new mantra. While the private sector may participate in building urban infrastructure due to its own profit motives, we cannot expect it to take up the responsibility in rural areas. Thus, it is mostly the state which has to shoulder this burden. Given the resource constraints that the states currently face, mobilizing resources for rural infrastructure development is a major problem. However, before moving on to the financing problem, it is necessary to take a look at the status of rural infrastructure in India, in general and Karnataka, in particular, as in this study we mainly focus, in some detail, on the State of Karnataka.

**Table 2.1: Rural Urban Per Capita Income Differences
(1999-00) in Rs**

States	PC (R)	PC (U)	% Differences
Orissa	5,704	15,993	180.38
Punjab	1,6540	21,413	29.46
U P	6,738	12,257	81.91
Bihar	6,976	12,404	77.81
Karnataka	11,300	18,394	62.78
Tamil Nadu	12,888	24,246	88.13
Kerala	10,342	17,372	67.98

Notes: PC (R): Per capita income rural.

PC (U): Per capita income urban.

Source: Natarajan, 1998.

In this context, it is of relevance to draw our attention first to the rural-urban disparity that exists in India to observe the importance of rural-centric development programs. Table 2.1 shows that in India there are considerable differences between rural and urban earnings across states. In particular, poorer a state is, larger is the difference.

Interestingly correlation of per capita income with 'Infrastructure Deficiency Indices' shows a negative relation (correlation -0.77), i.e., higher the deficiency; lower is the availability of infrastructure (NCAER 2006).

When we talk about rural infrastructure, several indicators come to mind. They relate to roads and transportation, irrigation facilities and watershed programmes, power and communication systems, drinking water facilities and so on. Before analysing the flow of funds under the RIDF to these sectors, it is essential to take a stock of the current status of Rural India with respect to the infrastructure indicators that comes under the purview of the RIDF.

2.2. Rural Infrastructure: India

2.2.1. Roads

Roads are the most basic infrastructure without which transportation is not possible. Thus, it directly affects both the social and the economic life of the rural masses. Rural road connectivity, in particular, is obviously a key component of rural development; it promotes access for economic and social services, and thus, helps in generating increased productivity and income for rural farmers and other workers. It is essential for ensuring sustainable poverty reduction. Notwithstanding the efforts made over the years, at the state and central levels through different programmes, about 40 per cent of habitations in the country are still not connected by all-weather roads. Furthermore, while connectivity has been provided to some habitations, the roads constructed are of such substandard quality (due to poor construction or maintenance) they cannot always be categorized as all-weather roads (www.pmsgsy.nic.in).

Table 2.2 shows that 30 per cent of the states have less than 50 per cent of the villages connected by roads of varying quality. While a handful of states like Kerala and Punjab have reasonably good connectivity, an all-India level picture reveals that, on an average, roads connect about 50 per cent of the villages in the country.

**Table 2.2: Percentage of Villages Connected by Roads
(as % of Total No. of Villages)**

States	1991-92	1994-95	1996-97
Madhya Pradesh*	27.52	27.86	28.39
Bihar*	33.88	35.25	47.84
West Bengal	45.98	47.27	48.67
Orissa	35.67	37.91	49.14
Uttar Pradesh*	43.77	44.53	50.41
Tamil Nadu	69.31	70.57	51.18
Rajasthan	34.34	36.1	52.03
Maharashtra	47.01	48.03	70.77
Assam	67.04	70.13	74.56
Andhra Pradesh	58.22	59.03	85.88
Gujarat	85.27	89.78	94.33
Punjab	99.07	99.48	97.27
Haryana	98.99	99.29	98.8
Kerala	100	100	99.25
Karnataka	47.71	49.17	99.62
India	46.53	47.83	56.55

Note: *Erstwhile, now bifurcated into two different states

Source: EIS report, 2004, CMIE

Correlation with the rural per-capita income (state domestic product) reveals that (Table 2.3) the states with better connectivity have higher per capita incomes (correlation is 0.806, significant at 1 per cent level). This indicates the impact of ensuring better connectivity².

Table 2.3: Correlations Between Road Connectivity and Per Capita Rural Income, 1996

Pearson Correlation	Per Capita Rural Income
Percentage of villages connected by roads	0.806
Significance level (2-tailed)	0.000

Note: ** Correlation is significant at 0.01 level (2-tailed).

In order to improve rural connectivity, the Government launched the Pradhan Mantri Gram Sadak Yojana on the 25th of December 2000, to

² For rural poverty rates see Table A2.1 in the Appendix.

provide all-weather road access to the hitherto unconnected habitations. The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a 100 per cent centrally sponsored scheme for which 50 per cent of the cess on high speed diesel (HSD) is earmarked. However, from Table 2.4 it becomes clear that not all habitations can be covered by PMGSY. Out of a total of about 3 lakh unconnected habitations only about 50 per cent can be connected through PMGSY (Table 2.4)³. Under PMGSY, the number of road works completed in 2002-03 was 11,131 and in 2003-04 was 1,970. Such completed works possibly have reduced the number of unconnected villages (as presented in Table 2.2) in the recent years. For the very fact that not all habitations can be covered by PMGSY, separate schemes for rural road development are become necessary.

Table 2.4: Population Size-wise Classification of Habitations and Lengths of Roads Eligible under PMGSY

Item	Total	Unconnected	Habitations Classified According to Population Size: Eligible under PMGSY for Constitution of Roads			Total
			1000+	500-999	250-499	
Rural habitations	849,514	328,838	59,898	81,471	31,156	172,525
Habitation being covered up to 2004-05	-	-	20,203	10,209	3,247	33,659
Length of rural roads	3,000,000 kms (approx.)	-	134,169 kms	161,890 kms	68,805 kms	368,448 kms

Source: www.pmgsy.nic.in

Thus even after construction of roads under PMGSY there will be many habitations left over that require proper connectivity. The rural infrastructure development fund (RIDF) can aid the states in this regard.

Moreover, rural connectivity is not an end in itself; rather it is the means to access other facilities. This will, however, be possible provided, other basic facilities are also made available for the rural population. Only then will connectivity improves indicators of poverty, education, health, rural incomes etc. One such very important infrastructure facility is drinking water.

³ At a disaggregated level, state-wise requirements have been presented in Table A.2.2.

2.2.2. Drinking Water

Though most states show availability of drinking water in all the habitations at least partially, we are aware of the scarcity of potable water across the country. Amongst different states too some states have large proportion of habitations only partially covered by drinking water facilities. These include Karnataka, Kashmir, Himachal Pradesh, Rajasthan, Maharashtra, Kerala and so on (Table 2.5).

Table 2.5: State-wise Status of Drinking Water Supply in Rural Habitations as on 16.11.2001

States/Union Territories	Not Covered	Partially Covered	Fully Covered	Total
Andhra Pradesh	0	17,474	52,258	69,732
Assam	769	22,098	47,802	70,669
Bihar	0	0	105,340	105,340
Gujarat	155	2,096	28,018	30,269
Haryana	0	168	6,577	6,745
Himachal Pradesh	1,376	11,111	32,880	45,367
Jammu & Kashmir	2,074	3,688	5,422	11,184
Jharkhand	497	119	99,480	100,096
Karnataka	8	20,746	35,928	56,682
Kerala	804	6,957	2,002	9,763
Madhya Pradesh	74	0	109,415	109,489
Maharashtra	2,194	25,701	58,035	85,930
Orissa	32	86	113,981	114,099
Punjab	1,776	3,123	8,550	13,449
Rajasthan	6,680	15,591	71,675	93,946
Tamil Nadu	0	2,951	63,680	66,631
Uttar Pradesh	31	98	243,504	243,633
West Bengal	0	15,821	63,215	79,036
Andaman & Nicobar Islands	0	141	363	504
India	18,365	15,3981	1,250,318	1,422,664

Source: Census of India, 2001.

More importantly some of the states like Rajasthan, Jammu and Kashmir and even Maharashtra have above 1,000 habitations not provided even partially, with drinking water facilities. While proportion-wise, they

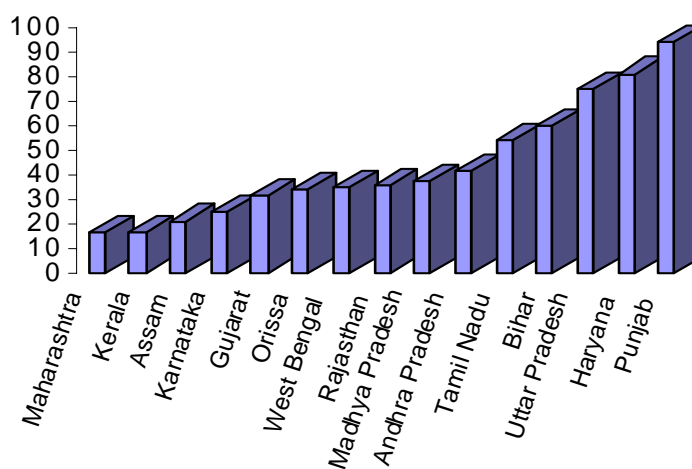
may not constitute a large share of total number of habitations in the respective states, not having drinking water facilities in a large number of habitations itself is a matter of concern.

Water is the elixir of life as it not only satisfies our thirst and our daily needs but it is also necessary for the production of crops. This calls for adequate irrigation facilities to ensure income to the farmers.

2.2.3. Irrigation

A study of the state-wise distribution of irrigation facilities shows that while some states like Punjab and Haryana have good irrigation facilities, others, for example, Karnataka, Gujarat, Orissa and Maharashtra lag far behind (Fig 2.1).

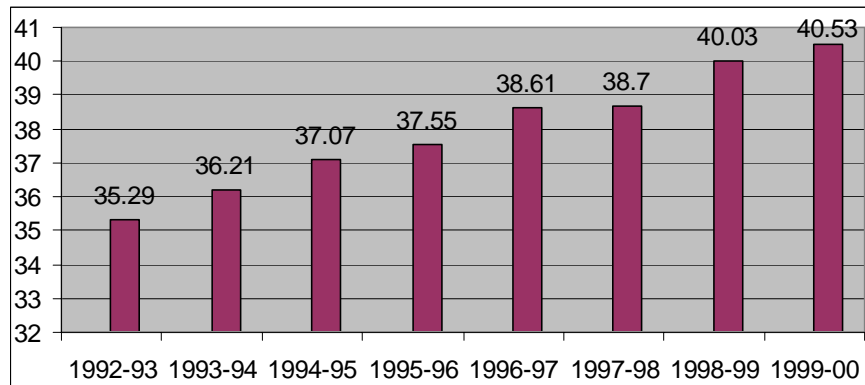
Fig. 2.1: State-wise Percentage of Net Irrigated Area (as a Percentage of Net Sown Area), 1999-2000



Source: EIS Report, February 2004, CMIE.

Growth of irrigation facilities over the years at the all-India level also appears to be minimal (Fig. 2.2). The same observation can be made from the state-level disaggregated scenario presented in the Appendix (Table A2.3). It is seen that percentage of area irrigated has remained more or less stagnant over the years. It is also worth noting that out of 15 major states considered, as high as ten have less than 50 per cent of their net sown area irrigated.

Fig 2.2: Percentage of Net Area Irrigated (as a Percentage of Net Sown Area) at the All India Level from 1993 to 2000



Source: Economic Intelligence Services, Feb 2004, CMIE.

2.2.4. Rural Electrification

Though many states including Karnataka have reported that almost 100 per cent of rural areas have been connected to the electricity grid, the quality of power supplied is rather poor. Substantial improvement is required in order to ensure uninterrupted quality power supply. This is more so as bad quality power can damage capital goods used for irrigation.

In addition to the above mentioned physical infrastructures that directly help in the production and marketing activities of the rural population, improvement in social infrastructure acts as an enabling factor for enhancing the standard of living.

2.2.4. Social Infrastructure

Schools

Though most of the states report having adequate primary level educational institutes for the rural masses, even after making it mandatory, 100 per cent enrolment at the primary level has not been achieved. Table 2.6 below shows that the growth rate of primary level educational institutions is rather low in the rural parts of our country.

Table 2.6: Growth (Percent Increment) of Recognized Primary Schools in Rural Areas of India from 1990-91 to 1997-98 and 2002-03

Years	Primary (in Nos.)	Percentage Increment
1950-51	175,999	
1965-66	358,797	6.9*
1973-74	414,151	1.9*
1978-79	431,602	0.8*
1980-81	444,752	1.5*
1985-86	473,566	1.3*
1990-91	482,628	0.4*
1991-92	486,912	0.9
1993-94	507,581	4.2
1995-96	500,284	-1.4
1996-97	510,117	2
1997-98	507,926	-0.4
2002-2003+	573,085	2.6**

Note: +: Provisional. **Yearly average growth (percentage increment) from 1998 to 2002. *: Yearly average percentage increment

Source: Government of India, 2003.

Lack of cost-effective schooling facility is one of the main reasons for children not going to school as shown by the National Family Health Survey (NFHS) results (Table A2.4).

In this age of information technology, if we want rural communities to take advantage of knowledge-based technologies, education is of utmost importance. Thus cost-effective schooling facility is another important requirement of the rural population.

Health care facilities⁴

Health care facility is an essential infrastructure need for the well-being of the rural poor. About 50 per cent of the villages have some kind of health-care facilities within the village, either a public sub-centre or a private clinic. However, there are about 13 per cent of village women who have to go over 5 kms to visit a health-care centre (Table 2.7). In the absence of proper transport or roads this may become quite difficult or even impossible,

⁴ See, also, Table A2.7

and we see in the case of Karnataka that perhaps due to such factors many women deliver babies without any kind of professional help (Government of India, 2002).

Table 2.7: Distance from Nearest Health Care Facility Percentage Distribution of Ever-Married Rural Women of Age 15-49, by Distance from the Nearest Health Facility, India, 1998-99

Distance (kms)	Primary Health Centre	Sub Centre	Either PHC or Sub Centre	Hospital	Dispensary/ Clinic	Any Health Facility
Within village	13.1	33	36.5	9.7	28.3	47.4
<5	28.4	39.7	40.8	25	32.4	38.9
5-9	29.2	16.3	15.3	25.1	17.4	9.7
10+	28.8	9.6	7	40	21.7	3.9
Don't know/ missing	0.5	1.4	0.3	0.2	0.2	0.2
Total percent	100	100	100	100	100	100
Median distance (km)	4.9	1.3	1	6.7	2.4	0

Source: Government of India, 2002

It should also be noted in this context that public spending on health in India has itself declined after liberalization from 1.3 per cent of GDP in 1990 to 0.9 per cent in 1999. On the contrary, the Bhore Committee (Government of India, 1946) recommended that 15 per cent of the GDP be committed to health from the revenue expenditure budget, while WHO recommended as high as 55 per cent of GDP for health (<http://www.asiatradesh.com/india/healthindustry.asp>). Thus, it has been observed that rural India still suffers from inadequacy of infrastructure in various fronts.

In addition to understanding the role of RIDF in infrastructure development for the nation as a whole, we also like to study the nature and trend of flow of funds to the rural areas of Karnataka State. As a background to this study, it is useful to take stock of the status of different kinds of rural infrastructure prevailing in the state as well.

2.3. Rural Infrastructure: Karnataka

Taking into account different types of infrastructure facilities, Karnataka's rural infrastructure can be placed at about the national average (see, Table A2.3 in the Appendices). Though certain infrastructural amenities like road or education are above the national average, some others like

irrigation are well below the average. For enhancing the income of farmers, timely availability of agricultural inputs and, most importantly, of irrigation facilities are essential. Other supplementary facilities like markets or roads will be useful only if there is sufficient output in the first place.

2.3.1. Irrigation

Before moving on to the irrigation facilities in Karnataka it is worthwhile taking a look at the water resources of the state.

Karnataka is amongst one of the driest states in India. Scarcity of water arising out of ground water depletion has made it an economic commodity. This is mainly due to the rising dependency on ground water for irrigation, domestic and commercial use due to non availability of surface water in some parts of the state and inadequate and untimely availability of water in many parts and the lack of recharge initiatives by government (Government of Karnataka, 2003). Contamination of water also takes place due to overuse of water in agricultural lands where fertilizers and pesticides are applied. Table A2.5 presents some of the important indicators relating to water resources district-wise. The fact that different regions of the state are faced with diverse problems with regards to water supply, there is a need for appropriately designed separate policies for dealing with the problems.

As far as water for crops is concerned, while at the all-India level about 40 per cent of net sown area is irrigated, Karnataka, one of the driest states in the country, has, on an average only 25 per cent of the net sown area irrigated. District level disaggregated picture (Table 2.8) shows that ironically the comparatively drier regions also lack proper irrigation facilities.

Table 2.8: District-wise Percentage of Net Irrigated Area to the Net Sown Area, 2002

District	1970-71	1980-81	1990-91	1995-96	1999-2000	2000-01
Bangalore Division						
Bangalore total	18	17.5	-	-	-	-
Bangalore (Urban)	-	-	19.6	16.44	26.02	21.5
Bangalore (Rural)	-	-	15.7	18.95	17.59	17.71
Chitradurga	15.4	15.5	22.1	20.06	15.54	16.22
Davangere	-	-	-	-	34.4	35.48
Kolar	24.9	18.6	23.9	22.42	18.84	22.09
Shimoga	44	42.6	44.9	48.05	61.44	61.06
Tumkur	11.6	11.6	11.8	13.01	19.18	23.21

contd...

Belgaum Division						
Belgaum	10.7	18.1	29.5	33.18	40.71	45.03
Bijapur	3.6	8.6	19.1	21.46	17.23	19.19
Bagalkot	-	-	-	-	42.42	44.71
Dharwad	5.8	8	14.8	16.33	13.14	14.7
Gadag	-	-	-	-	17.47	17.25
Haveri	-	-	-	-	20.79	20.87
Uttara Kannada	19.9	20.5	20.2	21.47	22.1	20.76
Gulbarga Division						
Bellary	7.6	21.6	26.1	31.48	32.86	32.31
Bidar	3.3	7.3	12.2	9.52	10.22	12.65
Gulbarga	1.7	2.3	11.5	11.45	13.67	13
Raichur	10.5	10.1	20.8	24.46	28.71	21.62
Koppal	-	-	-	-	30.55	28.28
Mysore Division						
Chickmagalur	13.5	12.4	9.4	9.42	8.69	8.02
Dakshina Kannada	36.5	37	43.1	43.02	51.63	53
Hassan	12	16.3	16.8	20.53	21.69	21.24
Kodagu	7.8	2.3	2.8	1.74	2.1	2.54
Mandya	31.6	40.2	41.4	44.43	43.79	43.42
Mysore	17.2	17.4	22.3	27.94	29.24	27.64
Udupi	-	-	-	-	35.27	34.09
Chamarajanagar	-	-	-	-	30.29	30.02
State as a whole	11.1	13.8	20.4	22.1	24.83	25.39

Source: Government of Karnataka, 2002a

For the efficient use of available irrigation facilities, quality power supply is the prime pre-requisite. Even though all the villages are electrified in Karnataka, quality power is not available to them most of the time.

2.3.2. Rural Electrification

Electricity is one of the key inputs for socio-economic development. Efficient supply of electricity for irrigation as well as for the non-farm sector contributes to poverty reduction in rural areas by fuelling economic growth and enabling fulfilment of the basic human needs of health and education. Provision of electricity is thus crucial for improving living standards, supporting development and job opportunities, and fostering social activities.

While the electrification level for the poor grew at a compound annual growth rate (CAGR) of 6.4 per cent before the reforms were introduced, the pace of provision of such facilities in Karnataka appears

to have gone down substantially to about 3 per cent in the post-reform period. On the other hand, the CAGR for the electrification levels for the non-poor increased from 1.7 per cent before reforms to 2.4 per cent in the post reform period. This may have been influenced by the need to minimize losses by discouraging new connections for the poor and encouraging new connections to more lucrative areas (Sihag *et al* 2004). Furthermore, information on the percentage of *hamlets* electrified reveals that there are wide disparities in levels across districts in Karnataka (Table A2.6). While in the Bangalore division, 56 per cent of hamlets are electrified and in Bangalore (R), this figure increases to 86 per cent, but in Uttara Kannada only 24 per cent of hamlets have been electrified.

In addition to electricity, for better marketing of the rural produce and also for other supplementary employment opportunities, improved road connectivity plays a crucial role.

2.3.3. Rural Connectivity: Roads

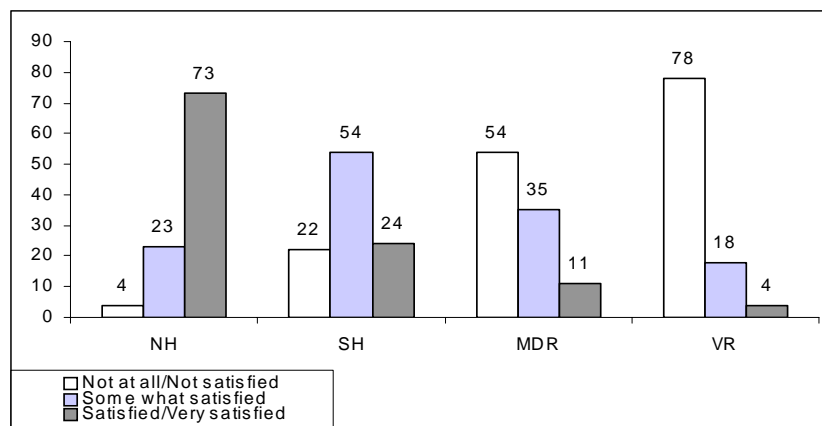
Although, according to the published statistics, almost all the villages in the State of Karnataka have been connected by roads, and however, the quality of roads in the rural areas is far from satisfactory. This can be clearly seen from the road users' survey.

The first ever 'Road User Satisfaction Survey' in Karnataka, commissioned by the Karnataka State Highway Improvement Project (KSHIP), PWD, Government of Karnataka, was carried out by the TNS MODE⁵ and covered all types of road users (32 groups of respondents) selected across 27 towns and 216 villages from 27 districts of the State (www.kar.nic.in/pwd/). Roads covered under this survey are national highways (NH) and state highways (SH), major district roads (MDR) and village roads (VR).

It is interesting to note that (Fig. 2.3) the extent of satisfaction is the lowest in the case of village road users (22 per cent) and highest in the case of NH users (96 per cent). More than half the MDR users (54 per cent) and three-fourths of the VR users (78 per cent) reported that they were not satisfied or not at all satisfied with the roads.

⁵ Private market research agency.

Fig. 2.3: Road Users' Satisfaction Survey Results in Karnataka (Percentage of Respondents)

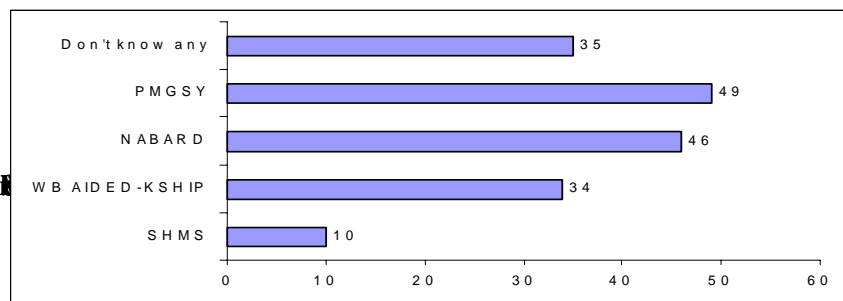


Note: NH - National Highways, SH - State Highways, MDR - Major District Roads, VR - Village Roads.

Source: www.kar.nic.in/pwd/

In the context of rural roads, awareness of NABARD scheme and Prime Minister's Gram Sadak Yojana (PMGSY) is higher (Fig. 2.4), as compared to other road development schemes such as the World Bank-Aided Karnataka State Highway Improvement Project (KSHIP) and the State Highway Maintenance Scheme (SHMS). One-third of the users know none of these schemes. Out of 27,066 villages, 59 per cent are covered by all-weather roads, 24 per cent by fair-weather roads, and 16.6 per cent by *kutchha*/non-motorable roads.

Fig 2.4: Awareness of Different Road Development Schemes*



Source: www.kar.nic.in/pwd/ (*Scheme details mentioned above)

In addition to economic infrastructure, social infrastructure also plays a crucial role in determining the well-being of the rural population, prominent amongst them being health and educational infrastructure.

2.3.4. Health Infrastructure

As far as public health facilities in rural areas are concerned, Karnataka follows the national pattern of three-tier health infrastructure in maintaining Primary Health Centres, Health Units, Community Health Centres and Sub-Centres. The policy of the Government is to establish one Primary Health Centre for every 30,000 population, one primary health unit for every 15-20 thousand population and a Sub-Centre for 5,000 population. Community Health Centre (CHC) is set up for every one lakh of population, or one out of four PHCs is empowered to cater to the health care of the rural masses. Government planning also lays emphasis on improving the health of the mother and child. Under these programmes, children are immunized against major diseases and vitamin deficiencies are also looked after. However, even with such schemes many evaluation studies show that the status of public health services are pathetic in Karnataka. Mainly, this is not due to lack of infrastructure but due to non availability and/or corruption of the medical staff. Table 2.15 shows that in spite of all efforts to provide health care services to mothers and their children, there is a considerable proportion of unsafe deliveries in different districts of Karnataka.

Table 2.9: Percentage of Deliveries Not Attended by Trained Health Personnel

Districts	Percentage of Deliveries Not Attended by Trained Health Personnel (Unsafe Deliveries)
Dakshina Kannada	8.50
Udupi	8.50
Bangalore Urban	9.40
Uttara Kannada	13.90
Shimoga	17.00
Kodagu	20.60
Bangalore Rural	20.90
Chickmagalur	22.00
Hassan	30.30
Mysore	30.30

contd...

Chamarajanagar	30.30
Belgaum	31.40
Dharwad	34.70
Gadag	34.70
Haveri	34.70
Tumkur	36.50
Mandya	38.10
Kolar	40.80
Bellary	46.00
Chitradurga	46.20
Davanagere	46.20
Bidar	47.50
Bijapur	49.90
Bagalkot	49.90
Koppal	52.00
Raichur	52.00
Gulbarga	52.30
Bangalore Division	31.00
Mysore Division	23.58
Belgaum Division	35.60
Gulbarga Division	49.96
South Karnataka region	27.29
North Karnataka region	42.78
Karnataka	35.04

Source: Government of Karnataka, 2002b.

Table 2.9 reveals that in Gulbarga division, unsafe deliveries are as high as 50 per cent and some of the poorer districts like Koppal and Raichur have more than 50 per cent unsafe deliveries. It is well accepted that the provision of health care infrastructure through state initiatives is necessary especially for the economically backward regions. In fact, poorer regions have higher percentage of unsafe deliveries.

2.3.5. Education

The importance of educational infrastructure no doubt cannot be undermined and individual and societal benefits of education are well known. Investments in this sector contribute to human capital formation and thereby economic growth, raising standards of living and improving the quality of life. Furthermore, improvements in the educational status of rural women

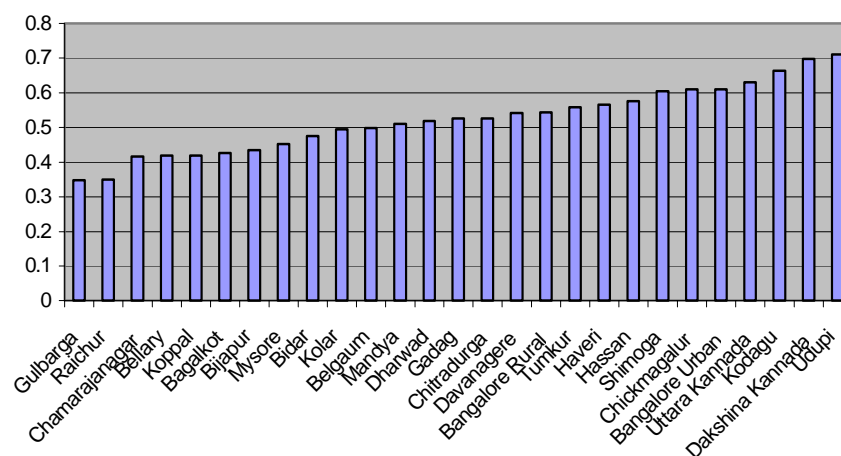
can help improve certain health indicators, particularly in the area of family health and nutrition. Rural literacy rates of Karnataka though not too high, are on par with the national average (Table 2.10). However, across different districts there is wide variation (Fig. 2.5, see also Table A2.8).

Table 2.10: Percentage of Rural Literacy in India, Karnataka and Few Other Selected States, 2001

	All India	Andhra Pradesh	Karnataka	Gujarat	Madhya Pradesh
Total	59.21	55.33	59.68	30.03	58.1
Male	71.18	66.13	70.63	70.71	72.1
Female	46.58	44.36	48.5	45.75	42.96

Source: National Human Development Report, 2001⁶

Fig 2.5: Literacy Rates Across Districts in Karnataka, 2001



Source: Census, 2001.

Thus there is a need to give special attention to the selected regions.

2.4. Concluding Remarks

Although, since independence, India has made substantial progress in infrastructure development, more resources have been allocated to urban locations, especially the metropolitan cities. Ironically, even after allocation

⁶ Source: <http://www.indianngos.com/issue/education/statistics/tables1.htm>

of substantial resources, infrastructure in urban areas still remains unsatisfactory. There are several reasons for this. Amongst others, lack of systematic planning and corruption are the major reasons. Rural areas have always been experiencing step-motherly treatment and rural infrastructure at present is far from satisfactory. Many rural areas do not have proper drinking water facilities or roads. Government has often taken up a number of projects but they have remained incomplete. In this situation of a rural infrastructure development fund was created and developed. What is the contribution of this fund to rural infrastructure development? Do the funds flow towards the more needy or to the already affluent villages? These are some of the issues we intend to explore in this study.

In fact, the concept of priority sector lending was considered seriously since the nationalization of banks in 1969, to ensure proper flow of funds to the rural masses. It was introduced with the hope that poor farmers would be able to use institutional funding for production. However, over the years it has been observed that banks consistently fail to meet these lending norms (especially agricultural lending norms) and the poor and marginal farmers in particular do not get the desired benefits (see, Rajeev *et al*, 2007). In order to enable the banks to meet the priority sector norms, the scope of the sector itself has been enlarged. In this context, the rural infrastructure development fund was introduced through NABARD to improve the rural infrastructure, which can directly and indirectly help the rural masses. Such funding by the bank would be considered priority sector lending. Given this background it is necessary to have a closer look at the norms under which this fund operates.

APPENDICES

Table A2.1: Rural Per Capita Income, 1999-2000

States	Per Capita Income
Orissa	5,704
West Bengal	8,792
Meghalaya	9,284
Madhya Pradesh	7,079
Maharashtra	11,769
Tamil Nadu	12,888
Himachal Pradesh	10,816
Uttar Pradesh	6,738
Bihar	6,976

contd...

Andhra Pradesh	11,033
Kerala	10,342
Karnataka	11,300
Goa	11,017
Gujarat	14,574
Assam	11,109
Rajasthan	10,693
Punjab	16,540
Haryana	14,855

Source: NCAER, 2006.

Table A2.2: Population Size-wise Classification of Habitations and Lengths of Roads Required under PMGSY, for Different States

Sl. No.	Name of the State	Length Required (in km) for Habitations			
		Population size:1000+	500 - 999	250 - 499	<250
1	2	3	4	5	6
1	Andhra Pradesh	668	1,668	990	-
2	Arunachal Pradesh	303	854	1,954	8,417
3	Assam	7,900	6,671	4,416	-
4	Bihar*	26,687	6,664	0	-
5	Chattisgarh	12,213	14,709	10,634	-
6	Goa	0	40	50	-
7	Gujarat	1,038	4,027	2,387	-
8	Haryana	0	26	0	-
9	Himachal Pradesh	1,734	3,389	7,709	-
10	Jammu & Kashmir	3,454	2,722	2,236	-
11	Jharkhand	5,298	8,943	7,204	-
12	Karnataka	103	397	1,367	-
13	Kerala	116	323	21	-
14	Madhya Pradesh	25,131	31,403	3,730	-
15	Maharashtra	633	1,961	1,774	-
16	Manipur	355	633	1,143	3,584
17	Meghalaya	31	553	2,078	-
18	Mizoram	236	948	837	-
19	Nagaland	280	478	231	-
20	Orissa	7,946	13,652	7,776	-
21	Punjab	205	774	0	-

contd...

22	Rajasthan	7,063	19,468	5,417	-
23	Sikkim	78	541	488	-
24	Tamil Nadu	1,426	3,552	281	-
25	Tripura	260	1,205	1,516	-
26	Uttar Pradesh	16,300	22,300	125	-
27	Uttaranchal	1,299	4,251	4,880	-
28	West Bengal	13,192	9,803	657	-
Total		133,951	161,952	69,899	

Note: * Core network was prepared by the Central Road Research Institute, New Delhi.

Source: www.pmsgsy.nic.in

Table A2.3: State-wise Percentage of Area Irrigated (as a Percentage of net Sown Area)

States	Year							
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
Andhra Pradesh	38.49	37.54	38.2	38.76	40.57	40.07	41.35	41.32
Assam	21.14	21.14	20.58	20.58	20.85	20.79	21.18	21.18
Bihar	61.86	-	-	-	-	-	-	-
Gujarat	27.57	27.05	31.06	30.1	31.69	31.61	31.86	31.88
Haryana	75.63	75.8	76.4	76.99	76.21	76.84	78.34	81.31
Karnataka	20.34	21.57	22.32	22.09	21.91	23.45	23.76	24.84
Kerala	14.87	14.48	15.99	15.1	15.73	15.41	16.6	16.97
Madhya Pradesh	25.06	28.63	32.03	32.29	34.72	34.59	36.45	37.56
Maharashtra	14.85	14.87	12.62	14.01	14.26	16.53	16.61	16.8
Orissa	32.84	33.16	33.16	33.66	35.02	34.14	34.56	34.4
Punjab	93.3	93.19	93.68	92.95	92.95	94.48	94.48	94.48
Rajasthan	26.4	28.32	28.54	31.57	33.28	31.75	34.21	36.18
Tamil Nadu	46.41	47.43	50.12	49.14	52.72	52.76	53.58	54.39
Uttar Pradesh	68.72	70.25	70.71	70.29	69.87	71.79	75.54	-
West Bengal	34.78	35.01	34.97	34.99	34.98	34.97	35.13	34.93
India	35.29	36.21	37.07	37.55	38.61	38.7	40.03	40.53

Source: Economic Intelligence Services, Feb 2004, CMIE.

While irrigation facilities are of utmost important to farmers, a prerequisite for the same is electric power connectivity and availability.

**Table A2.4: Reasons for Children Not Attending School,
India, 1998-99**

Percent distribution of children of age 6-17 years who never attended school by the main reason (for never attending school) according to residence and gender

Main Reason for Never Attending School	Rural	
	Male	Female
School too far away	3.8	4.5
Transport not available	0.6	0.7
Education not considered necessary	7.8	13.1
Required for household work	6.7	15.5
Required for work on farm/family business	5.2	3.4
Required for outside work for payment in cash or kind	4.3	2.6
Costs too much	25.8	23.8
No proper school facilities for girls	0	2.6
Required for the care of siblings	0.9	3
Not interested in studies	25.7	15.9
Other	17	12.8
Don't know	2	2.1
Total percent	100	100

Source: Government of India, 2002

Table A2.5: Water Problems (Basin-wise) in Karnataka

Problems	River Basins				
	Krishna Basin	Cauvery Basin	Godavari Basin	West Flowing River Basins	Other Basins (Palar, South and North Pennar)
I. Inequity & Inadequacy					
Pressure on existing water resource - surface	Dharwad, Bellary, Bagalkot, Bijapur, Tumkur, Gulbarga, Belgaum, Haveri	Bangalore (U), Kodagu, Hassan, C.R.Nagar	—	Uttara Kannada	Kolar
II. Inefficiency in water use					
Salinity and waterlogging	Bellary, Bijapur, Chitradurga, Raichur, Gulbarga, Dharwad, Shimoga, Belgaum, Davanagere	Bangalore (U), Mysore	Bidar (Chulkinala)	Kali, Pavenje, Netravati, Gurpura (Uttara Kannada and Dakshina Kannada)	—
III. Deteriorating water quality					
Surface water	Davangere (Tungabhadra river - Davanagere and Harihar), Shimoga (Bhadra river - Bhadravati and Thirthahalli), Bellary and Koppal (TB river), Bagalkot (Krishna river)	Mandya (Hebbal river), Bangalore (Arkavathi - Kanakapura town), Mysore (Kabini river - Nanjangud & Cauvery - Srirangapattana and K.R.Nagar), C.R. Nagar (Cauvery - Kollegal)	—	Uttara Kannada (Kali river - Dandeli), Dakshina Kannada (Netravati and Sullia)	—
Groundwater	Tumkur, Chitradurga, Gadag, Bagalkot, Davanagere, Dharwad, Haveri, Bellary	Bangalore (R&U), Mandya, Tumkur (Kunigal), C.R.Nagar	—	—	Kolar

contd...

Seepage of fertilizer and pesticides	Raichur, Koppal, Belgaum, Dharwad, Chickmagalur, Shimoga, Bellary	Bangalore (U&R), Mysore, Kodagu, Mandya, Hassan	—	D.Kannada	Kolar
IV. Depleting ground water resources					
Decline in depth and low water table (1990-2000) & 2002	Bagalkot, Bellary, Chitradurga, Haveri, Belgaum, Gadag, Davangere, Tumkur, Dharwad, Koppal, Gulbarga	Chamarajanagar, Bidar Bangalore (R&U), Hassan, Mandya	—		Kolar
V. Drought-prone area - need for watershed treatment					
	Chitradurga, Tumkur, Dharwad, Gulbarga, Haveri, Gadag, Bellary, Bijapur	Bangalore (R), Mysore	—	—	Kolar
VI. Siltation in reservoirs, river beds & estuaries					
	Belgaum (Ghataprabha and Malaprabha reservoirs), Bellary (Tungabhadra reservoir), Shimoga (Bhadra reservoir)	—	—	Linganmakki reservoir (Shimoga), Kali (Uttara Kannada), Netravati and Gurpur (Dakshina Kannada)	—

Source: Government of Karnataka, 2003

Table A2.6: Domestic and Socially Relevant Power Sector Indicators, March 2001.

District	Percentage of Hamlets Electrified as of 2001
Bangalore Division	56.10
Bangalore (U)	44.10
Bangalore (R)	87.71
Chitradurga	58.88
Davanagere	78.22
Kolar	98.05
Shimoga	21.16
Tumkur	69.75
Mysore Division	23.44
Chamarajanagar	55.52
Chickmagalur	24.11
Dakshina Kannada	3.96
Hassan	47.43
Kodagu	18.11
Mandya	78.41
Mysore	62.40
Udupi	4.73
Belgaum Division	34.48
Bagalkot	100.00
Belgaum	100.00
Bijapur	34.14
Dharwad	100.00
Gadag	100.00
Haveri	61.62
Uttara Kannada	24.13
Gulbarga Division	45.84
Bellary	79.74
Bidar	52.22
Gulbarga	22.24
Koppal	47.10
Raichur	38.96
North Karnataka	37.16
South Karnataka	37.61
State Level	37.49

Source: Government of Karnataka, 2002b.

Table A2.7: Inter-State Comparison of Social Indicators

State	Population	Poverty Rate	Per Capita Income (Rs. '000)	Growth in Net SDP (1993-1999)	Health Facilities	Literacy Rate	Infant Mortality
				In %			
Andhra Pradesh	75.7	15.8	14.7	5.4	VL	61.11	66
Gujarat	50.6	14.1	18.6	8.3	L	69.97	63
Haryana	21.1	8.7	21.1	5.8	L	68.59	68
Himachal Pradesh	6.1	7.6	15	6.7	H	77.13	NA
Karnataka	52.7	20	16.3	8.1	M	67.04	58
Kerala	31.8	12.7	18.3	5.9	M	90.92	14
Maharashtra	95.7	25	23.4	6.7	M	77.27	48
Punjab	24.3	6.2	23	NA	H	69.95	53
Rajasthan	56.5	15.3	12.5	6	VL	61.03	81
Tamil Nadu	62.1	21.1	19.1	7.2	H	73.47	52
West Bengal	80.2	27	15.6	6.9	L	69.22	52
Assam	26.6	36.1	9.6	2.6	VL	64.28	76
Bihar + Jharkhand	109.8	42.6	6.3	3.9	EL	47.53	63
M P+ Chattisgarh	81.2	37.4	10.9	4.2	VL	64.11	90
Orissa	36.7	47.2	9.2	4.4	NA	63.61	97
UP + Uttaranchal	174.5	31.2	9.8	4.4	EL	57.36	

Notes: EL: extremely low, VL: very low, L: low, M: medium, H: high, NA: not available, SDP: state domestic product

Source: Economic Survey, 2001-2002; Secretariat For Industrial Assistance Statistics, Ministry of Industry, May 2002; Food Insecurity Atlas Of Rural India, M S Swaminathan Research Foundation, Chennai 2001 downloaded from <http://www.indianngos.com/issue/education/statistics/tables1.htm>.

**Table A2.8: Education Infrastructure in Karnataka:
A Taluka Level Picture**
(Classification of Taluks into Relatively Developed, Backward, More and Most Backward)

Division / Region	Number	Percentage Share in the Total No. of Taluks of the Division / Region	Percentage Share in the Total No. of Relatively Developed Taluks of the State
Relatively Developed Taluks			
Bangalore	49	96.08	34.27
Mysore	41	93.18	28.67
South Karnataka Region	90	94.74	62.94
Belgaum	40	81.63	27.97
Gulbarga	13	41.94	9.09
North Karnataka Region	53	66.25	37.06
Karnataka	143	81.71	100.00
Backward Taluk			
Bangalore	2	3.92	18.18
Mysore	1	2.27	9.09
South Karnataka Region	3	3.16	27.27
Belgaum	7	14.29	63.64
Gulbarga	1	3.23	9.09
North Karnataka Region	8	10.00	72.73
Karnataka	11	6.29	100.00
More Backward Taluks			
Bangalore	Nil	Nil	Nil
Mysore	2	4.55	18.18
South Karnataka Region	2	2.10	18.18
Belgaum	2	4.08	18.18
Gulbarga	7	22.58	63.64
North Karnataka Region	9	11.25	81.82
Karnataka	11	6.29	100.00
Most Backward Taluks			
Bangalore	Nil	Nil	Nil
Mysore	Nil	Nil	Nil
South Karnataka Region	Nil	Nil	Nil
Belgaum	Nil	Nil	Nil
Gulbarga	10	32.25	100.00
North Karnataka Region	10	12.50	100.00
Karnataka	10	5.71	100.00

Source: Government of Karnataka, 2002b.

CHAPTER III

RURAL INFRASTRUCTURE DEVELOPMENT FUND: BASIC FEATURES

3.1. Introduction

In the previous chapter, we discussed the status of rural infrastructure in India, in general and Karnataka, in particular. Though provision of infrastructure facilities is not uniform across states or within a state across different regions, statistics reveal that the status of rural infrastructure in India, in general, is far from satisfactory (see, Chapter II). Not only are rural infrastructure development projects inadequate in number, many projects sanctioned and already started also remain incomplete due to various reasons. Noting these problems, in the Union Budget Speech of 1995-96, the Hon'ble Finance Minister announced that- "Inadequacy of public investment in agriculture is today a matter of general concern. This is an area which is the responsibility of States. But many States have neglected investment in infrastructure for agriculture. There are many rural infrastructure projects which have been started but are lying incomplete for want of resources. They represent a major loss of potential income and employment to rural population".

In an attempt to provide the necessary resources for rural infrastructure development, the possibility of creating a fund for this purpose was conceived at that time. With this in mind, during that period a corpus was created in NABARD with contributions from commercial banks. This fund, known as the *Rural Infrastructure Development Fund* (RIDF), was initially developed to provide resources for projects that remained unfinished due to want of resources. The provision of this fund has indeed helped many states to develop rural infrastructure (Government of Andhra Pradesh 2000; Confederation of Indian Industries, 2005).

3.2. Salient Features of RIDF

3.2.1. Corpus and Sources of Funds

RIDF-I was launched in 1995-96 with an initial corpus of Rs.2,000 crores through contributions both from public and private sector banks. It is noteworthy that previously both public and private banks often failed to meet priority sector norms for lending (Table A3.1). After the enlargement of the scope of priority sector to a great extent, though banks have currently

been meeting the overall norms of priority sector lending, they still fail to meet the target for agricultural lending. Under these circumstances, the contributions to NABARD by the banks under the provision of RIDF are considered agricultural lending by the banks. Later, since 1996-97, i.e., from the start of RIDF-II, deposits from commercial banks in the RIDF have been made broad-based by including shortfalls either in direct finance to agriculture and/or shortfall in priority sector lending. The scheme has continued thereafter and currently RIDF-XII is in operation. After RIDF-IX, the provision of RIDF was discontinued for a while and Loknaya Jayaprakash Narayan Fund was introduced in its place by the then NDA government. However, later, the Congress Government revived RIDF by introducing RIDF X. The tranche-wise¹ size of the corpus shows positive growth all through, depicting steady growth of funds under RIDF; though as expected, in real terms, the growth rates are not as striking as that of their nominal counterparts (Table 3.1).

Table 3.1: Tranche-wise Size of Corpus, RIDF (in Rs. Crores)

RIDF Tranche/ Year	Corpus in Nominal Terms	Growth of Nominal Corpus	Corpus in Real Terms*	Growth of Real Corpus
RIDF I (1995-96)	2,000	-	1,676.30	-
RIDF II (1996-97)	2,500	0.25	1,950.24	0.16
RIDF III (1997-98)	2,500	0.00	1,828.21	-0.06
RIDF IV (1998-99)	3,000	0.20	2,032.53	0.11
RIDF V (1999-2000)	3,500	0.17	2,281.30	0.12
RIDF VI (2000-01)	4,500	0.29	2,834.30	0.24
RIDF VII (2001-02)	5,000	0.11	3,045.79	0.07
RIDF VIII (2002-03)	5,500	0.10	3,215.68	0.06
RIDF IX (2003-04)	5,500	0.00	3,122.49	-0.03
RIDF X (2004-05)	8,000	0.45	4,322.70	0.38
RIDF XI (2005-06)	8,000	0	4,102.03	-0.05
RIDF XII (2006-07)	10,000	0.25	4,869.41	0.19
RIDF XIII (2007-08)	12,000	0.20	5,584.68	0.15
TOTAL	72,000			

Note: * Deflated using GDP deflator

Source: Compiled using NABARD data

¹ A terminology used by NABARD. Here, it essentially means year-wise.

Once the total RIDF fund for a year is decided by the Central Government, the actual operation follows certain norms.

3.2.2. The Process of Operation

To disburse funds states are requested to submit project proposals. State governments, in turn, request the relevant departments to come up with proposals. The cabinet sub-committees of the respective states later scrutinize these proposals and, considering among other things the financial strength of the government fix the project limits for each department. The departments, in turn, revise their proposals, which are then sent to the regional offices (RO) of NABARD. Projects are finally sanctioned by the project sanction committee (PSC), which comprises amongst others, the Chairman and Managing Director of NABARD, Secretary (Banking), Ministry of Finance, Government of India, Secretary, Ministry of Rural Development, Government of India, Deputy Governor, RBI and a nominee of RBI. Normally, seven or eight meetings of the PSC are held in a year to sanction loans from the RIDF corpus.

The Finance Department of each state is nominated by the state governments to act as nodal department to operationalise RIDF.

3.2.3. Borrowing and Lending Institutions

State governments are eligible to borrow from RIDF on the basis of projects. However, since 1999, the set of borrowing institutions has been enlarged. In particular, it has been decided to extend loans to Panchayat Raj Institutions (PRIs), Non-Governmental organisations, Self-Help Groups etc. w.e.f. 1 April 1999. This was done possibly under the assumption that local governments would know the local needs better and, being stakeholders, would implement the projects more efficiently. The respective state governments, however, remain the guarantors of such loans.

As far as lending institutions are concerned, all scheduled commercial banks and regional rural banks are the main lenders. These banks keep their shortfalls in priority sector lending with NABARD for this purpose, from which NABARD, in turn, refinances these projects.

3.2.4. Activities/Sectors Financed under RIDF

In the beginning, only ongoing irrigation, flood protection, and watershed management projects were financed under RIDF-I as a '*last mile approach*' to facilitate completion of projects delayed on account of financial constraints.

The financing of rural road and bridge projects was started during RIDF-II. Subsequently, coverage of RIDF was enhanced in each tranche and at present, a wide range of activities such as primary schools, primary health centres, *village haats*, joint forest management, terminal and rural markets, rain water harvesting, fish jetties, mini hydel and system improvement projects in the power sector, rural drinking water supply schemes, citizen information centres, *anganwadi* centres and *shishu shiksha kendras* are also being brought under RIDF. While the incorporation of many areas allows the development of infrastructure in different fields within the rural sector, it also leads at times to loss of focus.

3.2.5. Period of Loan

The repayment period was 5 years including a 2-year grace period provided under RIDF-I to RIDF-V. The repayment period was, however, extended later to 7 years, including a grace period of 2 years, from RIDF-VI onwards.

3.2.6. Allocation and Sanction of Funds

Normative allocations are made to all states on the basis of norms prescribed by the PSC. The strength of rural population has been given top-most importance in determining loan allocation to a region or a state. Currently, the allocation norms provide 50 per cent weightage to rural population, 25 per cent to geographical area and 25 per cent to infrastructure development index. While such factors determine the allocation of funds, utilization indeed depends on the demand for RIDF by a state. It has been observed that, in practice, some of the state governments have not been able to fully utilise their allocation. As funds are being released as loans on reimbursement basis, the desired levels of demand for funds may not often get generated in many states². Noting such evidences, state-wise allocations are reviewed by the PSC from time to time and accordingly reallocated.

After a project is sanctioned, usually, it is expected to be completed within 3 years. However, often this restriction is relaxed and the time period is extended. Initially, 20 per cent of allocated fund is released on acceptance of the terms and conditions given by the PSC and later, 10 per cent is released after the commencement of the work. State governments, thereafter, are provided loans on reimbursement basis against the actual expenditure incurred in the execution of sanctioned projects.

² As revealed during our discussion with the RBI officials.

Normally, it is expected that RIDF projects would be completed on time within the approved cost. However, cost escalation is considered on account of change in design during execution and revision in the Schedule of Rates (SOR).

3.2.7. Monitoring of RIDF Projects

Although monitoring is basically the responsibility of the state governments, yet an effective monitoring mechanism developed by NABARD is one of the strong features of RIDF. Currently, 10,000 projects which constitute about 12 per cent of the ongoing projects are annually field-monitored by the District Development Managers of NABARD, staff of regional offices and consultants.

In addition to field monitoring, institutional mechanisms have been developed for sectoral and project-wise review. Selective sector-wise monitoring is undertaken by the head office and through the external agencies. The NABARD has also started organizing capacity-building workshops for governmental staff working in the various departments connected with RIDF projects.

Under such institutional framework and regulations, RIDF functioned till 2003 after which it was discontinued for a short period of time. In 2004, it was re-introduced with certain modifications.

3.3. Reintroduction of RIDF: Announcement of RIDF X

While presenting the Union Budget on 8th July 2004, the Hon'ble Finance Minister announced the reintroduction of RIDF X to be implemented during 2004-05 with a corpus of Rs 8,000 crores. In addition to the existing activities, a whole host of new activities including fishing harbour/jetties, riverine fisheries, animal husbandry, modern abattoir and others were incorporated in RIDF X.

While funding, priority is given to the ongoing projects, in case of new projects, only short duration projects, which can be completed within 3 years, are considered. For the appropriate channeling of loans and proper implementation, a bottom-up approach has been conceived. The other terms and conditions of sanction of RIDF X remain the same as that of RIDF IX. It has been decided that the corpus of RIDF X will be contributed by domestic scheduled commercial banks, both in private and public sectors that have shortfalls in lending to the priority sector and/or agriculture. Banks are paid interest on their contribution to RIDF X at rates of interest inversely related to shortfall in agricultural lending *vis-à-vis* the targets. These are floating

rates and linked to the bank rate prevailing at the time of sanction of loans to state governments. The lending rate to state governments is the prevailing bank rate plus 0.5 per cent, which at present is 6.5 per cent. Each drawl by a state government would be treated as a separate loan and would be repayable in 7 years with a grace period of 2 years.

3.4. Rate of Interest on RIDF Loan

Loans under RIDF-I were advanced to state governments at an interest rate at 13 per cent. The rate of interest on loans under RIDF-II and III was reduced to 12 per cent. The rate of interest under tranches IV to VII was further brought down to 7 per cent w.e.f. 1 November 2003, and thereafter the rate of interests under RIDF VIII and IX are linked to bank rate, which at present is about 6 per cent. To begin with, the following procedure was adopted to generate funds. Banks kept their deficiency to priority sector lending with NABARD and the latter, in turn, channelised these resources to the state governments through RIDF. NABARD pays interest to the banks for their deposits which in turn, it recovers from the state governments. It so happened that NABARD was unable to deploy the funds as the state governments were unable to create sufficient demand for the funds available³. Banks, on the other hand, were willing to lend funds to NABARD under RIDF as it ensured 'risk free' returns to the banks. Thus, there was a disequilibrium between demand and supply. If NABARD needs to pay interest to the banks, without being able to deploy the funds, it would create financial strain on it. To avoid such possibilities, certain modifications of the lending procedure were subsequently made. Currently, NABARD takes resources from the bank only against demand from the state government for funds under RIDF. Furthermore, interest rate schemes are so devised so as to induce banks to lend to the priority sector directly.

3.4.1. Differential Rate of Interest to Banks: An Innovation

Rates of interest on deposits received from the banks under tranches I to VI were lower by 0.5 per cent than the rates of interest charged by NABARD on RIDF loans to the state governments. With a view to encouraging commercial banks to enhance flow of direct credit to agriculture, it was decided by the RBI to link interest on bank contribution to RIDF,

³ As revealed during discussions with RBI officials.

from Tranche-VII, to the extent of the shortfall of their agricultural lending *vis-à-vis* the targets. The inversely proportional rates of interest paid to commercial banks were as in Table 3.2.

Table 3.2: Interest Rate Structure of RIDF

Shortfall in lending to Agriculture as Percentage to Net Bank Credit	Current Rates (%) for RIDF VIII and IX from 01-11-2003 and for X, XI and XII
Less than 2	6 (prevailing Bank Rate (BR))
2 to 4.99	5 (prevailing BR minus 1)
5 to 8.99	4 (prevailing BR minus 2)
Above 9	3 (prevailing BR minus 3)

Source: NABARD, Reports of Various Years.

Following the norms of the Reserve Bank of India, NABARD retains a margin of 0.5 per cent for administering RIDF. The differential interest, however, is credited to the Watershed Development Fund maintained by the NABARD.

Now, there is a clash of interest between NABARD and commercial banks. Failure of commercial banks to lend directly to the priority sector would fetch them less interest from NABARD. Thus, there is an incentive to lend to the priority sector directly. However, from the NABARD's point of view it would prefer banks that can be paid a lower interest rate. Below we look at this problem in some detail from a theoretical perspective

3.4.1.1. Interest and demand for funds: A theoretical appraisal

The set up described above involves three main entities: (1) Commercial Banks that supply funds to NABARD; (2) NABARD demands funds from commercial banks and supplies it back to the state governments; and (3) State governments that demand funds from NABARD in the form of RIDF. We first consider the interaction between commercial banks and NABARD (to be denoted by ND). Currently, the procedures followed for loan disbursement, determining contributions by different banks towards total loan etc., are somewhat ad hoc in nature. It was revealed during our discussions with the state government officials that they were often requested to take certain amount of loan. In other words, the process did not appear to be entirely market-driven. Given the current emphasis on market economy models we ask that if, the process would have been entirely

market-driven, how would the entire scenario look like. We attempt to represent the same below.

3.4.1.2. Supply side scenario

For simplicity we assume that a bank’s total lending is exogenously given and consequently, let M be the size of the funds commercial banks need to loan out to the priority sector⁴. For notational simplicity we assume $M = 1$. Let $0 \leq s \leq 1$ represent the fraction that a bank actually lends out to the priority sector directly and $(1-s)$ it lends out to NABARD. If $s = 1$, then the bank is meeting its stipulated target for priority lending. As s falls towards zero, the bank is defaulting more and more. Let r_a be the expected rate of return to the commercial bank from direct loans to the priority sector net of transaction costs. In the interest of clarity, we assume that r_a is fixed.

ND’s interest rate policy for banks is captured by the function $r_d(1-s)$, $r'_d(1-s) = \partial r_d / \partial (1-s) < 0$. More precisely, ND pays higher interest rates as the bank is closer to its stipulated target of meeting priority sector lending norms. Any given commercial bank’s revenue from the priority sector lending is the sum of earnings from direct loans and loans to ND. This can be represented as

$$r_a s + r_d (1-s) (1-s) \dots\dots\dots (1)$$

The major component of a bank's cost involves the interest paid to the public for its deposits with the bank. Let us assume that the commercial bank pays an interest rate r_b on these deposits.

Then the commercial bank’s objective is

$$Max \quad r_a s + r_d (1-s) (1-s) - r_b \dots\dots\dots (2)$$

The FOC for the exercise is

$$r_a = r'_d (1-s) (1-s) + r_d (1-s) = MR_d \dots\dots\dots (3)$$

⁴ Once can consider this as priority sector lending amount as well. Arguments to follow remain valid.

Figure 3.1: Equilibrium of a Single Commercial Bank Given ND's Interest Rate Policy

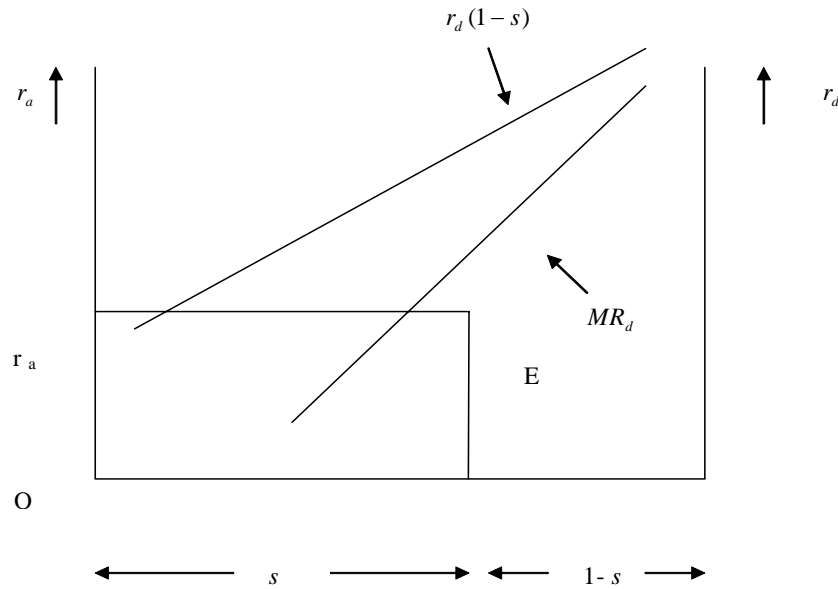


Figure 3.1 (or equation (2)) represents the equilibrium of a single commercial bank, given **ND**'s interest rate policy. However, there are many commercial banks in the economy. Let us denote the number of such banks by N . WLOG let us assume that all such banks are identical⁵. Given the nature of the equilibrium, the aggregate direct supply of loans to priority sector by the commercial banks is $Ns=S$ (say). From above, as a first step, one can write this aggregate supply as a function $S = S(r_a; r_d(1-s))$. This function recognizes the fact that the entire interest rate policy of **ND** enters the aggregate direct supply function representing lending to the priority sector. We next recognize the fact that **ND** being the monopoly demander of funds in the market where there is excess supply of funds, it can alter the interest rate structure. This is captured by modifying the supply function by incorporating α as $S = S(r_a; \alpha r_d(1-s))$ where α is a positive parameter that will be used to denote shifts in **ND**'s interest rate policy. With this modification we arrive at an aggregate direct supply function of the commercial banks to the priority sector. It rises with r_a and shifts to the left with α (Figure 3.2).

⁵ Results do not alter substantially if heterogeneity amongst banks is assumed.

Figure 3.2: Equilibrium of a Single Commercial Bank Given ND's Interest Rate Policy

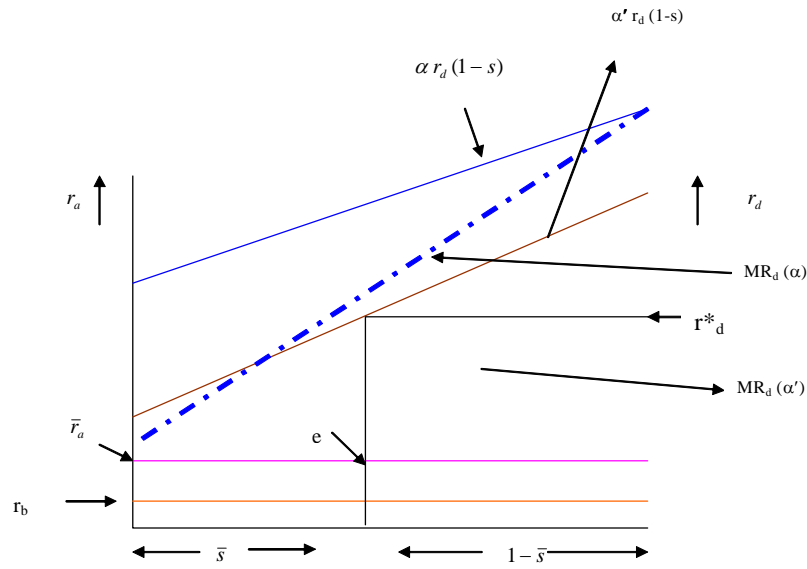
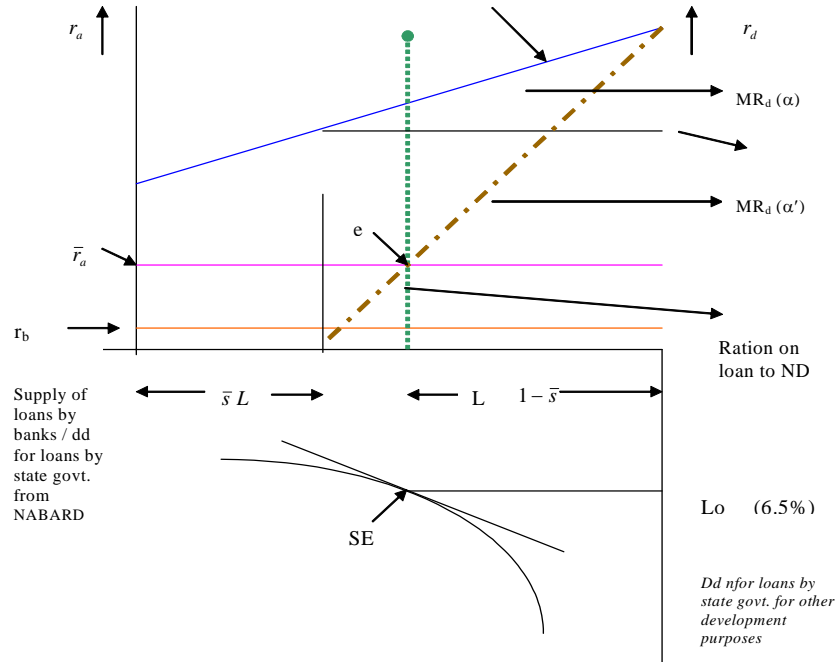


Figure 3.3: Equilibrium of a Single Commercial Bank Given ND's Interest Rate Policy



Now, let us suppose, to begin with, r_a is so low that it does not intersect the $MR_d(\alpha)$ curve. This implies that the entire amount is going to ND only ($\bar{s} = 0$). However, ND can then adjust α and reduce it to α' , so as to get the optimality condition satisfied at a point 'e', such that the demand for loan is equal to the supply⁶ (the new MR_d line w.r.t α' i.e., $MR_d(\alpha')$ is shown by the dashed line). At 'e' funds directed towards RIDF is $(1 - \bar{s}) < 1$.

The figure 3.2 shows the supply-side scenario. We need to bring now the demand for loans coming from the state government. We make the standard assumption that the demand for funds is a decreasing function of the rate of interest.

Currently, the interest rate charged by ND to the state government is 6.5 per cent and the resulting equilibrium is shown.

3.4.1.3. Certain Observations

Ideally however, if NABARD is getting advantage of price discrimination while acquiring funds from the commercial banks. It should pass on the benefits in terms of charging lower interest rates to the state governments as well. Our discussion with the Panchayat Raj department officials reveal that the government is getting loans at a *lower interest rate* from the private banks under comparatively relaxed terms and conditions. In this background, it makes sense for NABARD too to see whether the rate of interest charged to the state governments can be reduced. This can again be done using price discrimination technique. We have seen through our analysis (Chapter 4) that the poorer states have lower demand for funds. Therefore, it can be considered whether they can be offered loans at a lower interest rate and thereby improve demand for funds through market mechanism rather than imposing constraints.

3.5. Utilization of the funds

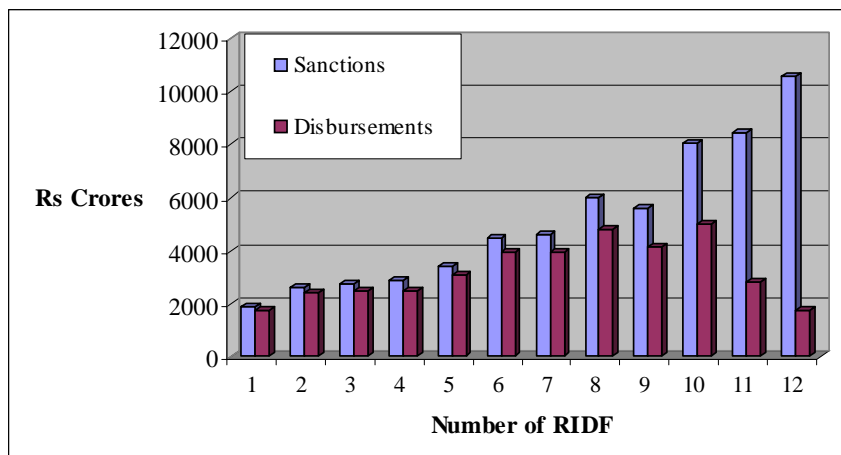
3.5.1. Sanctions and Disbursements

We have discussed above the norms for allocating funds to different states. Amongst other criteria, actual sanction of funds depends on the demand for loans under the RIDF scheme placed by a state. Though there has been some increment in the sanction of funds after the first tranche, the sanction figures remained more or less stagnant thereafter for the following three years. From the year 1999-2000 we observe a steady increase followed

⁶ We are yet to discuss the demand side picture.

by a fall last year and a sharp increase during the current year. Since contributions to the ‘fund’ are considered priority sector lending for banks, which provides them with risk-free returns, supply of funds does not appear to pose any constraint. Rather, it is possibly the demand for funds that is not forthcoming and hence fall short of the supply.

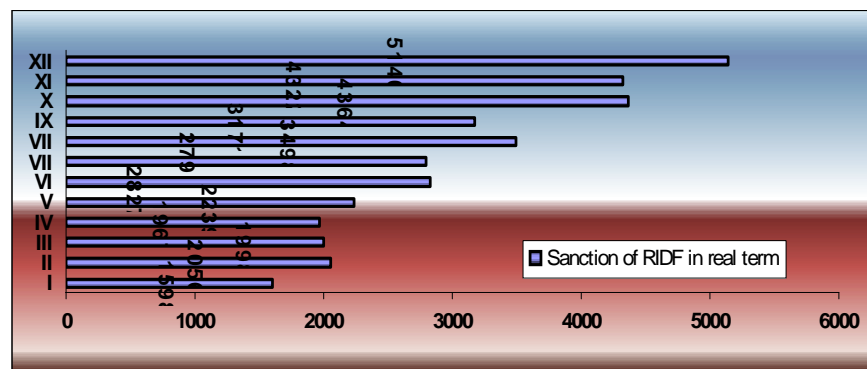
Figure 3.4: Sanctions and Disbursements of RIDF Over the Years



Source: Compiled using NABARD data, different years

In fact, conversion of nominal sanction figures (of Fig.3.4) to real terms (Fig 3.5) clearly shows negative growth rates over a number of years.

Figure 3.5: Sanction of RIDF (in Real Terms)



Source: Compiled using NABARD data, different years.

Disbursement of funds sanctioned to a project under RIDF is not automatic and paid all at once. Payment depends crucially on the progress of the project and utilization of funds. In fact, as mentioned above, the states need to first incur expenditure and then get it reimbursed under RIDF. Statistics involving disbursement show that funds sanctioned even ten years earlier have not been fully disbursed yet (Fig. 3.1). This further shows that states may have problems in making funds available for rural infrastructure. This becomes even more clear when we look at the status of projects.

3.5.2. Status of RIDF Projects

Norms of loans under RIDF as delineated above show that the normal phasing was 2 years for RIDF-I which was extended later to 3 years for subsequent tranches. However, due to operational constraints, phasing had to be normally extended for the Tranche as a whole or for specific projects to enable state governments to complete the projects.

If we now examine the status of the projects (Table 3.3), it is observed that even after 10 years some projects have remained incomplete. In particular, about 6,000 projects taken up from RIDF I to V have remained incomplete till date. One may recall in this context that the main idea behind the introduction of RIDF was to enable the state governments to complete hitherto incomplete projects which remained so due to lack of funds. However, if projects taken up under RIDF itself remained incomplete, due to the state's inability to borrow funds under the given terms and conditions, then the whole purpose of introduction of such a scheme would become meaningless.

Table 3.3: Number of Incomplete Projects

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Total
No of sanctioned projects	4,168	8,193	14,345	6,171	12,106	43,169	24,598	20,964	19,590	17,397	30,312	42,316	243,329
No of completed project (as on 31/03/2007)	4,132	7,748	14,115	5,854	11,765	41,719	16,814	11,799	15,590	4,925	1,018	2	13,5481
No of incomplete projects	36	445	230	317	341	1,450	7,784	9,165	4,000	12,472	29,294	42,314	107,848

Source: NABARD Report, Various Years.

3.5.3. Purpose-wise Sanction of loans

We may recall that RIDF I was devoted entirely to irrigation projects and thereafter, roads and bridges were taken up for funding. Since then, across states, there has been higher emphasis on the use of funds for road development rather than for irrigation. Over time it has been observed that about 37 per cent of the funds went for road development and 34 per cent for irrigation (Table 3.4). In subsequent tranches, several other infrastructure facilities were made eligible for funding under RIDF. RIDF X further enlarged this list and introduced a whole host of services to be funded under RIDF. Though inclusion of various infrastructure services within RIDF provided opportunities to the state government to develop different infrastructural facilities under the fund, it also diluted the focus of the scheme.

Table 3.4: Share of Different Sectors in Total Loans under First Eight Tranches (till March 2003)

Sector	Amount (Rs. crores)	% of total
Roads	10,898.27	37
Irrigation	10,105.84	34.3
Bridges	36,56.57	12.4
Watershed	508.61	1.7
Power sector	10,53.34	3.6
Rural drinking water	1,147.89	3.9
Others	2,104.78	7.1
Total	29,475.3	100

Source: Compiled using NABARD data, Various Years.

3.5.4. Sanction of Funds to Local Level Institutions

It was decided in 1999 that RIDF could be given to local level institutions like the Panchayati Raj Institution (PRI) or prominent self-help groups (SHG) of the locality. The respective state government remained the guarantor of the loan taken. One of the main objectives of making funds available to local level institutions has to ensure efficient utilization of funds. Since local governments themselves were stakeholders one might expect funds to be employed according to the local needs. During the first year, one observed as high as 17 per cent of funds diverted to the local level institutions. However, over time this share showed considerable decline, even in absolute levels (Table 3.5). From about 500 crores in 2001-02, funds diverted to PRIs declined to about 50 crores in the subsequent two years.

**Table 3.5: Sanction of Funds to Local Level Institutions
(Rs. Crore)**

RIDF	Sanctions (Rs. Crore)	Out of That for PRIs/SHGs/NGOs	Percentage Share of PRIs/SHGs/NGOs
V	3,434.52	581.09	17
VI	4,489.11	728.73	16
VII	4,582.32	555.55	12
VIII	5,983.09	533.01	9
IX	5,585.01	42.83	1
X	8,076.67	53.84	1
XI	8,428.78	23.18	0.2
XII	10,555.24	6.29	0.5
Total	61,312.27	2,524.52	4

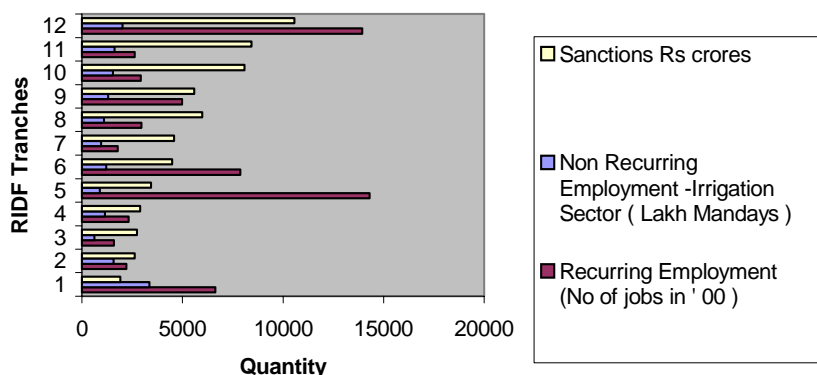
Source: Computed using NABARD data, Various Years.

It has been observed by a number of authors that state level functionaries are often hesitant to handover the financial and functional powers to local governments (Mathur 2003). In case of RIDF also we observe a similar tendency.

3.5.5. Employment Generation

In addition to facilitating better connectivity, infrastructure development also helps the rural youth, especially the poor to improve their employment status. NABARD, for instance estimated nearly five million recurring jobs to have been created in the process of utilization of funds. Furthermore, it claimed creation of 2,323 million days of non-recurring jobs during the last 10 years. Across states, however, there is substantial variation between utilization of funds and creation of employment. Furthermore, the relation between loan amount and creation of recurring employment over the years is rather poor at the national level.

Figure 3.6 shows that there is a sudden jump in creation of employment during RIDF V even though no such jump has been experienced in sanction of loans either during RIDF V or any of the previous tranches.

Fig 3.6: Employment Generation Through RIDF Projects

Source: Compiled using NABARD data, Various Years.

In fact, correlation between sanction of funds and generation of recurring employment is negative (-.13, though not statistically significant)⁷, indicating greater flow of funds accompanied by lesser recurring employment.

Though the number of observations is small and correlation is not statistically significant, a negative correlation gives a counter intuitive result. *Non-recurring employment, on the other hand, shows positive correlation with sanction of funds. Thus utilization of funds may have provided more opportunity for non-recurring employment.*

3.5.6. Physical Achievements

Physical achievements through RIDF have been recorded mainly for irrigation facilities and roads and bridges. As noted earlier, flow of funds from RIDF is mainly concentrated in these three sectors. Physical achievement with regards to creation of irrigation facilities is given as irrigation potential created in million hectares (see, Table A3.2). During the year of initiation of the RIDF scheme, maximum levels of irrigation potential have been created. This is mainly due to the reason that RIDF I was focused only on irrigation. Once roads and bridges were incorporated under the purview of RIDF, one noticed a sharp decline in the creation of irrigation potential through RIDF. Furthermore, correlation between total sanction of loans (for all purposes) and creation of irrigation facilities was also negative (-0.23) though statistically insignificant. This indicates that proportionately

⁷ Correlation computed with lagged values also show no positive relation.

fewer resources were allocated towards creation of irrigation facilities. On the other hand, from RIDF II onwards there has been more or less a steady increment in the creation of roads and bridges under RIDF (except during RIDF IX). Loan sanctioned and creation of roads and bridges show a positive correlation (0.55, significant at 10 per cent level).

3.6. Conclusion

The concept of RIDF has been developed to enable the states to obtain funds for rural infrastructure development and at the same time to help commercial banks to meet priority sector lending norms. It is interesting to note, however, that presently, with the flexible interest rate regime, banks are ready to lend to the state at a lower interest rate than that of NABARD⁸. Furthermore, a bank's direct loan to a state government is not on reimbursement basis. Thus, a state government has every incentive to borrow directly from a commercial bank for the same infrastructure development project than going through the NABARD. However, for the bank, as the loan is not routed through NABARD, it will not be considered priority sector lending.

Secondly, special attention should be given to incomplete projects under RIDF. Since loans are disbursed on reimbursement basis, due to lack of funds, projects often get delayed and the cost escalation occurs. Unless there is further support for meeting the increased cost, the projects may remain incomplete. This is one of the major problems with RIDF, as stated by one of the government officials in Karnataka involved with RIDF projects. Preference is, therefore, given to improve rural infrastructure through central government schemes like Prime Minister's Gram Sadak Yojana (PMGSY). Unless the problem of completion of projects in time is tackled by both the borrower and the lender through a combined effort, we will be back at square one. Since the state government is the borrower and the implementing body, continued discussion between the loan sanctions authority and the state is necessary; otherwise, the entire purpose of initiating such a fund is defeated.

Furthermore, involving the other stakeholders like residents and local self-governments in project formulation and implementation is also quite essential. Only then can the limited resources be utilized in a most optimal manner.

⁸ As revealed during our discussions with the government officials.

APPENDICES

Table A3.1: Agricultural and Priority Sector Credit Disbursed by Commercial Banks: All India

Year	Agricultural Credit as Percentage of Total Credit	Priority Sector Credit as % of Total Credit
1995	14.1	36.8
1996	14.3	37.8
1997	16.3	41.7
1998	15.7	41.8
1999	16.3	43.5
2002	15.3	43.5
2003	10.8	---

Source: Statistical Tables Relating to Banks, Reserve Bank of India, Various Years.

Table A3.2: Details of Sanctions and Disbursements under RIDF: All India RIDF at a Glance, As on 31st March 2005.

Sl. No.	Particulars	RIDF -I	RIDF -II	RIDF -III	RIDF -IV	RIDF -V	RIDF -VI	RIDF -VII	RIDF -VIII	RIDF -IX	RIDF -X	RIDF -XI	RIDF -XII	RIDF -XIII	Total
1	Corpus	2,000	2,500	2,500	3,000	3,500	4,500	5,000	5,500	5,500	8,000	8,000	10,000	12,000	72,000
2	States (No.)	21	16	21	23	25	25	23	25	26	25	26	27	-	-
3	No. of projects sanctioned	4,168	8,193	14,345	6,171	12,106	43,169	24,598	20,964	19,590	17,397	30,312	42,316	-	243,329
4	No. of projects completed	4,132	7,748	14,115	5854	11,765	41,719	16,814	11,799	15,590	4,925	1,018	2	-	135,481
5	No of PCRs Received	4,124	7,677	13,921	5,620	11,158	40,842	14,841	9,192	15,106	4,333	688	0	-	127,502
6	Sanction (Rs. crores)	1,910.54	2,636.08	2,732.69	2,902.55	3,434.52	4,489.11	4,582.32	5,983.09	5,585.01	8,076.67	8,428.78	10,555.24	-	-
	Share of PRIs/ SHGs/NGOs	-	-	-	-	581.09	728.73	555.55	533.01	42.83	53.84	23.18	6.29	-	2,524.52
7	Disbursements (Rs. crores)	1,760.87	2,397.95	2,453.5	2,482	3,054.96	3,962.26	3,968.08	4,827.15	4,117.08	4,982.83	2,820.88	1,754.23	-	38,581.82
8	Anticipated benefits														
i)	Creation of Irrigation Potential (Million ha.)	2.08	0.62	0.78	0.52	0.98	0.79	0.63	0.78	1.18	0.75	1.51	1.15	-	11.77
a)	Recurring Employment (No. of jobs)	661,774	220,697	159,153	232,477	1,430,253	787,481	178,865	295,878	497,389	292,024	263,002	1,392,814	-	6411877
b)	Non-Recurring Employment - Irrigation Sector (Million Mandays)	336.68	157.46	61.29	113.74	88.87	120.59	96.76	109.28	130.89	153.62	161.96	202.36	-	1,733.5
c)	Value of Production (Rs. crores)	2,597	931	748	689	1198	851	714	915	1,198	1142	1167	1362	-	13512
ii)	Rural Road Length (Kilometers)	96	16,029	18,404	19,286	19,046	23,813	20,718	21,972	11,344	25,108	24,499	23,086	-	223464
iii)	Bridges (Meters)	-	24,391	34,150	40,668	39,648	36,904	38,378	42,977	33,168	34,680	39,669	35,584	-	400217
iv)	Number of Bridges	17	383	1381	755	756	694	3524	844	523	455	-	-	-	-
v)	Non-Recurring Employment Roads and Bridges (Million Mandays)	11.41	166.12	146.68	148.11	195.64	190.63	253.99	191.68	125.06	318.72	356.07	251.69	-	2355.8

Source: NABARD, www.nabard.org

CHAPTER IV

FLOW OF FUNDS TO DIFFERENT STATES IN INDIA

4.1. Introduction

In the previous chapter we looked at the basic features of RIDF and its utilization from a macroeconomic perspective. It was observed that the flow of funds in real terms was not uniformly increasing over time. In some years, there were substantial decline. Thus, it appears that even though a great improvement is needed in the rural infrastructural front, the demand for funds to improve the same is far from overwhelming. This is mainly because funds are sanctioned on the terms and conditions of loans at market interest rates. Given the dismal financial situation of most of the states, many states may be unable to take up this financial burden. Notwithstanding this, there have been some physical achievements concerning rural irrigation as well as rural roads and bridges. Such achievements, however, are not uniform across different states and regions of the nation. In this chapter we make a disaggregated state-level analysis of flow of funds across different sectors and the resulting physical achievements. In particular, we like to examine whether there is any relation between the flow of funds to a region and the status of rural infrastructure. More precisely, have the funds been allocated to the most deserving regions or have they been concentrated more in rural areas which are comparatively better-off? “The success of schemes like RIDF in redressing inter-state inequalities and imbalances would depend on the cross state pattern of utilization of the fund” (Ahluwalia 2000; Rajaraman 2003). An attempt to examine this necessitates a comparison across rural regions in terms of different infrastructure-related indicators and fund utilization. This exercise is important because we very frequently encounter rural vs urban comparisons, while another vital aspect, the intra-rural disparity, is often not brought out.

4.2. Allocation of Funds

Ideally, allocation of funds for any purpose should be need-based. The need for funds for rural infrastructure development, in turn, depends on the status of rural infrastructure and the economic and social situations of the rural poor. However, we recognize that for this ‘need’ to transform into *demand* for funds under RIDF, financial viability of the borrower becomes crucial.

4.2.1. Demand for Infrastructure

Infrastructure is a public good which depicts the characteristics of 'non-excludability'. Since once a good or service is provided everyone enjoys it regardless of who has paid for the service, the moral hazard problem comes to the fore in determining the demand for it by those who are going to consume it. People would always like to enjoy the services of a public good without making any payment for it. In other words, the *demand for a good*, which is, *a desire backed by adequate purchasing power*, cannot be determined precisely for a public good as can be done for a private good. Thus, provision of public good falls under the purview of the state. Precisely because of this, there is little sense in talking about demand for rural infrastructure as well. One can, however, talk about *adequacy* of such services and get an indirect estimate of the need, at least in comparative terms. This can be done by using certain proxy variables. Before going into the question of adequacy and its relation with the flow of funds from RIDF, in order to put the issues in perspective, we first look at the comparative picture of allocation of funds across states.

4.3. State-wise Distribution of Total Loans

We first concentrate on the loans sanctioned to different states in India. Table 4.1 clearly depicts the comparative scenario.

The aggregate picture shows that there is a wide range of variations across states, with Andhra Pradesh receiving the highest amount of loans crossing Rs 6,040 crores. In fact, loans sanctioned to Andhra Pradesh are 1.6 times higher than that of Uttar Pradesh which ranks second in terms of funds sanctioned and around 2.5 times more than of state like Madhya Pradesh which has much larger rural area. North-eastern states like Assam receives grants 9 times lower than that of AP and we observe that Bihar is also similarly placed. Since this is a demand-driven scheme one cannot expect that allocations across states will follow a definite pattern (Rajaraman 2003). Initiatives lay on the borrowing agents; in this case the state governments. Notwithstanding this fact, inter-state variations provide important insights into the use of this fund for rural infrastructure development across regions.

A careful examination of the year-wise figures further reveals that total sanction of loans to some of the north eastern states in several tranches are zero or negligible. Ironically, some of these states have the worst road connectivity and, therefore, need maximum funds for infrastructure development. In fact, total loans sanctioned to the top 14 states in terms of

ranks is more than 4 times that allotted to the 14 states in the bottom half. Inclusion of Bihar, Jharkhand, the North Eastern States, Jammu and Kashmir in the lower 14 groups clearly reveals that some of the infrastructure-wise backward states have also not been able to avail this loan facility.

Table 4.1: Total Loans Sanctioned Under RIDF I to XII Across States (In Crores of Rupees)

States	Total Loan Sanctioned over the Tranches I to XII	Disbursements
Manipur	45.09	10.51
Goa	66.76	44.72
Sikkim	78.74	61.3
Mizoram	117.64	107.8
Nagaland	186.31	115.5
Meghalaya	195.45	130.87
Tripura	315.64	115.94
Arunachal Pradesh	507.53	238.2
Uttarakhand	761.19	558.22
Jharkhand	876.65	403.46
Chattisgarh	1,331.9	930.76
Assam	1,344.35	608.84
Himachal Pradesh	1,513.09	1,047.26
Haryana	1,547.72	1,059.48
Jammu & Kashmir	1,558.19	992.82
Bihar	1,774.38	450.35
Kerala	1,818.64	1,150.28
Punjab	2,518.4	1,720.28
Orissa	2,752.27	1,505.61
Karnataka	3,293.79	2,229.51
Rajasthan	3,473.14	2,191.09
Maharashtra	3,609.76	2,467.72
West Bengal	3,956.02	2,406.08
Madhya Pradesh	4,213.72	2,780.5
Tamil Nadu	4,509.92	2,985.66
Uttar Pradesh	5,127.57	3,368.06
Gujarat	5,667.74	3,777.4
Andhra Pradesh	8,150.67	5,123.6
Grand Total	61,312.27	38,581.82

Source: Compiled using NABARD Reports, Various Years.

From Table 4.1 we observe that comparatively richer states take the higher share of the loan, and consequently, actual computation of correlation between per capita income of a state and the share of total loans sanctioned for a total of 27 states shows that it is positive and equal to 0.025, but not statistically significant. This issue, however, will be examined in some detail in the subsequent sections by taking into consideration the appropriate indicators. One may argue in this context that flow of funds depends on geographical area and size of rural population.

**Table 4.2: Total Loans (from RIDF I to X) in Rs crores,
Per Sq. Km of Rural Areas**

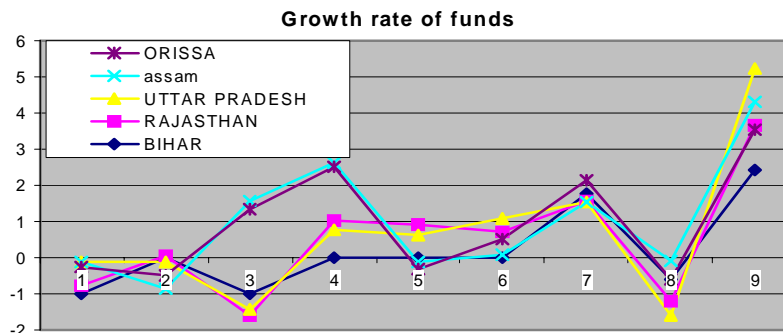
States	Total Loans From RIDF I To X/Rural Area in Sq Km
Mizoram	0.0040
Jammu and Kashmir	0.0052
Bihar	0.0057
Meghalaya	0.0062
Rajasthan	0.0063
Nagaland	0.0065
Madhya Pradesh	0.0068
Assam	0.008501
Chattisgarh	0.0087
Jharkhand	0.008783
Orissa	0.0095
Arunachal	0.0099
Karnataka	0.0103
Maharashtra	0.0112
Manipur	0.0122
Uttar Pradesh	0.0140
Uttaranchal	0.0140
Gujarat	0.0144
Himachal Pradesh	0.0178
Tamil Nadu	0.0201
Andhra Pradesh	0.0215
Haryana	0.0262
West Bengal	0.0352
Kerala	0.0377
Punjab	0.0395
Tripura	0.078867
Goa	0.4237

In order to measure adequacy of funds for roads and irrigation purposes, the rural area appears to be a better indicator, while population is a better indicator for schools, health centres etc. As RIDF is mostly used for roads and irrigation facilities, we consider loans per hectare of rural area to compare the flow of funds across different states (Table 4.2). Though the rankings of the states change to some extent, some of the comparatively better-off states like Punjab, Haryana, Kerala and AP remain at the top. Furthermore, wide variations across states remain even when we look at the loans per unit of rural area. Coefficient of variation in this case is 2.33, which indicates presence of significant variations.

4.3.1. Growth Rate of Funds

The above information presents an aggregate picture of the last 10 tranches. We next tried to examine the year-wise sanction of loans through their growth rates. Interestingly enough, growth rates show a highly fluctuating trend for most of the states at current prices. Average growth rates of loans sanctioned under different tranches, across states vary considerably from negative growth for certain states (even at current prices, e.g. in Orissa) to 50 per cent to 100 per cent growth rates for some of the developed states. In Fig 4.1 below we have shown growth rates of sanctioned loans over the last 10 years for a few selected states. High oscillation of growth of loans between positive and negative values is prominent which can be seen in Fig 4.1. Lack of any consistent trend leads to the suspicion that demand for loans may have been made in an unplanned and rather ad hoc manner. Planned utilization of resources is expected to demonstrate a comparatively steady trend.

Fig 4.1: Simple Annual Growth Rate of Funds (at Current Prices) from RIDF I to X Across Selected States

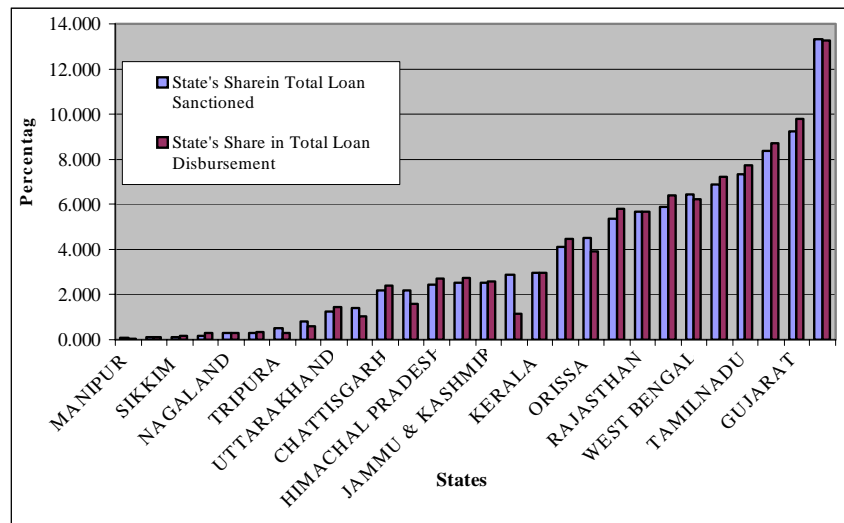


Source: Compiled using NABARD data.

4.3.2. Sanctions vs Disbursements

A closer look at the total RIDF sanctions and disbursement statistics (Fig. 4.2) for 16 major borrower states brings out that Andhra Pradesh has the highest share followed by Uttar Pradesh, Maharashtra and Gujarat. Karnataka's position is below most south Indian states except for Kerala. Though for Tamil Nadu, the sanctioned loan is comparatively not high, disbursement is relatively high. Andhra Pradesh tops the list in terms of disbursement also (details of all states has been presented in the Table A4.1). While AP takes away about 13 per cent of sanctioned loans, its share in total disbursement across states is 11 per cent. There are some states that have disbursement shares higher than the sanction shares (e.g. UP, Rajasthan, Tamil Nadu, Karnataka and so on). Since disbursement depends on the progress of the project work, this implies Government is relatively prompt in carrying out the proposed projects.

Fig 4.2: Shares of Sanctions and Disbursements of Total RIDF Loans (RIDF I to IX, for Selected States) of Each State to Total RIDF Loans Sanctioned and Disbursed for All States



Source: Compiled using NABARD Reports, various years.

Table 4.3: Total Disbursements of Loans (Column 4) as Percentage of Loans Sanctioned under RIDF I to XII.

States	State's Share in Total Loan Sanctioned	State's Share in Total Loan Disbursement	Disbursement of Loan (in per cent)Sanctioned
1	2	3	4
Manipur	0.074	0.027	23.31
Goa	0.109	0.116	66.99
Sikkim	0.128	0.159	77.85
Mizoram	0.192	0.279	91.64
Nagaland	0.304	0.299	61.99
Meghalaya	0.319	0.339	66.96
Tripura	0.515	0.301	36.73
Arunachal Pradesh	0.828	0.617	46.93
Uttarakhand	1.241	1.447	73.34
Jharkhand	1.430	1.046	46.02
Chattisgarh	2.172	2.412	69.88
Assam	2.193	1.578	45.29
Himachal Pradesh	2.468	2.714	69.21
Haryana	2.524	2.746	68.45
Jammu & Kashmir	2.541	2.573	63.72
Bihar	2.894	1.167	25.38
Kerala	2.966	2.981	63.25
Punjab	4.107	4.459	68.31
Orissa	4.489	3.902	54.70
Karnataka	5.372	5.779	67.69
Rajasthan	5.665	5.679	63.09
Maharashtra	5.888	6.396	68.36
West Bengal	6.452	6.236	60.82
Madhya Pradesh	6.873	7.207	65.99
Tamil Nadu	7.356	7.739	66.20
Uttar Pradesh	8.363	8.730	65.69
Gujarat	9.244	9.791	66.65
Andhra Pradesh	13.294	13.280	62.86
Grand Total	100	100	62.93

Source: Compiled using NABARD Reports, various years.

We next look at the disbursement share per rupee of loans sanctioned across different states. As can be seen, these shares vary

considerably across states. Interestingly, some of the poorer states like U.P., Rajasthan and Orissa show comparatively higher rates of disbursement.

Disbursement of funds sanctioned to a state under RIDF is not automatic and at one go. It depends crucially on the progress of the project and the utilization of funds. In fact, as mentioned above, the states need to first incur expenditure and then get it reimbursed under RIDF. A higher percentage of disbursement implies that a state has been able to carry out the developmental work and payments have been made for the same. Lower disbursement, on the other hand, indicates that even after the sanction of projects and availability of the required funds through loan facility, the state faces problems in completing the project. Usually, a project is expected to be complete within 3 years. According to this rule, disbursement shares should have been almost 100 per cent. However, we have noted in the previous chapter that even the funds sanctioned under RIDF I have not been fully utilized by some states. Table 4.3 identifies the states which need to be monitored carefully in terms of use of loans. In particular, states which have not been able to utilize even 50 per cent of the loans sanctioned need to be examined properly before disbursing new loans. There is no point in sanctioning funds unless they can be utilized effectively.

Table 4.4: Correlation of Rural Poverty with Different Infrastructure Deficiency Indices

Deprivation indices	Correlation
Roads	0.615
Telecom	0.655
Power	0.925
Overall	0.832

Source: NCAER, 2006.

4.4. General Indicators of Infrastructure Deficiency

RIDF is mainly used to establish two major items of rural infrastructures, viz., roads and irrigation facilities. One can arrive at deficiency indicators based on these two infrastructures by using measures like ‘percentage of villages not connected by roads’ or ‘percentage of net or gross sown area not covered by irrigation facilities’. Such an exercise has been carried out in the next section. In this section, we like to consider some general measures of deficiency and the need for infrastructure. In this context, rural poverty can be considered an indirect but relevant indicator of the need for infrastructure.

Strong positive correlation between rural poverty and deficiency of infrastructure is a well-established phenomenon. For example, a recent report from NCAER titled “*India Rural Infrastructure Report*” (2006) shows that with different infrastructure deficiency indices, rural poverty is positively correlated (Table 4.4).

In other words, higher the deficiency of infrastructure, higher is the *poverty rate and vice versa*. Rajaraman (2003), in this context, remarks that there are established empirical evidences on the positive growth and poverty eradication outcomes of investment in rural infrastructure, and on higher incremental returns to infrastructure provision in relatively poorly endowed regions. These findings hold good not only in the case of India but also in the case of other developing nations as well (Binswanger *et al* 1989; Ahmed and Hossain 1990; Fan *et al* 2000; Fan and Hazell 2001). Thus, one can argue that poverty rate gives an indication of the extent of the need for infrastructure. Infrastructure like irrigation facilities or rural roads can reduce overall cost of irrigation and an enhanced connectivity can offer better marketing possibilities. These measures can check further deterioration in the economic status of the poor. If we accept this line of argument, we can then examine whether regions with higher levels of rural poverty get better allocation of funds for infrastructure development.

4.4.1. Rural Poverty

Rural poverty rates for different states of India has been shown in Table 4.5.

If we assume that poverty and lack of good infrastructure are positively related then we can consider these rates as indirect indicators of the adequacy of rural infrastructure or, conversely, improvement of infrastructure in comparatively poorer regions can help in the reduction of rural poverty and income inequality across rural regions. Furthermore, if one looks at the remark of the then Finance Minister (see, Chapter III) before the introduction of RIDF, one of the prime motives for introducing RIDF was to be able to increase the income of the rural poor. In this background, we should expect the poorer regions to receive higher allocations of funds. In other words, do states with higher poverty rates use more funds for rural development?

Table 4.5: Rural Poverty Rates (in Percent), 30 Days Recall, 1999-2000

States	Poverty Rates	States	Poverty Rates
Goa	1.35	West Bengal	31.85
Jammu & Kashmir	3.97	Madhya Pradesh	37.06
Punjab	6.35	Manipur	40.04
Himachal Pradesh	7.94	Meghalaya	40.04
Haryana	8.27	Mizoram	40.04
Kerala	9.38	Nagaland 5	40.04
Andhra Pradesh	11.05	Sikkim	40.04
Gujarat	13.17	Tripura	40.04
Rajasthan	13.74	Arunachal Pradesh	40.4
Karnataka	17.38	Assam	40.4
Tamil Nadu	20.55	Bihar	44.3
Maharashtra	23.72	Jharkhand	44.3
Uttar Pradesh	31.22	Orissa	48.01

Source: Jha (2002).

4.4.2. Relation between Rural Poverty Rates and Flow of Funds

In order to examine the relation between poverty rates (of the states) and the flow of funds through RIDF, we have considered the states in terms of RIDF loans sanctioned per hectare of rural area¹ and rural poverty rates. Out of a total of 28 states, the top 14 have been placed in the category 'high' and the lower 14 in the category 'low'. Comparison of the poverty rates and flow of funds across states reveals the following (Table 4.6).

Concentration of states around the off-diagonal in Table 4.6 clearly reveals that the states with lower poverty rates are also those which made higher demands for resources under RIDF. On the contrary, states with higher rural poverty rates are low users of RIDF for rural infrastructure developments.

¹ 'Rural population' can also be used as a normalizing factor, and has been used as such in this report. However, 'rural area' appears to be a more appropriate factor for normalization given the kind of infrastructure services involved. This has also been done in Rajaraman (2003).

Table 4.6: Classification of States With Respect to Poverty Rates and Total Loan Flow Per Hectare

		Rural Poverty Rate	
		L	H
Loan/Rural Area	L	J & K Rajasthan	MP Manipur Meghalaya Mizoram Nagaland Sikkim Tripura Arunachal Pradesh Assam Bihar Jharkhand
	H	Goa, Punjab Himachal Pradesh Haryana Kerala AP Gujarat Karnataka Maharashtra TN UP WB	Orissa Tripura

Note: L:Low, H: High

Source: Compiled using NABARD data and Jha (2002).

In fact, if we look at the correlation between the total flow of RIDF funds and rural poverty rates we observe a highly significant negative correlation (Table 4.7). In other words, higher the rates of rural poverty (indicating greater need for infrastructure) lower is the flow of funds. This may be due to the fact that the poorer states have lesser ability to borrow and thus, though there is a need, this desire is not backed by adequate purchasing power and, hence, requirements have not been transformed into demand. Even if we normalize the loan figures by **rural area or rural population**, negative relation prevails (correlation -0.36, significant at 6 per cent level) even though level of significance declines.

Table 4.7: Correlation Between Total Sanction of RIDF Loans (I to X) and Rural Poverty Rates, Across States

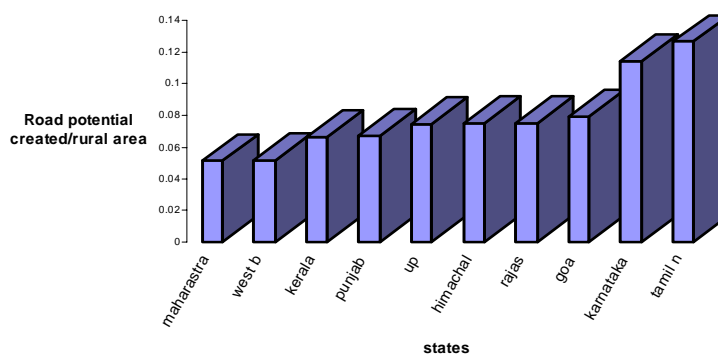
Variable 1 ↓	Variable 2 →	% of People Below Poverty Line
Total RIDF loan	Pearson Correlation	-0.402
	Sig. (2-tailed)	0.03

After looking at this general indicator and its relation with the total flow of funds we next move on to the sector-specific allocations.

4.5. Funding for Rural Roads

Creation of irrigation facilities and construction of rural roads for better connectivity are two major activities taken up through RIDF. RIDF I concentrated mainly on providing minor irrigation facilities. Thereafter, rural roads and bridges were incorporated under the purview of RIDF which now constitutes the highest share in the flow of funds across sectors. However, as expected flow of funds and hence, creation of road potential through RIDF was not uniform across regions. Comparatively, Tamil Nadu and Karnataka had created maximum road facilities through RIDF. Other such states were Maharashtra, Kerala, Goa and Punjab (Fig 4.3).

Fig.4.3: Top 10 States in Terms of Road Potential Created under RIDF I to X Per Hectare of Rural Area.



Source: Compiled using NABARD Reports, various years.

If we look at the percentage of villages connected by roads as of 1996-97 (beginning of RIDF I) we observe that Goa, Karnataka, Tamil Nadu, Punjab, Haryana, Gujrat and Andhra Pradesh were some of the well-connected states. On the other hand, Madhya Pradesh, Bihar and even West Bengal had less than 50 per cent of the villages connected. As argued above, while demand for rural roads is difficult to estimate, adequacy of the same may be proxied by the percentage villages yet to be connected by roads. Comparatively speaking, one would expect more funds to flow to the states where even 50 per cent of the villages are not connected by roads. Though the quality/ conditions of the roads may not be satisfactory even in the highly connected states, the situation is expected to be even worse for the poorly connected ones. Table 4.8 provides statistics on the percentage of villages yet to be connected by roads as of 1996-97 which can be used as a proxy indicator of inadequacy of rural roads.

Table 4.8: Percentage of Villages Yet to be Connected by Roads, 1996-97

State	Percentage of village	State	Percentage of village
Madhya Pradesh*	71.61	Maharashtra	29.23
Arunachal Pradesh	59.44	Assam	25.44
Himachal Pradesh	55.13	Sikkim	20.53
Meghalaya	54.67	Mizoram	16.69
Manipur	54.04	Andhra Pradesh	14.12
Bihar*	52.16	Nagaland	11.17
West Bengal	51.33	Gujarat	5.67
Orissa	50.86	Punjab	2.73
Uttar Pradesh*	49.59	Haryana	1.2
Tripura	49.07	Kerala	0.75
Tamil Nadu	48.82	Karnataka	0.38
Rajasthan	47.97	Goa	0.27
Jammu & Kashmir	34.19		

Note: Now bifurcated into two states.

Source: Economic Intelligence Services, CMIE, 1997.

After examining these numbers the next question that arises is, “Is the inflow of funds greater towards states with relatively inadequate connectivity?” We classify below the states according to low connectivity of villages by roads on the basis of table 4.9. The top 50 per cent of the

states are considered to be highly connected in relative terms. Similarly, road potential created through RIDF loans from I to IX are considered per hectare of rural area. In a similar manner, the top 50 per cent of the states are considered high potential created states. Table 4.9 then provides a cross classification².

Table 4.9: Classification of States with Respect to Road Potential Created Per Hectare of Rural Area and Rural Connectivity Shown in Table 4.5

		Rural Connectivity	
		L	H
Road potential created/rural area	L	MP Arunachal P Meghalaya Manipur Bihar Orissa Tripura	J & K Mizoram Haryana
	H	HP Assam WB UP Tamil Nadu Rajasthan	Maharashtra AP Nagaland Gujarat Punjab Kerala Karnataka Goa

Note: L: Low, H: High

Calculation of correlation between the inadequacy indices and potential of roads created through RIDF funds show that correlation has negative sign (-0.234, however, the coefficient is insignificant).

We now move on to the next major segment funded by the RIDF.

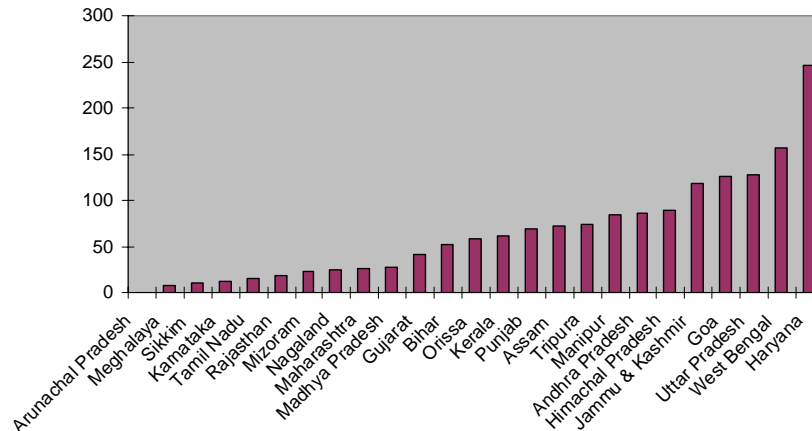
4.6. Irrigation

Next to roads and bridges, another major sector funded by RIDF is minor irrigation. If we look at the state-wise irrigation potential created through RIDF projects per hectare of net sown area we observe Haryana

² Classification with respect to gross sown area is also computed and arrived at similar findings, see, Table A4.2 in the Appendix.

is the major benefactor, followed by West Bengal and UP (Fig 4.4, See, also, Table A4.1).

Fig 4.4: Irrigation Potential Created Through RIDF I to X / NSA



Note: Y-axis showing the ratios

Source: Compiled using NABARD data, various years.

If we consider adequacy of irrigation facility across states, percentage of net irrigated area to net sown area (NSA) can be considered the proxy for the same³. Lower the percentage of irrigated area, more inadequate is the region in terms of this infrastructure. Taking this indicator into consideration, we have classified the top 50 per cent of the states as those with high adequacy and the bottom 50 per cent as those with low adequacy (Table 4.10).

Classification of states again shows concentration around the diagonal. Thus, states with inadequate infrastructure also have lower allocation of resources and thereby lower levels of creation of infrastructure facility. Computation of correlation also shows significant positive values (Table 4.11). Thus, the states with higher proportions of irrigated area also had higher allocations of funds under RIDF for the same.

³ Calculations have also been done using gross cropped area arriving at qualitatively similar results.

Table 4.10: Classification of States with Respect to Irrigation Potential Created Per Hectare of Net Sown Area and Percentage of Gross Area Irrigated⁴ (Average of Percentages Taken Over the Period of RIDF)

		Gross Area Irrigated/GSA	
		Low	High
Irrigation Potential Created /NSA	Low	Arunachal Pradesh	Tamil Nadu
		Meghalaya	Rajasthan
		Sikkim	Gujarat
		Karnataka	Bihar
		Mizoram	Nagaland
		Maharashtra	
		MP	
	High	Kerala	Orissa
		Assam	Punjab
		Tripura	Manipur
		Himachal P	AP
		Goa	J & K
			UP
			WB
	Haryana		

Table 4.11: Correlation Between ‘Irrigation Potentials Created from RIDF Loan (I to X)/NSA’ and ‘Gross Irrigated Area/GSA Average Over the Period’ Across States

Variable 1 ↓	Variable 2 →	Net Irrigated Area/NSA Average Over the Period
Irrigation potentials created from RIDF loan (I to X)/NSA	Pearson Correlation	0.483
	Sig. (2-tailed)	.01

4.7. Fiscal Deficit

So far we have been looking at the issue of adequacy on the basis of current availability of infrastructural facility in a comparative scenario.

⁴ Gross area irrigated figures are averages over the period of RIDF and have been taken from www.indiastat.com

However, in order to get inadequacy transformed into demand, adequate purchasing power is a pre-requisite. Thus, a state with poor fiscal health may not be able to transform its *need* into *demand*. Therefore, financial health of a state government appears to have bearings on the flow of funds under RIDF, as these funds fall under the purview of terms and conditions of a loan. Two relevant indicators are considered to test the relationship between fiscal health of a state and flow of funds under RIDF for rural infrastructure development, viz., total RIDF loan per hectare of rural area and gross fiscal deficit of the state per rupee of revenue earned. A bigger state with larger revenue and expenditure may be comfortable with a comparatively larger deficit. On the contrary, a smaller state with lesser revenue and expenditure may find such deficits unsustainable and may not be ready to take up fresh loans. We have, therefore, normalized the deficits by revenue earned by a state⁵.

Table 4.12: Classification of States with Respect to Gross Fiscal Deficit/Total Revenue and RIDF Loan/Rural Area

		RIDF Loan/Rural Area	
		Low	High
Gross Fiscal Deficit/ Total Revenue	Low	Meghalaya	Tripura
		MP	Goa
		Nagaland	AP
		Manipur	Karnataka
		Mizoram	
		J & K	
		Arunachal Pradesh	
	High	Sikkim	
		Rajasthan	WB
		Bihar	HP
		Assam	UP
		Orissa	
		Haryana	
		Maharashtra	
	Gujarat		
	Tamil Nadu		
	Kerala		

Source: RBI (1999-2000), Fiscal Deficit: A Study of Budgets, Flow of Funds: NABARD

⁵ Computation of Fiscal deficit as a percentage of GDP also shows similar result.

Next, the relation between fiscal deficit and flow of funds under RIDF across states is examined. States are first ranked according to these two indicators and classified into two equal groups for each indicator on the basis of these ranks. A cross tabulation of states has been presented in table 4.12.

Classification of states as top half and lower half with respect to the above-mentioned two indicators reveals their concentration around the diagonal. Thus, states with higher fiscal deficits are also the ones that are ready to borrow more funds.

Table 4.13: Correlation Between Total Gross Fiscal Deficit from 1995 to 2004 Per Rupee of Revenue Earned and Total RIDF Loan/Rural Area, Across States

Variable 1 ↓	Variable 2 →	Total of (Gross Fiscal Deficit** /Revenue Receipts)of the State Over the Years
Total RIDF Loan	Pearson correlation Sig. (2-tailed)	-0.637 0.001*

Notes: * Correlation is significant at the 0.01 level (2-tailed)

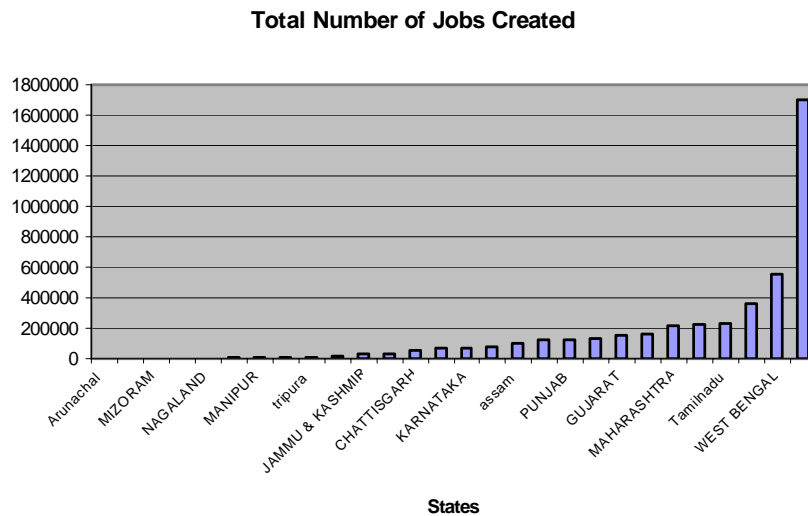
** Fiscal deficits are negative numbers

We have found that the correlation is negative and statistically significant (Table 4.13). In this context, we note that every state incurs only a deficit, not surplus. Deficits being negative numbers, this correlation imply that more loan is associated with states having greater deficit (that is smaller negative number). Our earlier analysis shows that states with higher poverty rates and comparatively less developed states, also have lower utilization of loans. This indicates that the more developed states are more proactive in the sense that in spite of having higher fiscal deficits they are ready to incur more loans for the purposes of development. Less developed states, on the other hand, are passive in this respect. From this analysis it is difficult to infer the direction of the causal relationship. It may be also noted in this context that results established through panel data analysis in Rajaraman (2003) show that RIDF disbursements have taken place in the years of fiscal stress of a state.

4.8. Employment Generation

As mentioned in the previous chapter, through projects financed by RIDF, both recurring and non-recurring jobs have been created in the respective economies (Fig. 4.5). We are more interested here in recurring jobs as they provide sources of livelihood to the people on a continuous basis. State-wise number of recurring jobs created differs significantly from state to state (Fig 4.6). However, as expected it has positive relation with the amount disbursed under RIDF (correlation positive, 0.738 and significant).

Fig. 4.5: Total number of Recurring Jobs Created under RIDF I to IX Across States

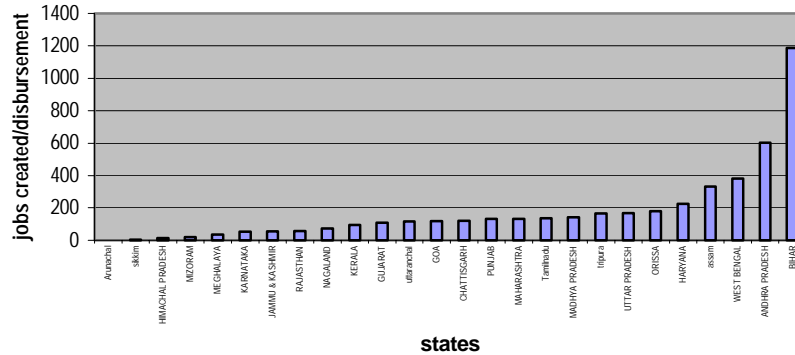


Source: Compiled using NABARD Reports, various years.

As expected from the above discussion, comparatively larger numbers of jobs are created in the regions where poverty is not acute. In other words, the higher the percentage of people below the poverty line in the rural areas, the lesser the number of jobs being created. This is indicated by negative correlation equal to -0.2, between creation of jobs and poverty rates (though not statistically significant).

Comparatively poorer states also have lower demand for loans and hence lesser sanction and disbursement. However, if we normalize the figures by disbursement, creation of recurring jobs varies significantly.

Fig.4.6: Total Number of Recurring Jobs Created (per crores of rupees of disbursement), Across States (RIDF I to IX)



Source: Compiled using NABARD Reports, various years.

Surprisingly, one can observe a positive correlation equal to 0.29, though not significant between of jobs created per crore of disbursement and rural poverty rates of the states. More precisely, higher the percentage of people below the poverty line, greater the number of jobs created per rupee of disbursement.

4.9. Conclusion

While resources from RIDF have been flowing to all states of India for rural infrastructure development, they do not follow any systematic pattern over time. From the study of growth rates of loans, it appears that loans are taken more on an *ad hoc* basis rather than on that of a well-prepared planned manner. Further, more funds are allocated to regions that are comparatively better off in terms of various indicators considered, in particular, per capita income, rural poverty or physical infrastructure. That these funds would then be successful in reducing intra-rural disparity is doubtful. Also, in the previous chapter, we have observed that the role of panchayats and other local level institutions has been diminishing over time in the utilization of funds. Therefore, whether these funds are used according to the genuine need of the rural population is an important question.

APPENDIX

Table A4.1: Classification of States with Respect to Irrigation Potential Created Per Hectare of Net Sown Area and Percentage of Net Area Irrigated (Average of Percentages Taken Over the Period of RIDF)

		Net Area Irrigated/NSA	
		Low	High
Irrigation Potential Created/NSA	Low	Arunachal	Tamil Nadu
		Meghalaya	Rajasthan
		Sikkim	MP
		Karnataka	Bihar
		Mizoram	
		Nagaland	
		Maharashtra	
	High	Kerala	Orissa
		Assam	Punjab
		Tripura	Manipur
		Himachal P	AP
		Goa	J & K
			UP
			WB
	Haryana		

Note: L: Low, H: High

CHAPTER V

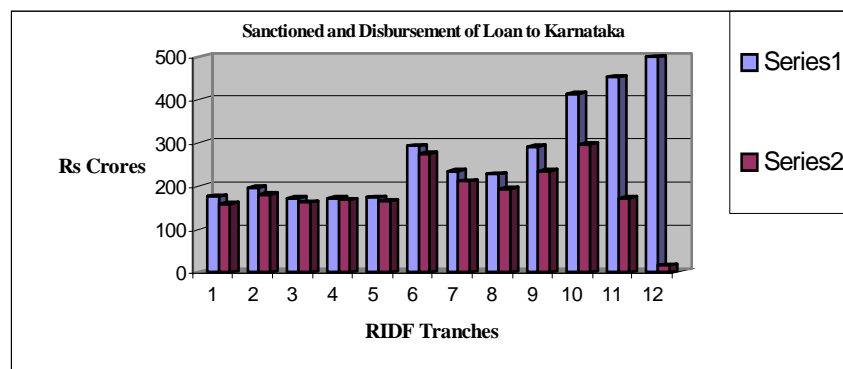
UTILIZATION OF RIDF IN KARNATAKA: A DISTRICT-LEVEL ANALYSIS

5.1. Introduction

Loans under RIDF are allocated to different states on criteria based on rural population, area and current infrastructure facilities. However, it also crucially depends on the projects submitted by the states for funding. Therefore, it becomes the responsibility of the states to come up with projects for infrastructure development for regions that are most deserving. In this context, the important question that arises is, whether appropriate projects have been conceived and the funds in turn been allocated to the right region for the right purpose? Such an evaluation necessitates a careful analysis of the flow of funds to different regions within the state.

We have seen in the previous chapter that in comparative terms the state of Karnataka is a moderate user of RIDF loans. Table 5.1 and figure 5.1 show the sanction and disbursement figures in nominal terms. They reveal that the use of RIDF remained stagnant in the state for a period of time. Furthermore, loans sanctioned during RIDF I itself have not been utilized fully while according to the norms, projects should ideally be completed within three years (see also Section 5.5).

Fig. 5.1: Sanction and Disbursement of RIDF Loan to Karnataka, in Crores of Rupees



Note: -Series 1-Sanctioned, Series 2- Disbursements

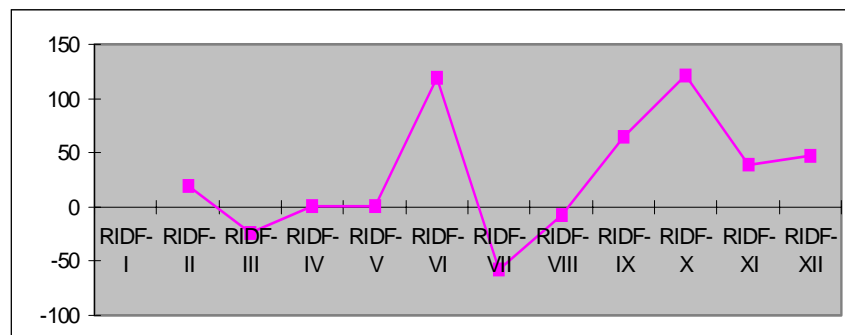
Source: -Compiled using information collected from NABARD for various years.

Table 5.1: RIDF Loan Sanction and Disbursement to Karnataka, in Cores of Rupees

	Sanction	Disbursement
RIDFI	172.63	158.79
RIDFII	195.21	180.08
RIDFIII	171.29	161.75
RIDFIV	172.34	166.54
RIDF V	173.18	164.22
RIDF VI	301.08	269.7
RIDF VII	236.77	184.67
RIDF VIII	231.03	152.64
RIDFIX	297.17	103.42
RIDF X	420.96	8.12
RIDF XI	450.95	172.21
RIDF XII	497.64	16.05

Source: NABARD Reports, various years.

If we examine the percentage increments we observe negative increment rates in certain years. It is obvious that in real terms growth rates would show a rather disappointing picture. Such fluctuating increments of loans under RIDF again (see, Chapter IV) reveal unplanned use of the funds by the state. However, we observe here that from RIDF VIII onwards there is an increasing trend.

Fig 5.2: Percentage Increment of RIDF Loan Sanctioned to Karnataka

Source: Compiled using NABARD data, various years.

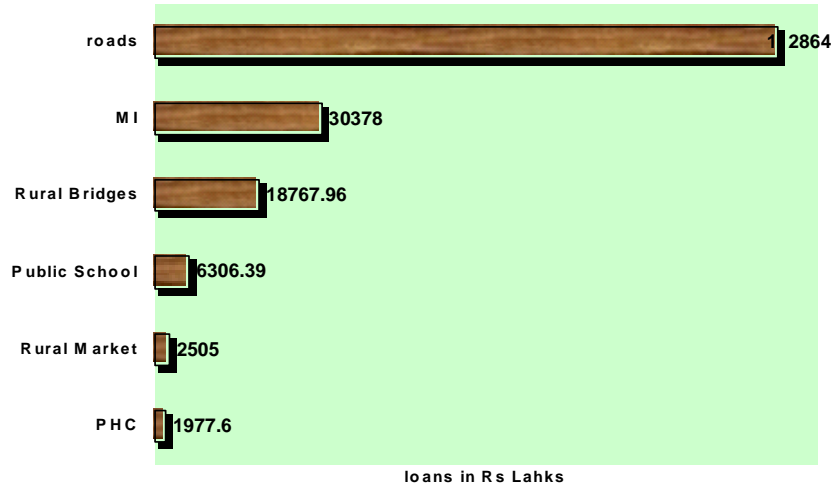
In fact, our discussions with the concerned officials reveal that the demand for RIDF was rather poor in Karnataka. This concerned both RBI and NABARD and a committee was formed with members from various banks, RBI, Government of Karnataka and NABARD to look into the matter. By the efforts of the committee, the demand for RIDF has increased of late and in Fig. 5.1 we observe a sudden jump in loan sanctions during RIDF X. This clearly indicates that there is an increase in the funds allocated for rural infrastructure development projects. Are these projects based on the needs of the region?

Ideally, all stakeholders including the representatives of the citizens themselves should be involved in finalizing a project for a region. However, projects are usually formulated centrally. Therefore, it becomes important to assess the allocations purpose-wise. Another point is worth noting here. When one considers the state level allocations, it depends on the demand for funds by the states. This demand, in turn, depends on the fiscal situation and repaying capability of the respective state governments. On the other hand, when we reflect on the district or lower level allocations within a state, the question of allocation becomes more appropriate here. In other words, if the state has already decided to borrow a particular amount, how has its distribution been planned across regions and whether will it reduce inequality? Keeping these issues in mind we examine the sectoral and regional allocation of funds.

5.2. Sectoral Allotment of Loans

As discussed above, RIDF funds are allocated for different purposes. Initially, the focus was mainly on irrigation, subsequently roads and bridges were incorporated as possible sectors. Over time, however, a large number of sectors including education, health care, *anganwadi* work, watershed development and so on have been introduced as eligible segments for funding.

It is interesting, however, to note that though in comparison with other states the irrigation facility in Karnataka is rather poor, the State is channelising more resources into development and upgradation of the roads (Fig.5.3). If we consider rural roads and bridges together, then the loans sanctioned are 4 times higher than what is normally sanctioned for irrigation. This has to be seen in the background that Karnataka has 100 per cent villages connected by roads (though the quality of the roads may not be satisfactory. One might argue here that there may be other schemes for development of irrigation infrastructure; this is also true for roads as well. Right now, two departments viz., PWD and Panchayati Raj departments take up RIDF projects for road upgradation.

Fig 5.3: RIDF Loans Sanctioned under Different Heads: I -IX

Source: Compiled using data collected from NABARD office for various years.

Rural markets, which form another important component that directly affect farmers' incomes, also get comparatively smaller share of resources. This should be expected as these sectors were not under the purview of RIDF and they became eligible for such funding only later (see Chapter 3). However, tranche-wise figures also show rather low share for other sectors in the allocation of funds.

The above discussion portrays an aggregate picture. However, information on sectoral allocation of funds to different districts of a state is also available. This has enabled us to consider a more disaggregated analysis. In particular, as mentioned above, it is of interest to examine whether the flow of funds under RIDF supports an equitable development of regions in terms of infrastructure. In an attempt to examine this issue, we next to make a district level analysis of the flow of funds.

5.3. Do More Funds Flow Towards Poorer Districts?

Beginning with the total loan that is allocated to different districts, we first rank the districts in ascending order. We observe that Bangalore urban gets the lowest amount of assistance as it comprises mainly urban regions, followed by Kodagu, and at the other end Gulbarga district gets the highest amount of assistance (Table 5.2).

Loan flow, may be higher for a district merely because the district is larger in size in terms of area or population. It is, therefore, more appropriate to talk about loan per person or per unit of rural area. The top 10 districts in terms of loans allocated per hectare of rural area shows that some of the comparatively richer districts get higher shares of the RIDF. Table 5.2 classifies the districts according to the flow of funds per rural person and per square kilometre of rural area. The top nine districts are called high receivers followed by the subsequent 9 that are medium and the bottom 9 districts that are considered as the low receivers of loans.

Table 5.2: Classification of Districts According to the Flow of Funds Loan Per Unit of Rural Area

		Loan / rural area →		
		Low	Medium	High
Loan Per Rural Person	Low	Bangalore-U, Mysore, Chamarajanagar, Tumkur, Bellary, Chitradurga	Belgaum, Kolar	Mandya
	Medium	Kodagu, Chickmagalur	Dharwad Bagalkot, Hassan, Bijapur	Dakshina Kannada, Davangere, Bangalore-R
	High	Uttara Kannada	Shimoga, Koppal, Gadag	Haveri, Udupi, Raichur, Bidar, Gulbarga

The underlying motive for development of rural infrastructure is to reduce rural poverty and improve the income level of the rural mass¹. Thus, it is expected that poor infrastructure in a rural area would lead to lower incomes for the residents. In other words, as argued in the previous chapter, income levels of rural population or poverty rates otherwise, provide an indication of *adequacy of infrastructure* facilities in the location. Stated alternatively, given our knowledge of the Indian rural sector, poorer a rural region, higher would be the need for infrastructure facilities to enhance the status of the population and thereby bringing equity across regions. This led us to look at the per capita income of the districts. More precisely, we classify the districts according to per capita income into two categories, low and high incomes (Table 5.3).

¹ See, comment of the H'ble Finance Minister in Chapter 2.

Table 5.3: Districts Classified According to Per Capita Income

Low income districts	Bidar
	Raichur
	Kolar
	Tumkur
	Gulbarga
	Gadag
	Chitradurga
	Hassan
	Bijapur
	Haveri
	Koppal
	Bangalore (R)
	Mandya
	Chamarajanagar
High Income districts	Dharwad
	Davanagere
	Bellary
	Belgaum
	Uttar Kannada
	Bagalkot
	Shimoga
	Mysore
	Chickmagalur
	Udupi
	Kodagu
	Dakshina Kannada
	Bangalore Urban

Source: Karnataka at a glance different issues

A comparison of Tables 5.2 and 5.3 reveals that

- most of the low receivers (see, Low -Low cell in Table 5.2) of loans are also low income districts barring some exceptions like Bangalore -U, Bellary and Mysore which are mainly urbanized districts;
- many districts with high loans per hectare are also richer districts; and
- if we consider loan per rural person we observe a more desirable distribution.

**Table 5.4: Total Flow of RIDF Funds from I to IX,
in Lakhs of Rupees**

Chamarajanagar	0
Kodagu	0
Mandya	0
Mysore	57.43
Bangalore Urban	153.90
Chikmangalur	218.38
Hassan	229.4
Dharwad	236.49
Kolar	300.41
Gadag	360.39
Tumkur	632.69
Bellary	633.52
Chitradurga	654.14
Davanagere	901.11
Dakshina Kannada	1080.4
Bangalore Rural	1219.88
Uttara Kannada	1231.77
Shimoga	1241.41
Udupi	1523.45
Koppal	1632.22
Bagalkot	1776.1
Raichur	1875.84
Haveri	1956.19
Belgaum	2064.85
Bidar	2330.95
Bijapur	2956.15
Gulbarga	5111.79

After observing that higher levels of funds (per hectare of rural area) are directed towards comparatively richer districts we attempt to estimate the correlation between the two variables. Ironically, the correlation between total flow of funds (from RIDF I to IX) per hectare of rural area and per capita income of a district shows a positive correlation (equals 0.692) implying that more funds flow towards richer districts and it is statistically significant. To make it complete, we next consider *rural poverty rates* across districts of Karnataka as well and estimate their correlation (see, Table A5.1 Appendix) with total allocation of funds per square kilometre

of rural area as well as per rural person. Both these correlations show positive values (*0.257 for loans per rural person and 0.343 for per unit of rural area*) but neither value is not statistically significant. While positive correlation is desirable, its rather low value in each case and resulting non-significance implies that there is no relation between loan allocation and rural poverty. While it is of some consolation that the correlation value is not negatively significant, one would expect these correlations in future to be much larger positive values that are statistically significant.

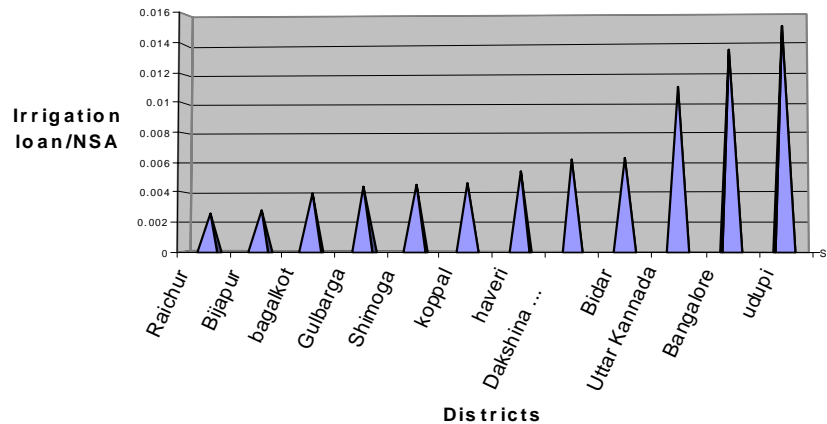
After looking at the aggregate scenario it would be of relevance to examine the component-wise allocation of funds to different locations.

5.4. Flow of Funds under Different Heads

RIDF flows mainly to two major sectors, viz., irrigation and rural roads. Availability of irrigation facility has a direct bearing on the well-being of the rural farmers, in general, and, in dry states like Karnataka, it plays a crucial role in determining the levels of income and of poverty.

5.4.1. Minor Irrigation

Fig 5.4: Top 12 Districts in Terms of Flow of Funds Towards Minor Irrigation+/- NSA*



Note: *NSA: Net sown area ,

+ RIDF total flow of funds for minor irrigation from RIDF I to IX.

Source: Compiled using data collected from NABARD office for various years

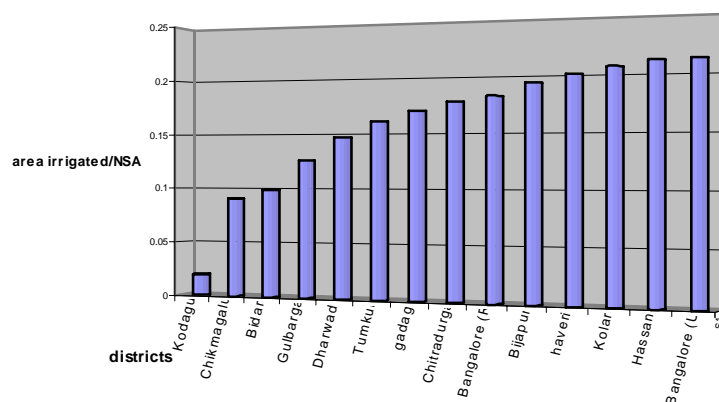
² Net sown area figures are average NSA over the years 1995-2001.

If we look at the flow of funds towards the creation of irrigation facilities, we observe wide disparity; while the largest shares of funds have gone towards Gulbarga, Bijapur, Bidar and Belgaum, some of the districts like Kodagu and Mandya have no share at all. It may be argued that a district with larger cultivated area would require more irrigation facilities and thus it is appropriate to normalize these figures by net sown area. Fig 5.4 shows 12 districts with the largest share of loans.

As before one is tempted to examine the relation between the *adequacy of infrastructure and allocation of funds*.

One of the appropriate indicators of availability of irrigation facility in a district is the area irrigated per hectare of net sown area. The following figure (Fig.5.5) depicts the lower 14 districts in terms of area irrigated per hectare of NSA.

Fig. 5.5: The lowest 14 Districts with Respect to Area Irrigated/NSA



Source: Karnataka at a Glance, 2001-02

Classifying the districts with respect to comparatively lower and higher levels of irrigation³ and loan sanctions we arrive at the following table (Table 5.5).

Large number of districts falling on the diagonal reveals a bias towards already equipped districts. Computation of correlation between the two above discussed variables show positive (0.21) though insignificant relation.

³ Top 50 per cent districts are considered to be in the high level category and the rest in the low level category.

Table 5.5: Classification of districts with respect to area irrigated and loan flow for irrigation

		Area Irrigated/ NSA	
		L	H
Loan/NSA	L	Kodagu	Chamarajanagar
		Gadag	Mandya
		Dharwad	Davanagere
		Tumkur	
		Bangalore-R	
		Bellary	
		Hassan	
		Chitradurga	
		Chickmagalur	
		Kolar	
	H	Bijapur	Belgaum
		Gulbarga	Raichur
		Haveri	Bagalkot
		Bidar	Shimoga
		Dakshina Kannada	
		Uttara Kannada	
		Bangalore Urban	
		Udupi	

It has been observed that there is a mismatch between the inadequacy of an infrastructure facility in a region and allocation of funds to the region⁴. If the state government is interested in reducing rural poverty and bringing about an equitable distribution of income, funds should be directed towards more deserving regions. Furthermore, given the status of water resources and water scarcity and drought problems in the State, more funds should be allocated towards watershed development and improving irrigation facilities. However, the State directs a larger share of resources towards roads and bridges.

5.4.2. Rural Roads

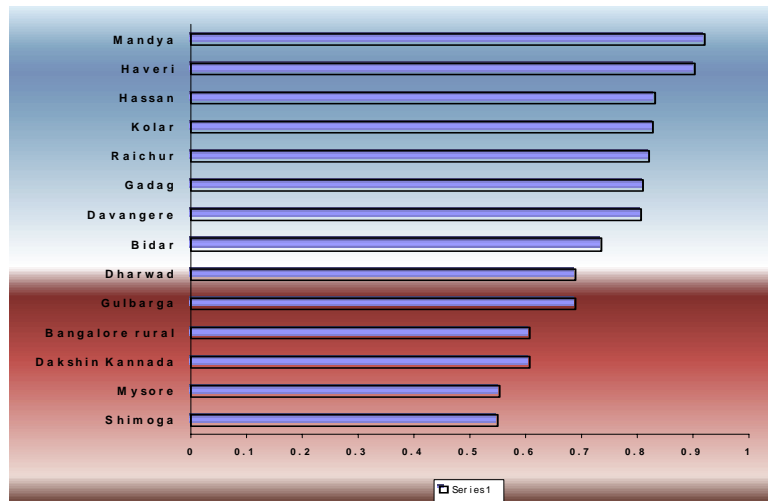
The highest proportion of RIDF is directed towards development and up gradation of rural roads and there is no denying of the importance of rural connectivity through roads and bridges. Without good connectivity,

⁴ Normalisation with gross cropped area also results qualitatively the similar results.

farmers with bumper crops may receive lower incomes due to inaccessibility of markets. It is an encouraging sign that the State Government is focused on development of rural roads through different schemes including PMGSY. Looking at the allocation of RIDF, we observe from Table 5.9 that Gulbarga district is the highest receiver of loans for rural roads followed by Kolar, Belgaum and Hassan.

On the normalization of loans for rural roads by rural area (Fig 5.6), we observe that Mandya has the highest share of loans followed by Haveri, Hassan and Kolar. Though official record maintains that 100 per cent of the villages Karnataka are connected by roads, the report of the High Power Committee for redressal of regional imbalances, GoK, mentions certain districts as below (State) average districts as far as connectivity of roads is concerned (pp. 376). Considering those districts as district with comparatively poorer road infrastructure, we arrive at the following table (Table 5.6).

Fig. 5.6: Loan for Rural Roads(in Rs crores) Per Hectare of Rural Area: Top 14 Districts

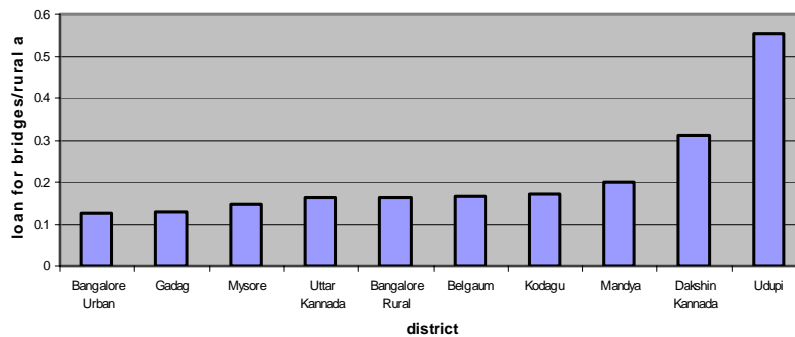


Thus, once again we arrive at a scenario of having a larger number of districts on the diagonal, whereas ideally the larger number of districts should appear on the off diagonal to show that *inadequacy and allocation of funds* move in the same direction.

Table 5.6: Classification of districts according to roads per hectare of area and RIDF loan per hectare of rural area

		RIDF loan/ rural area	
		Low	High
Road Length/Area	Low	Bijapur	Dakshina Kannada
		Chitradurga	Gulbarga
		Belgaum	Gadag
		Bagalkot	Bidar
		Koppal	Raichur
	High	Bellary	
		Udupi	
		Uttara Kannada	
		Kodagu	Mysore
		Bangalore Urban	Dharwad
	Tumkur	Bangalore R	
	Shimoga	Davangere	
		Kolar	
		Hassan	
		Haveri	
		Mandya	

Source: Compiled using data collected from NABARD for various years and Government of Karnataka, 2002b..

Fig. 5.7: Top 10 Receivers of RIDF (in Rs crores) (I to IX) for Rural Bridges Per Hectare of Rural Area

Source: Compiled using NABARD data, various years.

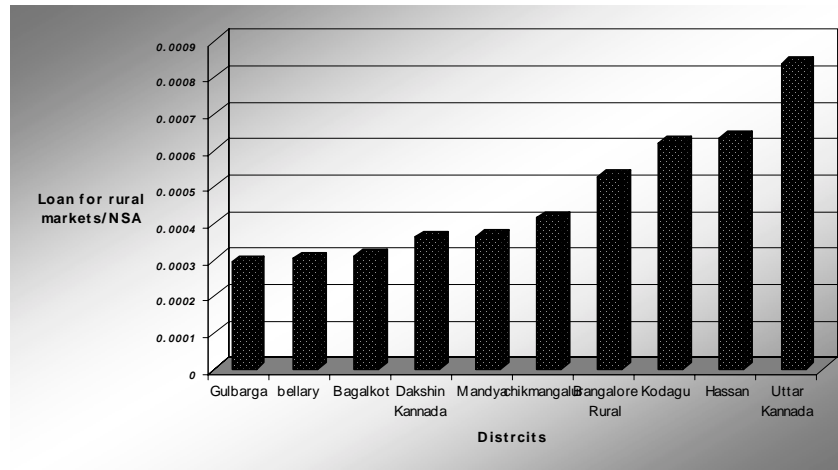
If we look at the top 10 receivers of funds for rural bridge constructions we observe that most of the districts are comparatively well-connected ones (Fig.5.7).

Except for Dakshina Kannada, Udupi and Belgaum, all other districts have comparatively better connectivity either in terms of road length per lakh population or road length per 100 kilometre (Government of Karnataka, 2002b, pp. 376).

5.4.3. Rural Markets

Though rural markets play a significant role in determining the income of the farmers only a minimal amount of RIDF has gone to this segment (see, section 5.2). If marketing facilities are not in place, farmers cannot take full advantage of connectivity. Thus, both these aspects of infrastructure should go hand in hand. However, in Karnataka, we observe a bias towards roads. Amongst the top 10 receivers of loans for rural markets Uttara Kannada tops the list (Fig. 5.8).

Fig. 5.8: Top 10 Districts in Terms of Receiving of Loans for Rural Markets Per Hectare of NSA



Source: Compiled using data collected from NABARD for various years.

Do funds flow more towards poorer districts? Amongst others, one of the main reasons for poverty is the inability to get proper value for products. Thus, more funds should flow towards the poorer districts if incomes of the poor farmers are of concern to the State. Correlation of loans/ NSA and per

capita incomes between the districts though negative in sign is also extremely low ($= -0.069$) showing no relation at all between the provision of rural markets and incomes of districts.

We have also computed correlation between allocation of funds for the rural markers per unit of gross cropped area and the rural poverty rate. Though correlation has the desirable sign ($+0.2$) its value is once again rather low and expectedly not statistically significant (significance level 0.39). This indicates that there must be directed effort to allocate funds more towards the regions with lesser resources.

In addition to these areas, scope of RIDF has been enlarged to incorporate fundings for social sectors like health and education.

5.4.4. Public Health Care

Rural health status of India characterized by striking urban-rural disparity is far from satisfactory. Infant mortality rate in urban India is about 44 per thousand live births in 1999, which increases to 75 for rural regions⁵. Similarly, mortality rate of children below the age of five is 103 per thousand for rural areas and 63 for urban India (Government of India, 2006). Though a number of Public Health Centres have been established on the basis of population size in rural areas, their functioning is far from satisfactory. The result of this has been that in many cases, diseases are neither diagnosed in their early stages nor treated. The rural population has often to travel to urban areas, which not only increases their cost but also increases complications in the patient's condition which, in many cases, could have easily been treated at the early stages (Mishra R *et al* 2003). Allocation of funds for mere construction of public health centres (PHC) often does not serve the purpose. Furthermore, while allocating funds for health care, it has to be also kept in mind that the health status of different socio economic groups differs significantly. For example, according to the National Health Policy, 2002, infant mortality rates per thousand live births was 84.2 for scheduled tribes and 61 for others⁶. Therefore, facilities must be created according to needs.

As far as allocation of loans under RIDF for Public Health facilities is concerned, it is observed that some districts have not received any loan whereas a number of districts have received the same amount as loan (Rs 19.51 lakhs). This indicates that loans may not be need-based. Of these top

⁵ Registrar General of India, Sample Registration System, Government of India, 1999.

⁶ Taken from <http://www.peoplesmarch.com/archives/2004/aug2k4/health.html>.

14 receivers, 50 per cent of the districts are the comparatively richer districts with respect to per capita income, i.e., comparatively, they are better able to afford private service.

Classification of the districts (Table 5.7) with number of PHCs per rural population and loans for PHC per rural population shows again that more districts fall on the diagonal rather than on the off-diagonal.

Table 5.7: Classification of Districts with Number of PHCs Per Rural Population and Loans for PHC Per Rural Population

		Loans for PHC/Rural Population	
		Low	High
Number of PHC/Rural Population	Low	Bidar	Belgaum
		Raichur	Haveri
		Bangalore U	Koppal
		Dharwad	Chitradurga
		Bellary	Gadag
		Bagalkot	Bijapur
		Kolar	
	High	Gulbarga	
		Tumkur	Bangalore-R
		Mandya	Shimoga
		Dakshin Kanada	Davanagere
		Chickmagalur	Hassan
		Chamarajanagar	Mysore
		Udupi	Kodagu
	Uttara Kannada		

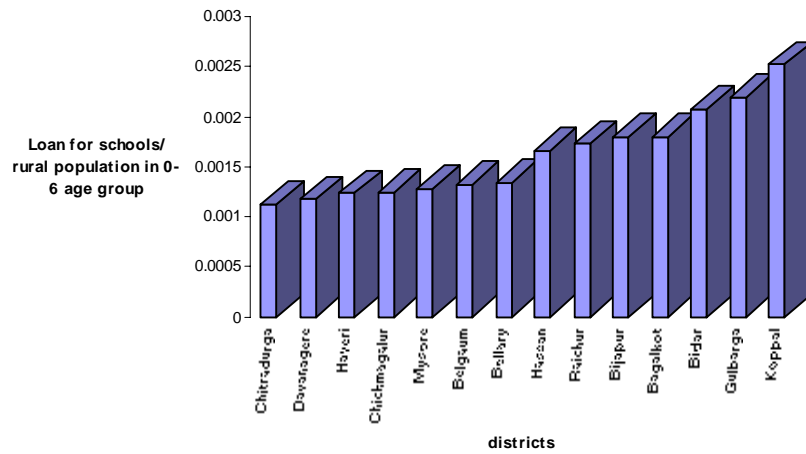
Interestingly, this correlation between the above two variables also shows a positive relation (equals 0.01) though it is statistically insignificant.

5.4.5. Funding for Public Schools under RIDF

RIDF has of late also been directed towards construction or extension of public schools.

What we observe from Fig. 5.9 is that the comparatively poorer districts (in terms of per capita income) are getting more loans towards schooling and this is an encouraging trend.

Fig 5.9: Top 14 Districts in Terms of Loans for School Per Rural Child in 0-6 Age Group



Source: Compiled using data collected from NABARD for various years.

Interestingly, for the first time we observe a negative and statistically significant correlation (equals -0.73) between rural literacy rate and loans directed towards schools across districts.

5.5. Sanction vs Disbursement

If we look at the disbursement figures as against the sanction we find that even for a limited number of districts total disbursement of loan from tranche 1 has not been fully made. We may recall in this context that expenditures have to be first incurred by the state government, who can then approach NABARD for disbursement of the loan on reimbursement basis. Unless the state government spends the money, disbursement will not take place. From Tanche VII onwards for many districts there is almost 0 per cent disbursement. This implies that work has not taken place till date and therefore, inevitably there would be cost-escalation and further difficulty in completing the work. Table 5.8 shows the percentage of loans yet to be disbursed from tranche I till IX.

Although for some districts this figure is not high as it is an average over 10 years, recent figures show that many districts have not been able to utilize the loans and hence, infrastructures development for the rural poor have been denied.

**Table 5.8: Percentage of Loans Not Disbursed Till Date
(Average for RIDF I to IX)**

Districts	Percentage	Districts	Percentage
Dakshina Kannada	37.3	Chickmagalur	20.7
Udupi	35.4	Tumkur	20.3
Chamarajanagar	28.4	Kolar	19.9
Uttara Kannada	28	Davanagere	19.9
Dharwad	27.6	Bellary	18.6
Bidar	27.4	Bijapur	18.6
Kodagu	26.2	Gulbarga	18.4
Bagalkot	26.2	Mandya	17.5
Gadag	25.9	Haveri	17.2
Bangalore Urban	25.7	Mysore	16.9
Raichur	25.6	Shimoga	16.8
Bangalore Rural	25.6	Belgaum	16.5
Hassan	23.4	Chitradurga	15.4
Koppal	21.5		

Source: Compiled using data collected from NABARD office for various years.

5.6. Conclusion

A careful examination of the loans sanctioned and disbursed have shown that comparatively higher amounts of loans have been directed towards roads and bridges. If we compare Karnataka with other Indian states we observe that the State has comparatively better road connectivity whereas irrigation facility is rather poor. Because of this, the flow of funds towards irrigation is also desired. Furthermore, loans should be directed towards comparatively backward districts. Most of the correlation figures show either an undesirable sign or very low significance level in case of desirable sign. At best there is no relation between loan sanction and status of infrastructure in a region. The relation between a district that is not adequately endowed and one that receives allocations is rather poor. Flow of funds, therefore, must be linked to the present status of infrastructure in the region so that regional disparities can be reduced and resources can go to the needy.

APPENDIX**Table A5.1: Rural Poverty Rates Per 100 Persons in Karnataka (District-wise), 2000**

Districts	Head Count Index
Bangalore Rural	5.2
Bangalore Urban	9.9
Belgaum	17.9
Bellary	33.1
Bidar	30.4
Bijapur	32.1
Chickmagalur	2.3
Chitradurga	16.3
Dakshina Kannada	7.4
Dharwad	21.4
Gulbarga	26.8
Hassan	11.5
Kodagu	4.9
Kolar	41.9
Mandya	16.6
Mysore	15.5
Raichur	45.6
Shimoga	8.1
Tumkur	18.5
Uttara Kannada	6.7

Source: Murgai, et al (2003)

CHAPTER VI

ALLOCATION OF FUNDS THROUGH SELECTED DEPARTMENTS IN KARNATAKA

6.1. Introduction

As per the planning of the respective state governments, RIDF is allocated to different state departments to carry out certain projects under the scheme. Various departments that are involved in the implementation process include watershed development department, Panchayat Raj department, PWD, minor irrigation department, education department and so on. Funds are allocated to the departments in accordance with the projects to be implemented through them. In this chapter we discuss some of the projects taken up by two important departments of the State of Karnataka, viz. Watershed Development and Panchayat Raj departments. Karnataka is one of the driest states in India and hence, any project to deal with the available water resources is of utmost importance to the State. Second, the State of Karnataka is also well known for its three-tier governance system and Panchayat Raj movement. Therefore, we undertook a study of the projects carried out by these two important departments in the State to come up with certain taluka-level observations.

6.2. Projects under Watershed Development Department

The Watershed Development Department started taking RIDF projects only from the year 2005. The department goes through a systematic procedure of first locating the problematic villages. After a careful field study, one decides the kind of projects to be implemented in a particular village. The main project activities involve construction of

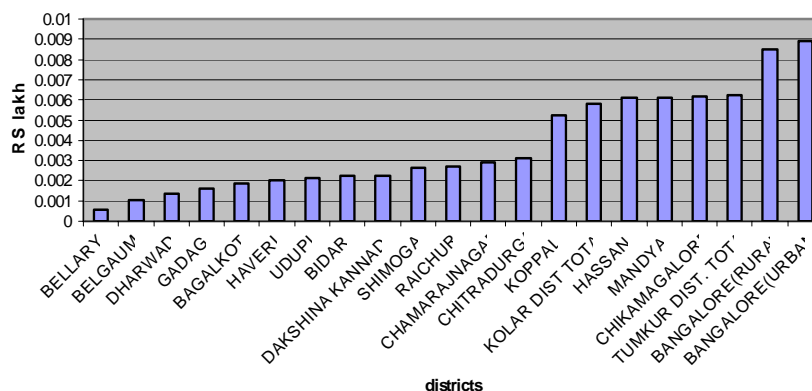
- Borewell recharge pit
- Farm Pond
- Nala Bund
- Gokatte
- Check Dam

In the Appendix to this chapter (Table A6.1) we have presented the details of various work taken up by the department through RIDF.

6.2.1. Flow of Funds to the Problem Areas

The department has identified certain villages as problematic villages on the basis of availability of water resources and has come up with statistics relating to geographical area of the problematic villages within a district. If we look at the proposed flow of funds per hectare of problematic area in a district, we observe wide disparity (Fig 6.1) across districts. Surprisingly, the highest amount of funds for rural development is allocated to Bangalore Urban District.

Fig 6.1: Money Spent (in Rs Lakhs) Per hectare of Problem Area



Source: Compiled using data from the Watershed Development Department

Interestingly, **total** funds allocated to a district have no relation with the extent of its **total** problem area. In fact, the resource allocated **per hectare** of problem area has significant **negative correlation** to the problematic area in a district has (as per the report of the department). More precisely, correlation between total resources allocated to a district and its problem area is negative (equal to -0.454) and statistically significant (at 2 per cent level). One wonders whether resources are allocated more to the poorer districts, as richer regions can make alternative private arrangements? This allocation, however, appears to have *no statistical relation with the per capita income* of a district. This gives an indication that funds are not possibly allocated on the basis of the need.

Karnataka State Environment Report, 2003, provides a classification of talukas in terms of gray and dark regions. Table 6.2 represents the most critical talukas in terms of extraction of groundwater.

Here, the dark talukas are defined as the ones in which above 85 per cent of water capacity is exploited while the gray talukas face over 65 per cent exploitation. These are the regions that need interventions in terms of water recharge and conservation programmes.

Table 6.1: Correlation Between Total Sanction of RIDF Loan Through Watershed Development Department and Problem Area, Across Districts

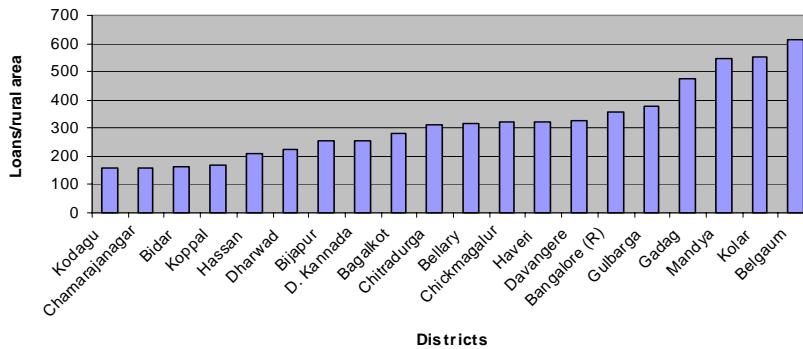
Variable 1 ↓	Variable 2 →	Problem area
Total RIDF Loan	Pearson correlation	-0.454
	Sig. (2-tailed)	0.02
	N	25

It is however encouraging to note that all the **critical talukas have received the attention** of the department in the sense that at least some resources have been allocated for recharge of drinking water in these talukas under RIDF.

6.3. Projects under Rural Development and Panchayati Raj Department

As mentioned above, RIDF is now also being disbursed through Rural Development and Panchayat Raj Department (RDPR). Our interaction with the department reveals that all loans are utilized for road development, in particular for the upgrading of roads.

Fig 6.2: Loans Per Hectare of Rural Area for Development of Rural Roads, RDPR



Source: Compiled using data collected from RDPR, Karnataka

Belgaum, Kolar, and Mandya are some of the districts with high flow of funds per hectare of rural area (see Fig.2). If we now look at the classification of districts according to road length per hectare of rural area done by the High Power Committee for Redressal of Regional Imbalances, we observe that many districts that have inadequate road infrastructure also receive low allocations of funds. If we classify the top half of the districts in Figure 6.2 as the districts that receive high allocations of funds we arrive at the following picture.

Table 6.2: Classification of Districts According to Roads Per Hectare of Area and RIDF Loan Per Hectare of Rural Area

		RIDF Loan/ Rural Area	
		Low	High
Road length/area	Low	CR Nagar	Gulbarga
		Bidar	Gadag
		Koppal	Belgaum
		Bijapur	
		Dakshina Kannada	
		Bagalkot	
		Chitradurga	
	High	Bellary	
		Kodagu	Haveri
		Hassan	Davanagere
		Dharwad	Bangalore - R
			Mandya
			Kolar

Again, we arrive at a scenario of having larger number of districts on the diagonal, whereas ideally larger number of districts should appear on the off-diagonal to show that *inadequacy and allocation of funds* move in the same direction. The fact that a large number of districts are in the low-low category (Table 6.2) shows that districts with lower adequacy also have lower allocation. When funds are allocated through the Panchayat Raj department one would expect a distribution of resources that is inequality reducing; however, the statistics do not appear to support this.

6.4. Conclusion

Department level allocation of funds through two departments shows that one still needs to look at the adequacy factors and allocate resources accordingly. While the watershed development department is doing justice to some of the problem areas, RDPR is disbursing loans entirely to roads and possibly not according to the needs. Departments like Panchayat Raj should have meaningful discussions with the stakeholders and, depending on the adequacy of facilities, should allocate funds in a manner that provides the greatest welfare levels. Our discussion with department officials reveal that since the last RIDF, funds are allocated equally to all constituencies. Such allocation patterns will clearly not be instrumental in reducing intra-rural disparity within the State.

APPENDIX

Table 6.2: Dark and Gray Talukas in Karnataka, 1994

Districts	Taluks
Bangalore (U)	Anekal, Bangalore (N), Bangalore (S)
Bangalore (R)	Channapattana, Devanahalli, Hoskote, Doddaballapur, Ramanagar
Belgaum	Chikkodi, Hukkeri, Athani, Bailhongal
Bellary	Hagari, Bommanahalli
Bidar	Bidar
Bijapur	Indi, Bagewadi, Bijapur
Koppal	Kushtagi
Chitradurga	Challakere, Chitradurga
D.Kannada	Bantwala, Sulya, Belthangadi
Hassan	Channarayapatna, Arasikere
Kolar	Chikkaballapur, Kolar, Malur, Chintamani, Gouribidanur, Mulbagal, Sidlaghatta, Srinivasapur
C R Nagar	Kollegal, C.R.Nagar
Tumkur	Koratagere, Gubbi, Madhugiri, Tiptur, Tumkur, Turuvekere, Kunigal, Sira
Total	43

Source: Government of Karnataka, 2003

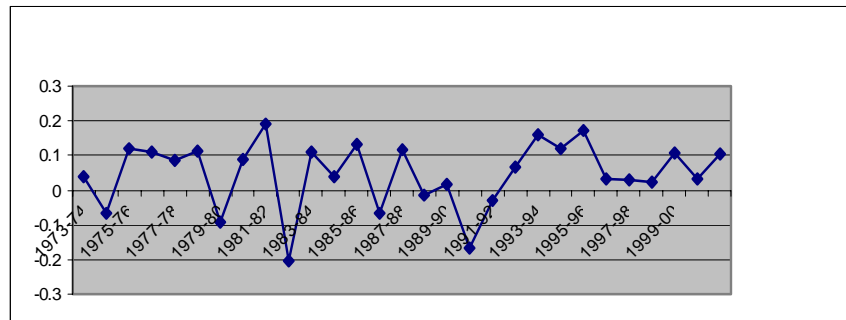
CHAPTER VII

CONCLUDING REMARKS

Rural credit market in India is faced with a number of problems. However, Indian banks are often unable to meet the target of priority sector lending and more specifically, direct finance to agriculture. If we look at the statistics, priority sector lending as a proportion of net bank credit, after reaching the target of 40 per cent in 1991, was continuously falling short of the target till 1996. It has subsequently been in excess of the target and stood at 43 per cent in 2001, mainly due to the inclusion of funds provided to regional rural banks by their sponsoring banks under priority sector advances. Advances to agriculture also declined from 16.4 per cent in 1991 to 15.3 per cent in 2002, well below the target of 18 per cent of net bank credit. In the year ending March 2003, direct agricultural advances amounted to only 10.8 per cent of the net public sector bank credit (RBI reports).

Further, growth rates of direct credit to agriculture show a fluctuating trend over the years and in real terms these growth rates have been negative for several years (Fig. 7.1).

Fig. 7.1: Growth Rates of Direct Credit (real) to Agriculture and Allied Activities Over the Years



Source: Computed using RBI data.

Source: RBI Reports, various issues

In the face of increasing competition from private sector banks, including foreign banks, public sector banks are beginning to change their strategies. They are trying to trim operating expenses by cutting down wage bills through reducing employment by way of retrenchment under the VRS scheme. They are also seeking to reduce costs by limiting branch expansion

and reducing the number of bank branches. The latter, which affects the rural areas first, reduces access to credit in those areas that were well-served by the post-nationalisation branch expansion drive.

Furthermore, in order to enable the banks to achieve their targets, certain definitional changes have been introduced from time to time to incorporate larger number of areas under the purview of priority sector lending which often dilutes the very purpose of priority sector lending.

Given this background, inclusion of funds directed towards development of rural infrastructure under priority sector lending through schemes like RIDF is a move in the right direction. Infrastructure facilities, being public goods, benefit both the rich and the poor, and directly affect the rural masses. Furthermore, infrastructure projects also generate employment, especially for the poor.

RIDF projects, in particular, are usually well-monitored and several NABARD surveys show that the satisfaction levels of the users of these services are quite high (NABARD, 2004)¹. In other words, there is proper use of allocated resources. In fact, 'Road users satisfaction survey' carried out in Karnataka at the behest of the World Bank shows that awareness of NABARD schemes is very high amongst users and people demand that projects be implemented by NABARD.

Interest structure adopted by NABARD in this context is noteworthy. It discriminates (in the sense of price discrimination by a monopolist) against a bank, in terms of interest payment, that has failed to meet the norms of agriculture lending to a substantial extent. The new interest rate scheme would, therefore, induce a bank to lend to the agricultural sector as well, in addition to lending to NABARD. The gain incurred by NABARD through paying lower interest rates to the lending commercial banks, has not so far been passed to the borrowing states in terms of lowering interest rates. Our discussions with state officials reveal that they can now borrow the same amount for the same purpose from private banks at a lower interest rate. Since NABARD is facing a demand constraint for its loans under RIDF, it should consider transferring the benefit of lower interest to the borrowing states.

Projects showed considerable time overruns due to several reasons. According to NABARD (Morris and Morris 2003), the implementing departments (of Governments) were not adequately funded by the state governments. Our discussions with the implementing departments reveal

¹ Implementation of RIDF projects in Karnataka: A Review, NABARD (2004).

that problems in the completion of projects due to cost escalation arose because of **administrative delays** as well. Lack of transparency among the key functionaries also led to delays in completion of the projects (Morris 2003). Further, land acquisition sometimes create problem in the completion of road as well as irrigation projects. Such delays often resulted in **cost escalation** and thereafter a vicious cycle sets in. While delays due to bureaucratic procedures should be minimized, unavoidable delays should be considered and appropriate funding should be provided to complete the projects in such cases. Further, **local level institutions like panchayats should be involved** more and more in decision-making. Unless one involve the stakeholders, the resources might not find optimal use. After the creation of an asset, how it should be maintained should also be planned.

Coming to the question of allocation of given resources amongst different rural areas, more careful analysis is required. In fact, a simple analysis of already existing data reveals that at best there is no relation between inadequacy of infrastructure facilities and allocation of funds. This is not only true in an aggregate sense but also holds good sector-wise. Therefore, if one is interested in benefiting the poorer sections of the rural economy, then rather than uniform allocations, more focused allocation of resources to the most adversely placed regions is necessary. Only then will such schemes succeed in reducing imbalances.

Our discussions with the Karnataka Panchayat Raj Department reveal that though initially funds were allocated without a specific formula, currently each constituency is allocated equal funds. Thus, in a sense, there is equal distribution of funds across regions. The regions not being uniform with respect to inadequacy of infrastructural facilities, such a formula may not lead to a reduction of imbalances. In fact, limited funds being directed to a number of constituencies would allocate only a minimal amount of resources to the most deserving regions.

Given this background, to reiterate again that there is need to establish a link between allocation of funds and inadequacy of infrastructural facilities. For example, ideally one would expect more funds to flow to the states with the worst infrastructural services; however, one does not clearly observe such a tendency in case of RIDF. Indeed, when we look at the correlation between the total flow of RIDF funds and rural poverty levels, we observe a highly significant negative correlation. In other words, higher the rates of rural poverty (indicating greater need for infrastructure), lower is the flow of funds. Similarly, concentrating on the State of Karnataka we observe that allocation of funds across districts also does not appear to be in accordance with infrastructural inadequacy. For example, correlation

between allocation of funds per unit of net sown area and percentage of irrigated area in a district (before starting RIDF schemes) is seen to be positive².

Even more disaggregated analysis at Taluka level reveals similar scenario. Furthermore, given the status of water resources, and water scarcity and drought problems in the state, more funds should be allocated towards watershed development and improvement in irrigation facilities. However, the State is actually directing much larger share of resources towards construction of roads and bridges.

Lastly, to re-emphasize what has been mentioned above that according to the new norms of RIDF, funds can be allocated to the local level government as well. It can be expected that given a certain amount of independence, the lower tier of government can come up with more need-based project concepts. Our analysis of national level data shows that the share of funds allocated to this lower tier of government is decreasing over time. This is not an encouraging trend. When a resource constrained-government allocates limited resources for infrastructural purposes, it should be more need-based and the priorities of the stakeholders should be taken into consideration when devising projects for implementation.

² Normalisation with gross cropped area also results in qualitatively similar results.

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Note: In writing this monograph, several issues of Economic Intelligence Services Report (Centre for Monitoring Indian Economy, New Delhi), Karnataka at a Glance, (Government of Karnataka), Annual Reports 1996-2006 (NABARD), and Statistical Tables Relating to Banks in India (RBI) have been consulted.

ABOUT THE AUTHOR

Dr Meenakshi Rajeev is currently Professor at the Centre for Economic Studies and Policy in ISEC. She has worked in a variety of research areas both from theoretical as well as empirical perspectives. She has a number of publications to her credit in international and national journals. She obtained her PhD degree in Economics from the Indian Statistical Institute, Kolkata, and has served as visiting faculty in some prestigious universities in USA and Europe. She has extensive teaching experience both in India and abroad. Her current research interests include monetary and financial sector related issues and industrial economics. This particular study was first carried out as a project at the Agricultural Development and Rural Transformation Centre of ISEC, Bangalore. (meenakshi@isec.ac.in)

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