PUBLIC-PRIVATE PARTNERSHIP FOR INNOVATION AND ECONOMIC DEVELOPMENT: A VIABILITY GAP FUNDING PERSPECTIVE

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ABSTRACT

Public-Private Partnerships have become a highly useful instrument for stimulating economic growth and encouraging innovation by combining the advantages of the public and private sectors. For this, in order to encourage growth in the nation at the national and state levels, the government has announced a number of initiatives, including PPP policies, for which PPP cells have been established. The numerous infrastructural projects are being streamlined by these cells. In order to support the numerous development initiatives, the government had introduced the concept of the Viability Gap Funding in 2006 for financially viable but unfunded projects. To further support the expansion of PPPs in the nation, powerful committees such as the Public-Private Partnership Appraisal Committee and the Cabinet Committee on Infrastructure are established for expeditious decision-making and project approvals.

This study examines how PPPs might promote innovation and economic growth, with a particular emphasis on viability gap funding. The paper will represent the sector wise, year wise and state wise analysis of Viability Gap Funding report. This paper is an attempt to understand the dynamics of PPPs, identify successful tactics, and provide insights for improving the use of VGF for sustainable development through in-depth examination of case studies, legislative frameworks, and financial models.

1. INTRODUCTION

Public-Private Partnership, or PPP, is a joint effort of the private and public sectors to carry out a various developmental projects or offer services that are traditionally handled by the public sector. The benefit of a PPP is visible, when appropriate cooperative arrangements between the public and private sectors are implemented, the functional expertise and financial know-how of private enterprises could produce better value for taxpayer money. PPP has the potential to improve public services' competitiveness, performance, and quality. In a context where financial limitations are in place, it can raise additional funds and supplement the restricted capacities of the public sector. Making the fullest use of the operational efficiencies of the private sector can improve public quality and hasten the development of infrastructure.

Public-private partnerships bring together the resources of the public and private sectors to enhance public services and public sector asset management. They provide the public sector a more sophisticated and more affordable approach to manage risk, than the conventional approach.

Rationale of PPPs is that, it diversifies the costs of acquiring assets over time and/or the accompanying capital expenditure impacts the balance sheets of private companies instead of those of the public sector. The goals may be achieved by basing the procurement on the necessary public services, or outputs rather than inputs. In situations when a budget of public sector capital is limited, utilizing a PPP to provide public welfare services that a government would not be able to finance is clearly advantageous.

PPPs functions at the periphery of the public and Private Sectors Company, being neither fully nationalized nor completely privatized their assets nor services. From a political perspective, PPP, thus provide another option to the governments to provide some more public services to the country. Furthermore, in a more pragmatic manner, PPP is a sort of contractual cooperation in which, the public and private sectors can collaborate to achieve objectives that neither could achieve on its own. PPP projects are currently being adopted by many members of the Organization for Economic Cooperation and Development.

The idea of the VGF was first presented in 2006 by the Ministry of Finance's Department of Economic Affairs to provide financial support for infrastructure PPPs. Under this scheme, the GOI and other relevant authorities will provide up to 40 percent of the Total Project Cost (TPC) as a capital grant during the project construction phase, or 20 percent+20 percent, for infrastructure projects that are justified for the nation's welfare and development but are facing financial

difficulties because of high capital requirements, protracted gestation periods, and the inability to raise user fees. The Viability Gap Funding Scheme's components are separated into two sub schemes, known as Sub-scheme 1 and Sub-scheme 2. The prior plan focused on sectors like waste water treatment, solid waste management, and health; however, these industries face a number of challenges, such as a dearth of bankable issues and insufficient revenue streams to pay for all capital costs. This category allows funding for projects that recover at least 100 percent of their operational costs. A further 30 percent of the Total Project Cost (TPC) may be contributed as part of the VGF by the State Government, the Sponsoring Central Ministry, or the Statutory Entity, with the Central Government bearing no more than 30 percent of the TPC. The components of the Viability Gap Funding Scheme are divided. Sub Scheme 2 funds projects in the social sector. These projects are from a variety of industries, including the health and education sectors, where at least 50 percent recovery of operational costs is required. For the first five years of such projects, up to 80 percent of capital expenditures and up to 50 percent of operation and maintenance (O&M) costs are funded by the government, both at the federal and state levels. As per the agreement, the Central Government would bear up to 40 percent of the cost of total project (TPC) and contribute 25 percent of the Operating Costs throughout the initial five years of the project's commercial endeavors.

2. LITERATURE REVIEW

An appropriate infrastructure would be the driving force behind economic growth and development in every economy, according to a 2008 study by Amadi (Amadi, 2018). A study was done in 2020 by Lakmeeharan, Manji, & Poeltner, according to them it is very pertinent to minimize the infrastructure gap to improve the standard of life of the population (Lakmeeharan, Manji, & Poeltner, 2020). According to Kodongo & Ojah, infrastructure refers to physical installations such as roads, highways, water supply system, airports, electricity, telecommunication facilities, waste treatment etc, (Kodongo & Ojah, 2016: 106). Dominic in 2016 did a research work on reviewing PPPs on some developmental projects in Nigeria. The work of his got published in the International Journal of Application or Innovation in Engineering & Management. He highlighted that the developed countries used the PPP model approach most, when developing their socio-economic infrastructure, and developing countries are now paying attention towards this direction. Dominic, C. M. et al. (2016). There is a study culminated in 1999 by Hammami, he concluded in work that, the development of basic infrastructure is an essential

prerequisite to satisfy a nation's growth requirements. The government is unable to meet the demands for infrastructure money on its own, therefore there is a compelling argument to be made for the private sector to take the lead up and contribute to solving the issue at hand. The Government of the nation understands that government help might improve the economic viability of infrastructure projects, which may not always be feasible owing to prolonged gestation periods and constrained financial returns. Considering the limited resources and capacity issues faced by domestic road builders in India, VGF could prove to be a useful tool for filling in any deficiencies in road construction. In brief, the most appealing and feasible method for building funding infrastructure is the VGF model.

3. RESEARCH GAP

There is a dearth of research on VGF in the infrastructure sector, but an extensive number of studies have been conducted to identify the variables influencing PPP projects. The concept of VGF is still need to be popularized and more research work needs to be done.

4. OBJECTIVES

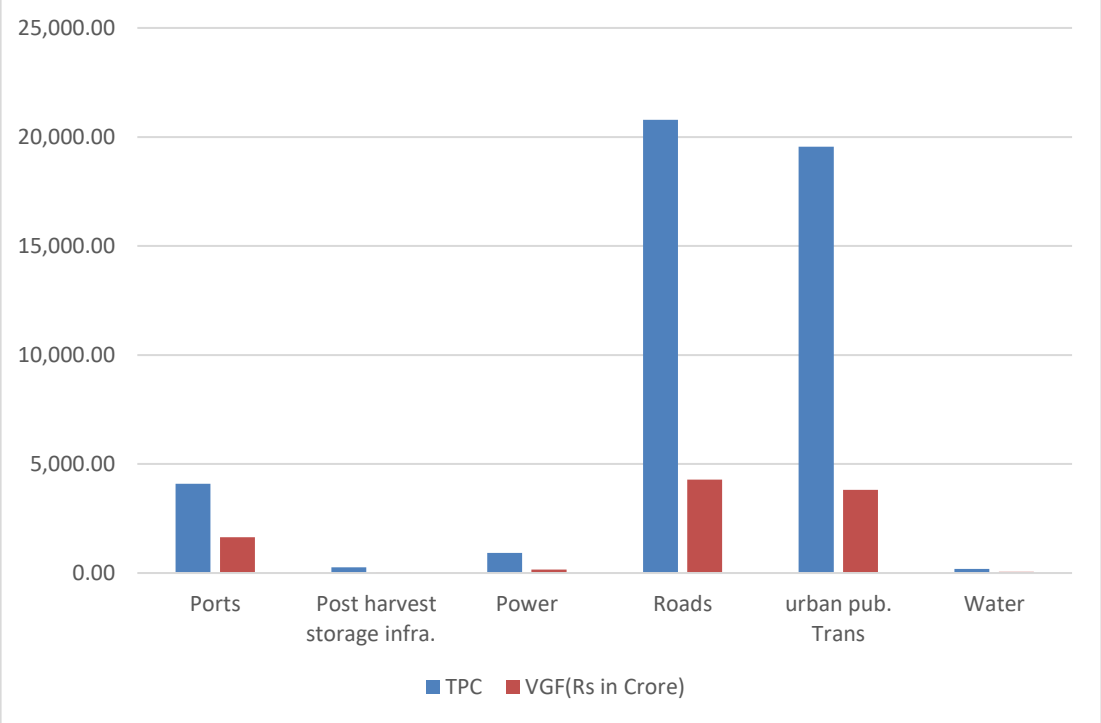
- The study will highlight the role of PPPs in economic and social infrastructure for development.
- This will examine the growth of VGF projects in different sectors.
- The study will show the analysis of VGF project contribution in different states
- To examine the growth analysis of VGF projects from 2007 to 2023.
- To suggest policy matters.

Sector wise report is shown in the table 1.According to the report of the Department of Economic Affairs, Rs 20, 780.67 is the Total project cost and Rs 4278.79 is VGF for Roads sector. Total project cost for urban public transport is Rs19552.31cr and VGF is Rs3809.00, the above two sectors have the highest Total project cost along with VGF, while the Water sector is showing the lowest project cost.

Sr No.	Sector	No. of Projects	TPC amount	VGF	PERCENTAGE
1	Ports	1	4,089.00	1,634.98	30

2	Post-harvest storage infrastructure for horticultural and agriculture produce (like cold storage)	8	268.58	28.12	10
3	Power	3	924.70	161.70	17
4	Roads	52	20,780.67	4,278.79	20
5	Urban Public Transport (which exclude rolling stock in case of urban road transport)	2	19,552.31	3,809.00	20
6	Water	1	187.71	50.00	27

TABLE 1 TPC AND VGF PROJECTS AMOUNT (SECTOR WISE REPORT) (RS in Crore)
Source: The Department of Economic Affairs, Ministry of Finance



Source: Author's calculation

FIGURE 1 TPC AND VGF PROJECTS AMOUNT, SECTOR WISE REPORT

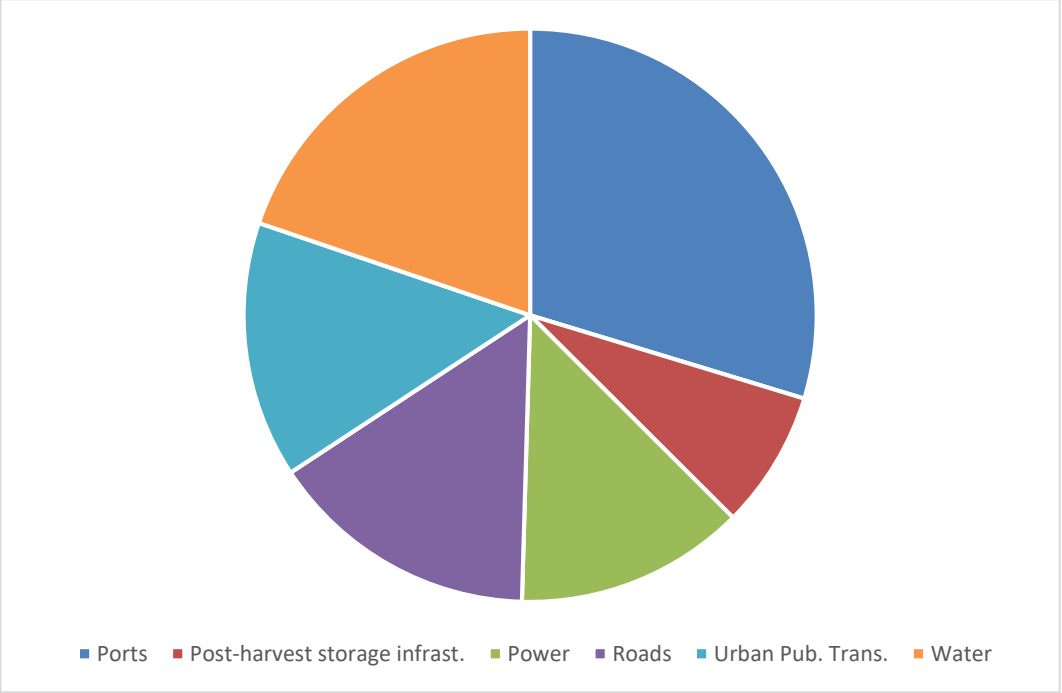


FIGURE 2 SECTOR WISE PERCENTAGE OF VGF AGAINST TPC
SOURCE: AUTHOR'S CALCULATION

Table 2 shows the state wise report of Viable Gap Funding (VGF) out of Total Project Cost (TPC). The table also shows the percentage of VGF against TPC. Maximum PPP projects using VGF is in Madhya Pradesh, followed by Maharashtra. Total project cost involved in Projects is highest in Telengana followed by Maharashtra i.e. TPC Rs 12,132.00 and 10,156.43 respectively.

TABLE 2 VGF FINAL PROJECTS STATE WISE REPORT
(RS. IN CRORE)

Sr. No.	State	No. of Projects	TPC	VGF (In Rs. Crore)	Percentage(approx)
1	Andhra Pradesh	3	3,148.03	629.60	20
2	Bihar	3	2,485.14	468.55	20
3	Haryana	1	382.00	76.40	20
4	Karnataka	5	1,278.33	343.68	27

5	Kerala	1	4,089.00	1,634.98	40
6	Madhya Pradesh	28	4,454.45	800.32	18
7	Maharashtra	11	10,156.43	3,066.48	30
8	Odisha	2	1,480.27	308.51	21
9	Punjab	1	26.57	5.31	20
10	Rajasthan	7	2,132.56	364.78	17
11	Telangana	1	12,132.00	1,458.00	12
12	Uttar Pradesh	4	4,038.19	805.98	20

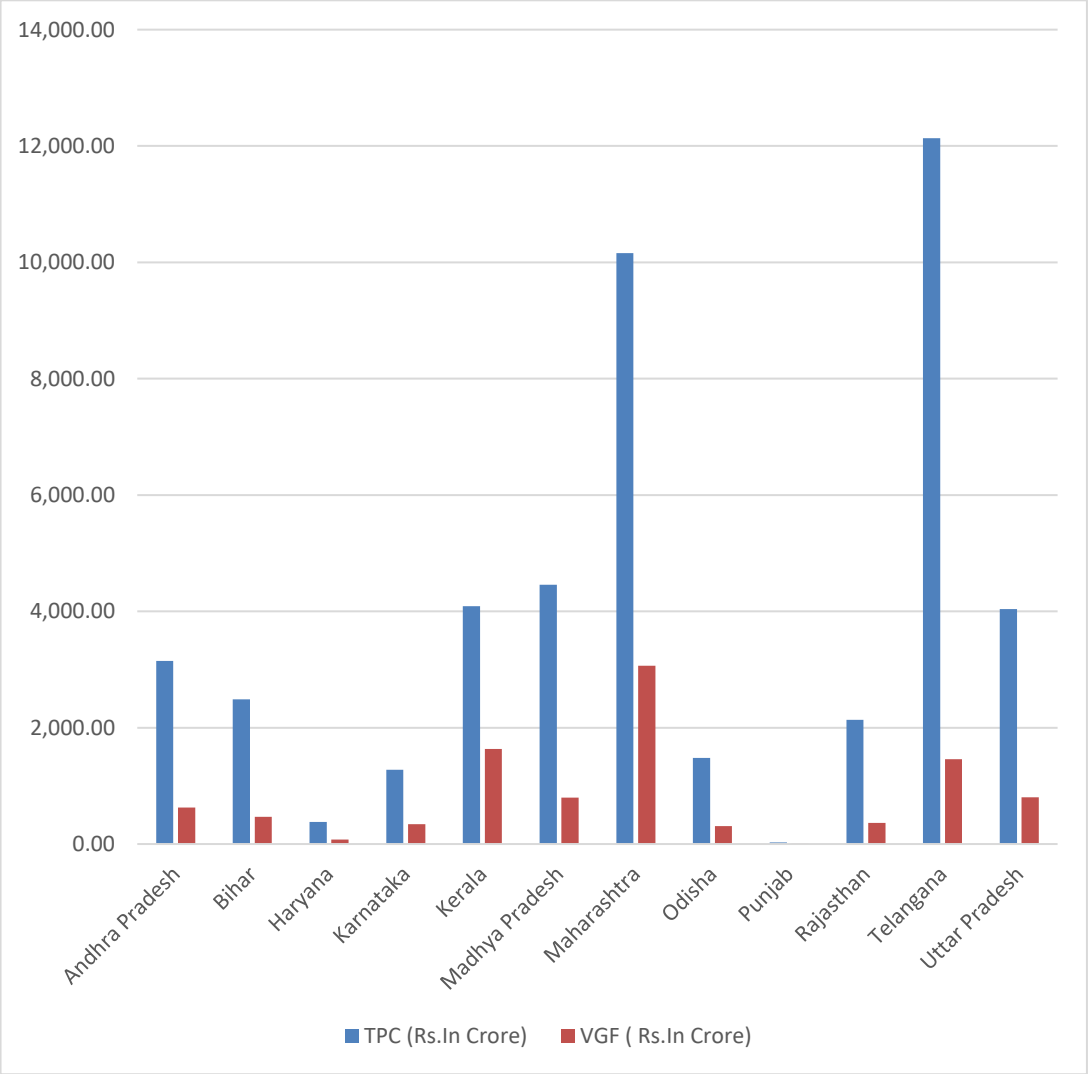


FIGURE 3 STATE WISE VGF FUNDING (HISTOGRAM)

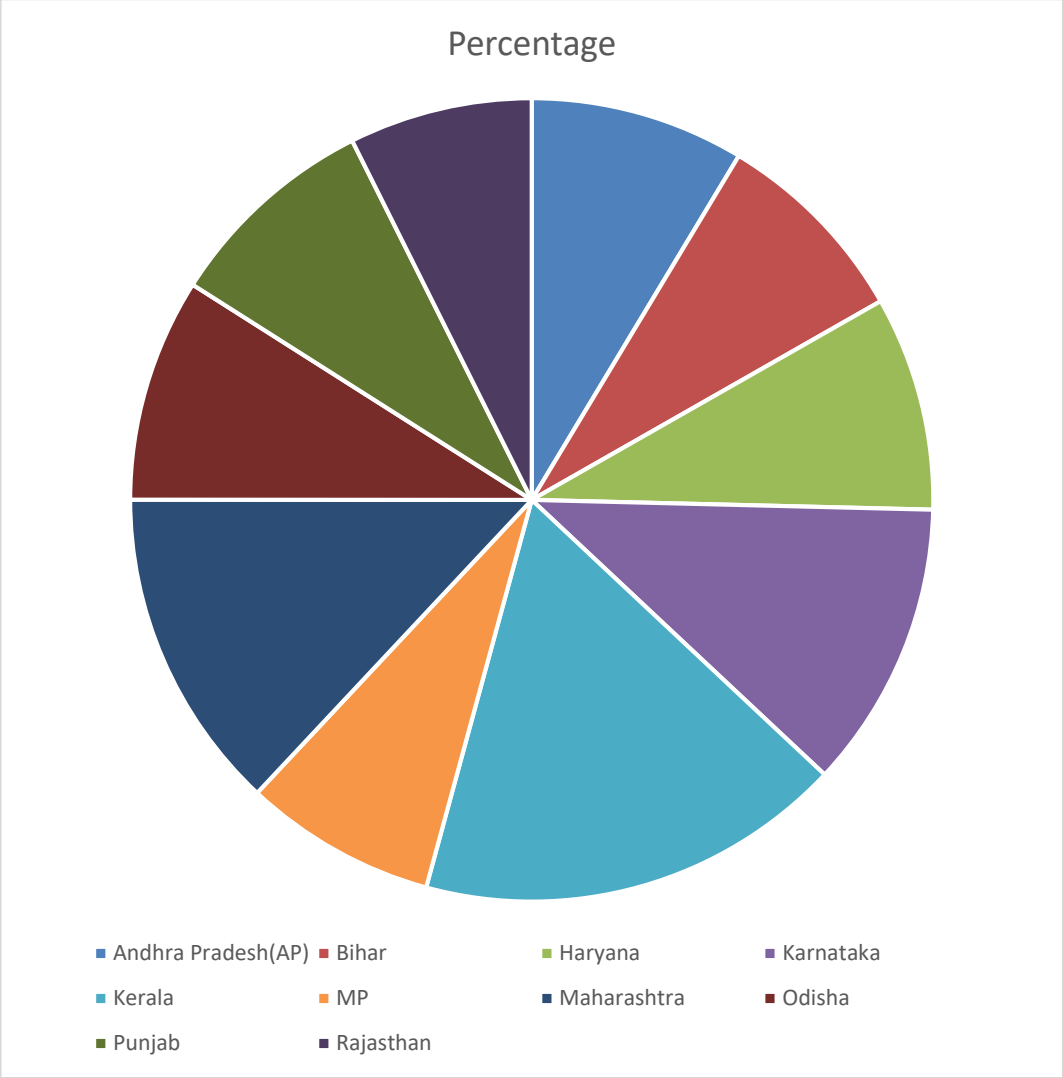


FIGURE 4 STATE WISE VGF FUNDING (PIE CHART)
SOURCE: THE DEPARTMENT OF ECONOMIC AFFAIRS, MINISTRY OF FINANCE

Table 3 examines year wise Total Project Cost and VGF from 2007 to 2023. In 2007 TPC was Rs 186.70cr and VGF was Rs 37cr, while in 2023 it is Rs 4089.00and VGF is 1634.98.It is visible from the table that from the base year i.e. 2007 it has shown positive growth in 2023, but from the chart it is also visible that there are many fluctuations in line graph like in 2014-15 onwards it has shown downward trend because change of the Governance(BJP has taken the charge) ,

Amrit jal jeevan scheme was introduced in 2015, due to this most of the funds get diverted.

In 2019 again downfall in the funding is visible because of two main reasons i.e. due to unprecedented contingency (Covid) and in 2019 Jal Jeevan mission was introduced due to which funds get diverted.

Sr. No.	Year	No. of Projects	TPC (Rs. In Crore)	VGF Approved (Rs. In Crore)
1	2007-2008	3	186.70	37.34
2	2009-2010	2	788.00	157.60
3	2010-2011	9	1,685.19	309.59
4	2011-2012	5	1,263.51	252.70
5	2012-2013	13	6,149.11	1,389.85
6	2013-2014	9	17,525.62	2,534.99
7	2014-2015	12	3,595.53	596.39
8	2015-2016	2	565.78	119.00
9	2016-2017	4	1,516.00	304.48
10	2017-2018	2	432.35	161.14
11	2018-2019	1	26.57	5.31
12	2019-2020	1	67.38	19.57
13	2021-2022	2	7,485.59	2,358.65
14	2022-2023	1	4,089.00	1,634.98

TABLE 3 VGF PROJECT AMOUNT YEARLY REPORT

SOURCE: THE DEPARTMENT OF ECONOMIC AFFAIRS, MINISTRY OF FINANCE

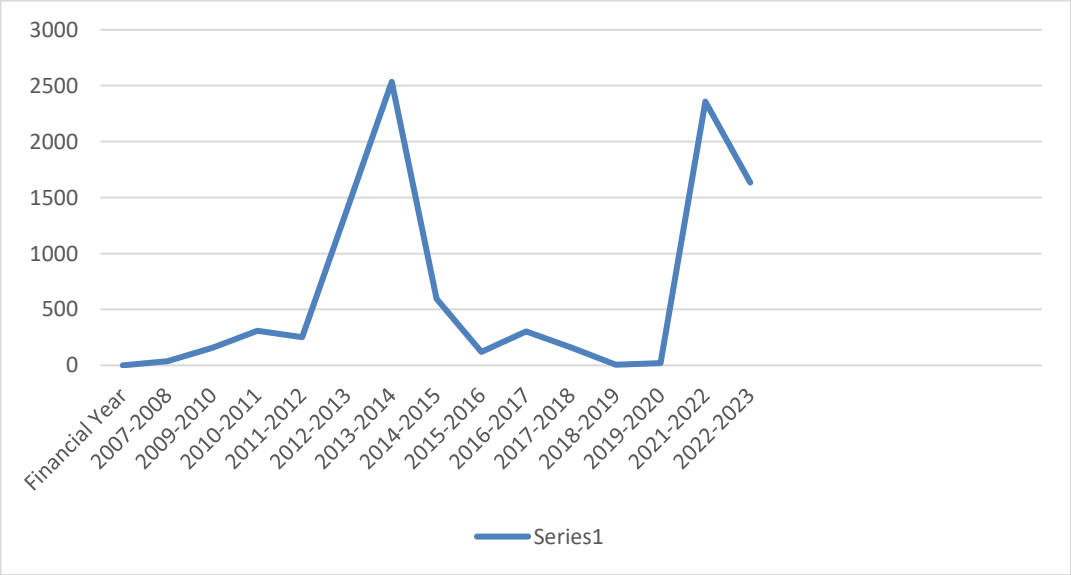


FIGURE 4 YEAR WISE VGF FUNDING
(RS IN CR)
SOURCE: AUTHOR'S CALCULATION

5. CONCLUSION

VGF can be one of the mean of PPP model for any infrastructural development therefore implementing developmental projects through VGF would not cause much pressure on the financials. Through credit enhancement and additional grant funding, the VGF lowers the capital cost of projects and makes them viable and appealing for private investments. It also brings transparency and uniformity to the process of releasing grants. In addition, the VGF offers a wide framework and an inviting environment that enable the private sector's advantages in terms of efficiency, adaptability, and innovation to be used to improve infrastructure and services at the lowest possible cost and to give users better "Value for Money.". However very little work has been done in this direction, as it is related to development, therefore makes it mandatory to have more research work on VGF process. Along with this performance based budgeting needs to be done so that its effectiveness and efficiency can be evaluated and auditing can also be performed.

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