

How to Cite:

Mitra, S. (2022). NABARD's role in strengthening india through rural infrastructure development fund (RIDF): An assessment. *International Journal of Health Sciences*, 6(S6), 10475-10491. <https://doi.org/10.53730/ijhs.v6nS6.12769>

NABARD's role in strengthening india through rural infrastructure development fund (RIDF): An assessment

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Abstract--Economic and social infrastructures are crucial for developing rural India. Even a marginal improvement, in a scenario of poor rural infrastructure, could significantly boost economic development and human wellbeing. The development of rural infrastructure by improving basic infrastructure, such as roads, electricity, housing, health and education, water and sanitation, etc. and infrastructure for agriculture sector like irrigation, warehouses, market yards, etc. can make a big difference in the standard of living. Development of rural infrastructure can lead to improved mobility in terms of better availability of inputs and raw materials and access to market centres for the rural producers. Development of strong and sustainable economic infrastructure has always been the priority of the central government of India. It is in this respect, the creation of Rural Infrastructure Development Fund (RIDF) was initiated by NABARD (National Bank for Agriculture and Rural Development) in 1995-96 and by constructing Rural Infrastructure Indices (RIIs) in 2016, with the objective of providing low cost funds to the States to facilitate completion of the incomplete rural infrastructure projects and has emerged as a dependable source of public funding over the years.

Keywords--RIDF (Rural Infrastructure Development Fund), RIIs (Rural Infrastructure Indices), Development, Sustainability.

The perspective

“We have to be dedicated to make ourselves self-reliant. This magnificent building of self-reliant India will stand on five pillars, namely, economy, infrastructure, technology, demography, and demand.”– Shri Narendra Modi, Prime Minister of India. “Public investment in key infrastructure sectors is a force multiplier with historically proven ability to revive the broader economy by directly enhancing

capital stock and productivity and by attracting private investment.” — Shaktikanta Das, Governor, RBI.

Introduction

The sustainable development framework, adopted by the global community consists of 17 SDGs and 169 targets, to be achieved by 2030. Rural infrastructure is critical for stimulating the rural economy and achieving the United Nations’ Sustainable Development Goals (SDGs) by 2030. For India to become self reliant and a \$5 trillion economy by FY2025 too requires additional infrastructure. Studies reveal that a 1% increase in the stock of infrastructure is associated with a 1% increase in gross domestic product (GDP) across countries. Furthermore, the estimated welfare multiplier of 0.8 for effective public infrastructure investment can lead to the substantial welfare gains. Several studies have articulated theoretically and established empirically the positive impact of infrastructure on agricultural development. Gulati et al. (2021) in their study have found that in six states, viz. Punjab, Madhya Pradesh, Gujarat, Uttar Pradesh, Bihar, and Odisha, three factors explained most of the agrarian growth, i.e., (i) access to infrastructure including irrigation, roads, and uninterrupted quality power; (ii) diversification to high value agricultural products like fruits, vegetables, and allied activities like dairy and poultry; and (iii) price incentives or favourable terms of trade.

It has been long perceived that inadequacy in the availability of infrastructures could become a serious impediment in the progress as well as efficient functioning of several socioeconomic activities thereby adversely affecting the levels of living of the population at large. The planned development programmes in India had acknowledged that not only growth in incomes but also provisions of basic minimum amenities such as primary health care, education, drinking water supply, etc., enhance the living conditions of the population. Thus, improving infrastructures has remained and continues to remain one of the prime development goals of successive governments for accelerating socio-economic development in the country. With this intention funds like Rural Infrastructure Development Fund (RIDF) have been created out of priority sector lending shortfall of banks and established with NABARD with the underlying philosophy of lending to state governments to facilitate creation of enabling rural infrastructure to deepen the credit absorption capacity in rural areas.

What is infrastructure?

Infrastructure is defined by various agencies in different ways-

- *World Bank* – Infrastructure includes
 - public utilities such as power, telecommunications, piped water supply, sanitation and sewerage, solid waste collection and disposal, and piped gas;
 - public works such as roads and major dam and canal works for irrigation and drainage;

- other transport systems including urban and interurban railways, urban transport, ports and waterways, and airports.
- *Food and Agriculture Organization of the United Nations* - Infrastructure includes physical structures that aid the competitiveness of the productive agricultural sector, and the related organisational systems that support their planning, procurement, design, construction, regulation, operation and maintenance.
- *Asian Development Bank* - Infrastructure includes fixed asset investments in transport (road, rail, airports, and ports); energy; telecommunications; and water and sanitation, including dams, irrigation, and flood control waterworks.
- *Reserve Bank of India* - Infrastructure includes projects in (i) road, including toll road, a bridge, or a rail system; (ii) highway, including other activities being an integral part of the highway project; (iii) port, airport, inland waterway, or inland port; (iv) water supply, irrigation, water treatment system, sanitation and sewerage system, or solid waste management system; and (v) telecommunication service.

Objective of the Study

The main objective of this study is to make an overall assessment of the NABARD's role in boosting rural infrastructure through RIDF. The specific objectives are:

- To know the creation of RIDF,
- To see the latest progress of RIDF,
- To know the emergence of construction of Rural Infrastructure Indices (RII),
- To see the position of allocation of RIDF on the basis of RIIs, and
- To highlight on the present challenges and prospects ahead.

Creation of RIDF

Perhaps, a landmark decision of the government was in setting up a Rural Infrastructure Development Fund (RIDF) within the National Bank for Agriculture and Rural Development (NABARD). In his Budget Speech of 1995-96, Dr. Manmohan Singh as the then Union Finance Minister, announced:

"Inadequacy of public investment in agriculture is today a matter of general concern. This is an area which is the responsibility of the 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 the rural population. To encourage quicker completion of projects in rural infrastructure, I propose to establish a new Rural Infrastructural Development Fund within the National Bank for Agriculture and Rural Development (NABARD) from April 1995. The Fund will provide loans to State Governments and State-owned Corporations for completing ongoing projects relating to medium and minor irrigation, soil conservation, watershed management and other forms of rural infrastructure. The loans will be on a project specific basis with repayment and interest guaranteed by the concerned State Government. Priority will be assigned to projects which can be completed within the least time period. Resources for the Fund will come from commercial banks which will be required by Reserve Bank of India (RBI) to

contribute an amount equivalent to a bank's shortfall in achieving the priority sector target for agricultural lending, subject to a maximum of 1.5 per cent of the bank's net credit. This is expected to create a corpus of about ₹ 2,000 crore for completion of rural infrastructure projects." (Government of India, 1995: 5)

The RIDF was thus created in 1995-96 within NABARD with the corpus of ₹2,000 crore built up from the contributions from all the Indian Scheduled Commercial Banks to the extent of shortfall in agricultural lending in their priority sector lending. Since then, the RIDF has been administered by NABARD (NABARD, Annual Report 1995-96: 77-83). Basically, NABARD provides funding assistance to state governments, and borrowing by state governments under RIDF is governed by Article 293 (3) of the Constitution under which Government of India determines their borrowing powers from the market and financial institutions during a year (NABARD, Annual Report 1995-96: 77).

With effect from 01 April 2012, interest rates payable to banks on deposits placed with NABARD and loans disbursed under RIDF were linked to the Bank Rate prevailing at that point of time (NABARD, Annual Report 2012-13: 61). The RIDF loan is sanctioned to a state 'based on its terrain, rural population, and credit to deposit (CD) ratio, rural infrastructure index and performance under RIDF' (NABARD, Annual Report 2008-09: 64). The basic objectives of this funding are: increase in agriculture production, better soil and water conservation, prevention of soil erosion, improvement in the drinking water availability, creation of employment opportunities and overall improvement in the level of income and standard of living of the people in an area. Under its Rural Infrastructure Development Fund (RIDF), NABARD has, over time, expanded and broad-based the activities eligible for assistance.

The Progress: A Brief Account

India has expressly prioritized infrastructure development more than ever during FY2021. The Taskforce on National Infrastructure Pipeline (NIP) estimates capital expenditure of ₹7,73,915 crore between FY2020 and FY2025 on rural infrastructure development by the centre and states. With a similar population, India's GDP is less than a fourth of China and our outlay for infrastructure at 5.2% of GDP (FY2019) is less than one-eighth. The ambitious NIP for FY2019–FY2025 aims at reducing this gap.

The annual loan allocations to states under RIDF, have grown up from an initial corpus of ₹2,000 crore in 1995–96 (Tranche I) to ₹28,000 crore in 2019–20 (Tranche XXV) and have cumulatively reached ₹3,55,857 crore (including ₹18,500 crore under Bharat Nirman) and the disbursed amount has touched ₹2,75,984 crore by the end of March 2020. During 2019-20, a sum of ₹30,401 crore was sanctioned under RIDF XXV. Agriculture along with irrigation accounted 43% of the sanctions during the year. The details of sectoral share of ongoing tranches are given in Table 1 and shown in Figure 1.

Table 1
Sector-wise Sanctions during 2019–20 (as on 31 March 2020)

Sector	No. of Projects	Share (%)	Amount Sanctioned (₹ crore)	Share (%)
Agriculture including Irrigation (A)	6,686	29	12,908	43
Rural Connectivity (B)	4,050	17	9,223	30
Social Sector Projects (C)	12,707	54	8,270	27
Total (A+B+C)	23,443	100	30,401	100

Source: Data accessed from NABARD

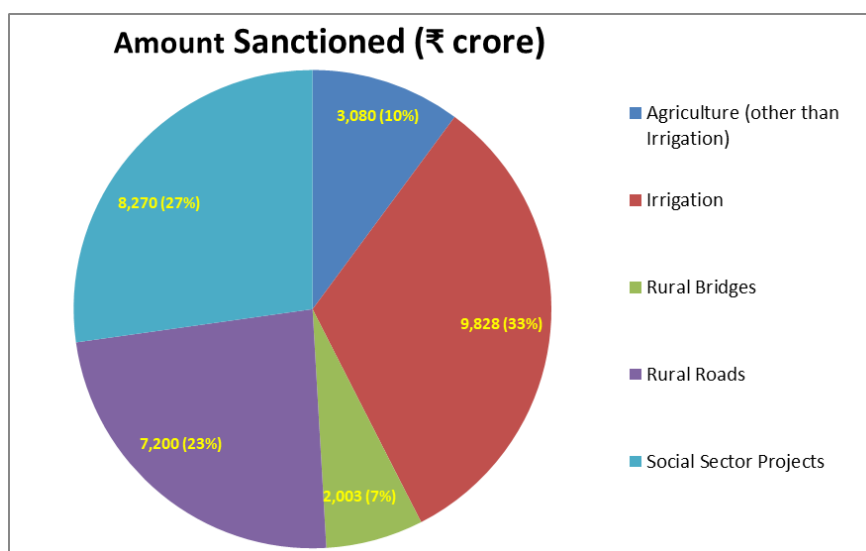


Figure 1

In 2020–21 (Tranche XXVI) cumulative sanctions aggregating to ₹4,09,063 crore have been accorded to various states/ UTs including an earlier sanction of ₹18,500 crore under the Bharat Nirman Programme (Table 2). The cumulative sanctions and disbursements of RIDF loans of all closed tranches (I -XVII) were mostly concentrated in nine states, namely, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal, which together accounted for 73% of the total amount sanctioned and 72% of the total amount disbursed. Tranches from XVIII – XXVI are ongoing and on completion of these RIDF projects (sanctioned under major sectors up to 31 March 2021), the cumulative benefits likely to be generated include the creation/restoration of 349.3 lakh ha of irrigation potential, rural road length of 4.9 lakh km, and rural bridges of 12.3 lakh metre. In addition, these projects are expected to generate around 2,000 crore person days of non-recurring employment.

Table 2
Cumulative sanctions, share, and growth by sector under Rural Infrastructure
Development Fund (I-XXVI) as on 31 March 2021

Sector ⇨	Irrigation	Agri-related	Connectivity	Social sector
Cumulative sanctions (₹ crore)	1,25,044	45,486	1,47,210	72,823
Share (%)	32.0	11.7	37.7	18.6
CAGR (%)	11.4 (FY1996 - FY2021)	14.3 (FY1996 - FY2021)	9.5 (FY1996 - FY2021)	12.5 (FY1996 - FY2021)
AAG (%)	10.8	29.6	10.8	17.9
Top 10 Indian States	GJ,MP,UP,OD,MH, AP,CH,RJ,TN,WB	WB,UP,OD,TN,KL, AP,RJ,AS,BH,GJ	BH,JH,OD,UP,TN, WB,RJ,AP,KN,AS	RJ,TN,AP,GJ,TL, KN,MP,KL,OD,HR

Source: Data accessed from NABARD.

Total Sanctions ₹4,09,063 crore (including ₹18,500 crore under Bharat Nirman)

Notes: AAG = Average Annual Growth; AP = Andhra Pradesh; AS = Assam; BH = Bihar; CAGR = Compounded Annual Growth Rate; CH = Chhattisgarh; GJ = Gujarat; HR = Haryana; JH = Jharkhand; KL = Kerala; KN = Karnataka; MH = Maharashtra; MP = Madhya Pradesh; OD = Odisha; RJ = Rajasthan; TL = Telangana; TN = Tamil Nadu; UP = Uttar Pradesh; WB = West Bengal.

For 2021-22 under RIDF XXVII, the cumulative allocation has reached ₹4,18,408.73 crore, including ₹18,500 crore under Bharat Nirman. The GOI allocated a corpus of ₹40,000 crore for XXVII RIDF Tranche (FY2022), a big jump from ₹29,763 crore in FY2021. At present there are 39 eligible activities as approved by GOI (Annexure I). The eligible activities are classified under three broad categories i.e.

- Agriculture and related sector
- Rural Connectivity
- Social sector

So far the mode of operation is concerned, NABARD releases the sanctioned amounts to the State Governments/Union Territories/Panchayati Raj Institutions/ SHGs etc. on reimbursement basis except for the initial mobilization advance @30% to North Eastern & Hilly States and @20% for others. Generally the implementation phase for the projects sanctioned is spread over 2 to 5 years, depending on the type of the project and the location of the state. Along with RIDF, to strengthen rural infrastructure NABARD has been funding the National Water Development Agency, the special purpose vehicle of the GOI and willing state governments under the Long Term Irrigation Fund (LTIF) since FY2017 towards identified major and medium irrigation projects. Cumulative loans sanctioned and released under LTIF as on 31 March 2021 stand at ₹84,326.6 crore and ₹52,479.7 crore, respectively. The NABARD Infrastructure Development Assistance (NIDA), set up in FY 2011, also offers flexible options for financing for

a wide array of rural infrastructure projects to public sector entities as well as corporate sector through public-private partnership (PPP). Cumulative sanctions under NIDA as on 31 March 2021 stood at ₹57,724.3 crore. Moreover, loans amounting to ₹909 crore were disbursed under Warehouse Infrastructure Fund (WIF) during the FY 2020-21 as against ₹844 crore in FY 2019-20 and the cumulative sanctions under WIF as on 31 March 2021 stood at ₹9,728 crore. In this connection we should also mention the package for rural infrastructure under Aatma Nirbhar Bharat as shown below:

Agriculture Infrastructure Fund - ₹1,00,000 crore.
 Pradhan Mantri Matsya Sampada Yojana - ₹20,050 crore.
 Scheme for Formalisation of Micro-Food Processing Enterprises - ₹10,000 crore.
 Animal Husbandry Infrastructure Development Fund - ₹15,000 crore.
 (Source: <https://aatmanirbharbharat.mygov.in/>)

Recently, NABARD has again created a separate fund titled 'Rural Infrastructure Promotion Fund' (RIPF) to support programs and activities that promote rural infrastructure, with the ultimate objective of facilitating agriculture and rural development. RIPF has been set up with a corpus of Rs. 25 crore. The amount is contributed out of margin received by NABARD from a special window created under RIDF for funding the rural roads component of Bharat Nirman through National Rural Roads Development Agency (NRRDA). Special thrust to be provided to North-East Regions, including Sikkim, Eastern Region and Hilly Himalayan States of Uttarakhand, Himachal Pradesh and J&K for creation of experimental/promotional infrastructure as also for supporting all other activities.

Rural Infrastructure Indices

In 2014, NABARD approached EPW Research Foundation (EPWRF) to undertake a study for preparing the Rural Infrastructure Indices for all the Indian states. Accordingly, EPWRF produced a comprehensive study titled 'Construction of State-wise Rural Infrastructure Indices (RIIs)', and the final report of which NABARD published as Occasional Paper 63 in 2016. The primary aim of this project was to construct state-wise Rural Infrastructure Indices (RIIs) and use them to develop a scheme for state-wise Rural Infrastructure Development Fund (RIDF) allocation. But over the last few years, by broadening of eligible sectors under the ambit of RIDF and with the increased thrust on building-up rural infrastructure, a renewed effort at updating the indices was felt for the appropriate allocation of funds to the crucial sectors.

In continuation of the same exercise carried out by EPWRF earlier (NABARD, 2016), in 2021 NABARD has published another Research Study 13 titled 'Construction of State-wise Rural Infrastructure Indices (RIIs) & A Scheme of Rural Infrastructure Development Fund (RIDF) Allocation'. The RIIs depict the relative score of each state, higher RII implies relatively better performance of a state and low RII poorer performance. The RIDF allocation objective is to correct these imbalances by providing higher allocations for the states with lower RIIs and lower allocations for states with higher RIIs for the specific infrastructure development. The above study focused on the way funds have been apportioned

to various rural infrastructure projects from RIDF to respective states and also prioritizing the projects based on the performance of each sector in each state. At present we have both the sectoral as well as composite Rural Infrastructure Indices (RIIs) for each state. The state-wise RIIs for the Top 10 States/UTs (out of 30), worked out for various sectors are as follows:

Table 3

Sl. No.	State	Irrigation Index	State	Agriculture and Allied Activities Index	State	Environment Index
1	Punjab	1.000	Andhra Pradesh	0.287	Goa	0.815
2	Haryana	0.915	Telangana	0.235	Kerala	0.768
3	Poducherry	0.755	Maharashtra	0.221	Meghalaya	0.576
4	West Bengal	0.729	Tamil Nadu	0.210	Mizoram	0.474
5	Uttar Pradesh	0.702	Karnataka	0.209	Nagaland	0.454
6	Bihar	0.571	Gujarat	0.166	Tripura	0.452
7	Uttarakhand	0.538	Kerala	0.165	Chhattisgarh	0.412
8	Jammu & Kashmir	0.487	Haryana	0.161	Jharkhand	0.355
9	Madhya Pradesh	0.459	Chhattisgarh	0.151	Odisha	0.353
10	Tripura	0.403	Punjab	0.136	Tamil Nadu	0.302

Table 4

Sl. No.	State	Rural Road Connectivity Index	State	Rural Electrification Index	State	Rural Telecommunication Index
1	Poducherry	1.000	Telangana	0.980	Goa	0.986
2	Kerala	0.956	Haryana	0.905	Kerala	0.576
3	Assam	0.760	Andhra Pradesh	0.752	Himachal Pradesh	0.372
4	Goa	0.743	Maharashtra	0.728	Tamil Nadu	0.344
5	Tripura	0.636	Rajasthan	0.717	Arunachal Pradesh	0.285
6	West Bengal	0.489	Kerala	0.715	Poducherry	0.284
7	Bihar	0.417	Karnataka	0.698	Punjab	0.279
8	Punjab	0.336	Punjab	0.686	Gujarat	0.169
9	Nagaland	0.327	Tripura	0.641	Karnataka	0.147
10	Odisha	0.311	Himachal Pradesh	0.639	Haryana	0.143

Table 5

Sl. No.	State	Health Index	State	Education Index	State	Drinking Water, Sanitation & Housing Index
1	Goa	0.571	Poducherry	0.810	Sikkim	0.973
2	Poducherry	0.565	Himachal Pradesh	0.769	Haryana	0.868
3	Mizoram	0.535	Punjab	0.665	Goa	0.864
4	Sikkim	0.525	Uttarakhand	0.665	Punjab	0.862
5	Punjab	0.499	Haryana	0.638	Uttarakhand	0.800
6	Andhra Pradesh	0.481	Tamil Nadu	0.628	Himachal Pradesh	0.788
7	Kerala	0.470	Sikkim	0.599	Jammu & Kashmir	0.705
8	Telangana	0.459	Goa	0.548	Poducherry	0.651
9	Karnataka	0.449	Karnataka	0.524	Nagaland	0.649
10	West Bengal	0.424	Maharashtra	0.461	Mizoram	0.619

Source: Calculations made by EPW Research Foundation, NABARD

RIDF allocation is based on the inverted RII so that infrastructural poorer states get a relatively higher allocation. Inverse RII for a State = (Maximum RII in the cluster of states – Actual State RII) / (Maximum RII in the cluster of states – Minimum RII in the cluster of states). Higher value of inverse RII obtained by a state in a component of rural infrastructure would imply bad performance of that state in relation to other states. Based on the inverse RII, relative share of each state in RIDF sectoral allocation has been presented below. The state-wise RIDF allocation (in %) for the Top 10 States/UTs (out of 30) on nine components / sectors of rural infrastructure are:

Table 6

Sl. No.	State	Irrigation	State	Agriculture and Allied Activities	State	Environment
1	Uttar Pradesh	10.756	Uttar Pradesh	21.658	Uttar Pradesh	22.501
2	Maharashtra	10.714	Bihar	15.066	Bihar	13.663
3	Bihar	9.456	Rajasthan	8.567	Rajasthan	7.899
4	Rajasthan	7.371	Madhya Pradesh	8.227	West Bengal	6.986
5	Madhya Pradesh	6.670	West Bengal	7.625	Maharashtra	6.611
6	Odisha	6.079	Assam	4.808	Madhya Pradesh	5.723
7	Karnataka	5.943	Jharkhand	4.424	Gujarat	4.495
8	Assam	5.703	Odisha	4.300	Andhra Pradesh	3.832

9	Jharkhand	5.199	Gujarat	3.291	Karnataka	3.787
10	Gujarat	5.157	Maharashtra	3.175	Tamil Nadu	3.468

Table 7

Sl. No.	State	Rural Road Connectivity	State	Rural Electrification	State	Rural Telecommunication
1	Uttar Pradesh	22.218	Uttar Pradesh	29.560	Uttar Pradesh	20.899
2	Bihar	9.095	Bihar	17.188	Bihar	12.976
3	Rajasthan	7.876	Madhya Pradesh	7.259	West Bengal	7.414
4	Madhya Pradesh	7.695	West Bengal	5.163	Madhya Pradesh	6.978
5	Maharashtra	7.382	Jharkhand	5.157	Maharashtra	6.866
6	Gujarat	5.047	Gujarat	4.537	Rajasthan	6.620
7	West Bengal	4.805	Odisha	3.971	Odisha	4.130
8	Karnataka	4.463	Assam	3.803	Karnataka	4.034
9	Andhra Pradesh	4.373	Maharashtra	3.570	Andhra Pradesh	3.795
10	Jharkhand	3.891	Rajasthan	3.304	Gujarat	3.749

Table 8

Sl. No.	State	Health	State	Education	State	Drinking Water, Sanitation & Housing
1	Uttar Pradesh	25.478	Uttar Pradesh	19.540	Uttar Pradesh	24.625
2	Bihar	20.194	Bihar	15.747	Bihar	14.324
3	Madhya Pradesh	8.233	West Bengal	8.775	Madhya Pradesh	8.546
4	Jharkhand	5.784	Madhya Pradesh	8.326	West Bengal	8.070
5	Maharashtra	5.599	Rajasthan	6.170	Odisha	6.137
6	Rajasthan	5.423	Maharashtra	5.954	Rajasthan	5.868
7	West Bengal	4.474	Odisha	4.500	Jharkhand	4.756
8	Gujarat	4.295	Jharkhand	4.378	Maharashtra	4.378
9	Odisha	4.130	Andhra Pradesh	4.337	Tamil Nadu	3.876
10	Assam	2.686	Assam	4.279	Andhra Pradesh	3.440

Source: NABARD

The state-wise RIDF allocation (in %) for the Top 10 States/UTs (out of 30) based on composite RII with equal weights on nine components is:

Table 9

Sl. No.	State	% allocation
1	Uttar Pradesh	23.564
2	Bihar	15.189
3	Madhya Pradesh	7.414
4	Rajasthan	7.136
5	West Bengal	5.694
6	Maharashtra	4.947
7	Jharkhand	4.680
8	Odisha	4.446
9	Gujarat	3.880
10	Assam	3.662

Source: Author's own calculation

Observation

The above description clearly brings out inter-state disparity in the rural infrastructure. Some states were found doing better in some components of rural infrastructure but not in all. For instance, Bihar and Uttar Pradesh had relatively better RII values in irrigation infrastructure but remained too low on all other components. Contrasting the experience of Uttar Pradesh, the state of Uttarakhand did well in social sector indicators. Jharkhand is another state that performed poorly across all components of rural infrastructure. Madhya Pradesh did well in irrigation and rural electrification and found its place amongst poor performers in other components. Haryana and Punjab too performed exceedingly well in irrigation and also in social sector components such as rural health, education and drinking water, sanitation and housing.

The western states of Maharashtra, Gujarat and Rajasthan performed moderately in all the components, with some exception in the case of rural electrification and rural drinking water, sanitation and housing in which all the states performed better in terms of RII values. Other than agricultural and allied activities including irrigation, Kerala performed better in rural connectivity and social sector infrastructure. Puducherry did well in irrigation, road connectivity and social sector infrastructure. On a balanced consideration, major southern states, namely Andhra Pradesh, Karnataka, Tamil Nadu and Telangana, did moderately well falling in the middle range of RIIs values in most of the components, whereas Goa, Kerala and Puducherry have performed well except in agricultural related infrastructure. Odisha's performance in all the infrastructural components has remained on the lower side, whereas West Bengal has shown impressive performance in irrigation and rural connectivity other than telecommunication, and rural health. North-east states have generally performed well in social sector infrastructure. They appear to be laggards in agriculture-related infrastructure and in rural connectivity other than electrification.

Challenges Ahead

Agriculture activities consist of farming, animal husbandry, forestry and fishing activities. Though a number of developments have been taking place in agriculture but the importance should not only be given to crop segment but also other allied activities like livestock management, improved veterinary hospitals, cold storage facility, soil and water conservation, use of solar power etc. Agricultural funding is still a problem. As per the NABARD's Financial Inclusion Survey Report 2016-17, it indicates that 72 per cent of the credit requirement was met from institutional sources and 28 per cent from non-institutional sources. The next important parameter is Irrigation, which is no doubt most crucial for agricultural development, but it can also be reasoned that all the rest – road connectivity, rural electrification, rural telecommunications, rural health, education, drinking water, sanitation and housing, diversified agricultural activities and environment– are equally important.

Connectivity, both in terms of physical and tele or internet communication, plays a crucial role in rural infrastructural development as it facilitates not only the movement of goods and services but also helps the rural population to have easy and better access to basic amenities like health care facilities, education, and so on, and also to market centres for selling their produce as well as for procuring essential items that improves their living conditions. Though the total length of rural roads in the country has increased more than 20 times from 0.2 million km in FY1951 to 4.2 million km in FY2017, but maintenance of the same is still a concern. Social sector also plays a significant role in the process of human development. Human development entails enhancement of various socio-economic dimensions. Apart from income; health, education, availability of drinking water, sanitation and housing determine in a major way the quality of the livelihood conditions. Sound health and education are the key criteria for facilitating human development as they act as catalysts in augmenting human capabilities.

In India we still have the problems of poor delivery of water supply and sanitation issues, inadequate financing of housing, legal constraints related to land, poor condition of roads, malnutrition, maternal and child health issues and issues related to elementary education and dropouts in primary and/or secondary level of education. The recent Covid-19 pandemic poses a challenge to rural health infrastructure which must be modernised and strengthened. The north-east states lack in performance in many of the above mentioned indicators, and thus, they require more funding to raise their level of development that will ensure balanced regional development. So the equal priorities to each of the above components/elements/indicators of rural infrastructure and also to every region of the country will only ensure a sustainable rural development and that is the main challenge of the present time, to raise India's competitiveness to become a developed economy.

Prospects

Infrastructure is an enabler for growth. The RIDF projects consistently deliver positive outcomes for rural production, productivity, income, employment,

environment, and sustainability. Over the years, the cumulative RIDF sanctions to the regions with low credit–deposit ratio have witnessed a steady upward trend. RIDF loans in the credit-starved backward districts, as identified by the Internal Working Group of the RBI, constituted about 20% of the total RIDF sanctions during FY2019 and 15% over the five-year period ended FY2020, which is much healthier than the reported share of these districts in the total outstanding priority sector credit of only 3.1%.

RBI has initiated setting up a National Strategy for Financial Inclusion (FI) with the objective of making financial products and services available, accessible, and affordable to all citizens in a safe and transparent manner to support inclusive and resilient multi-stakeholder led growth. The FI strategy along with Green Initiative of RBI will enhance digital infrastructure in the country through better networking of bank branches and by actively involving Gram Panchayats, Civil Society and NGOs.

Agricultural credit as a percentage to Agriculture GDP increased from 10 per cent in 1970s to 52 per cent by 2018, which shows that banks have made significant progress in lending to agriculture. But it can grow even further. It has been globally established that technology adoption modernizes farmers' production practices and leads to uniform annual returns for farmers, reduced risk of crop failure, and increased yields. By inviting state of the art technology in Indian agriculture and farming, specially in lagging regions, much increase in productivity can be achieved and agricultural sustainability can be ensured. Along with basic infrastructure development and technological development; agricultural value chain, agri-start-ups, agri-finance solutions, farm data analytics etc. should also be focused on to enhance international competitiveness and active supply chain system. At present Farmer Producers' Organizations (FPO) has emerged as one of the effective means to increase farmers' income, particularly small producers, by way of improved bargaining power, access to farm inputs, modern technologies, markets, etc. and efficient uses of scarce resources.

On digital India initiative, Electronic National Agriculture Markets (e-NAMs) in Agricultural Produce Marketing Committee (APMC) mandis, the Bharat Net project aims to set up the world's largest rural broadband infrastructure connecting all 2.5 lakh Gram Panchayats in the country. A proper link of FPOs and Agri Export Zones (AEZs), as mentioned in the Agriculture Export Policy (AEP), 2018; will surely develop export-oriented clusters across states which will ensure agricultural surplus. Foodgrains production has grown more than six times since 1950 and trends indicate that by 2030 it will cross 350 million tonne. To accommodate the increase in production, there will be sustained demand for investment in storage during the current decade.

Conclusion

Investment is the key driver of the growth process of an economy or a sector. If we look at the sanctions from RIDF, it is seen that the states with higher credit flow made higher demands for resources under the fund. On the contrary, states with lower credit flow were lagging in borrowing funds from RIDF. Thus, the least

developed states which are already credit starved are getting lower share of funds from the RIDF. This highlights the need to break this vicious cycle and think of certain measures by which funds can be earmarked to the most backward/ credit starved regions to ensure speedier development of the most backward areas in the country. We may also have to think of ways to incentivize banks to lend in these backward areas so that both demand and supply side issues are addressed. These issues and challenges impinge on the efficiency, inclusiveness and sustainability of the agricultural credit system, which is a matter of concern. Apart from that, banks will have to undertake innovative agricultural financing models so that environment friendly and sustainable projects can be supported. In February 2019, RBI too had set up an Internal Working Group (IWG), to understand the issues of agriculture and the recommendations of the IWG include building up of an enabling ecosystem through digitisation of land records, reforming of land leasing framework, creation of a national level agency to build consensus among the state governments and central government with regard to agriculture-related policy reforms and innovative digital solutions to bridge the information gap between the banks and farmers for expediting the credit delivery process.

Though, at present we are a food surplus country and a net exporter of many agriculture and allied products; but we should take the challenge of growing more foods to encourage exports as well as to serve the future demand within the nation. Government of India should always take up such policies that call for a shift from that of managing food scarcity to managing food surplus. To ensure that even the most remote villages attain SDGs by 2030, a micro-infrastructure approach could revolutionise poverty alleviation through a highly decentralised, smart, clean, climate-resilient system. And thus, all the ongoing major government initiatives like the Mahatma Gandhi National Rural Employment Guarantee Scheme, AatmaNirbhar Bharat, Pradhan Mantri Awaas Yojana–Gramin (PMAY–G), Pradhan Mantri Gram Sadak Yojana (PMGSY), SP Mukherjee Rurban Mission, Swachh Bharat Mission–Gramin (SBM–G), Jal Jeevan Mission, Pradhan Mantri Kisan Sampada Yojana, Deen Dayal Upadhyay Gram Jyoti Yojana, Pradhan Mantri Jan Dhan Yojana (PMJDY) and Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya package, all should also run in parallel to bring more progress in rural infrastructure as they addresses major economic sectors. Only with effective coordination of all the stakeholders and encouraging decentralized approach by creating a forum to actively involve Gram Panchayats/Civil Society/NGOs by the above noted initiatives/mission/ vision can accelerate the rural development with a smooth and timely flow of fund and there lies the importance of RIDF in strengthening rural India.

Acknowledgements

The author acknowledges the support of the Principal, St. Joseph's College, Darjeeling and the Department of Commerce in conducting this research work.

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Annexure-I

RIDF-list of eligible activities

Agriculture and related sectors (RIDF loan: 95%)

1. Minor Irrigation Projects/ Micro Irrigation
2. Soil Conservation
3. Flood Protection
4. Watershed Development/ Reclamation of waterlogged areas
5. Drainage
6. Forest Development
7. Market Yard, Godown, Mandi, Rural Haat, Marketing Infrastructure
8. Cold storage, Public/ Joint sector cold storage at various exit points
9. Seed/ Agriculture/ Horticulture Farms
10. Plantation and Horticulture
11. Grading/ certifying mechanisms; testing/ certifying laboratories
12. Community irrigation wells for the village as a whole
13. Fishing harbour/ jetties
14. Riverine Fisheries
15. Animal Husbandry
16. Modern Abattoir
17. Medium Irrigation Projects

18. Mini Hydel Projects/ Small Hydel Projects (upto25 MW)
19. Major Irrigation Projects (already sanctioned and under execution)
20. Village Knowledge Centres
21. Desalination plants in coastal areas
22. Infrastructure for Information Technology in rural areas
23. Infrastructure works related with alternate sources of energy viz. Solar, wind etc. & energy conservation
24. 5/10, MW Solar photo voltaic Power Plants
25. Separate Feeder Lines
26. Establishment of dedicated Rural Industrial Estates
27. Mechanisation of Farm Operations and Related Services

Social Sectors (RIDF loan: 85% / Hill & NE States 90%)

1. Drinking Water
2. Infrastructure for Rural Education Institutions
3. Public Health Institutions
4. Construction of toilet blocks in existing schools, specially for girls
5. "Pay & use" toilets in rural areas
6. Construction of Anganwadi Centres
7. Setting up of KVIC industrial estates/ centers
8. Solid Waste Management and Infrastructure works related with sanitation in rural areas

Rural Connectivity (RIDF loan: 80%/ Hill & NE States 90%)

1. Rural Roads
2. Rural Bridges
3. Ropeway
4. Road Over Bridge (ROB) on Railways Crossing