ഗുലാത്തി ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഫിനാൻസ് ആന്റ് ടാക്സേഷൻ പ്രസിദ്ധീകരണം

കേരള ഇക്കോണമി

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GIFT GULATI INSTITUTE OF FINANCE AND TAXATION

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വിലാസം
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Editorial
GST in India needs reforms backed by research

Implemented on 1st July 2017, Goods and Services Tax (GST), is the most pathbreaking indirect tax reform in independent India. Although India had the latecomer advantage, as she was preceded by about 160 countries, an India-specific GST paradigm has evolved considering our specificities. The destination-based consumption tax subsumed several pre-existing taxes the Union and state governments levied. The new simplified tax regime is designed to improve tax effort (tax-GDP ratio), end tax cascading, enhance efficiency and competitiveness, reduce prices, and accelerate GDP growth. The states have surrendered more taxing powers than the Centre, thus raising concerns about the fiscal autonomy of states. Hence, they were guaranteed the GST compensation that assured 14 percent growth in their GST revenue for the initial five years. As the new tax regime is about to complete seven years, it is pertinent to explore where the system stands concerning promises and the plausible way forward.

Revenue performance

There were concerns regarding poor revenue performance in the initial years of GST implementation. However, the performance has been impressive following the economic recovery after the COVID-19 pandemic, as the revenue collections touched new highs month on month during the previous fiscal year, 2023-24. The gross GST revenue in April 2024 reached ?2.1 lakh crore, scaling the new heights since its implementation. The average monthly collections in 2023-24 stood at ?1.68 lakh crore with a growth rate of 11.6%.

However, a comparative analysis of GST revenue performance between the pre-and post-GST period reveals that an increase in the tax base is still awaited. The average of total taxes subsumed under GST during 2012-17 was 6.13 percent of GDP. During 2017-2023 the GST-GDP ratio, excluding GST compensation cess, declined to 5.65 percent, whereas the ratio barely maintained the previous level of 6.13 percent if GST compensation cess (0.48 percent of GDP) is included.

States, in general, performed poorly during the post-GST period compared to the earlier period. In 16 out of 17 major states, the share of GST in GSDP showed a decline in the post-GST period, Jharkhand being the only exception. Further, 15 out of 17 major states showed a decline in the contribution of GST in their own tax revenue

collection. The only exceptions here are Maharashtra and Tamil Nadu. Given the slip between the cup and the lip, it is pertinent to reflect on the underlying factors and the future agenda for reform.

Behind the slip

The observed performance could be seen in light of a host of factors, including the plethora of rates that presumably stood in the way of increased compliance in tax collection, inter-alia, on account of the proliferation of fraudulent claims for input tax credit. The GST rates in India which is shown to be much lower than many comparable countries which is divided between the Union and the states although the latter made more sacrifices. Another issue pertains to the issue of breaking open the black box of IGST which should be an issue of concern for the Union and the GST council. It was expected that being a destination-based tax, consumer states would be the beneficiaries. However, evidence from a consumer state like Kerala reveals that the ratio of IGST to SGST is only at a low level of 1.2, indicating a significant loss of revenue for the state.

The contours of reform

GST in India is still evolving and needs reform to ensure that the social marginal product of the reform is positive. From the perspective of States, there is much to be gained from redesigning the division of GST revenue between the Union and the States' wherein the share of States is raised from the present level of 50 percent. The functioning of the IGST clearing mechanism, despite the significant improvement over time, leaves much to be done.

In the reform agenda, the most discussed issue has been the simplification of rate structure. Arvind Subramanian, the former Chief Economic Advisor made the case for a three-rate structure with a standard rate of 18 percent, a lower rate of 10 percent, and a demerit rate of 40 percent. Since the GST compensation period is over, cesses should be incorporated into the normal rate structure at the top rate of 40 percent. This is expected to eliminate a major distortion whereby a significant source of revenues has been walled off from the standard divisible pool of taxes that provides resources for both the Centre and the states. Vijay Kelkar, the Chief Architect of India's GST and Chairman 13 Finance Commission, argued for a single GST rate based on the experience of most of the developed countries. Of the countries that follow GST, 80 percent, including Singapore, New Zealand, the United Arab Emirates, and Japan, have opted for a single tax rate and were successful in increasing compliance and minimizing tax disputes.

The need for reform in tax rates cannot be overemphasised. However, considering the country's abysmally low effort, one needs to ensure that the reforms do not cause further erosion in the tax effort. The rate structure change also needs to ensure that it

does not aggravate the already rising levels of consumption inequality and fuel inflation, as it hurts the poor the most. There is a need for caution while replanting reforms from countries that have already achieved higher tax efforts with homogenous socio-economic structures. Reforms addressing the above issues call for more research backed by sound theory and empirics. Unfortunately, however, research on GST in the country is majorly handicapped by access to the needed data generated in plenty but yet to be made public.

K J Joseph & Kiran Kumar Kakarlapudi

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Lecture 1

Reorienting Public Finance in Indian Fiscal Federalism with Reference to Local Governments*

M A Oommen

Abstract

The 73rd and 74th constitutional amendments heralded a new era in the structure and progress of Indian federal polity. In this context rethinking the Indian public finance accommodating the 3rd tier of government as a viable component is a great need. This lecture is the first in the series of two lectures that attempt to define the concepts of public finance, federalism especially fiscal federalism as a back drop to this exercise.

Keywords: Public Finance, Fiscal Fedaralism, third tier.

The Indian federalism consisting of the Union and States was a dual set up before the 73rd/74th Constitutional Amendments (CAs). But this momentous amendments turned Indian public finance into a multi-layered federalism. This lecture on 'Reorienting Indian public finance' addresses this issue from a broader canvass. The lecture is organised under the following heads: The first lecture examines only the first three questions.

1. What is Public Finance?
2. What is Federalism?
3. What is Fiscal Federalism?
4. Received theories of Fiscal federalism and the 73rd/74th CAs
5. Union Finance Commissions and the Third Tier
6. State Finance commissions
7. Towards reorienting public finance with reference to the third tier.

1. What is public fnance?

When I studied for M A economics, long before Musgrave wrote his *Theory of Public Finance,* the acknowledged authority of public finance was Hugh Dalton and the various theories he formulated. He defined public finance as a discipline "concerned with the income and expenditure of public authorities and the adjustment of one to another". In other words it is budget, to be prudentially adjusted to balancing the income and expenditure side. It was probably Keynes' general theory and his rationale for deficit budgeting that made public finance really public economics and part of the management of the economy. Macroeconomics was also born. In the

Soviet Union and in Communist economies like China with over 50 per cent in the public sector, the role of finance is different and certainly not comparable to other capitalist mixed. But in a mixed economy the discipline has assumed more importance and a critical understanding of fiscal functions and tools has become important.

The Musgravian tripartite functions of public finance have found a place in classrooms since 1959. They are (a) *allocation function,* the public provision of certain goods or social goods (b) *distribution* or adjustment in the state of distribution of income and wealth and (c) *stabilization* ie measures to deal with unemployment, inflation and promotion of growth. These indeed are a brilliant summing up. Wallace Oates 2005 (which I refer again below) speaks of a first generation theory of fiscal federalism called AMS school, the essence of which is practically rooted in the Musgravian, trinity. AMS refers to Kenneth Arrow, Richard Musgrave and Paul Samuelson. I know all of you are familiar with this. But my main objection is that it does not present a normative approach within a social democratic framework. I maintain that neoclassical and Keynesian mix which AMS postulate are not universal priniciples that are relevant to all places from Robinson Crusoe island to China, to tribal habitations to New York market. Economics is a socially embedded science and its principles are contextual rather than universal..

In India fiscal functions should be governed by the preamble and the directive principles of state policy and therefore from the principles of social justice. Richard Musgrave on his own and the work with Peggy Musgrave take pains to show that whatever theory they say are relevant to USA. Look at what Musgrave and Musgrave note in their Preface to the Fifth edition that the 'distribution of the tax burden has come to be of less concern' and a little later 'massive deficits in the federal budget emerged following tax cuts in the early eighties'. With no comments the ideology of the book is made clear in these words. At this point as a teacher of economics, of an older vintage, but as one who has read Thomas Piketty's three books *Capital in the 21st Century, Ideology and Capital and A brief history of Equality,* I would say [these books provide profound criticism of contemporary economics and politics] they give evidence to show that the phenomenon of rising inequality in wealth and income is perpetuated by the ruling class through the rationalization of their ideologies and this could be and should be controlled for building a democracy built on social justice. His main tools of social transformation are public finance. The title of chapter 14 of *the Capital in the 21st Century is Rethinking the progressive income tax* and chapter 7 of his latest book. A brief history of equality is titled *Democracy, Socialism and Progressive taxation.* I say all these to drive home the point that public finance has to be understood contextually and that in the Indian context it is a social state based on Indian constitution.

2. What is federalism?

The word federalism is derived from the

Latin word *foedus* which means agreement. Quintessentially federalism and its success depends on agreement among the federating units which are combined under a common sovereignty. Based on the constitutional division of powers, governments of the world are broadly divided into unitary and federal. In a unitary government all major government functions are centralized and the sub-units are subordinate entities. **A federation on the other hand is "a multi-level system of government, in which different levels of government exist each of which has some independent authority to make economic decision within its jurisdiction"[Boadway and Shaw (2009):4].** Although there are only 25 federal countries in the world today, they account for 40 per cent of world's population and therefore constitute a critical mass in the economic and political governance of the world.

Federations are broadly classified into 'holding together' or 'coming together' varieties depending on the manner of their formation. India as a federation, does not represent a "coming together" variety, but rather a "holding together" category evolved and shaped historically. The Indian constitution that provides its defining features interestingly does not use the term federal. We may include India in the "holding together" view of federalism also called "new federalism"[Boadway and Shaw (2009):4] which represents an attempt to decentralise responsibilities further down to state and below. The 73rd/ 74th Constitutional Amendments (CAs) and the introduction of Part IX and Part IXA to the constitution that followed provide for this decentralisation and multi-level system of governance. In brief These amendments have turned the dual federalism comprising only the union and states into a multi-level federation.

One can mention a dozen types of federalisms. We mention only five most important of them found in the literature: dual federalism, competitive federalism, market-preserving federalism, cooperative federalism and environmental federalism. These are not water-tight divisions. They help to highlight the possibilities of federalism and their multiple dimensions in practice.

Dual federalism, is a political arrangement in which power is divided between the federal and state governments in well-defined terms with state governments enjoying complete autonomy in their domain. It is a case of divided sovereignty. The residuary powers generally rest with the apex government. United States is a typical case of dual federalism. In a dynamic system it is difficult to practice.

Competitive federalism, is more a theoretical construct rather than an operational arrangement. It postulates that all authorities with over-lapping responsibilities should compete both vertically and horizontally to establish their clientele of services (see Boadway and Shah (2009)]. Under this model states need to compete among themselves as also with the centre for benefits.

Market-preserving federalism, envisages a decentralized federation that incentivizes the institution of market and economic rights of citizens as against a Leviathan state. It was Qian and Weingast (1997) who advanced this "new perspective in the study of federalism" which they called a 'second generation federalism'. The first generation federalism which I already mentioned was also for a market based system advanced importantly by Kenneth Arrow, Richard Musgrave and Paul Samuelson, the so-called AMS perspective. This was considerably modified by Wallace Oates and summed up in his famous 'decentralisation theorem'. For your benefit, I may quote him:

"Each public service should be provided by the jurisdiction having control over the minimum geographical area that would internalize benefits and costs of such provision"[Oates (1972):p.55].

This really means assignment of functions such as defence to the centre or federal government and functions such as streetlight or garbage collection to the local government. In this type of federation all levels of government will have to face the hard budget constraints. That is governments will have to face the consequences of their action. In a strict market preserving system which really is the essence of second generation theories bailing out of failed projects or continuing costly, inefficient, large scale public programmes and so on are ruled out. Most writers who advance the market preserving system while theorizing on economic rights and evils of 'state predation' fail to address the question of social justice. Any federalism that fails to address equity issues and social goals cannot be truly legitimized.

Another type of federalism, mostly used in Indian public finance discourse is **Cooperative federalism.** Under cooperative federalism, the federal and state governments cooperate with each other for the overall development of the nation. Boadway and Shah (2009) classify cooperative federalism into three viz., *inter-dependent spheres, marble cake and independent spheres.* In interdependent spheres (e.g. Germany and South Africa), the federal government determines policy, while the state and local governments act as implementation agencies. Of course the voice of second and third order governments (state and local) are generally taken care of via second chambers and such other institutions. In the marble cake model of cooperative federalism, (e.g. Belgium) all, orders of government have overlapping and shared responsibilities and all tiers have equal status. In the independent spheres of government (Brazil is the best example) all levels enjoy autonomous and equal status and coordinate their policies horizontally and vertically. Where does Indian federation fit in this tripartite classification of cooperative federalism? Policy makers, politicians, economists, journalists and others speak of India as a good case of cooperative federalism. But it is difficult to pigeonhole India into any one of the above. Although the nearest approximation is the marble cake model, it does not fit in here because we have exclusive union, state and concurrent list.

But there is no local list in-spite of an eleventh and twelfth schedules listing the subjects of jurisdiction of rural and urban local government, 29 for panchayats and 18 for municipalities or urban local government[ULG]. There is no clarity and much over-lappings. This was precisely why the Subrato Sen Committee (1996-1998) of Kerala ventured to break down the subjects into activities and sub-activities for the three tier panchayats, called Panchayati Raj Institutions as well as for the nagar palikas, municipalities and corporation that comprise the ULGs. The lack of a well-defined local list has added much confusion in Indian public finance. Several contemporary trends demand a reexamination of the idea of cooperative federalism, a concept frequently invoked both by the centre as well as by the states as convenient to them. If the power relations keep growing unevenly and mutual mistrust widens the very basis of cooperative federalism will be under threat. The growing share of non-divisible cesses and surcharges as a share of divisible pool, which increases the continuing inroads into the states' autonomy, appropriating more and more tax handles (e.g., goods and service tax), expanding concurrent list, unilateral action where consultation is needed (e.g., lock down in March 2020) are typical cases against building mutual trust which is the real key to cooperative federalism. The growing divergence in interstate income disparities [for an elaborate discussion see Oommen and Chakravartti (2023)] will raise the problem of equity in the Indian federal context. It will be difficult to continuously subsidise laggard states by better performing ones via the common fiscal resource pool. All these are to be seen against the background of the continuing neglect of decentralization reforms by the ruling party as well as by most regional parties and state governments. As already noted NITI Aayog has been putting the burden of transforming India into the shoulders of states by encouraging competitive federalism rather than cooperative federalism.

Environmental federalism refers to the strategy of optimal management of natural resources in a multi-order government system and is important in modern times with climate change assuming a crisis dimension. To be sure it is much more than an assignment problem and issues range from the local to the global. Broadly it refers to a multi-dimensional natural resource management policy framework that seeks norms of air pollution, water pollution, conserving forest cover, river system, biodiversity, climate change and many others. Although it is difficult to strictly follow a subsidiarity principle, it is important to pursue environmental decentralisation in a large federation.

Wholesome environment is a local public good. Wallace Oates who examines the problem in great depth, assigns an important role in the setting of environmental standards and the design of regulatory programmes to local governments. He points out that the central government, in addition to setting standards for national "pollutants", has a fundamental role in supporting research in environmental science and pollution control technology and in providing

needed information and guidance to state and local governments to facilitate healthy environmental system [See Oates (1998,1996) among his other works on fiscl federalism and economics of environment].

Different federations have approached the problem differently. Environment has come to occupy a prominent place only recently in Indian federation. True, Schedule VII of the constitution mentions the sharing of powers and responsibilities between Union and States with respect to environmental and natural resources, along with the concurrent jurisdiction thereof. For example, land, water and agriculture are state subjects, interstate river system figures in the union list and forests and wild life are concurrent subjects. It is Article 48A introduced following the 42nd Amendment, 1976 that really placed environment protection prominently in the policy agenda of India. India has responded positively to the climate concerns of UN and other agencies . A series of Notifications and legislations have been promulgated. In the context of fiscal decentralisation, I may mention in particular Article 243ZD which provides for district planning and environment conservation at the local level. This is indeed a good example of environmental decentralisation in Indian federalism.

3. What is fiscal federalism?

The term fiscal federalism was first used by Richard Musgrave in 1959 and has acquired considerable theoretical and practical corpus since then. I do not propose to go into the principles of federal finance of Musgrave except to say that they have endeavored to fit the tripartite fiscal functions within the theory of federal finance I do not enter into that big literature built around the first generation and second generation fiscal federalism except tangentially. Briefly fiscal federalism is decentralized fiscal system. The many works of Wallace Oates, a great scholar on decentralisation considers fiscal federalism as "understanding which functions and instruments are best centralized and which are best placed in the sphere of decentralized levels of governments". For our purpose let me outline the important characteristics which a multi-level federal polity like India has to facilitate a rational, efficient and equitable system of public finance in the context of India's decentralisation reforms. They are examined under four heads:

(i) Functional mapping/Assignment of expenditure responsibilities

In a multi-layered federal polity the basic question to be asked is *who should do what* Indian polity never asked this question and will have to reap the consequences of that failure. Without mentioning the voluminous edifice of first generation and second generation theories of fiscal federalism, let me introduce the subsidiarity principle which is very meaningful in our context. What can be done best at a particular level should be done at that level and not at a higher level is the ideal principle of expenditure responsibilities. This will ensure allocative efficiency on which the fiscal federalism theorists swear by and invoke even the Pareto-optimality conditions.

The Indian Constitution which borrowed heavily from the Government of India Act, 1935 was a two tier federation of union and states. It borrowed approximately 250 Articles verbatim or with minor modifications in phraseology from the 1935, Government of India Act, 1935[M.Brecher (1959):p.207]. With several states waiting to stay away from the union and the horror of partition threatening the fabric of Indian polity, the Indian constitution makers had no option but to opt for a quasi-federal system. But the 73rd/74th Constitutional Amendments offered another grand opportunity to raise the question of who should do what once again? Instead of asking these questions, the Constitution added Schedule XI for panchayats listing 29 subjects and schedule XII for municipalities listing 18 subjects, taken mostly form the state list. These have added much confusion with overlapping of functions. Disaggregated mapping of functions into activities and sub-activities with assignments appropriate to the three tiers of PRIs and urban local governments was the way out. The Subrato Sen Committee in Kerala (1996-98) did this disaggregated functional mapping admirably well. When the Ministry of Panchayati Raj [MoPR] was started in May 2004, Union Minister Mani Shankar Aiyar promoted a campaign for disaggregated functional mapping largely based on the Kerala pattern and even entered into Memorandum of Understanding [MoU] with several states to facilitate functional mapping.

(ii) Revenue assignments

The fundamental question of financing the expenditure responsibilities raises another important question: who should tax what and where? Patterned on the Government of India Act, 1935, these questions were never raised in the division of tax assignments when the constitution was framed. The constitution envisaged a two tier system where more productive and elastic sources of taxes like income tax, corporation tax, customs duties were placed in the union list and taxes like land revenue, sales taxes, stamp duties etc., kept in the state list. Local bodies (only after the 73rd/74th CAs given government status) being a state subject had no independent tax handles except those assigned or shared by the state. Actual situation after adding the third stratum of government vary considerably from state to state depending on the devolution of the 3Fs (Functions, Funds and Functionaries) pursued by each state [For state-wise details of functional assignments and taxes see Oommen M A (2004)].

Local governments despite the two amendments do not enjoy much autonomy (strictly speaking violating Articles 243G and 243W which mandate to create institutions of self-government) in the exercise of taxing powers. But they can vary tax rates as per law and even charge user fees in certain cases. Own Source Revenue (OSR) is important and the question of hard budget constraints certainly assume importance. OSR is important not only to ensure autonomy but also to ensure better fiscal prudence. As Richard Bird (2000) has pointed out the voter residents will hold local politicians and bureaucrats more accountable if public services are financed by taxes they pay.

(iii) Evolving an efficient and equitable transfer system.

This essentially means making institutional arrangements for rectifying the vertical and horizontal imbalances arising in inter-governmental fiscal relations. Ideally the expenditure responsibilities of a government and its revenue capacities should match. This matching called the principles of 'fiscal equivalence' seldom happens in practice in a multi-level federation. The vertical mismatch between responsibilities and resources has to be bridged through relevant fiscal choices and arrangements. Besides the vertical imbalances, inter-jurisdictional disparities in fiscal and economic capabilities due to differences in resource endowments, historical developments and social disabilities of the residents the visible phenomenon of caste cannot be ignored. In a democracy like India avowedly committed to removing regional disparities, horizontal disparities have to be continuously addressed. Transfers to carry out some agency functions on behalf of a higher level government (it could be the federal or state governments) do not strictly form part of the general transfer system.

Now what are the task of a good inter-governmental transfer arrangements? They are:

(a) to determine normatively the size of the divisible pool which ideally will have to be related to the expenditure responsibilities a government has to shoulder and the revenue potential and performance which of course has to be normatively screened to discourage imprudence;

(b) to equitably distribute the pool among the sub-national governments keeping the objective of the decentralisation laid down in the constitution and state legislations; and

(c) in the absence of institutions like the planning commission where market dominates resource allocation, the union finance commission has to work towards reducing regional disparities. It is important to contains self-reinforcing forces.

The Union Finance Commission (UFC) established as per Article 280 and the creation of State Finance Commission (SFC) created as per 243I and 243Y on the pattern of the UFC are the arrangement designed by the constitution. In brief the 73rd/74th CAs which have added part IX and IXA to the constitution have virtually restructured the public finance of Indian federation. The moot questions is How far we have pursued this during the last 32 years?

(iv) Accountability Mechanism

Decentralised governance and for that matter any government is legitimized through appropriate accountability mechanism. As Richard Bird observes:

"Budgeting, financial reporting, and auditing should be comprehensive, comprehensible, comparable, verifiable, and public. It is equally important, however, to ensure that budged resources are applied as efficiently and effectively as possible to achieve desired public outcomes". [Bird (2000)p.40]

By creating the institution of Gram sabha, the assembly of voters at the village level (article 243A) with powers to review budgets, hear audit reports and so on the 73rd Amendment has connected the accountability institutions to the door steps of the people. It is important also to look back and review where we are now in making gram sabha a viable institution.

In concluding this part of the lecture, let me say that what is said so far is a simple stylized presentation largely accommodating the Indian decentralized reforms. Logically I should have added my objections to western theories here. But I am postponing this for the next event. I deliberately leave out the huge edifice of fiscal federalism to simplify matters. The theory of fiscal federalism and much theories in public finance owe a great deal to Musgrave. Although many people have ruthlessly ciriticised Tiebout (1956) and his 'voting by feet' model, he was a pioneer in regard to the theory of fiscal decentralisation. Please note that I have skipped the socalled AMS (Arrow, Musgrave, Samulson) theory or first generation theory (FGT) because what is relevant is due to Musgrave. Wallce Oates (2005) has a paper on 'Towards a Second-generation theory of fiscal federalism'. Having carefully read that, I thought we may skip that because that is not going to throw much light on the topic we have on hand.

All the received theories of fiscal federalism are ways of preserving the market. Both the FGT and SGT however focused on market failures and rectifying that. Seeing the state as a 'Leviathan' that seeks its own aggrandizement that maximizes the revenues from the economy [Brennen and Buchanan (1980)] and approaches like that are totally irrelevant. The FGT envisioned a major role for the central government in establishing equitable distribution of income and maintaining the economy at high levels of employment with price stability and want decentralized levels of governments to handle in the efficient provision of 'local public goods'. Many theories are built around this. If any central government has perfect information many theorists will argue for Pareto-efficient levels of output of local public goods in each jurisdiction as I have already said. But local level governments know the preferences of the local citizens. Wallace Oates' decentralisation theorem follows from this. Following from this and the various theories that have emerged as an offshoot of this are against all 'bailout' of provincial or local governments and argue for hard budget as we have already noted. But this however thematically relevant is hard to implement.

Let we conclude this part by quoting tow public finance scholars De Figueirdo and Weingast (2002) point out that a federal system is subject to two basic threats:

(i) Central intrusion(or takeover) leading to the destruction of an effective federal structure through the loss of power at decentralized levels;

(ii) The impairment of federal institutions through opportunistic efforts at decentralized levels to raid the fiscal commons and obtain 'local' benefits at the expense of other jurisdictions.

Indeed the stability of a federal system is a delicate balancing act as the emerging issues in India loudly proclaim.

■

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End Notes

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Does fiscal deficit lead to economic growth? An empirical evidence from Indian States

Haseena Akbar, Neenu Rachal Philip, Santhosh Kumar P K and Ajay Rajeev

Abstract

The article analyses the effect of fiscal deficit on economic growth using balanced panel data from 24 Indian states from 2001 to 2019. The study explores the presence of cross-sectional heterogeneity and common factor dependence among the clubs of Indian states with similar growth paths. The CCE result reveals heterogeneity and common factor dependence among the groups, despite having similar growth paths. This underscores the need for tailored fiscal policies that consider the unique economic characteristics of the states to achieve a balanced economic growth. We explore the implications of the uniform fiscal rules and advocate for a paradigm shift towards a framework that supports state-specific fiscal autonomy and sustainable growth.

Keywords: Fiscal Deficit, Economic Growth, CCEMG, Club Convergence

1. Background

Fiscal performance is a crucial aspect of a country's economic growth, influenced by the utilization of public finance instruments such as tax policy, expenditure policy, and overall budgetary policy (Zee, 1996). For developing countries like India, fiscal policy serves as both an indicator and determinant of economic growth, where tax and expenditure measures aimed at promoting development and macroeconomic stability can often lead to increased public debt. The increase in public debt indeed shows a drift from the neoclassicals to Keynesian theories with an increased role for the government and as a developing nation, the increased role seems necessary. However, higher fiscal deficits can affect savings as well as investment, either directly or indirectly by inflation or interest rates, which could eventually dampen the potential macroeconomic stability of the nation. With an increasing trend and dependency on fiscal deficit, India has forced the nation to implement rule-based counteractive measures to reduce the fiscal deficit in lieu of international standards, and eventually, even state governments were obliged to

follow them. Understanding the implications of these fiscal deficits requires examining the distinct perspectives offered by the Neoclassical, Keynesian, and Ricardian schools of thought. The Neoclassical view, highlighted by (Bernheim,1989), considers individuals as forward-looking, planning their consumption over their lifetimes. This framework emphasizes the long-term consequences of permanent deficits, suggesting that if private savings do not fully offset the decline in government savings, economic growth may be negatively affected. This is particularly evident in closed economic systems, where increased consumption could lead to reduced overall savings.

In contrast, the Keynesian perspective advocates that deficit-financed government spending can boost economic output, especially under conditions of underemployment and idle resources. This approach underscores that government deficits can enhance private investment and stimulate economic growth through a multiplier effect, potentially leading to a crowding-in effect rather than crowding out private investment. Additionally, the Ricardian Equivalence Theorem (RET) (Barro, 1974) posits that the timing of taxation does not significantly impact overall savings and investment levels. According to RET, reductions in government savings due to deficits are balanced by increased private savings, as individuals anticipate future taxation to cover current government expenditures. In India, where persistent fiscal deficits have been predominantly financed through borrowing from the Reserve Bank of India and public borrowing, this has resulted in a growing national debt burden. But often it is the composition of the government expenditure that drives both these theories. Studies have tried to understand the relationship of fiscal deficit and economic growth through various methodologies in different contexts but often fail to capture the heterogeneity in case of the economic potential and development strategy. These rule based disciplines such as the FRBM act introduced in 2003 was majorly to control the revenue deficit and foster fiscal discipline mainly for the central government, which was eventually also taken up by the state governments. It is to address fiscal indiscipline, higher debt, spillover into monetary policy and higher inflation. While the FRBM aims at a broad based fiscal intervention, the approach has to be looked into, particularly in the context of India's federal structure and the diverse capabilities of its states.

The present study addresses the gap in understanding how fiscal deficit impacts economic growth by considering the diverse characteristics of Indian states and critically evaluating the current fiscal framework in the context of cross-sectional heterogeneity and common factor dependence among groups of states with similar growth trajectories.

2. Literature Review

Fiscal deficit remains a central issue in the economic policy discourse, especially in the context of developing economies like India. The relationship between fiscal deficits and economic growth has long intrigued

economists, leading to a diverse range of studies with varying conclusions. This literature review synthesizes findings from research on the impact of fiscal deficits on economic growth in India, its states, and other countries. Chakraborty (2017) studied how strict numerical ceilings on fiscal deficits might curb capital investment, thus constraining economic growth in India. Interestingly, many nations diverge from such numerical targets, opting instead for more flexible fiscal frameworks. This divergence not only prompts a critical reevaluation of fiscal norms but also underscores the potential of flexible policies in fostering balanced economic growth. On the contrary Behera and Mallick (2022), in their examination of 14 prominent states in India, observed that fiscal deficits have adverse effects on economic growth, tax revenues, and inflation. Nevertheless, their research did not account for potential variations in resource allocation and distribution among different states, which may have influenced these outcomes. Furthermore the study by Ali (2022) emphasized the need for fiscal discipline in maintaining economic growth and thereby securing investor confidence, good global rating. Another study by M R & K (2016) highlighted that while fiscal deficits typically harm economic growth, strategically using borrowed funds for capital formation instead of current expenditures can be more beneficial in managing fiscal deficits. By analysing the data from 1991 to 2014 (Bhoir and Dayre,2015) stated that there is no significant relationship between fiscal deficits and economic growth in india, it further asserts that the government have shift more focus towards improving human development indicators, such as health, education, and infrastructure, which could boost productivity and drive long-term economic growth. These perspectives further amplify the developmental road map of fiscal deficit in maintaining higher levels of economic growth. When we are moving beyond India, Onwioduokit and Bassey (2014) studied the fiscal deficit in Gambia, presenting evidence that aligns with the Keynesian perspective on fiscal deficits as drivers of economic growth. Through empirical analysis, they showed that fiscal deficits have a positive and significant effect on real economic growth, emphasizing the critical threshold required to sustain this growth while the effect was negative in Sierra Leone (Korsu, 2006),the long-term analysis revealed a significant negative relationship between budget deficits and GDP, money supply, and the exchange rate, while the impact on interest rates and inflation was positive but not significant. This discovery underscores the potential of fiscal deficits as a tool for fostering economic expansion in developing countries, provided they are managed within sustainable boundaries. In similar time a study conducted by (Mawejje ,2014) in Uganda reported that no direct causality between GDP and budget deficits. However, they found that budget deficits significantly contributed to the expansion of current account deficits and elevated interest rates. By analyzing the effects of budget deficits on macroeconomic variables in Sierra Leone (Korsu ,2006) revealed a significant negative relationship between budget deficits and GDP, money supply, and the exchange rate, while the

impact on interest rates and inflation was positive but not significant. For a cross country comparison (Adam and Bevan 2003) conducted research using panel data from 45 developing nations, identifying a threshold effect. They observed that maintaining the fiscal deficit at approximately 1.5% could enhance economic growth. Going beyond this threshold, additional fiscal contraction could negatively impact economic growth and is not recommended. Research centered on ASEAN countries by (Wee-Yeap Lau, 2019) investigated the influence of fiscal deficits on economic growth. The study revealed that before the Global Financial Crisis, fiscal deficits showed a negative correlation with economic growth. However, in the aftermath of the crisis, there emerged a positive relationship between the two variables, suggesting that fiscal deficits contributed to stimulating economic growth during this period. Navaratnam and Mayandy (2016) explored the effects of fiscal deficits on economic growth in five South Asian countries: Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Using cointegration and Granger causality tests, their analysis indicated that fiscal deficits negatively impacted growth in Bangladesh, India, Pakistan, and Sri Lanka, while Nepal experienced a positive impact. Another dimension of fiscal deficit and growth put forward by (Chakraborty,2007) investigated the interaction between public and private investment in India concluded that public and private investments are complementary, particularly through public infrastructure investment stimulating private corporate investment.

3. Data and methodology

The study utilized panel data from 24 Indian states from 2001 to 2019 from the EPWRF and RBI's Handbook of Statistics on Indian States. Due to the unavailability of data , Telengana, Mizoram , Arunachal Pradesh and Sikkim were excluded from the analysis. Studies have analyzed the impact of fiscal deficit on economic growth using variables such as GSDP per capita (Sachs et al., 2002; Nayyar, 2008), capital formation (Sharma & Mittal, 2019; Bal et al., 2016), inflation (Mallik & Chowdhury, 2001; Behera & Mishra, 2017), and tax revenue (Behera & Mallick, 2022; Neog & Gaur, 2020).

The relationship between economic growth and fiscal deficit is investigated by two different methodologies. Firstly , the panel of states has grouped using club convergence based on percapita income growth rate. The club convergence allows the identification of groups with similar convergence characteristics by accounting heterogenous technology and non-linear changes overtime (Phillips & Sul, 2007). Furthermore, the study employs advanced panel dynamic regression models such as Mean Group(MG), Demean Group(DMG), and Common Correlated Effects Mean Group (CCEMG) to capture the complex dynamics within a heterogenous model.

The basic model for estimation is (1):

$$G_{it} = \varphi_{it} + \alpha TR_{it} + \beta INV_{it} + \gamma GFD_{it} + \delta INF_{it} + \theta(INT\_1)_{it} + \phi(INT\_2)_{it} + \varepsilon_{it} \quad \ldots\ldots (1)$$

Where, G_{it} is Per capita income growth rate, TR_{it} is Tax Revenue, INV_{it} is Investment, GFD_{it} is Gross fiscal deficit, INF_{it} is

inflation. Interactive terms INT_1 and INT_2 represents GFD*INF and INV*TR respectively.

When examining the impact of fiscal deficit on economic growth, the influence of shared statistical patterns on creating interdependence among the states are often ignored. Because the traditional panel data analysis like Pooled OLS and Fixed effect assumes homogenous slope coefficient across panel and uniform effect of cross-sectional dependence. In contrast, the MG estimator allows for parameter heterogeneity (Shin, Y., & Pesaran,1998), while CCMG estimator incorporate cross sectional averages to account for unobservable common factors, thereby providing a more flexible and accurate model for analysing panel data.

The basic panel model for MG estimation is (2):

$$G_{it} = \varphi_i + \alpha_i x_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where, G_{it} is the dependent variable for unit I and time t, x_{it} is a k*1 vector of independent variables specific to i^{th} cross-sectional units in t time. φ_i and α_{i_t} are unit specific intercept and slops respectively, is the errc ε_{it} is which capture the heterogeneity. The MG model estimate separately for each cross sectional to permit full parameter heterogeneity. While the DMG addresses the issue of cross-sectional dependence by demeaning data across the cross-sectional units.

The DMG model is (3):

$$G_{it} = \varphi_i + \alpha_i x_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots(3)$$

With demeaning procedure:

$$\bar{G}_{it} = G_{it} - \bar{G}_t$$

$$\bar{x}_{it} = x_{it} - \bar{x}_t$$

Where, G_t and $\bar{x}_t$ are the cross-sectional average at time t.

However, the model partially addresses the issue of cross-sectional dependence. But the CCEMG uses cross-sectional averages of the dependent and independent variables as proxies for the common factors in estimation (Chudik & Hashem Pesaran, 2014).

The CCEMG model is (4):

$$G_{it} = \varphi_i + \alpha_i x_{it} + \lambda_i \bar{G}_t + \delta_i \bar{x}_t + \varepsilon_{it} \ldots\ldots\ldots\ldots(4)$$

Where, λ_i and δ_i are the common factor estimators.

4. Results

Club convergence

The club convergence model helps to identify the variation in the per capita income growth rates and the existing economic disparities among Indian states. So, initially, the study examined the convergence of per capita income growth rates across various Indian states to categorize them into uniform groups to reduce the effect of heterogeneity in the panels (Table-1).

The convergence of Indian states (Table 1) based on per capita income growth rates revealed four clubs with similar

Table :1 - Club Convergence results

Clubs	States	beta	Spread of Convergence
Club1	Karnataka, Andhra Pradesh, Madhya Pradesh, Assam, Manipur	1.022*** (0.305)	0.511
Club2	Odisha, Tripura, Tamil Nadu, Gujarat	0.437 *** (0.387)	0.2185
Club3	Uttar Pradesh, Rajasthan, West Bengal, Kerala, Haryana, Chhattisgarh, Bihar, Goa	0.624*** (0.157)	0.312
Club4	Jharkhand, Maharashtra, Punjab, Meghalaya, Himachal Pradesh, Nagaland, Uttarakhand	0.79*** (0.087)	0.395

Source: authors' calculation

***** indicate 5% level of significance*

growth paths. All the clubs are positively converged, though there are varying growth rates within clubs. Based on the spread of convergence, the club has been categorised as Highly converging states (Club 1), Moderately converging states (Club 4), Intermediately converging states (Club 3) and Low Convergence states (Club 2).

All groups of state's performance in economic indicators over the period of 2001 to 2019 (Table 2) shows that low converging states has highest average per capita income growth rate (12.00) followed by moderately converging states. This indicates that states with high convergence path needs to grip on comparatively high developmental efforts than other states. However, they exhibit more consistent per capita growth rate compared to other groups. It can be noted that the low convergence state present comparatively lower gross fiscal deficit share and investment among the group shows that the low convergence states have highest average compared to other groups. Except the high convergence states, all other groups reveal consistency in the share of their tax revenue.

The statistical significance of Pasaran's cross-sectional dependence (PCD) indicates that unobserved factors influence all the variables across the group. It necessitates using a model that considers the cross-sectional dependence, which will avoid erroneous conclusions about the model under study (Table-3).

Table 2 - Average and Pesaran's cross-sectional dependence (PCD)

Variables	G	TR	INV	GFD	INF
High Convergence					
mean	10.8	6.4	26.0	3.1	96.0
sd	4.6	3.2	26.9	2.1	30.7
PCD	2.8***	5.6***	8.8***	5.6***	13.7***
Moderate Convergence					
mean	10.6	4.8	34.6	3.5	99.7
sd	5.7	1.6	37.0	2.2	25.2
PCD	6.5***	2.8***	8.7***	2.8***	-2.5***
Intermediate Convergence					
mean	11.4	6.3	27.7	3.3	94.6
sd	6.8	1.0	23.7	1.6	29.1
PCD	9.5***	8.0***	17.4***	8.0***	21.7***
Low Convergence					
mean	12.0	5.7	47.4	2.4	93.4
sd	4.7	1.5	45.8	2.0	23.2
PCD	2.0***	5.6***	3.4***	5.6***	10.5***

Source: author's calculation

Table 3 - The mean group regression result of clubs

Variables Convergence	High Convergence	Moderate Convergence	Intermediate Convergence	Low Convergence
TR	2.296	-1.453	-2.607	-1.637
	(-1.904)	(-2.468)	(-3.759)	(-3.168)
INV	0.864	1.752	0.342	-0.428
	(-0.545)	(-1.481)	(-0.603)	(-0.742)
GFD	-3.006**	0.702	-0.365	0.047
	(-1.403)	(-2.804)	(-1.342)	(-1.822)
INF	-0.128*	0.035	0.003	0.072
	(-0.071)	(-0.089)	(-0.051)	(-0.091)
INT_1	0.015	-0.006	-0.013	-0.005
	(-0.015)	(-0.028)	(-0.017)	(-0.021)
INT_2	-0.283	-0.842	-0.02	0.175
	(-0.216)	(-0.793)	(-0.092)	(-0.207)
Constant	20.496*	11.636	27.351	12.434
	(-11.627)	(-18.2)	(-25.483)	(-24.705)
Observations	95	133	152	76
R^2	0.140	0.229	0.206	0.226
MultipleR^2	0.475	0.529	0.515	0.527
PCD	0.398	-0.010	3.661***	1.976***

Source: authors' calculation

*Note: ****, **, * indicates 1%, 5% and 10% level of significance, Standard errors are in parenthesis*

The Mean Group (MG) model (Table 3) reveals that except for the High convergence group of states, regressors of all other groups failed to exhibit a significant relationship between regressed and regressors. This indicates that other factors influence the economic growth in these groups of variables. However, considering the model assumption that each state group has unique characteristics that may have varied widely, the significant effect is ruled out. Additionally, low and intermediate convergence states have provided evidence towards the alternative hypothesis of 'cross-sectional dependence'. This may indicate the effect of unobserved common factors across the states. Though the low convergence states do not exhibit cross-sectional dependency, the increase in the fiscal deficit and inflationary pressure retard per capita income growth (Table-4).

The Demeaned Group Estimator (DMG) across different groups of Indian states (Table 4) reveals mixed effects of the impact of tax revenue on economic growth. As such, increases in tax revenue dampen per capita income growth of low convergence and intermediate convergence states. This could indicate the inefficient utilization of tax revenue. While the increase in investment

Table 4 - Demeaned Group Results

Variables	High Convergence	Moderate Convergence	Intermediate Convergence	Low Convergence
TR	1.047	-0.429	-3.073**	-5.387**
	(-1.159)	(-0.885)	(-1.464)	(-2.435)
INV	0.191***	-0.033	0.256	-0.109
	(-0.049)	(-0.196)	(-0.276)	(-0.102)
GFD	-0.658	1.63	-1.396	-5.965
	(-0.853)	(-2.408)	(-1.532)	(-5.544)
INF	0.175	0.194	0.192	-0.373
	(-0.13)	(-0.206)	(-0.184)	(-0.403)
INT_1	0.013	-0.014	0.00003	0.054
	(-0.012)	(-0.023)	(-0.016)	(-0.06)
INT_2	-0.017***	-0.001	-0.024	0.013
	(-0.003)	(-0.044)	(-0.032)	(-0.015)
Constant	0.784	1.075	-0.669	-6.058
	(-1.178)	(-1.46)	(-1.682)	(-6.729)
Observations	95	133	152	76
R^2	0.172	0.423	0.371	0.450
Multiple R^2	0.494	0.648	0.615	0.664
PCD	-2.844***	-1.998***	0.179	-2.376***

Source: authors' calculation

*Note : ****, **, * indicates 1%, 5% and 10% level of significance, Standard errors are in parenthesis*

Table 5 - Common Correlated Effects Mean Group

CCEMG	High Convergence	Moderate Convergence	Intermediate Convergence	Low Convergence
TR	-3.810*	-5.790***	-9.456***	-13.391***
	(-2.181)	(-2.024)	(-3.159)	(-3.183)
INV	-2.052	2.76	-0.204	-0.513
	(-2.441)	(-2.661)	(-0.471)	(-0.921)
GFD	-9.444	0.784	4.535	4.249
	(-6.71)	(-1.695)	(-4.293)	(-6.167)
INF	-0.288	-0.131	-0.053	-0.153
	(-0.651)	(-0.341)	(-0.49)	(-0.79)
INT_1	0.089	-0.009	-0.058	-0.043
	(-0.058)	(-0.016)	(-0.042)	(-0.05)
INT_2	0.67	-1.41	0.051	0.078
	(-0.76)	(-1.422)	(-0.09)	(-0.116)
G_bar	0.725	0.837	1.102***	0.976**
	(-0.441)	(-0.513)	(-0.294)	(-0.399)
TR_bar	0.709	2.096	15.94	3.717
	(-1.413)	(-7.169)	(-9.875)	(-4.539)
INV_bar	-1.273	-0.15	1.517	-0.532***
	(-0.925)	(-0.714)	(-1.649)	(-0.152)
GFD_bar	8.458**	-2.669	2.472	-1.272
	(-3.835)	(-5.985)	(-6.389)	(-10.84)
INF_bar	0.451	-0.262	0.256	0.092
	(-0.661)	(-0.631)	(-0.479)	(-0.898)
INT_1 bar	-0.087*	0.03	-0.003	0.007
	(-0.045)	(-0.05)	(-0.067)	(-0.112)
INT_2 bar	0.171	0.035	-0.252	0.077***
	(-0.111)	(-0.146)	(-0.283)	(-0.025)
Constant	16.608	53.946	-70.279	62.386
	(-30.655)	(-82.964)	(-48.508)	(-56.93)
Observations	95	133	152	76
R^2	0.279	0.412	0.156	0.617
Multiple R^2	0.840	0.869	0.812	0.915
PCD	-2.384***	-0.918	0.456	-1.427

Source: authors' calculation

*Note: ****, **, * indicates 1%, 5% and 10% level of significance, Standard errors are in parenthesis*

improves per capita income growth in high convergence states, it explains the effectiveness of investment efforts. All the groups of states except the intermediate converging states group are evidently cross-sectional dependent (Table -5).

The Common Correlated Effects Mean Group (CCEMG) (Table 5) shows that an increase in tax revenue reduces the per capita income growth rate across all clubs. In high convergence states, the unobserved common factor proxied by gross fiscal deficit exerts a positive pressure on growth, which indicates that deficit has the potential to improve growth. However, the evidence suggests that inflationary pressure by fiscal deficit led to a reduction in per capita income growth. Moreover, the presence of cross-sectional dependence reveals additional factors that may simultaneously affect these states' economic growth. In low convergence states, in the absence of cross-sectional dependence, the common factor of per capita income growth positively influences economic growth. The common factor based on the interactive term reveals that the effect of investment on growth is influenced by its tax revenue. Except for tax revenue, none of the variables shows statistical significance in moderate and intermediate convergence states despite having no cross-sectional dependence. The effect of insignificant variables across the state may vary, or the dominance of unobserved common factors may be greater, suppressing the impact of individual regressors.

5. Discussion and conclusion

This study explores the relationship between fiscal deficit and economic growth in Indian states using a combination of club convergence and advanced panel dynamic regression models. We grouped states into homogenous groups with similar growth paths using club convergence to and later identified how fiscal deficits and other economic factors differently influence growth within each group. Thus we intend to extract the effect of heterogeneous and unobserved common factors on the growth of the Indian states. Overall, the findings suggest that the relationship between fiscal deficit and economic growth is complex and varies significantly across different state clusters. Except in high convergence states with cross-sectional dependencies, fiscal deficit shows an inverse relationship with per capita income growth, suggesting a need to scrutinize the quality of deficit budgeting. Conversely, when unobserved factors are considered, the fiscal deficit positively impacts per capita income growth, indicating a complex, interconnected dynamic, while tax revenue and investment negatively affect growth rates. Despite using a homogenous group for testing the impact of deficit on economic growth, the effect of unobserved factors and heterogeneity among the states persist .The insignificant variables in the results may be due to the high variations in unique characteristics of states in each club that throws light on the need for

fiscal deficit constraint and also raises a question if states should be given more fiscal freedom to achieve the development with the economic potential it has. A one-size- fits -all rule for states with such diversity could be detrimental for the states to achieve higher growth overtime. The control on fiscal deficit should be context-specific, which should be an approach taken up by the policymakers to consider the nuances while formulating fiscal policies. It should be also be noted that the pressure on states to limit fiscal deficit within FRBM limits has no statistical validity.

■

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Is India's fiscal federalism under threat? Issues in resource transfers

Fidha S Fatima and Hridya P V

Abstract

The Indian structure of fiscal federalism is marked by the complex system of sharing fiscal resources and powers between the centre and the states and among the states. This report looks into the issues revolving vertical and horizontal devolution. The horizontal imbalances are also analyzed, particularly the aspect of the North-South divide. The states compete among themselves to obtain a higher share of the overall fund corpus from the centre leading to evident regional disparities. The analysis concludes by emphasizing the relevance of revisiting the allocation formula to uphold the principles of equity and efficiency in resource distribution. The centre should revisit the vertical devolution by enlarging the divisible pool. Secondly, the weightage for efficiency criteria in horizontal devolution should be increased. GST being a consumption-based destination tax that is equally divided between the Union and the State means that State GST accrual (inclusive of Integrated GST settlement on inter-state sales) should be changed to 60:40 share (60% for states and 40% for Centre). States' own revenue generation should be supported by adding more flexibility.

Keywords: Fiscal federalism, divisible pool, Horizontal imbalance, Cess & Surcharge, Transfers.

Introduction

Fiscal federalism, a cornerstone of modern governance, involves a careful balancing act between national and subnational governments as they formulate and allocate financial powers and obligations. In this framework, the ideals of economic theory meet the realities of political life. The Indian Constitution has mandated fiscal federalism since its inception. However, its trajectory in the Indian context is set to change in the evolving political and socio-economic landscape.

Imbalances in fiscal arrangement, both vertical and horizontal, are inevitable in a federation, with India being no exception. These imbalances are tackled within the Indian context through various mechanisms outlined in the Indian Constitution, such as shared taxes, grants-in-aid, and the establishment of Finance

Commissions tasked with specific terms of reference.

Kletzer and Singh (1995) proposed a systematic framework for analysing the interactions between the institutions of fiscal federalism and political decision-making. They suggest that strategic behaviour by self-interested government decision-makers can be explored within this framework, setting the stage for understanding the broader implications of fiscal federalism. This foundational perspective provides a lens through which to examine the subsequent case studies and empirical findings.

Extending this theoretical framework to practical applications, countries like Australia, Canada, Germany, and Switzerland have established their individual equalization frameworks, each carrying specific implications for equity, incentives, and distribution *(Bahl, Martinez, and Sjoquist, 1992; Blair, 1992; Boadway, 2004; Ladd and Yinger, 1994; Ma, 1997; and Ridge, 1992).* These comparative perspectives highlight how different nations approach the challenges of fiscal equalization, providing diverse strategies and outcomes. For instance, *Buettner and Krause (2020)* suggest that Germany's fiscal equalization mechanisms motivate states to raise tax rates. This leads to notable tax policy changes following the transfer of taxing authority, thereby influencing subnational fiscal decisions and redistribution patterns. This demonstrates the dynamic relationship between fiscal transfers and state tax policies, illustrating the practical impacts of theoretical principles in a real-world context. Similarly, in the UK, the approach to devolution has been reactive, iterative, and largely ad hoc, reflecting the asymmetric nature of fiscal arrangements. This underscores the necessity for a coordinated and oversight mechanism to enhance fiscal frameworks and ensure effective budget scrutiny *(McIntyre, Mitchell, and Roy, 2022).* The UK's experience highlights the importance of structured and consistent policy frameworks to manage fiscal federalism effectively.

Moving to the Indian context, *Rangarajan and Srivastava (2008)* emphasize that the stability of states' shares from the divisible pool is essential for maintaining fiscal balance and equity in India's fiscal transfer system. They argue that long-term stability in the share of states after transfers in the combined revenues of the centre and states is crucial for ensuring fairness and equity in the distribution of resources. This perspective is critical for understanding the fiscal dynamics within India.

Furthermore, the impact of tax devolution to the states appears to have a more equalizing effect compared to the distribution of grants *(Mohan & Shyjan, 2009).* This is attributed to the discretionary nature of grants allocation, which contrasts with the criteria-based approach of tax devolution. The authors argue that tax devolution can effectively address differing fiscal capacities among states. However, concerns are raised regarding the declining state share in the divisible pool, suggesting a need for higher state participation in tax devolution to prevent states from being disadvantaged by grant restructuring.

Rao and Singh (2001) provide empirical evidence supporting the bargaining view of federalism. Their study indicates that states demonstrating greater bargaining power tend to receive larger per capita transfers. This finding highlights the complex interplay of political and economic factors in shaping fiscal transfers between the central and state governments, emphasizing the role of negotiation and power dynamics.

The distribution of fiscal transfers from the central government to the state governments has evolved over the years. States have increasingly preferred tax devolution over grants due to its responsiveness to economic changes. This shift underscores the practical implications of the theoretical and empirical findings discussed, reflecting a trend towards more adaptive and responsive fiscal policies. In an analytical study, *Sindhu, Khatkar, and Panghal (2016)* highlight the importance of balancing autonomy and hard budget constraints for states to achieve economic growth within a fiscal federalism framework. The study emphasizes that while greater autonomy allows states to provide better services tailored to local needs, softer budget constraints may lead to states unduly benefiting from tax-sharing mechanisms. This highlights the need for states to enhance their tax collection and utilization mechanisms while the central government maintains oversight to ensure efficient resource allocation.

Finally, *Tannenwald (1998)* analyses the impact of federal policies on state finances, focusing on changes in funding levels and terms. The study discusses how shifts in federal funding can significantly affect state budgets and their capacity to respond to devolution, highlighting the critical influence of federal policy decisions on state fiscal health.

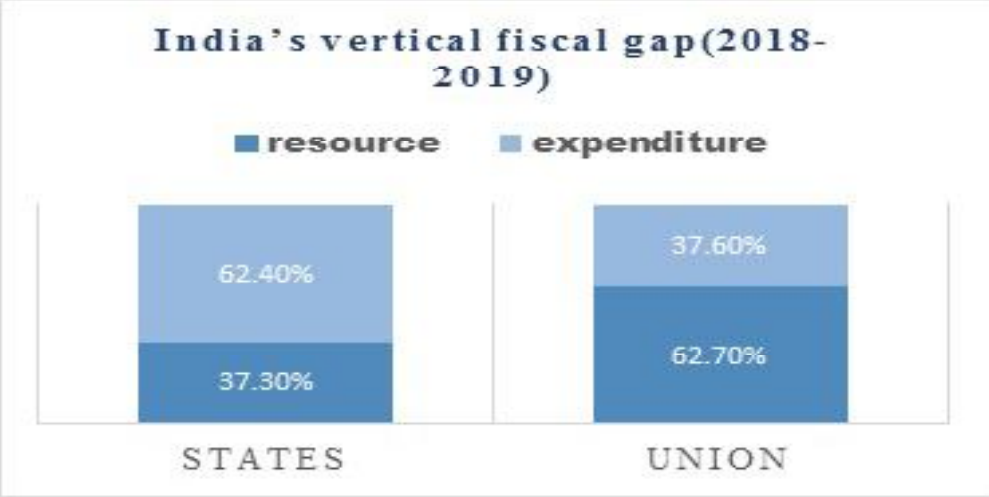
This analysis tries to demonstrate how policy decisions at the federal level have profound implications for fiscal federalism. This study aims to bring forth the issue revolving around vertical and devolution. Finally, the issue of north north-south divide will also be looked into of the inter se share by the finance commission (Figure-1).

Figure I shows extend of variation in the resources collected and expenditure incurred by both state and centre.

Income tax, corporate tax central GST, union excise duties, customs duties which are more buoyant and has nationwide base can only be collected by the centre. state governments have to bear higher expenditures to focus on local service provision due to their proximity to the people.

With this framework in place, the center raises the bulk of the resources. A conflicting situation arises when we look at who have to spend more, the centre or the states. Here the equation changes. State needs to finance several economic services like agriculture, transport, social services like education healthcare and housing in addition to their administrative expenses. Although the states have to spend 62%, they could collect only 37% whereas the centre collects the remaining 67%, to spend a lesser amount than the states

Figure 1



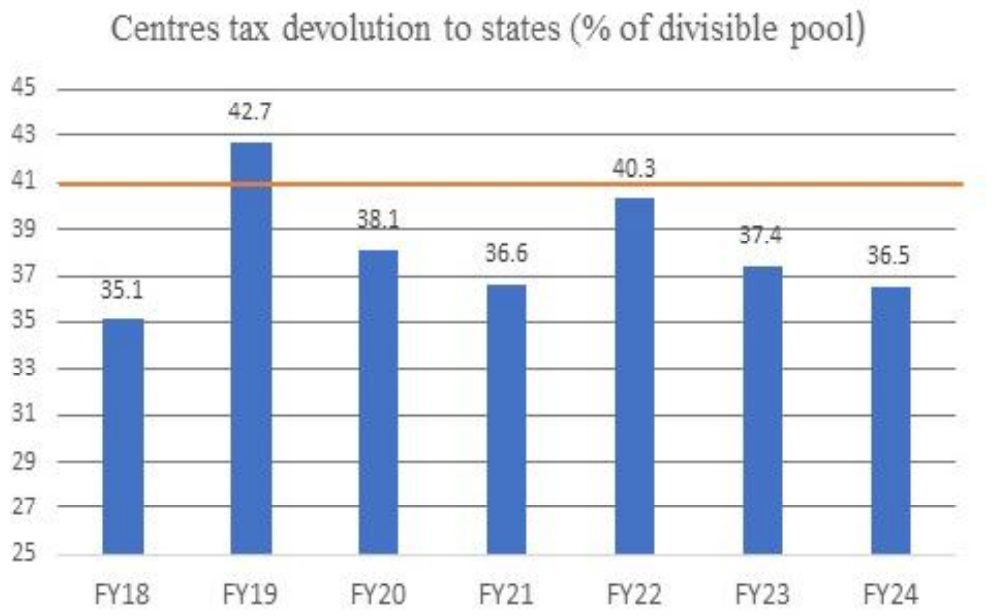
Source: Report of 15th Finance Commission

Issues in vertical devolution

According to the 15th FC's recommendation, the share of States in the divisible pool (vertical devolution) is 41%. With changes over the years, culminating in a constitutional amendment in 2000, all taxes of the Union were added to the net proceeds. there is an issue - cesses and surcharges under Article 270 and Article 271 were excluded from the net proceeds. Past cess and surcharge exceptions were based on specific FC recommendations. However, the amendment in 2000 provided a constitutional basis for it. Currently, the net proceeds contain the gross tax revenue after deducing the cesses, surcharges, and the cost of collecting taxes (Figure -2).

According to an analysis of Budget 2023-24 by Emkay Global Financial Services, the Center's tax devolution to the states, which continues to fall short of the Finance Commission's suggestion, will drop to a five-year low in FY24. The study, 'The Centre-States Nexus of Fiscal Imbalances' by Madhavi Arora and Harshal Patel, estimates that 36.5% of the divisible pool of taxes is allocated to tax devolution- the lowest in 6 years, as against the 15th Finance Commission's recommendation of 41 percent. Taxes that are devolved to States are untied funds, thus states can exercise their discretion in spending. But, the divisible pool does not include cess and surcharge that are levied by the Centre. Out of all the taxes collected by the Centre, the majority is shareable. But the non-shareable portion goes straight into the center's piggy bank. Non-shareable taxes are mostly made up of cesses and surcharges. The Centre can increase the amount of cess and surcharges it collects.

Figure 2



Source: The Hindu Business Line, February 16, 2023

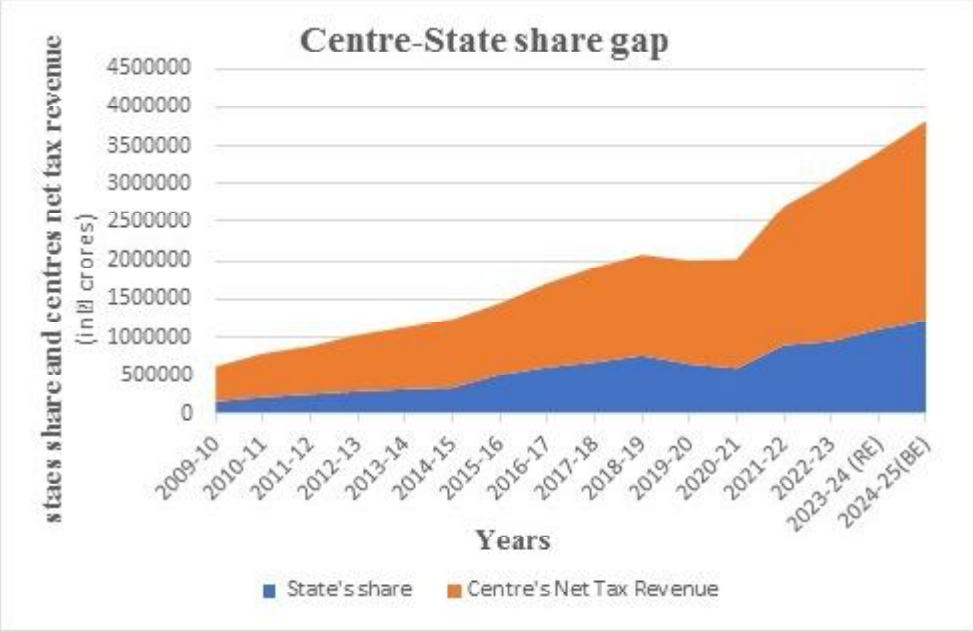
Centres -State revenue share gap

India's economy was in not the best health before the pandemic and the situation was worsened during the outbreak. Consequently, tax revenue was hit with the Centre collecting less tax than before. Centre's gross tax revenue registered a negative growth rate of -3.4% in FY20.

While the tax collected by the Centre declined, its share in the collection continued to grow. On the other hand, the state share in the Centre's taxes saw a fall (Figure-3).

In the past three years, the gap between the centre and the states in the divisible portion of the tax has widened significantly. The point to note is that if the centres tax collection declines both the centre and states share should decline. How did the center escape this fall? The above graph visually represents the widening gap from 2009-10 to 2024-25. This indicates that the centres retention of tax revenue is growing faster than the share distributed to the states. Notable jumps can be seen around 2016-17,2020-21 and 2023-24. In the earlier years (2009-10 to around 2013-14), the gap was relatively smaller, indicating a more balanced distribution between the Centre and the states. Post-2014, there is a visible acceleration in the Centre's net tax revenue compared to the state's share. A similar trend is observed in the case of total

Figure 3



Source: Authors calculation using data from various union budget documents

revenue receipts. The total revenue receipts have sharply increased, especially in recent years, while the state's share has seen relatively modest growth.

The proportion of state share of tax in gross tax revenue (as a percentage) dropped to 32.37% in 2019-20 and further to 29.35% in 2020-21. Although there was a recovery to 33.16% in 2021-22, it again declined slightly in the subsequent years. The projection of 31.84% indicates a continuing trend of state share around 32%. The states are entitled to get 41% of the tax share from the Union Government as per the 15th FC devolution. Due to the exclusion of cess and surcharges from gross tax revenue, there seems a decline in the share of taxes to states.

North-South divide

There exists huge inter-regional differences in growth and economic development among states. Per capita transfers are higher to states with lower per capita incomes. However, transfers do not fully offset the revenue disabilities of poorer states. More affluent states may incur significantly higher per capita expenditure than their poorer counterparts but feel that they should be enabled to perform better. The states compete among themselves to obtain a higher share of the overall fund corpus from the center. Thus, we have a

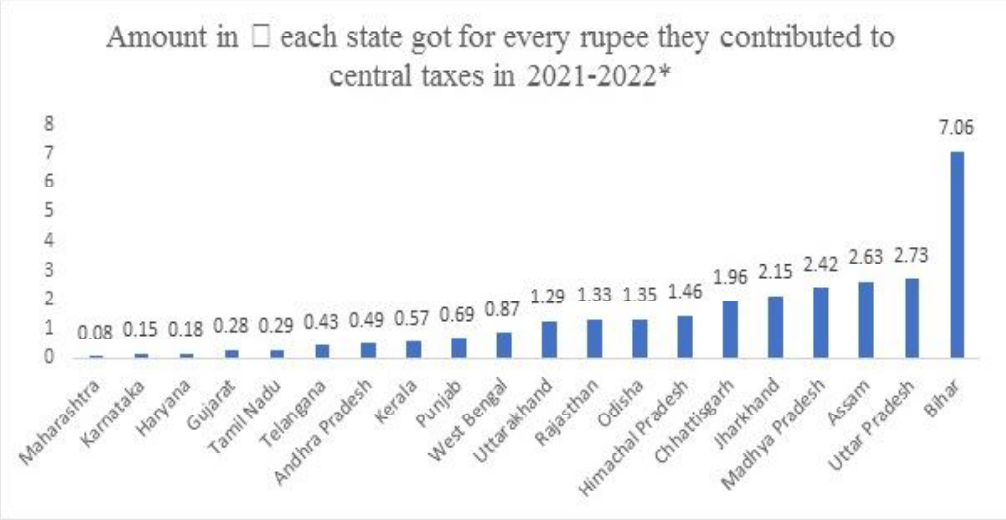
game of competing states confronting the centre together, a phenomenon that can be described as union vs competing states. the vertical and horizontal imbalances and the manner of managing them have varied over the years, partly because of the developments in the economy and partly from political considerations.

The southern states have reignited the southern tax movement which puts the blame on the central govt for distributing the central taxes unfairly.

Allocation for one northern state Uttar Pradesh alone is significantly higher than to all the five southern states combined. Uttar Pradesh alone is getting 2.29 thousand crores, and Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana combined are getting around 1.93 thousand crores. Even before this budget, the southern states were at a huge disadvantage.

According to the data quoted in The Hindu (21 February 2024) , for every 1-rupee tax, Karnataka gets back 15 paise. The state contributes around 4 lakh crores to the union govt in tax and gets back around 52000 crores. The story is by and large similar to other southern states as well. TN gets back around 29 paise for every 1 rupee, Telangana gets 43 paise, Andhra Pradesh gets 49 paise, and Kerala gets 57 paise. Bihar gets back 7.06 rupees for every 1-rupee tax. UP gets back 2.73 rupees. Assam gets back 2.63, M.P gets back 2.42 (Figure - 4).

Figure 4



**Customs and union excise duties have not been considered in the calculation as state wise data is not maintained*

Source: The Hindu, February 21, 2024.

Issues with the finance commission's allocation formula:

The President of India appoints a Finance Commission every five years to address vertical and fiscal imbalances. The Commission's recommendations on tax devolution and grants-in-aid are crucial, though the government often transfers funds beyond its recommendations. Contentions arise over the relative shares of Finance Commission and non-Finance Commission transfers. Additionally, there are implicit transfers through central government investments in public enterprises, priority sector lending, and interest subventions.

Till the 13th finance commission, the formula was based on population in numbers as per the 1971 census. But the 14th finance commission recommendation that came into force from 2015 marks a break from the past. They started taking the formula based on 1971 and 2011 census. The 15th finance commission looks at only the 2011 census. This translates into the case where the states which have not implemented population control methods well like Bihar, Jharkhand, U.P get the larger share of the taxes and this happens at the expense of the states that have performed much better.

FC allocation for all the southern states has gone down while it has increased for Maharashtra. It went from 4.99% under the 12th FC to 6.31 under the 15th FC for Maharashtra.

As far as Telangana and Andhra Pradesh are concerned, when it was one state Andhra Pradesh got 7.35%. 15th FC gave Telangana 2.1% and A.P got 4.04%. Meanwhile, U. P's allocation swung between 17%-19%.

Allocation to each state changed based on the parameters used by FC and assigned weights. The 15th FC says that its formula looks at the fiscal needs and equity of states, allocating more funds to poorer states with lower per capita income. But the commission also had performance-based criteria thereby rewarding states with a lower total fertility rate or rewarding states with forest cover.

The allocation rises and falls every 5 years based on the state's needs and its performance. The base of reference is decided by the central govt which gives it an undue advantage and even categorizes certain income as exclusive to them, leaving less for the state or they can shift the balance between the states by readjusting the formula.

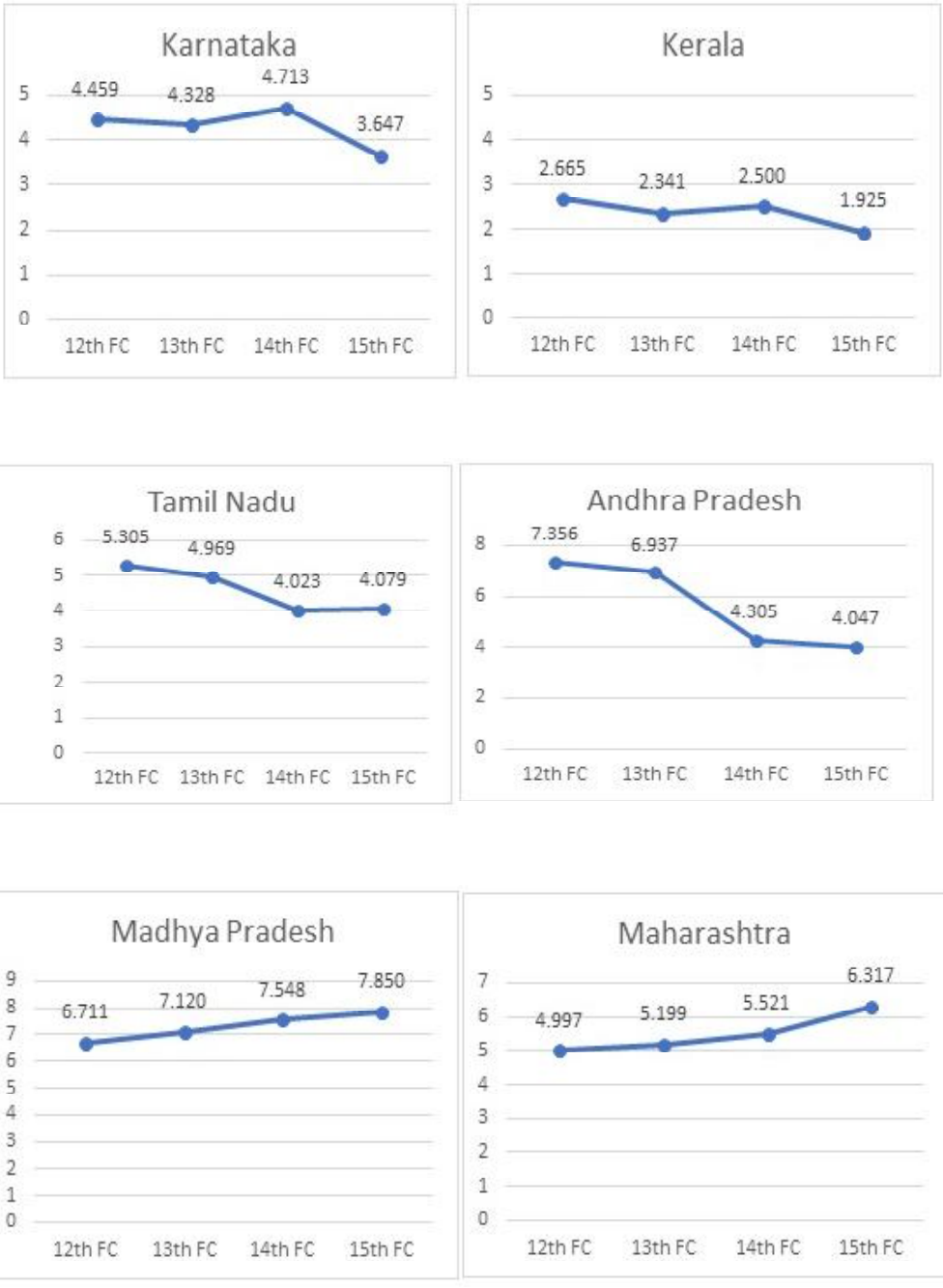
States's Share of tax in selected states from each finance commission is given in figure 5

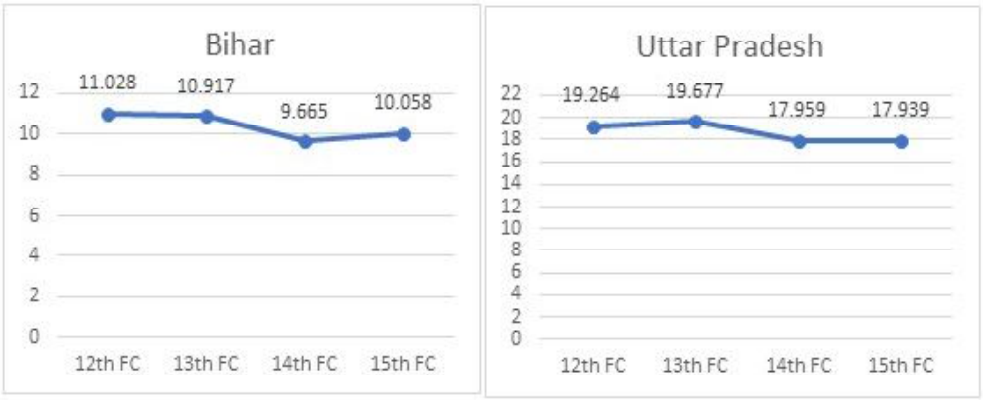
Rise in tied transfers

The Union government may argue that a part of the revenue collected through cesses and surcharges is used to finance centrally sponsored schemes (CSS) and central sector schemes, while another part is used to provide non-plan grants or capital transfers to states. However, these transfers are insufficient and not untied, unlike the devolution of the state's share in central taxes.

In centrally sponsored schemes, around 40% of the cost should be contributed by the state governments. Even in central sector schemes, the contribution of the

Figure 5 - Share of tax share of selected states from each finance commission





Source: Authors calculation using data from reports of the 12th-15th Finance Commissions

Union government is often meagre, forcing state governments to contribute significantly larger amounts to run the schemes meaningfully. A considerable portion of the funds given by the Union government to the states comes in the form of CSS. Around 20% to 25% of the total funds come through these schemes, and these funds come with instructions on how to spend them. This means that the states have less freedom to decide how to spend the money they receive, even if it pertains to subjects in the state or concurrent list, like health.

The Union government attempts to take credit for central initiative even when state governments undertake it with the majority of the effort by insisting on displaying the Prime Minister's portrait or other forms of labeling. Recent disputes over labeling in the Ayushman Bharat wellness centers are one such example. Similarly, several grants given to the states are contingent on the fulfilment of conditionalities, and some of these conditionalities include the insistence on labeling. Additionally, most capital transfers given to the states are loans, which must be repaid to the Union government.

In conclusion, the transfers that the state govt gets outside the recommendations of the finance commission are neither unconditional nor suitable to meet their context-specific needs. Instead, they tend to reaffirm a centralizing tendency in the fiscal realm, effectively pushing the Union-State relationship into a patron-client relationship. Any deviation from the guidelines or a failure to meet the imposed conditionalities can lead to the denial of such resources.

Cess and surcharges

Since 2017, with the implementation of the GST, the Union government has significantly

increased the percentage of cess by 153%, which it alone has the power to levy. These funds are not shared with states, although the Union claims they are eventually distributed through discretionary grants, which often favor politically important states. Despite expectations that GST would eliminate many cesses and surcharges, new ones continue to be introduced, and old ones remain outside the GST system. For example, the Agriculture Infrastructure and Development Cess was introduced in 2021-22, and the Health and Education Cess replaced earlier education cesses in 2017-18.

The expansion of cesses and surcharges has led to a larger portion of gross tax revenue being excluded from the net proceeds shared with states. Conflicting government reports indicate that the share of cesses and surcharges in gross tax revenue was 18.2% in 2019-20, 25.1% in 2020-21, and 28.1% in 2021-22. However, another statement in March 2023 reported lower shares for the same periods.

Analysis of budget documents from 2009-10 to 2024-25 shows that the collection of cesses and surcharges rose from ?70,559 crore in 2009-10 to ?6.6 lakh crore in 2023-24 (RE) and ?7 lakh crore in 2024-25 (BE). Excluding the GST compensation cess, collections increased from ?70,559 crore in 2009-10 to ?5.1 lakh crore in 2023-24 (RE) and ?5.5 lakh crore in 2024-25 (BE). As a share of gross tax revenue, cesses and surcharges fell from 11.3% in 2009-10 to 9.5% in 2014-15, but rose to 15.3% in 2018-19, peaked at 20.2% in 2020-21, and were 16.3% in 2022-23. Tentative figures for 2023-24 estimate them at 14.8%.

The share of cesses and surcharges in gross tax revenue has outpaced overall tax revenue growth, nearly doubling from 11.4% in FY18 to 19.8% in FY21, though it is expected to moderate to 16.4% in FY24. The 15th Finance Commission noted that the growing share of these non-shareable revenues reduces the divisible pool percentage. A CAG audit found that funds collected through specific cesses were often not allocated to their intended purposes. For example, in 2019, nearly ?9,000 crore collected as Social Welfare Surcharge on customs were not transferred to a dedicated fund, and in FY20, 40% of cesses, valued at ?78,376 crore, were not transferred to reserved funds.

Between 2009-10 and 2023-24, the Union government collected ?36.6 lakh crore through cesses and surcharges, with an additional ?5.5 lakh crore projected for 2024-25. These funds were not shared with states, effectively reducing the states' share of gross tax revenues from the expected 42% to 32%.

Financial challenges for states: Discontinuation of GST compensation and tapering revenue deficit grants

The discontinuation of GST compensation for states, which ended in June 2022, is a significant factor for the Centre's devolution coming down in FY24, according to a report by Emkay Global. This compensation was initially paid to states to meet the shortfall in indirect tax revenue below a specified threshold due to the introduction of GST. Going forward, the compensation cess will be used for

servicing debt that the Centre took on behalf of the States during the Covid-19 pandemic. For FY24, market loans worth ?78,100 crore are due for redemption.

Additionally, the 15th Finance Commission recommended revenue deficit grants for certain states between 2021-22 and 2025-26. These grants were provided in a manner that they taper off in successive years. However, several states have continued to budget revenue deficits. In the backdrop of reducing grants, states may have to augment their revenue or reduce expenditure to maintain revenue balance. All recent Finance Commissions have recommended grants to states to eliminate revenue deficits. These grants are awarded to address any revenue needs of the states which may remain after accounting for the devolution of central taxes. Post-devolution revenue deficit for a state signifies the presence of an imbalance that remains to be corrected.

The 15th Finance Commission recommended revenue deficit grants worth Rs 2.95 lakh crore to 17 states for the period between 2021-22 and 2025-26. Around 87% of the total grants were awarded for the first three years. As the grants will be substantially lower in the next two years, states will have to augment their own sources of revenue or cut expenditure to maintain revenue balance. For instance, Kerala, which received Rs 4,749 crore as revenue deficit grants in 2023-24, will not receive any grants in 2024-25.

Way forward

It must be noted that States generate around 40% of the revenue and bear around 60% of the expenditure. The Finance Commission (FC) and its recommendations are meant to assess this imbalance and propose a fair sharing mechanism. However, there are important reforms that may be considered for maintaining the balance between equity and federalism while sharing revenue.

Firstly, the divisible pool can be enlarged by including some portion of cess and surcharge in it. This could be possible with necessary constitutional amendment. The Centre should also gradually discontinue various cesses and surcharges it imposes by suitably rationalising the tax slabs. Secondly, the weightage for efficiency criteria in horizontal devolution should be increased. GST being a consumption-based destination tax that is equally divided between the Union and the State means that State GST accrual (inclusive of Integrated GST settlement on inter-state sales) should be changed to 60:40 share (60% for states and 40% for Centre) .

Additionally, it is imperative that the States uphold principles of fiscal federalism by devolving adequate resources to local bodies for vibrant and accountable development. States that create more jobs and better income should be incentivized, and there should be a built-in mechanism to address inequities in weightages used for allocation.

Furthermore, there is a need to revisit the allocation formulas to ensure a balance between equity and efficiency. Factors like contribution to GSDP, fiscal effort, and specific state needs should be given more weight. Performance-based grants should

be introduced to reward states for good governance, economic management, and innovation. This can incentivize states to improve their fiscal health while ensuring they get necessary funds.

Supporting states in enhancing their own revenue generation through better tax administration, broadening the tax base, and promoting investments that increase state revenues are crucial. Allowing states more flexibility in how they utilize central funds can enable them to address their specific developmental needs more effectively.

India needs a relook at fiscal distribution and federalism. It's beyond doubt that the states that have poorly performed on parameters like human development indices and employment need financial assistance both from the union government and from fellow states. However, this cannot continue to be at the cost of the states that are performing better. The union government cannot continue to consolidate its power to unilaterally decide the distribution of funds. If these issues are not resolved quickly, the situation could get even more complicated with the upcoming delimitation exercise, which is expected to increase friction among states and between the states and the union government.

In conclusion, it is crucial to implement reforms that ensure a fair and efficient fiscal federalism system in India. This includes enlarging the divisible pool, increasing the weightage for efficiency criteria, enhancing state revenue capacity, allowing flexible fund utilization, and introducing performance-based grants. Such measures will not only address current imbalances but also promote a more equitable and accountable development across all states.

■

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Service sector led growth trajectory of Kerala economy

Veena Renjini K K

Abstract

Kerala stands out in this context with the growth pattern of service sector oriented one as against primary sector led development process followed by secondary sector. The contribution of primary sector to state domestic product has been declining overtime and the place has been taken over by the service sector followed by the secondary sector. This paved the way for a growth trajectory validating the hypothesis that the economy has undergone structural change. The growth of each sector at constant prices has been analysed for the period 1960-61 to 2020-21. The whole development process of the economy, the extent and change in direction is measured in terms of each sector's contribution towards Net State Domestic product which is otherwise known as 'state income'. It is inferred from the analysis that the pattern of growth and performance of the service sector in Kerala has set a magnificent mark and will also continue to be the highest contributing sector in the years to come.

Keywords: *NSDP, Growth, Service sector*

1. Introduction

The increasing share of service sector led growth of an economy is a global phenomenon. The contributions of service sector towards economic development can be traced back from the writings of Fisher (1935) and Colin Clark (1940). The growth of any sector is being understood basically from two perspectives (i) its contribution towards national product and (ii) its contribution towards employment. It has been seen with infallible proof that in the evolution of economic development service sector has emerged as the largest contributor towards Gross Domestic Product especially with regard to developed economies. Thus, the emerging economies are now seen with justifiable service sector as the engine of economic development.

The share of service sector towards Gross State Domestic Product (GSDP) highlights its relevance in economic growth process. Kerala has been explained

as a small state with state led growth (Seshadri, 2009). The service sector led growth of Kerala has been widely much-admired as it has dual structure towards economic growth and development, with earnings and a built-in bias towards inequality (Oomen 2014). As explained in structural growth theories Kerala did not experience a sequential growth process. The state has not witnessed a dominant growth of industrial sector, as explained by the reason that the share of income generated from this sector does not correspond to the employment it generated (Sanitha and Singla, 2016). Thus the real sectors lag behind with less productivity and service sector comes in the forefront.

1.1 Conceptualising the service sector

In India, the Central Statistical Organisation (CSO) classifies service sector in the following heads (i) Trade, hotels and restaurants (ii) Transport, storage and communication (iii) Financing, insurance, ownership of dwellings and business services. (iv) Community, social and personal services.

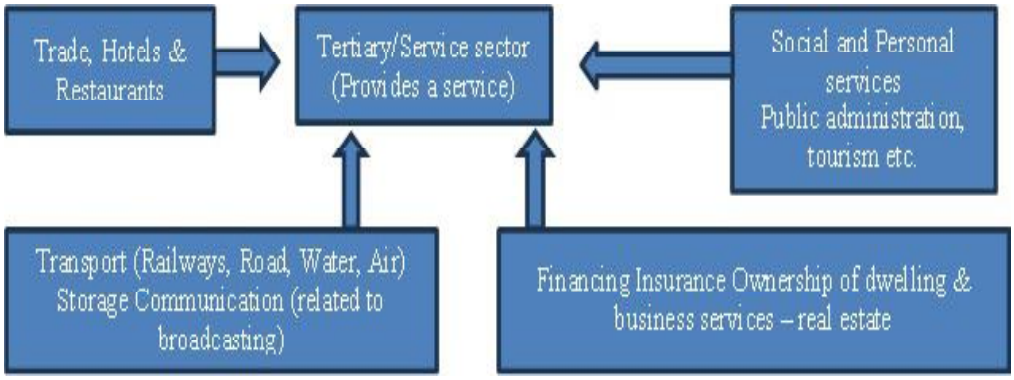
1.2 A broad frame of service sector components

Service sector goods are intangible in nature as it provides services to business and final consumers. The sub sector bifurcation of service sector is shown in the chart below (Chart - 1)

The relevance of service sector towards the growth and development of any economy may be assessed from its contributions towards output and the rate of change that takes place overtime along with the employment it generated over the years. Hence, the objective of the paper is set to examine the size and growth rate of service sector towards output overtime towards Net State Domestic Product of Kerala

1.3 Methodology and data source

The data for the present analysis collected mainly from secondary source, as it has been derived from Kerala Economic Review, Department of Economics and Statistics published by State Planning Board, Government of Kerala taken it



down overtime. The focus of the time from is from 1960-61 to 2020-21. There has been change in base periods from1960-61, 1970-71, 1980-81, 1993-94, 1999-2000, 2004-05 and 2011-12. The changes in base periods that were brought from time to time has to be converted to a single base for analysis. The contribution of different sectors - primary, secondary and tertiary towards Net State Domestic Product (NSDP) has been seen for highlighting the strength of each sector. In addition to this the sub sector contribution of each component in the service sector has been seen at disaggregate level. The growth rate of each sector has been estimated using semi log model and the decadal growth rate too is estimated using the standard annual growth rate formula.

The paper is organised as follows: Section 2 sketches theoretical and related literature explaining the importance of the same Section presents the analysis of each sector towards NSDP at aggregate level along with its growth rate. Section 4 comprehensively focuses on the performance of service sector both at aggregate and disaggregate level overtime and section 5 concludes the entire paper.

2. Sketching theories and empirical indications related to service sector led growth

Tested Hypothesis: The analytical argument of Fisher (1935) and Clark (1940) has much relevance to discuss the theoretical underpinnings. Their argument centres on a phased approach, that as time moves on communities become more economically advanced there will be a sequential decline in people engaged in agriculture to that of those in manufacturing and service sector. Clark quoted that high expected level of real income per head is always related with a high percentage of the working population engaged in tertiary industries. Fisher-Clark hypothesis establishes the wide drifts of labour force movement from agricultural to non-agricultural sectors have been proven as an economy paces forward. Summers (1985) argues for service sector led growth from the perspective of income elasticity demand approach. Kuznets (1972) made a cross sectional analysis of different countries and thus validating the hypothesis related with service sector led growth of an economy. Amin, 'in the conditions governing the integration of pre-capitalist societies into international capitalist market' and he noted that the larger is the degree of integration, larger is the size of the tertiary sector (Amin, 1974 and 1976). Lewis presented a two-sector model/ labour surplus model whereby the emphasis or the requirement of an economy for a structural shift - from the agricultural sector, having low productivity towards a productive industrial sector. As there is under employment in the agricultural sector with marginal productivity being zero; hence a redeployment of labourers to productive sectors leads to more industrialisation and capital accumulation taking the economy to the path of economic development.

Empirical Indications: On the service sector, empirical studies since 1950

advocates that leading sector for swift and hasty economic development and growth in advanced economies is service sector (Warton 1974). Kongsamut et al. (2001) explained that the services sector has a high contribution to upsurge in the per capita income of 123 countries from 1970-1980. Arnold et al. (2010) observed that India covering banking, insurance, telecommunication and transport enhanced their services polices which lead to better off in manufacture productivity, this points out the fact that service sector contributes to economic efficiency, therefore the inference is that service sector plays a dominant role in the growth of economy both directly and indirectly. Shergill & Sharma (2013) argued that the development of employment opportunities in service sector is more cost operative; service sector being the largest employer of labour force as is the case in Kerala. In all the states, except Kerala, the share of primary sector in labour force is the largest. It is only in Kerala that services sector has emerged as the largest sector; out of the rest 19 states, in 14 states services sector is second in terms of employment share and in other 5 states it is third in terms of employment share. In contrast, the growth performance of service sector in employment is dismal as is the case with India that its contribution is less than half of its share in GDP. Consequently, the services sector's development pattern is uneven; unlike in developed nations, its proportion of the labor force has not kept up with its share of domestic product. This raises concerns about how long the Indian growth pattern is sustainable. Pushpangadan (2003) observed that there has been stagnation in the growth rate of Kerala Economy during the 1970's, the revival of during the period 1980-90 was led by the secondary sector followed by the primary and tertiary sectors. However, the pace of acceleration in growth during the period 1999-2000 was led by the growth in the tertiary sector (8.4%) and non-significant growth rate occurred in the agricultural sector whereas it remained constant in the secondary sector. Growth of services has often been argued as consumption led (ibid). Again the argument goes by favouring the fact that Kerala being consumption led state having the highest monthly percapita consumer expenditure among other states happened because of the comparatively high inflow of remittances from Gulf transformed itself into increase effective demand among Keralites. The consumption expenditure basket of Keralites includes education, health, and durable commodity components being a reasonably good share led to the effect of growth of service sector. Pushpangadan (2012) explained that the growth of service sector activities are exogenously determined which implies that they are driven by remittances. The dismal performance of commodity producing sectors has been overpowered by the demand generated from remittances led to the spurt of growth rate in service sector of the economy. Klodt (1997) explained that the sectoral shifts in the development process can be analytically understood by decomposition into demand bias and

productivity bias. The demand bias will be generated from the perspective of the spread of service based new technologies and as a consequence of the related shifts in intermediate demand. The productivity bias explains the intense absorptive capacity. In service sector industry, Weale (2020) explains how instrumental it had been the growth in the financial services industry contributed to the growth of the British economy over the last 20 Years.

3. Sector wise contribution towards state domestic product: An aggregate level analysis

3.1 Structural change: Sectorial composition of NSDP

An analysis of state income, that is the contribution of different sectors towards state's domestic product right from its inception gives a clear picture of the strength of each sector or its inbuilt capacity. Hence, an attempt is made to analyse the performance vis-à-vis that of the other. The decadal contribution that has been analysed is based on constant prices (1960-61) registers a slow decline in primary sector's contribution which has been picked up by compensating in the contribution of secondary and tertiary sector. The primary sector encompassing agriculture and allied activities has registered a decline from 55.98 per cent to 50.22 in the year 1969-70. There has been a rise in the contribution of secondary sector comprising of construction, manufacturing, electricity, gas, water supply has risen from 15.24 percent to 17.92 per cent. Similarly, the tertiary sector too witnessed a phenomenal increase from 28.78 per cent to 31.86 per cent. The table 1 below shows the comparative picture of sector-wise contribution at 1960-61 prices towards net domestic product of Kerala (Table1).

The incites derived from the table 1 leaves a scope to have an analysis of the average growth rate of these sectors in the decade. Hence, the average growth rate has been figured using the following formula for the decade 1960-70 and the results are furnished in the table 2.

$$\text{Average Growth Rate} = \Sigma\{(Yt-Yt\text{-}1/Yt\text{-}1)*100\}/n \quad \ldots\ldots\ldots (1)$$

Indian economy witnessed unprecedented drought during the years 1965-66 and 1966-67 resulted in the decline of net domestic product at national level, but Kerala economy didn't succumb to that kind of a phenomenon though the growth was not significant (GoK, 1975) (Table2).

Table 2 shows the average growth rate computed for the period (1960-70) with reference to the contribution of primary, secondary and tertiary sector towards net state domestic product. The negative growth during certain years 1966-68 as result of drought happened at the national level did had its repercussions through the sector was not drastically hit, resulted in a negative average growth rate for the decade. Meanwhile, looking at the other two sectors their contribution is almost the same and positive registering at the rate of 1.96 per cent and 1.16 per cent respectively for the secondary and tertiary sectors respectively.

The percentage share contribution of sectors towards NSDP has been seen and furnished in the table 3. It is understood

Table -1: Sector wise Contribution towards NSDP at (1960-61 base Price)

Year	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Primary Sector	55.98	53.42	53.13	52.48	51.16	50.59	51.10	50.49	50.23	50.22
Secondary Sector	15.24	16.12	16.62	17.06	18.14	17.84	17.58	18.57	17.34	17.92
Tertiary Sector	28.78	30.45	30.25	30.46	30.71	31.57	31.31	30.95	32.43	31.86
Total	100	100	100	100	100	100	100	100	100	100

Source: Calculated based on Kerala Economic Review

Table - 2: Average Growth Rate (1960-1970)

Primary Sector	Secondary Sector	Tertiary Sector
-0.89	1.9	1.16

Source: Author's Calculation

Table- 3: Sector wise contribution towards NSDP at 1970-71 prices

Year	Primary Sector	Secondary Sector	Tertiary Sector	Total (in per cent)
1970-71	51.13	16.93	31.94	100
1971-72	50.12	18.11	31.78	100
1972-73	49.28	18.45	32.27	100
1973-74	48.72	18.20	33.08	100
1974-75	49.12	17.53	33.35	100
1975-76	48.61	17.96	33.43	100
1976-77	46.67	18.92	34.41	100
1977-78	45.81	19.04	35.15	100
1978-79	44.35	20.29	35.36	100
1979-80	42.37	20.86	36.77	100

Source: Calculated based on Kerala Economic Review

that the contribution of primary sector towards NSDP has been gradually decreasing from 51.13 per cent in 1970-71 to that of 42.37 in 1979-80 whereas the gradual decline in the sector has been overtaken by secondary and service sectors. The secondary sector registered a contribution of 16.93 per cent in 1970-71 to 20.86 per cent in 1979-80, a marginal hike of around 4 per cent. The tertiary sector too has improved its ranking from a contribution of 31.94 per cent in 1970-71 to 36.77 per cent in 1979-80, a difference of around 5 per cent. This explains and is evident, the pace by which service sector is coming to the forefront.

As it has been a decade, a meaningful explanation can be sought from the growth rates and therefore average annual growth rate has been estimated using the equation (1) and the results are furnished in the subsequent table below. The decade for which analysis is carried out is 1970-1980 at the base price 1970-71 (Table-4).

The second decade from 1970-1980 has again recorded with high negative growth rate in the agricultural sector. The sectoral composition of growth registered for secondary and tertiary sectors were 4.48 and 3.6 respectively. The credible growth rate observed in other two sectors expect a positive effect and stable growth to channelise.

The contribution of each sector towards NSDP has been estimated by fitting a semi log model which is specified as in equation (2) and the results are furnished in the table5.

$$\ln(Yt) = \alpha + \beta t + Ut \ldots\ldots\ldots (2)$$

where ln(Yt) is the dependent variable in log form representing primary, secondary and tertiary sectors as well. The time span is from 1980-81 to 2009-2010. The entire data having different base periods have been converted to single base at 1993-94 prices. The regression results are significant shows the all the three sectors has significantly contributed to state domestic product over the years. It is understood that the growth performance of service sector displaces the other two sectors with an average growth of 18 per cent over the years 1980-81 to 2009-10 However, the growth performance registered was only 12 per cent and 15 per cent respectively for primary and secondary sector (Table 5).

From the period 2011-12, economic review reports the sector wise contribution of each sector towards Goss State Value added by economic activity. Therefore, separate analysis has been carried out to understand the dynamics of service sector in the process of growth thereafter (Table 6).

Table-4: Average Growth Rate (1970-1980)

Primary Sector	Secondary Sector	Tertiary Sector
-21.3	4.48	3.6

Source: Author's Calculation

Table 5: Growth of Sectors towards NSDP (1980-81 to 2009-2010)

Sectors	Variable	Coefficient	Standard Error	t ratio	Level of significance
Primary Sector	Constant	2.281	0.127	17.87	Significant at 1per cent
	Time	0.12	0.006	17.74	Significant at 1per cent
					$R^2 = 0.91$
Secondary Sector	Constant	2.039	0.131	15.53	Significant at 1per cent
	Time	0.15	0.007	20.84	Significant at 1per cent
					$R^2 = 0.93$
Tertiary Sector	Constant	2.977	0.167	17.79	Significant at 1per cent
	Time	0.18	0.009	20.21	Significant at 1per cent
					$R^2 = 0.93$

Source: Author's Calculation

Table 6: Sector wise contribution towards Net State Value Added by Economic Activity at constant prices (base year 2011-12) in percent

Year	Agriculture	Industry	Tertiary	Total
2011-12	14.21	27.88	57.92	100
2012-13	12.94	27.05	60.02	100
2013-14	12.15	26.58	61.27	100
2014-15	12.25	25.96	61.79	100
2015-16	9.93	27.25	62.83	100
2016-17	9.43	28.39	62.18	100
2017-18	9.26	28.30	62.44	100
2018-19	8.43	27.38	64.19	100
2019-20	7.81	27.08	65.11	100
2020-21	8.95	29.20	61.84	100

Source: Calculated based on Kerala Economic Review

The above table6 shows the share of different sectors in Net State Value Added. It shows the potential of service sector in Kerala along with the challenges primary and secondary sector faces with regard to growth. It is interesting to observe that the growth of service sector is so remarkable that there has been a magnificent increase in the contribution of service sector from 57.92 per cent in 2011-12 to 61.84 per cent in 2020-21. This explains the growth of service sector sidelining the other two sectors.

4. Contribution of service sector towards kerala economy: A Disaggregate level analysis

4.1 Sub sectoral components and its contribution towards NSDP

In this section an attempt has been made to understand the contribution of different sub sectors in the service sector over the years from 1960 onwards. But the sub sector segregation is not same in the sense that more of them have been added from time to time. This restricts a long-term trend analysis and therefore, the time focus is constrained accordingly.

The period 1960-70 and 1970-80 shows same trend as shown in figure 1 and 2 respectively with different bases 1960-61 and 1970-71. Both the decades have been recorded only with three sub components in the service sector such as transport, communication and trade, finance and real estate and community and personal services, marking a significant contribution from transport, communication and trade along with community and personal services. The gloomy performance of financial services explain the reasonably weak outreach of financial inclusivity (Figure-2).

Similarly, an attempt has been made to understand the subsector contribution of different sub sector towards service sector over the years 1980-81 to 1989-90 (Figure 3). The has been diversification in the classification of sub sectors from 1980 onwards. The contribution and involvement of railways, communication, public administration, banking and finance, real estate ownership and dwelling, transport and storage, trade hotels and restaurants has been separately registered and recorded. The contribution of trade, hotels and restaurants has been separately registered and it is the foremost contributor in service sector followed by banking and insurance, pubic administration and other services. During the period 1999-2011 also as shown in figure 4 trade, hotels and restaurants turned out to be the major sub sector contributor followed by transport and communication, real estate business and banking and insurance. This explains the gradual growth of the service sector in an organised setup with much culpability in the development process of the economy. The sector slowly interchanges to a formal recognized organisational setup (Figure-3&4).

The table7 shows the contribution of service sector registered with net state value added at the most disaggregated level. An inquisitive observation reveals that the major contribution has been made by trade, repairs and services which is consistently stable over the years from 26.21 per cent in 2011-12 to 28.02 per cent in 2019-20. From the analysis, it is also observed that real estate, ownership of dwelling & professional services registered a consistent stable increase in its contribution of 20.41per cent in 2011-12 to 29.88 per cent in 2020-21. The third component that needs a special reach was financial services consisting of banking, credits, payments, investment in financial instruments and so on, which in fact explains the development phase of any knowledge economy 8.1 per cent in 2011-12 to 10.96 per cent in 2020-21. Needless to say, the involvement of other units that gears up the growth engine of service sector in Kerala (Table 7, Figure -5).

The average annual growth performance of the sub sectors in the service sector furnished in figure 5 from 2011 leaves a

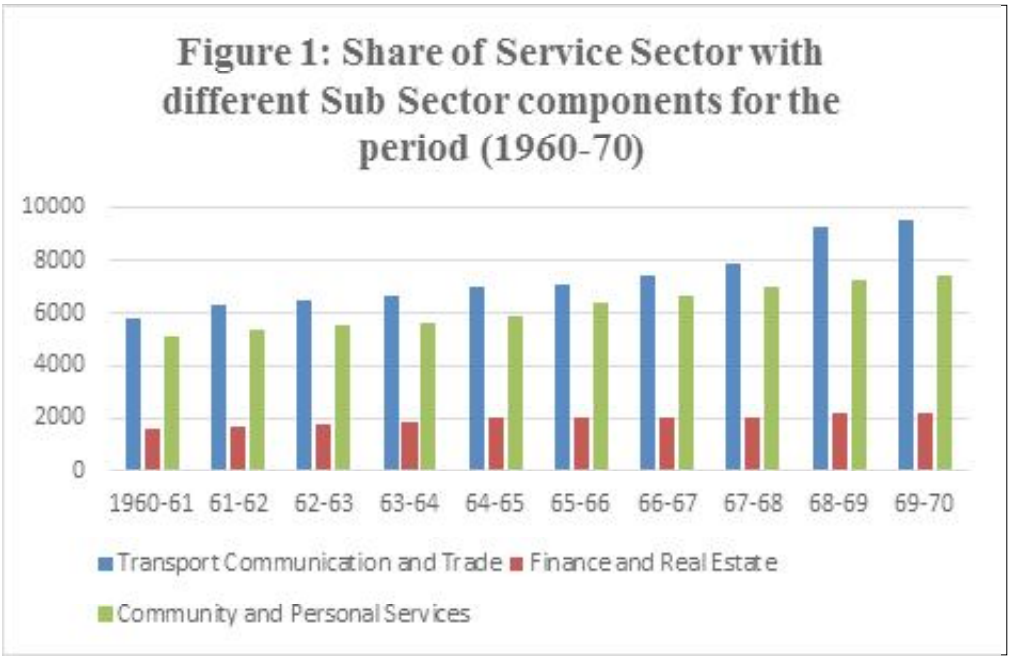


Figure 1: Share of Service Sector with different Sub Sector components for the period (1960-70)
10000
8000
6000
4000
2000
0
1960-61 61-62 62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70
Transport Communication and Trade
Finance and Real Estate
Community and Personal Services

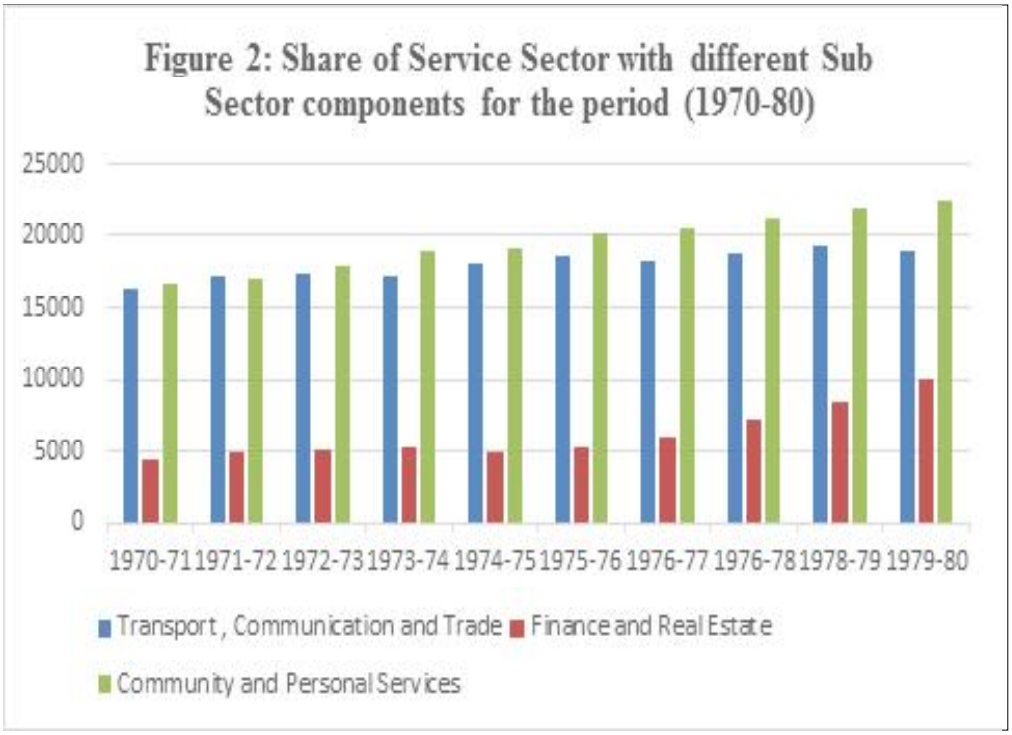


Figure 2: Share of Service Sector with different Sub Sector components for the period (1970-80)
25000
20000
15000
10000
5000
0
1970-71 1971-72 1972-73 1973-74 1974-75 1975-76 1976-77 1976-78 1978-79 1979-80
Transport , Communication and Trade
Finance and Real Estate
Community and Personal Services

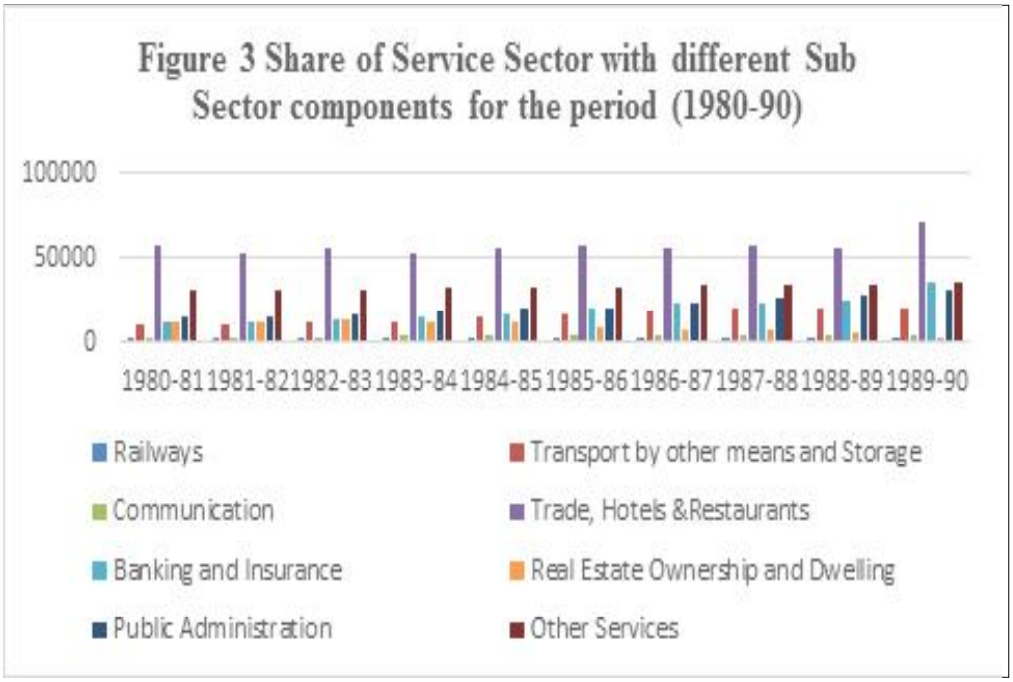


Figure 3 Share of Service Sector with different Sub Sector components for the period (1980-90)
100000
50000
0
1980-81 1981-82 1982-83 1983-84 1984-85 1985-86 1986-87 1987-88 1988-89 1989-90
Railways
Transport by other means and Storage
Communication
Trade, Hotels &Restaurants
Banking and Insurance
Real Estate Ownership and Dwelling
Public Administration
Other Services

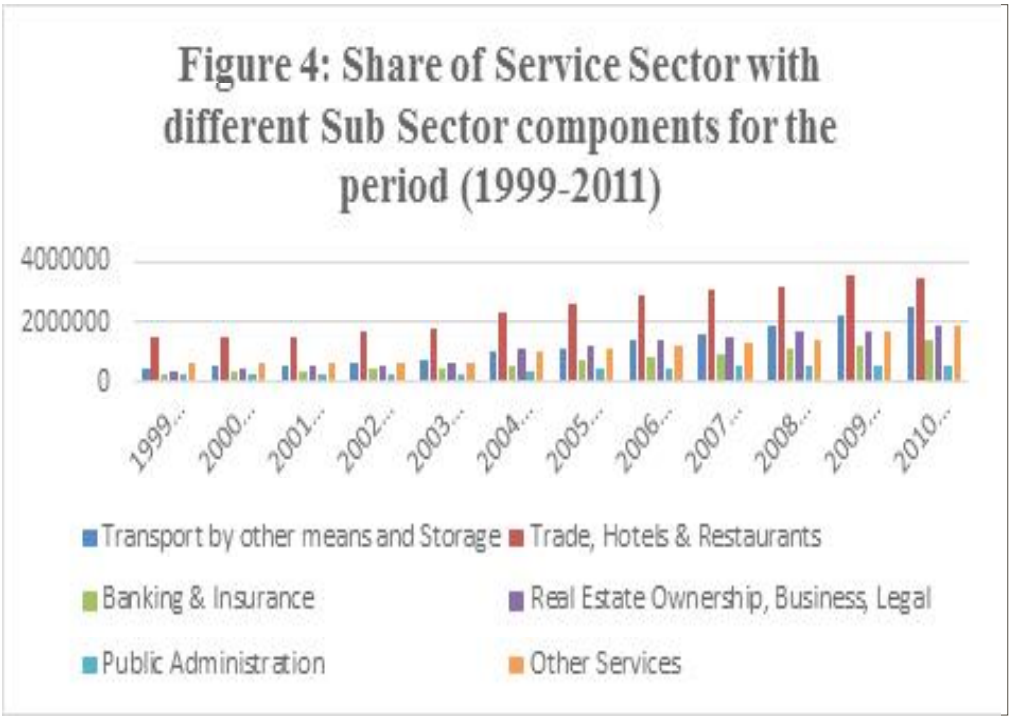
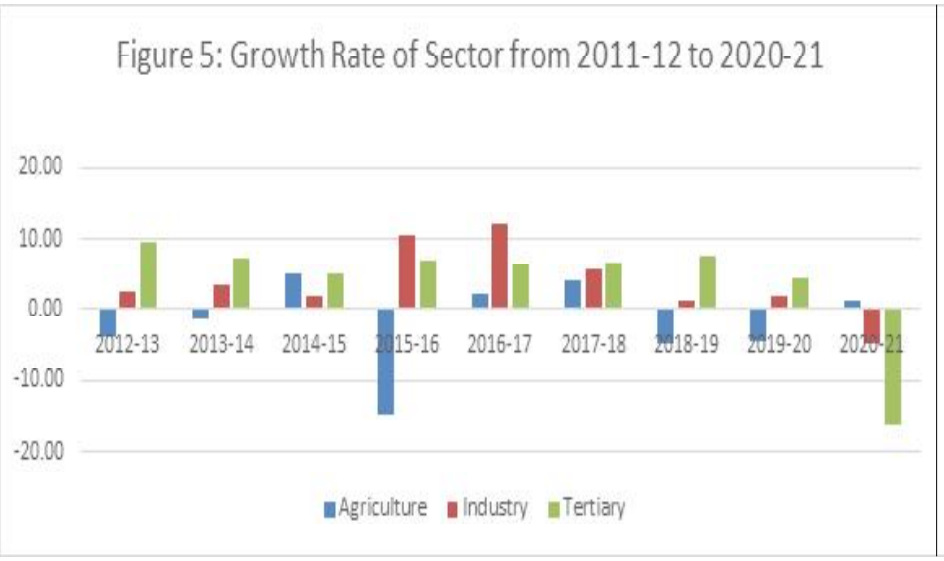


Figure 4: Share of Service Sector with different Sub Sector components for the period (1999-2011)
4000000
2000000
0
1999...
2000...
2001...
2002...
2003...
2004...
2005...
2006...
2007...
2008...
2009...
2010...
Transport by other means and Storage
Trade, Hotels & Restaurants
Banking & Insurance
Real Estate Ownership, Business, Legal
Public Administration
Other Services

Table 7: Share of Service Sector with different Sub Sector Components (2011-12 to 2020-21)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Trade Repairs & Services	26.21	27.57	26.54	27.03	27.20	25.89	26.29	27.23	28.02	25.65
Hotels & Restaurants	3.27	3.08	2.74	2.54	2.38	2.40	2.32	2.23	2.34	1.10
Railways	0.46	0.52	0.48	0.48	0.48	0.45	0.54	0.47	0.39	0.22
Road Transport	10.53	10.25	10.62	10.31	9.47	9.09	7.69	7.46	7.02	6.11
Water Transport	0.15	0.11	0.05	0.07	0.05	0.07	0.08	0.10	0.10	0.11
Air Transport	0.14	0.24	0.10	0.20	0.38	0.38	0.33	0.14	0.20	0.01
Services Incidental to Transport	0.33	0.30	0.26	0.27	0.27	0.40	0.45	0.43	0.40	0.30
Storage	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03
Communication Related To Broadcasting	2.70	2.38	2.53	2.72	2.91	2.71	2.35	2.20	2.38	2.73
Financial Services	8.10	7.90	8.17	8.41	8.88	8.72	8.26	9.10	8.97	10.96
Real Estate, Ownership of Dwelling & Professional Services	20.41	21.35	23.21	24.34	24.31	24.83	25.67	25.73	25.51	29.88
Public Administration	7.04	6.44	6.13	5.13	4.93	5.10	5.41	5.26	4.93	5.00
Other Services	20.66	19.85	19.17	18.49	18.72	19.94	20.60	19.63	19.72	17.92
Total	100	100	100	100	100	100	100	100	100	100

Source: Calculated based on Kerala Economic Review



very dismal picture and it has been explained as a result of the persistent issues observed at national and state level. At the national level, as against targeted growth rate of 4 per cent in the XII th plan in the agricultural sector, but the sector failed to achieve the same. The Directorate of Economics and Statistics (DES) brought a new series with 2011-12 as the base year, and the agriculture and related sectors registered positive growth in the initial year (2012-13) of 1.43 percent and negative growth in the subsequent year (2013-14) of -2.13 percent (GoK, 2015). Along with this, again at the state level, a series adverse circumstances happened such as Ockhi in 2017, flood and mudslides in 2018, 2019 and outbreak of Nipah virus in 2018 which had a cumulative downward spillover effect that drastically led to the very impoverished performance of primary sector. The performance of tertiary stayed ahead in all years except 2015-16 and 2017-18. The various industrial policies to revamp industrial sector along with increasing flow of remittances which boosted up construction sector gave positive better performance. In 2012-13 tertiary sector recorded a growth of 9.5 per cent whereas in secondary sector it was only 2.52 per cent. The pace persisted in the service sector till 2018-19, though covid-19 had a negative impact, but the growth remains positive and clustered around 5 per cent in 2020-21.

5. Conclusion

The primary sector of the economy does not register noticeable improvement in its contribution towards state's domestic product. The performance of the economy by analysing with respect to each sector wise underscores the structural transformation of the economy as it scales up in the development process. There is a gradual structural transformation in the

economy from primary sector lead growth pattern to service sector led growth overtime. As against the moderate growth pattern of the secondary sector and service sector registers reasonably consistent performance, leaving the secondary sector in the second place. The growth rate of service sector over is time period is high and that can be correlated with the high income elasticity of demand in tourism, banking, finance, real estate business and of course, the noticeable change in consumer's demand. Thus, from the inception of the State service sector's growth rate has shown an inclusive increasing trend in its contribution towards NSDP and therefore, it may be inferred that the sector will remain to continue as the largest contributing sector in the years to come.

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Innovation: A key driver for sustainable development in Kerala

Srikumar Chattopadhyay, P V Unnikrishnan, Biju Parameswaran, Vimal Ravi and Deepa P Gopinath

Abstract

Kerala drew national and international attention for her achievements in social and human development and resilience in the face of recent disasters. However, rapid changes in the environment that affect the regenerating capacity of biophysical systems, spatial disparity in development, and underperformance in some of the sustainable development goals like industry, infrastructure, and innovation (SDG 9) are major emerging challenges of the state. Kerala's innovation score is 30.58 against the national average of 35.59. The development trajectory, hitherto followed and found to have brought out significant positive changes in Kerala society, perhaps warrants revisit. Innovation-driven development and knowledge-based action assume great significance in this context. The Kerala Development and Innovation Strategic Council (K-DISC) has taken initiatives to build a holistic innovation ecosystem in the state. Some of the important initiatives are the Young Innovators' Programme (YIP), One Local Government, One Initiative (OLOI), and the Recruit, Train, and Deploy (RTD) programme. In all these cases, the thrust is on solving problems drawing from local as well as global knowledge bases and building synergy across all knowledge producing domains. This paper argues that the KDISC approach holds high potential to address Kerala's emerging development challenges, and the lessons learnt from these experiments will be useful for other states as well.

Key Words: *Kerala's emerging challenges, Sustainable Development Goals, K-DISC, Holistic Innovation.*

1. Introduction

Globally, there is a concern about the slow pace of growth meeting the sustainable development goal targets and the initiatives being undertaken both at the national and international level to address the problems. Among the three pillars of sustainable development, economy, social, and ecology, countries recorded progress in those goals out of 17 SDGs that are in line with national priorities, leaving out other sectors especially related to environment and climate change (D'Adamo et al., 2021; UN, 2023). This may

accelerate further environmental degradation, jeopardising the development process itself. Currently, the SDGs primarily focus on discursive effects with a few isolated normative and institutional reforms. It is not yet a transformative force to lead the world in the path of sustainability (Biermann et al., 2022). In this context, it is suggested adopting locally best suited entry points following regional and national priorities and applying four levers - governance, economy and finance, individual and collective action, and science and technology to propel our actions along the entry points (GSDR, 2019). Actors from these levers must develop partnerships and establish novel collaborations to design and rapidly implement integrated pathways to sustainable development corresponding to specific needs and priorities of the country and, through that route, contribute to necessary global transformation (ibid.).

Although science has always been embedded in society, presently, there is a need for deep engagement to address sustainability issues and achieve the 2030 Agenda targets. There is a need to establish a factual basis, anticipate future consequences, and contribute to finding creative and transformative solutions for transitioning to sustainability. The problems are increasingly complex, complicated, and even wicked, which cannot be addressed by fact-based decision-making alone (GSDR, 2019). It requires a larger frame and systems perspective that can internalise social-ecological interactions. Therefore, the present emphasis is on science- society co-learning mechanisms. Collaboration between science and technology personnel and societal actors at local, thematic, city, and national level is necessary to innovate sustainable solutions and develop, test, and practice new paradigms of development without compromising the ecology and equity dimensions. The UN 2023 Global Sustainable Development Progress report recognised that 'the potential for science, technology, and innovation to be applied to the Sustainable Development Goals is vastly untapped, and the institutional and other barriers that stand in the way of science, technology, and innovation progress must be recognised and lowered' (p: 56).

Kerala, covering 1.18% of India's land area and 2.56% of the country's total population (2011) and lying in the south-western corner of the Indian Peninsula, has carved out a niche for her achievements in the social sector and human development, primarily due to public action and affirmative government policy. Performance in demography, health, and education sectors has put the state on firm footing to strive for sustainable development (Parayil, 1996; 2000; Chattopadhyay and Franke, 2006, Isaac and Franke, 2021). The state is also well known for various innovative ideas like the People's Plan Campaign (PPC) for decentralised planning, civil society participation in development planning, and various other environmental safe-guarding actions. It has the distinction of meeting all Millennium Development Goal (MDG-2015) targets well in advance

(Government of India, 2017). The state ranks first in India under the Sustainable Development Goals index as computed by the NITI Aayog and also in several other indices (Table 1).

Kerala's resilience in the face of incidence of the Nipah virus in 2017, flood disaster in consecutive years of 2018 and 2019, and the unprecedented pandemic of Covid-19 in 2020 and 2021 drew worldwide attention and commendation. However, Kerala also faces a series of challenges related to demographic transition, aging, migration, unemployment, lifestyle diseases, declining productive sectors, and issues related to the human dimension of environmental change, including the impact of climate change and sea level rise. The ecological services that facilitated Kerala mode of development appear to be declining.

The development trajectory, hitherto followed and found to have brought out significant positive changes in Kerala society, perhaps warrants revisit in view of all-round change in all sectors that the state is undergoing, increasing planetary pressure, development gaps, and aspirational change of the new generation. In this context, innovation-driven development and knowledge-based action

Table 1 - Selected human development indicators of Kerala and India

Sl. No	Indicators	Kerala	Rank of Kerala in India	India
1	Population growth rate (annual) (2001-2011)*	0.48	1	1.63
2	Life expectancy at birth (2011-2015)*	75.2	1	68.3
3	Life expectancy-Female (2011-2015)*	78.2	1	70.0
4	Infant Mortality Rate (IMR) per 1000 live births (2016)*	10	1	34
5	Maternal Mortality Ratio (MMR) per lakh live births (2020)**	43	1	113
6	Literacy (2011)@	93.91	1	74.04
7	Female literacy (2011)@	91.98	1	64.6
9	Sex ratio (2011)@	1084	1	943
10	Incidence of poverty (2013)$	7.05	2	21.92
11	Human Development Index (HDI) (2019)#	0.782	1	0.645
12	Sustainable Development Goal Index	75	1	66
13	Per capita income (PPP INT$) 2019-20	11,153	9	7,333

*Source: *Health and Family welfare statistics in India, 2017; ** UN-NITI Aayog, 2021 @Census of India; $Reserve Bank of India, 2013; # Sub-national data base, Global Data Lab, hdi.globaldatalab.org; PPPINT$- Purchasing Power Parity in International dollar following conversion rate of IMF*

assume great significance for Kerala's growth and transformation, which is well recognized by the Government of Kerala (Government of Kerala, 2021). The Kerala Development and Innovation Strategic Council (K-DISC), a think-tank organisation established by the Government of Kerala, promotes innovations to cater to the present needs of Kerala. Some of these initiatives have brought out interesting results, that have the potentials to strengthen Kerala's journey towards sustainable development. The present paper aims to discuss some of the issues raised here and tries to highlight the innovation initiatives that the state has introduced at present.

2.0 Environmental challenges in Kerala

Kerala is experiencing rapid change in environment and also in social sector. These changes bring fundamentally a new set of challenges that cannot be simply viewed as a continuation of past concerns about the environment and sustainability. The changes reflect the human pressure on earth system processes that are local and also planetary, affecting the regenerative capacity of the biosphere. The changes and their impact are spatially differentiated and therefore warrant location specific understanding and appropriate intervention measures to ameliorate the situation. While the coastal area and lowlands are facing sea surge, floods, and the impact of sea level rise, the midlands are facing problems of productivity, water shortage, and the highlands are experiencing landslides and slope failure. Around 14 percent of the total area of the state is flood prone; 10 percent area is landslide prone; nine districts bordering the coastline are exposed to various coastal hazards; and there is recurrence of drought severely impacting agriculture and drinking water conditions. There is also human wildlife conflict. Safe operating space in the state is decreasing over the years.

There is little debate about rising temperatures, which are now hovering around 1.5oC across the state (Gopakumar, 2011). Rising temperatures have serious implications on primary productive sector. Fast growth of urban centres has cascading impacts on temperature rise through urban heat islands with the expansion of surfaced areas and following the construction boom. As the ambient temperature is rising, there is a high consumption of electricity to run air conditioning machines. This affects in two ways. The higher demand for electricity will compel the state to draw from the national grid, which depends on coal-based production for the bulk supply. Secondly, the released heat from the houses will further contribute to increasing temperature. Besides temperature, there is an emerging problem related to rainfall, whose trend and pattern show perceptible change. The peak rainfall month is shifting. High-intensity rainfall interspersed by intervening dry periods now characterises the monsoon months. Droughts often follow floods. The incidence of climate-related disasters is on the rise. Storm surges and tidal flooding affect many areas along the coast. Sea level rise will further complicate this situation, particularly along the coastal tracts. Changes in land,

land use, and water regime are major causes of concern. Loss of biodiversity, encroachment on river banks and wetlands, floodplain occupancy, removal of floodplain materials, river bed mining, cutting down of riparian vegetation, deterioration of ponds, tanks, and lakes all together reduce the water retention capacity of the state.

Deterioration of water quality is an alarming issue, which can severely impact human health and impinge upon the economy. The water-borne diseases increased by 35.6% from 2012 to 2016 in the state. Kerala's case of relatively better performance in the development sector during the past couple of decades but the growing deterioration of water quality is contrary to that hypothesized through the Environmental Kuznets Curve (Chattopadhyay, 2020). The drivers of these changes are primarily anthropogenic, and therefore require interventions at different levels, from individual to state, which is primarily a governance challenge.

3.0 Spatial gap in social and human development

The Kerala model is well appreciated for its potential to emerge as an alternative development narrative, however, there are certain limitations as indicated in some quarters. One of the issues often debated is that the general discussion on the 'Kerala Model' is mostly based on aggregate average data with little reference to the spatial disparities. There are outlier communities lagging behind the central tendency, and certain social groups seem to have been bypassed (Kurien, 1995; Kabir, 2010; Chakraborty et al., 2010). Examining spatial variability of social development based on 25 indicators, it is found that life expectancy and male literacy are spatially most equitable, whereas, the population growth rate is most variable (Chattopadhyay, 2019). The distribution of SC and ST populations also varies widely. This analysis has brought out three broad trends in the context of spatial variability: (i) There is a north Kerala (Malabar) and south Kerala (Travancore) divide, which is primarily a product of political geography. The northern part still bears the brunt of colonial rule. (ii) The second factor is related to physiography. The topographic grain of the state is longitudinal. The settlements are ribbon-like and in a continuous chain from one end of the state to the other end along the coastal plain and midlands. The degree of development performance diminishes from the coastal plain in the west to the highland region in the east. The areas characterised by rugged topography and steep slopes are found to be lagging behind. (iii) The third factor underpinning spatial variability is related to the concentration of social communities. The fishing community lives mostly along the coast and backwaters. They are lagging behind compared to other communities living in adjoining areas. Similarly, a high concentration of SC ST populations is found in the interior districts within the Western Ghats. Apart from these locational factors, privatisation of education and health sectors has enhanced spatial variability. On one hand,

government services tend to reach the deprived areas and reduce spatial disparity, on the other hand, growing private investment contributes to spatial inequality. This trend has increased, especially after globalisation/ economic liberalisation. The government's withdrawal from social service sectors may worsen the situation. Future challenges of social resilience in Kerala will be to reduce these spatial disparities.

Human environment relationship varies spatially. The spread of human settlements irrespective of land character has brought serious challenges both in the case of natural resource management, and also for service delivery. Future development initiatives in Kerala need to take these issues into account.

4.0 Kerala's position under SDG in India

The UNDP-NITI Aayog report (Government of India 2021 a & b) noted that India's overall SDG index stood at 66, ranging from 52 for Bihar to 75 for Kerala. The index is computed on a scale of 0 to 100 for each goal and also for the composite index, aggregating all goals together. The States and Union Territories are divided into four groups: aspirants (0 - 49), performers (50 - 64), front runners (65 - 99), and achievers (100). Fifteen states fall in the category of frontrunners with a composite SDG index of 65 and above. Although, Kerala recorded the highest overall SDG index, disaggregating the data for each of the 16 SDGs, it is found that Kerala occupies the top position only in the case of SDG 2 (zero hunger) and SDG 4 (quality education). Both these goals are part of the human development sectors, for which Kerala, traditionally, has an edge over other states in the country. In fact, Kerala falls under the category of 'Performing' states with an SDG index value of <65 for SDG 5 (Gender equality), SDG 8 (Decent Work and Economic Growth), and SDG 9 (Industry, Innovation, and Infrastructure). Among all 16 SDGs, Kerala recorded the lowest score (60) for SDG 9 (Table 2).

5.0 Innovation index of Kerala

Innovation score of Kerala was 30.58 against the all-India average of 35.59 as evident from sustainable development goal index computed by NITI Aayog (Government of India, 2021). Karnataka, with an innovation score of 42.50, is the leading state in India. While the correlation between human development index and innovation score is weak, the SDG index has a moderately positive correlation (r= 0.49) with innovation score (Fig 1).

The recent innovation survey data is not comparable with that of the previous survey. Nevertheless, the present situation deserves attention. India's performance is appreciable in the global innovation index. The country has moved from the 60th position in 2017 to the 46th spot in 2021 (Kapoor and Sinha, 2022). Based on 50 indicators grouped under five pillars, namely, human capital (15 indicators), investment (6), knowledge workers (6), business environment (15), and safety and legal environment (8) under the enabler dimension, and 16 indicators grouped

Table 2: SDG for development sectors and Kerala's position

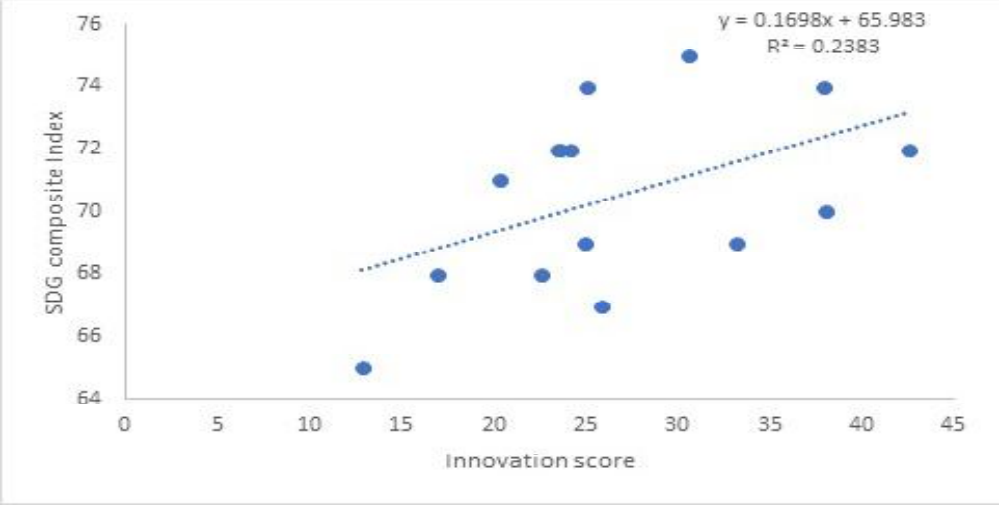
SDG	Development sector	Kerala, index (Rank)	Highest index attained and (State)
SDG 1	No poverty	83 (III)	86 (Tamil Nadu)
SDG 2	Zero hunger	80 (I)	80 (Kerala)
SDG 3	Good health and well being	72 (XIV)	86 (Gujarat)
SDG 4	Quality education	80 (I)	80 (Kerala)
SGD 5	Gender equality	63 (II)	64 (Chhattisgarh)
SDG 6	Clean water and sanitation	89 (VIII)	100 (Goa)
SDG 7	Affordable and clean energy	100 (I)	100 (15 states)
SDG 8	Decent work and economic growth	62 (XII)	78 (Himachal Pradesh)
SDG 9	Industry, Innovation and Infrastructure	60 (IX)	72 (Gujarat)
SDG 10	Reduced inequality	69 (XIII)	78 (Himachal Pradesh)
SDG 11	Sustainable cities and communities	75 (XVII)	91 (Punjab)
SDG 12	Responsible consumption and production	65 (XXIII)	99 (Tripura)
SDG 13	Climate action	69 (II)	70 (Odisha)
SDG 14	Life below water* (for coastal states only)	53 (VI)	82 (Odisha)
SDG 15	Life on land	77 (VI)	93 (Arunachal Pradesh)
SDG 16	Peace, justice and strong institutions	80 (V)	86 (Uttarakhand)
SDG 17	Partnerships to the goals	Not computed at the state level	

**Based on increase in area under mangrove and development of aquaculture only. Quality of coastal waters not considered due to lack of a fixed standard*

Source: NITI Aayog (2021): SDG India Index and Dashboard 2020-21, Partnerships in the decade of action. Government of India, New Delhi.

under two pillars, namely, knowledge output (9), and knowledge diffusion (7) under the performer dimension, it is found that Karnataka tops the list with an 18.01 India innovation score and Kerala with an India innovation score of 13.67 ranks 8th among the major states in India (Fig 2). The enabler index score of Kerala is 18.17, and that for the performer is 9.17. Kerala is underperforming and using only 50% of her capacity for innovation as manifested in the efficiency level (0.505) worked out as the ratio between performance index (9.17) and enabler index (18.17). Apart from human capital, Kerala has not shown

Fig 1. Correlation graph SDG composite index and innovation score. Fifteen front runner states have been considered.



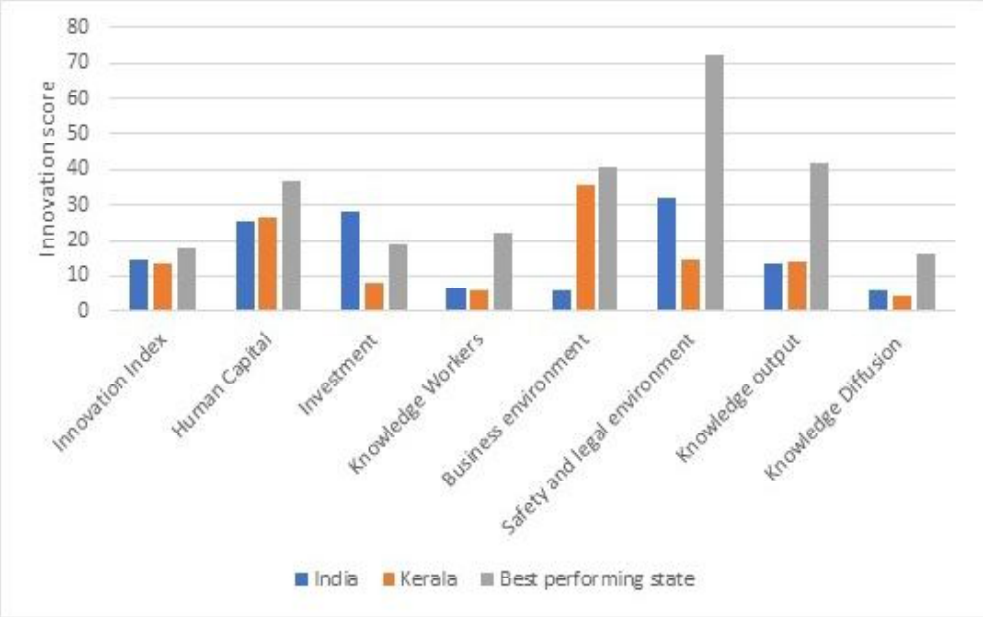
much improvement in other pillars. However, there are significant achievements in the case of start-ups and entrepreneurs, as the state ranks first in the country in these two cases (John, 2021). The state has to take special initiatives both in the case of knowledge output and knowledge diffusion.

There are certain criticisms about the formulation of the India Innovation Index and the indicators used for the purpose. The present innovation index is largely industry-oriented and higher education-centric. Such an approach inspired by the developed countries is being questioned (Fargerburg et al., 2010). It is now argued that the relationship between innovation and development can not be properly understood if looked through only the industry and high-tech lens. Innovation is a powerful force for growth; however, to consider it only from the perspectives of developed countries or ignore the innovative ideas generated at the local level by the people to sustain their livelihoods may not be appropriate and will bring a partial picture. Globally, there is a conceptual shift, and the other dimensions of innovations are now recognised. This point is further discussed in the following section, and the K-DISC initiatives are positioned within the ambit of the changed paradigm. (Fig-2).

6.0 Innovation and Sustainability

Innovation is a normal human endeavour, part of the evolutionary process of human civilisation. It may be construed as an attempt to try out new or improved products, processes, or ways to do things and includes not only technological new

Fig 2: Innovation score under different pillars



products and processes, but also improvements in areas such as logistics, distribution, and marketing (Fargerburg et al., 2010). The transformation of ideas into innovation requires a flow of information, technology, and experience among the various stakeholders necessitating an innovation ecosystem. An innovation ecosystem is the evolving set of actors, activities, and artefacts, and the institutions and relations, including complementary and substitute relations, that are important for the innovative performance of an actor or a population of actors (Granstrand, and Holgersson, 2020). There are several studies highlighting the importance of innovation for sustainable development and their close relationship (Kuzma et al., 2020; Huang, 2021). Innovation is an important development mechanism, especially if encouraged by public policy or voluntary initiatives, and has now emerged as a main tool for achieving sustainability (Adams et al., 2015). There is a bidirectional causal relationship between economic growth and innovation. The role of innovation in sustainable development is well recognized both at the central and state government levels (Government of India, 2020; Kerala State Planning Board, 2021).

Considering the pursuit of environmental, economic, and social development, the three pillars of sustainable development, the spectrum of innovation encompasses

all branches of knowledge - natural sciences and engineering, life sciences and medicine, social sciences and humanities, law, and more - and also organisations. Innovations should generate positive economic, social, and environmental outcomes in tandem and gradually, they should be mainstreamed. Organisation is an important component in the innovation ecosystem. The ability to propose innovative product, service, or process solutions is a valuable skill and can be converted into a range of valuable organizational resources. Therefore, higher levels of innovation imply significant and positive effects on the performance that the organization obtains in the environmental, social, and economic dimensions of sustainability. In a resource-constrained world, society will have to grapple with the question of proper resource allocation for development. The practice of promoting innovation at the grass roots is necessary to fully utilise the full potential of the indigenous knowledge bases by engaging the local communities in the process and applying cutting edge science and technology to solve local problems. The recent paradigm of innovation shifted from mere technological innovation towards a broader dialogue between scientific research, technological innovation, and social development (Stilgoe et al., 2013). Moreover, besides achieving scientific and technological progress and economic growth, the goals now aim for ethical and social fulfillment, therefore achieving a sustainable transformation (Pandza & Ellwood, 2013). The enabling environment for sustainable development also requires community-led initiatives and multi-stakeholder partnership through collaborative innovation (Dzhunushalieva and Teuber, 2024). A holistic innovation ecosystem is expected to internalise all these dimensions and provide creative and transformative solutions, necessary for sustainability. There are four core elements in a holistic ecosystem: strategic, total, open, and collaborative (Chen, Yin and Mei, 2018). Holistic innovation ecosystem tries to integrate convergent thinking of natural sciences and divergent thinking of social sciences under a common strategy.

7.0 KDISC Innovation Initiatives

The Kerala Development Innovation Strategic Council (K-DISC) concentrates on non-linear innovation policies with the objective of building a holistic innovation ecosystem in the state (Sekhar and Unnikrishnan, 2023). It has taken up several initiatives for innovation. We shall discuss here 3 of them, namely, YIP (Young Innovators' Programme), OLOI (one local government, one initiative), and RTD (Recruit, Train, and Deploy) programme. While YIP is mainly for student teams, the OLOI concentrates on empowering local self-government organisations, and the RTD is primarily meant for engineering college students. These programmes attempt to address heterogeneous social spaces and try to integrate knowledge produced in various domains of society. In all the cases, the thrust is on problem solving drawing from local as well as global knowledge bases. Together, these three programmes have the potential to engineer mega change in Kerala's development trajectory.

7.1 Young Innovators Programme (YIP)

This flagship project of K-DISC is perhaps one of the most innovative initiatives to democratise innovation and integrate real-life problem-solving methodology into the curriculum of student teams in the age-group from 13 to 37. Building around 30 themes covering almost all the sectors, from agriculture to age related issues and education, this project aims to instil critical thinking in young minds, and expose them to innovation methodologies, ideation, and entrepreneurship. Innovations by Youth with Disability (I-YwD) are also brought under this initiative. The YIP partner ecosystem now spreads over 8049 institutes under the government, government aided and private sectors covering schools, colleges, university departments, professional colleges, research institutes, skill training centres and other such educational institutes. Schools comprise around 75% of these institutes. There were 60 participants under the category of Innovations by Youth with Disability cohorts. Female members formed 22% of this group. There were also initiatives to file patents. There is also an initiative to organize YIP club involving schools, colleges, and other stakeholders to address a common problem. This programme is in tune with the UN CRC (1989) proclamation to recognize young people as valuable members of communities with the right to express their views and have those views considered by others, including governments and other authorities. Involving school students in the YIP club will facilitate exercising their rights in many ways and meaningfully engage them with adults and adult-led organizations for innovation in partnerships. It will also pave the way to maximize young people's agency within social and political structures; transform adult and institutional perceptions of young people in dialogue with young people; and generate new policy processes and organizational forms (Swift and Collin, 2021).

7.2 One Local Government One Idea (OLOI)

The 'One Local Government, One Idea' (OLOI) programme aims to empower local self-government institutions (LSGIs) in Kerala through local-level innovations. It has succeeded in create an ecosystem for nurturing ideas generated from the grass-roots level. So far, training has been imparted to 19,603 persons at different administrative levels. Elected representatives comprise around 40% of trained personnel. Organisational set-up formed for the purpose includes the National Consultative Group (NCG), Bottom-Up Consultative Group (BCG), and District Innovation Councils to nurture innovation at the district and sub-district levels. A Community of Practices (CoP) has been formed with over 1500 experts across 27 themes. A Social media platform named 'Noothakam' was also set up for facilitating discussion among CoP members. There is also an online platform developed for local self-government institutions (LSGIs) to submit developmental issues that require innovative solutions. The pilot phase focuses on 12 distinct problems falling under 8 thematic areas submitted by 60 LSGs, shortlisted from the problem statements originally proposed by 215 LSGs. These themes encompass problems such as

sanitation in water-logged areas, priorities for the elderly, enhancing the support system of Buds Schools, tackling unemployment, addressing bird flu concerns, resolving market-related issues related to agricultural products, improving clam processing methods, addressing aqueduct depletion, managing flooding challenges, enhancing liquid waste management, and ensuring access to safe drinking water. Support of the domain institutions was ensured to curate the problems submitted by LSGIs considering the current situation of the problem, needs, preferences, and aspirations of the beneficiaries, and to define the scope and boundaries of the problem. There are arrangements for review by expert panels and preparation of a Detailed Project Report (DPR). The goal is to identify and implement innovative solutions that can effectively address the pressing issues, thereby enhancing community well-being and promoting sustainable development. Solution-hunting hackathons focusing on themes like waste management and elderly care are currently underway. From the initial submissions for waste management solutions, 30 were selected for the final round, with 6 projects being shortlisted for further development. The Elderly Care Hackathon is underway with support from administrators.

As a part of building the Block Innovation Clusters, 498 institutions have been identified in 14 districts. District-wise CoP meetings were conducted in all 14 districts, and necessary measures were taken to communicate the concept of the innovation ecosystem and to initiate the operationalization of the CoP ecosystem in close cooperation with the Kerala Institute for Local Administration (KILA).

7.3 Recruit, Train, and Deploy

This programme is conceived to integrate skill enhancement, and solutions for real-life problems into engineering curriculum. It holds immense potential for shaping highly competent professionals. For the overall growth of students as knowledge workers of today, it is imperative to develop basic skills like collaboration, critical thinking, and analytical capabilities. Incorporation of innovation and real-world problem-solving into the curriculum can facilitate the development of these skills. Integrating real-life problem-solving activities ensures that engineering graduates become proficient in applying their skills to tackle complex challenges effectively. RTD programmes further augment this by providing practical training and exposure to real- world scenarios, preparing students for the demands of the professional sphere. By embracing these opportunities, engineering education can produce graduates who are knowledgeable and equipped with the practical skills and mindset necessary to thrive in dynamic and evolving industries. It is proposed to have a two-dimensional approach-a stream of compulsory courses for the development of basic skills required for all engineering professionals and another stream of elective courses for developing skills required for making them employable. The first stream can be positioned in the form of Community-engaged learning (CEL) a pedagogical approach that integrates academic content with real-world community needs, which is gaining momentum on various campuses. The second stream can be integrated with the Recruit Train Deploy (RTD) programmes,

linking it with the industry elective courses and internships. The programme includes execution of social innovation projects as part of the course work from the beginning of the course.

The K-DISC initiatives are potent to trigger the transformational change and system-level interventions, that are essential to meet the challenges ahead. Societal stakeholders, including companies, will need to pool resources and share knowledge in increasingly productive partnerships that stretch across and between value chains. This new paradigm needs to incorporate a number of aspects, like vision and leadership, multi-level focus, value chain integration, stakeholder involvement, and integration with the 4IR.

8.0 Conclusion

Kerala is experiencing intense change in environment, development, and people's aspirations. While the state has achieved significantly in some of the sustainable development goals, especially, related to social sectors, in the case of several other goals, the state has to take further initiatives. There are spatial gaps in human development, and several issues related to the environment, including climate change impact. The present set of problems requires innovation led solutions. As innovation for sustainability has to occur at the same time on multiple levels and in different dimensions, a holistic innovation ecosystem approach is necessary. In this context, the K-DISC initiatives are significant and hold high potential. The lessons are also useful for other states as well.

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■

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Ensuring sustainable urban governance: Insights from service delivery in Kerala

Vimal V

Abstract

Sustainability is a critical issue for local governments globally, and India is no exception. To tackle issues like climate change, air pollution, and energy security, local governments in India must adopt and enact sustainable policies and initiatives. Urban services, such as transportation, water supply, sewage management, pollution control, and solid waste management, are crucial for citizens' well-being and quality of life. Urban local bodies in Kerala have shifted towards sustainable practices in recent years. This study assesses the sustainability of urban local bodies in Kerala by analyzing their water supply systems, solid waste management practices, and land use patterns. Additionally, the study examines the impact of water pollution, air pollution, and noise pollution on the urban environment and identifies opportunities for sustainable future building practices. The findings of this study will improve our understanding of the current state of urban sustainability and provide recommendations for enhancing the long-term viability of urban areas.

Keywords: *Urban local self-government, Service delivery system, Kerala, Solid waste management*

1. Introduction

Urban services are the lifeline of cities, providing critical infrastructure and amenities that are fundamental to the daily lives of citizens. In India, rapid urbanization and population growth have exerted significant pressure on these services, leading to environmental challenges and impeding sustainable development. The importance of urban services in fostering sustainability and enhancing the quality of life is paramount. Despite various initiatives by cities and municipalities, there remains an urgent need for further improvements and new measures to promote sustainability in urban services. A multi-faceted approach involving government, private sector, civil society organizations, and citizens is crucial to address these challenges (Bahadure & Bahadure, 2012). In India, local governments

play a vital role in promoting sustainability and delivering urban services. The increasing need to confront issues like climate change, air pollution, and energy security has prompted local governments to implement policies and programs that support sustainability (Randhawa & Kumar, 2017). In Kerala, municipal corporations have made significant strides towards sustainable practices in land use, water service, and solid waste management. Initiatives such as organic farming, rainwater harvesting, and waste segregation have been introduced. However, the state continues to grapple with water, air, and noise pollution due to the unregulated use of pesticides and fertilizers and the lack of proper waste management infrastructure. Sustainable urban services not only contribute to environmental preservation but also to economic development and social well-being. They provide citizens with improved access to basic services, create employment opportunities, and promote social equity. This, in turn, helps in reducing poverty and enhancing the quality of life. The primary objective of this study is to assess the sustainability of urban local bodies by examining their water supply systems, solid waste management practices, and land use patterns. It will also evaluate the feasibility of implementing sustainable building practices by analyzing the effects of water, air, and noise pollution on the urban environment. The study aims to offer insights into the current state of urban sustainability and propose recommendations for fostering long-term sustainability in urban areas.

2. Methodology

The objective of this research study was to assess the sustainability of service delivery practices implemented in urban local bodies in Kerala. To achieve this aim, a comprehensive approach was adopted, utilizing both primary and secondary sources of data. The primary data was collected through structured questionnaires and semi-structured interviews with a range of stakeholders, including government officials, administrators, elected representatives, and citizens. Furthermore, secondary data was gathered from various sources, such as reports from local, state, and central governments, as well as external agencies such as the World Bank and Asian Development Bank, magazines, and newspapers. For this study, a representative sample of four municipal corporations in Kerala was selected, namely Thiruvananthapuram, Kollam, Thrissur, and Kozhikode, out of a total of six municipal corporations in the state. The selection process for the sample took into account various factors, including geographic distribution, city size, and data availability. Descriptive statistics and thematic analysis were used to analyse the data collected through structured questionnaires, semi-structured interviews, and secondary sources, to identify patterns, trends, and relationships. The results obtained from the analysis led to the development of meaningful conclusions and recommendations.

3. Discussion: Sustainability initiatives of urban local bodies

Local governments play a crucial role in driving sustainable development and achieving the Sustainable Development Goals (SDGs) (Karim & Rupa, 2017). Urban Local Bodies (ULBs) and Panchayati Raj Institutions (PRIs) in India have the potential to catalyze transformative change at the

grassroots level (Gandham et al., 2019). In Kerala, local bodies have been at the forefront of this effort, undertaking a range of initiatives to promote sustainability and environmental protection. One of the key focus areas has been localizing the SDGs to address the specific needs and priorities of each region Localizing SDGs in Kerala - KILA, n.d.). Local bodies in Kerala have formulated localized SDG implementation plans, with a focus on poverty alleviation, food security, universal healthcare, water and sanitation, disaster resilience, and climate action. This context-specific approach has enabled more effective and impactful interventions. In the realm of agriculture, local governments have actively promoted sustainable practices, such as organic farming, zero-budget natural farming, and biodiversity conservation. These efforts have led to a substantial reduction in the use of chemical fertilizers and pesticides, contributing to a more environmentally-friendly food production system

Local bodies have also made significant strides in renewa(Kerala Sustainable Urban Development Project | Local Self Government Department, n.d.) (Localizing SDGs in Kerala - KILA, n.d.). ble energy generation, establishing biogas plants, solar power projects, and micro-hydel projects to meet local energy demands through green sources. Waste management has been another area of focus, with the implementation of decentralized solid waste management systems and the Haritha Keralam Mission, which aims to make Kerala a clean and green state. Addressing water and air pollution has been a top priority for Kerala's local governments. They have implemented measures to control industrial effluents and domestic sewage discharge, conserve water resources, and reduce vehicle emissions and noise pollution (Joseph et al., 2020; Neeraja, 2019). These initiatives have helped safeguard the quality of rivers, lakes, and coastal areas, as well as improve the overall environmental health of communities. Additionally, local bodies have worked to develop pedestrian-friendly and cycle-friendly infrastructure, promoting green transportation and enhancing the quality of urban spaces. Tree planting and the creation of green spaces have also been part of their efforts to improve air quality and create more livable communities. The proactive role played by local bodies in Kerala exemplifies the significant impact that effective and autonomous local governance can have on sustainable development (Haritha Keralam - Haritha Keralam, n.d.). By addressing critical environmental and social challenges, these local initiatives have empowered communities and paved the way for a more sustainable and resilient future. This approach can serve as a model for other regions, demonstrating the vital role of local governments in realizing the broader global vision of sustainable development.

3.1. Land use in the urban local bodies of Kerala

Sustainable land use practices are crucial for achieving holistic and long-term development, and local governments play a pivotal role in this regard. Kerala's municipal corporations have undertaken commendable initiatives to promote sustainable land use, recognizing the close link between land use and sustainable development. One of the key focus areas has

been the implementation of sustainable land use programs, including the creation of master plans, zoning rules, and development control regulations. These initiatives have helped reduce garbage generation and encouraged recycling, composting, and waste segregation, thereby creating more sustainable ecosystems and land use patterns (Verburg et al., 2015; Dale, 1997; Patricia E. Salkin, 2009). Reforming land use laws has also been a priority, as it is essential for building sustainable communities and promoting resource conservation (Projects and Programmes Strengthening State Land Use, n.d; Salvador & Sancho, 2021). The analysis of land use patterns in four major municipal corporations in Kerala - Thiruvananthapuram, Thrissur, Kozhikode, and Kollam - reveals interesting insights (Table 1). Residential land use is the predominant land use, ranging from 39.32% in Thrissur Municipal Corporation to 72.84% in Kollam Municipal Corporation. This high percentage of residential land use can have adverse environmental impacts, such as reducing biodiversity and harming the natural environment (Table-1).

In contrast, the percentage of agricultural land use is relatively low, ranging from 1.24% in Kollam Municipal Corporation to 33.04% in Thrissur Municipal Corporation. All of them have a comparatively low percentage of agricultural land used, mostly as a result of the trend toward the conversion of agricultural land for residential and commercial uses. In order to maintain the natural environment and guarantee food security, agricultural land must be preserved. (Governance of Land Use - OECD, n.d.). Preserving agricultural land

Table 1 Land use pattern in the urban local bodies of Kerala (in percent)

Land Uses	Thiruvananthapuram	Thrissur	Kozhikode	Kollam
Residential	56	39.32	68	72.84
Agriculture	22	33.04	2.07	1.24
Paddy not cultivated	1	-	0.45	-
Public and semi-public land	13	10.17	4.7	5.5
Transportation	3	5.97	5.43	5.58
Waterbody	3	3.34	6.5	5.75
Commercial	1	1.6	2.89	2.13
Industrial	1	1.64	1.5	1.81
Park and open spaces	-	0.54	0.64	3.07
Others	-	4.38	7.82	2.08

Source: Master Plan of respective Municipal Corporations. (Thiruvananthapuram Municipal Corporation: Thiruvananthapuram Master Plan draft, Thrissur Municipal Corporation: Master plan for Thrissur City, Kozhikode Municipal Corporation: Master Plan for Kozhikode Urban Area - 2035, Kollam Municipal Corporation: City Development Plan for Kollam- 2041)

is crucial for ensuring food security and maintaining the natural environment. Municipalities like Thrissur and Thiruvananthapuram, with higher percentages of agricultural land use at 33.04% and 22% respectively, present opportunities for promoting sustainable agricultural practices and biodiversity conservation. The distribution of transportation and public and semi-public land use is relatively uniform across the municipalities, ranging from 3% to 5.97% for transportation and 4.7% to 13% for public and semi-public land use. To lower carbon emissions and enhance public health, however, sustainable transportation options like bicycling and public transportation must be given priority. Municipalities can explore policies and infrastructure investments that encourage sustainable mobility and reduce reliance on private vehicles (Local Governments and Sustainability: The Power of Public Goods - PA Times Online, n.d.). The variations in land use patterns across the municipalities highlight the importance of tailored land use management policies that address the unique characteristics and needs of each region (Towards Sustainable Land Use, 2020). For instance, Thrissur's high percentage of agricultural land use may call for policies that prioritize sustainable farming practices, while Kollam's significant public and semi-public land use could focus on promoting green infrastructure and improving public transport connectivity. By embracing sustainable land use practices, Kerala's municipal corporations are setting an example for other regions, demonstrating the transformative impact that local governments can have on achieving sustainable development goals. This approach emphasizes the critical role of effective and autonomous local governance in shaping a more sustainable and resilient future (Sustainable Land Management | Food and Agriculture Organization of the United Nations, n.d.).

3.2. Water supply system and structure in the urban local bodies of Kerala

Water management is a critical aspect of sustainable urban development, and Kerala's municipal corporations have taken significant strides in this regard. The water supply system in Kerala is primarily managed by the Kerala Water Authority (KWA), a state-level agency responsible for water distribution across the state, with local bodies like municipal corporations also playing a vital role in water supply management within their jurisdictions (Kerala Water Supply and Sewerage Act 14 of 1986 Amendments and Other Regulations, n.d; Performance Report: Kerala Water Authority, n.d.). An analysis of the water supply sources reveals interesting insights. In Thiruvananthapuram and Kollam, the KWA or the municipal corporation is the predominant source of water, accounting for 81% and 76.62% of the total water supply respectively. This indicates a centralized and organized approach to water management in these cities, with a significant proportion of the population relying on a single, regulated source (Performance Report: Kerala Water

Authority, n.d.). In contrast, Thrissur stands out with a high reliance on individual wells, with 80.43% of its water supply coming from this decentralized source. This suggests a more self-sufficient and decentralized approach to water sourcing within the municipality. The use of public water supply and public bore wells is more evenly distributed across the municipalities, with Thrissur exhibiting the highest reliance on this source at 4.31%. The capacity of water storage reservoirs also varies significantly across municipal corporations. Thiruvananthapuram has a storage capacity of 63.25 million liters, while Kozhikode has a much lower capacity of only 10.8 million liters (Manual of Resident Audit office, Kerala Water Authority (First Edition), n.d.). Effective management and utilization of these water resources are crucial to ensure a sustainable and equitable water supply to meet the growing demands of Kerala's population. The analysis also reveals the use of other sources, such as rivers, which account for a small percentage of the water supply in Kozhikode and Kollam. This diversification of water sources suggests an effort to incorporate surface water resources into the municipal water supply systems (Table-2).

The variations in water source distribution and storage capacity across municipal corporations highlight the importance of tailored water management strategies that address the unique challenges and opportunities of each region. Local bodies, in collaboration with the KWA, must continue to invest in improving the efficiency and sustainability of the water supply system, ensuring equitable access to clean and reliable water for all. Addressing water management challenges, such as physical losses and water scarcity, is crucial for the long-term viability and well-being of these urban centers (Kerala Water Supply and Sewerage Act 14 of 1986 Amendments and Other Regulations, n.d.). Proactive steps, including reducing physical losses and implementing comprehensive water conservation measures, must be taken to ensure the sustainability of the water supply networks. The government's role in overseeing and supporting the

Table 2. Sources of water in the municipal corporations in Kerala (percentage)

Sources of water	Thiruvananthapuram	Thrissur	Kozhikode	Kollam
Kerala Water Authority/ or corporation	81	30.57	30	76.62
Own well	10	80.43	64.2	12.37
Public water supply/ public bore well	5	2.29	4	4.31
other sources	4	-	1	5.49
River	-	0.01	0.08	1.21

Source: Master plan of respective municipal corporations

municipal corporations' water management efforts is essential in this regard. By addressing water management issues and promoting sustainable water practices, Kerala's municipal corporations can set an example for other urban areas, demonstrating the pivotal role of local governance in achieving sustainable development goals and ensuring the long-term resilience of communities.

3.2.1 Groundwater management

Groundwater management is a critical component of sustainable water resource management in Kerala, which has faced challenges such as the decline of river systems, loss of wetlands and paddy fields, increasing demand, over-exploitation, and pollution (Varma, n.d.). Groundwater is a significant resource for achieving universal access to drinking water, sanitation, and hygiene, as highlighted in the Sustainable Development Goals, Groundwater is managed by both government and private entities and is used by millions of farmers in Kerala. It is also essential for irrigation, accounting for 43% of all water used for this purpose globally (Varma, n.d.) (The Importance of Groundwater - The Groundwater Project, n.d.). The analysis of groundwater recharge and monsoon contribution in the municipal corporations and districts of Kerala provides valuable insights. The estimation of dynamic groundwater resources of Kerala as of March 2020, as per GEC-2015 recommendations, was approved in the 2nd meeting of the State Level Committee for the re-establishment of groundwater resources of Kerala on 26.7.21(Varma, n.d.). The occurrence and movement of groundwater in various litho-units underlying the state are influenced by different terrain units. The depth to the water level in the aquifer varies from 2 to 16 mbgl, and the yield of the well ranges between 2 to 10 m3 per day. Exploratory drilling was carried out by the Central Ground Water Board in the state in the crystalline overburden and the wells situated at elevated areas. The spatial distribution of groundwater levels in Kerala is shown in Figure 4 of the Dynamic Ground Water Resources of Kerala (2020) report. One of the primary ways in which groundwater is recharged is through rainfall. The pre-monsoon and post-monsoon seasons play a vital role in determining the amount of groundwater recharge. For instance, the Thiruvananthapuram Municipal Corporation and District have a relatively lower rainfall amount of 1818.94 mm compared to other districts, yet they have a substantial total annual groundwater recharge of 5455.21 ha.m and 30003.98 ha.m, respectively. This can be attributed to their high recharge from other sources during non-monsoon seasons, demonstrating the importance of considering both rainfall and other recharge sources in the sustainable management of groundwater resources (Table-3).

In contrast, the Kollam Municipal Corporation, while receiving a higher rainfall of 2417.69 mm during the monsoon season, has a lower total annual groundwater recharge of 3481.61 ha.m due to a lower recharge from other sources during non-monsoon seasons. This

Table 3 - Groundwater recharge and monsoon contribution in municipal corporations and districts

Assessment Unit/ District	TVM MC	TVM District	Kollam MC	Kollam district	Thrissur MC	Thrissur district	Kozhikode MC	Kozhikode district
Total Geographical Area of Block (Ha)	33727	218797	14703	249100	22892	302385	16351	234230
Rainfall (mm)	1818.94	1818.94	2417.69	2417.69	3176.64	3176.6	3382.46	3382.46
Average Pre-monsoon Water level (mbgl)	8.68	9.17	7.31	7.68	10.36	6.53	4.67	5.21
Average Post monsoon Water Level (mbgl)	6.9	7.44	5.97	5.84	9.02	4.9	3.29	3.66
Recharge from rainfall during the monsoon season	4299.22	21075.45	2651.36	27361.75	3629.66	45874.26	2472.27	31186.83
Recharge from other sources during the monsoon season	32	570.29	135.54	827.06	129.9	840.67	34.86	398.96
Recharge from rainfall during non-monsoon season	986.47	5623.81	349.33	6564.38	116.98	1999.45	365.65	1565.21
Recharge from other sources during non-monsoon season	137.52	2734.43	345.38	2771.53	1922.63	14282.56	143.74	1437.35
Total Annual Ground Water Recharge	5455.21	30003.98	3481.61	37524.72	5799.17	62996.94	3016.52	34588.35

Source: Groundwater resource of Kerala

highlights the need for a nuanced understanding of the factors influencing groundwater recharge in different regions. The Kozhikode Municipal Corporation, with a higher rainfall of 3382.46 mm during the monsoon season, has a lower total annual groundwater recharge of 3016.52 ha.m compared to other municipal corporations, underscoring the importance of considering factors beyond rainfall, such as recharge from other sources during non-monsoon seasons. The Thrissur Municipal Corporation stands out with the highest rainfall of 3176.64 mm during the monsoon season and a substantial total annual groundwater recharge of 5799.17 ha.m, contributing nearly 20% of the total annual groundwater recharge in the district. This can be attributed to a combination of high recharge from rainfall during both monsoon and non-monsoon seasons, as well as recharge from other sources during non-monsoon seasons. The comparative analysis of groundwater recharge across municipal corporations and districts in Kerala highlights the importance of adopting a comprehensive and context-specific approach to groundwater management. Factors such as rainfall, recharge from other sources, and the relative contribution of each municipal corporation to the district-level performance must be considered to develop effective and sustainable groundwater management strategies. This understanding is crucial for ensuring the long-term availability and equitable distribution of this vital resource.

3.3 Solid waste management in the urban local bodies of Kerala

Solid waste management has emerged as a critical challenge for urban local bodies in Kerala, and the state has made concerted efforts to address this issue. The state government has partnered with international organizations like the Asian Development Bank and the World Bank to enhance access to efficient and reliable solid waste management services in urban areas. (Kerala Sustainable Urban Development | ADB, 2005; India: Kerala Solid Waste Management Project- AIIB, n.d.). The World Bank has also approved a $105 million project aimed at strengthening the state's solid waste management systems, focusing on operational, financial, and environmental sustainability while improving flood resilience (Solid Waste Management Systems in Kerala, India, World Bank, n.d; World Bank Approves $105 Million Project to Strengthen Solid Waste Management Systems in Kerala, India, n.d.). One of the key initiatives is the 'Haritha Kerala Mission,' launched by the Government of Kerala, which places significant emphasis on solid waste management. This comprehensive framework involves collaboration between businesses, governments, and academic institutions to create integrated solutions that engage all stakeholders in effectively managing solid waste (Anuardo et al., 2022). The data on the composition of solid waste in four major municipal corporations in Kerala reveals that domestic waste is the dominant source, accounting for the highest percentage in Thrissur at 63.76%,

followed by Thiruvananthapuram at 57%, Kollam at 55.88%, and Kozhikode at 47%. Another significant source of waste is commercial waste, with Kozhikode having the highest percentage at 24%, followed by Thrissur at 22.73%, Kollam at 10%, and Thiruvananthapuram at 8%. Restaurants and hotels also contribute a considerable amount of waste, particularly in Kollam (11.18%) and Kozhikode (7%). The market is another notable source of waste, with Kozhikode (6%), Thrissur (5.78%), and Kollam (3.53%) demonstrating higher percentages. Slaughterhouses are also a source of waste, with Kozhikode having the highest percentage at 4%, and Kollam the lowest at 1.18% (Table-4).

These findings suggest that while domestic waste is a significant challenge across all municipal corporations, the relative importance of other waste sources, such as commercial, restaurants, hotels, and markets, varies among the municipalities. This indicates the need for a tailored and context-specific approach to solid waste management in each local body. The innovative solutions adopted by Thiruvananthapuram and Alappuzha serve as examples of how local governments can effectively address the solid waste management challenge. Thiruvananthapuram's campaign to encourage residents to better manage their waste, including the distribution of compost bins, and Alappuzha's pilot project on using slurry from bins as fertilizer, demonstrate the potential for community-driven and decentralized approaches to solid waste management (The Tale of Two Cities: Two Kerala Models for Waste Management | Policy Circle, 2020; Navigating Alleppey's Obstacle Course of Waste Management: 'It's Up to Us to Change That' | Pulitzer Centre, n.d.). The state-wide "Haritha Keralam" program, aimed at making

Table 4 - Solid waste compositions in the urban local bodies of Kerala (percentage)

Solid Waste Compositions	Thiruvananthapuram	Thrissur	Kozhikode	Kollam
Domestic	57	63.76	47	55.88
Street sweeping	16	-	10	8.24
Commercial	8	22.73	24	10
Restaurants Hotels	6	-	7	11.18
Market	5	5.78	6	3.53
Slaughterhouses	2	3.12	4	1.18
Schools & Institutions	1	-	-	4.12
Hospital	-	2.18	2	1.18
others	6	2.43	-	4.71

Source: Same as Table 1

Kerala garbage-free by 2020 through decentralized composting and recycling units at the panchayat level, further underscores the commitment of the Kerala government to addressing the solid waste management crisis in the state. This holistic approach, involving multiple stakeholders and a focus on sustainable solutions, can serve as a model for other regions grappling with similar challenges.

3.4 Water pollution in the urban local bodies of Kerala

Water pollution is a critical environmental issue plaguing the urban local bodies of Kerala, despite the region's abundant water resources, rapid urbanization, industrialization, and inadequate waste management systems have led to the deterioration of water quality in these areas. In Thiruvananthapuram, the primary sources of water pollution are domestic sewage, industrial effluents, and agricultural runoff. The city produces approximately 207 million liters of sewage daily, but only about 80% of it undergoes treatment before being discharged into water bodies. The pollution from industrial activities is also substantial, with around 5,000 small-scale and 100 large-scale industries operating in the area. The Karamana River is heavily contaminated with sewage and industrial waste, making it the primary source of water pollution (Report by the Kerala State Pollution Control Board, 2017). To combat this issue, the Thiruvananthapuram Municipal Corporation has initiated several projects, including the construction of sewage treatment plants, biogas plants, and rainwater harvesting systems, as well as the implementation of strict regulations to limit the discharge of industrial waste into water bodies. In Kollam, the Ashtamudi Lake is facing a significant threat of water pollution due to untreated sewage and industrial waste discharge. The city generates approximately 44 million liters of sewage daily, but only 40% of it undergoes treatment. Additionally, small-scale industries, such as cashew processing units, discharge untreated effluents into the water bodies (Report by the Kerala State Pollution Control Board, 2017). The Kollam Municipal Corporation must take immediate measures to enhance its sewage treatment infrastructure and ensure that small-scale industries treat their effluents before discharging them into water bodies (City Development Plan for Kollam- 2041, 2014).

Thrissur Municipal Corporation is also grappling with water pollution caused by the discharge of industrial effluents, domestic sewage, and agricultural runoff. The city's 21 canals, which serve as a means of transportation and drainage, are heavily contaminated with sewage and solid waste, posing serious health risks to residents in nearby areas. Daily sewage production in Thrissur is approximately 65 million liters, but only 40% of it is treated before being released into water bodies. The Athani industrial estate is a significant source of industrial pollution in the city (Master Plan for Thrissur City drinking water, n.d.; Environment Master Plan for Thrissur City, n.d.). In Kozhikode, the discharge of untreated sewage and industrial effluents into water bodies has resulted in significant water pollution issues. The Kallai River and the Canoli Canal are the primary sources of water pollution, with heavy metals and organic chemicals heavily contaminating them. The city generates 150 million liters of sewage daily, but only 60% is treated.

Small-scale industries, such as textiles and food processing, also contribute to the problem by releasing untreated effluents into the water bodies (Master Plan for Kozhikode Urban Area - 2035, n.d.). These urban local bodies have taken various measures to address water pollution, including the construction of sewage treatment plants, the implementation of strict regulations, and the promotion of community participation and education. However, more comprehensive and sustained efforts are required to tackle the root causes of water pollution and ensure the long-term sustainability of the region's water resources (Kozhikode Corporation to Act Tough against Those Polluting Drains Times of India, (2016); Master Plan for Kozhikode Urban Area - 2035, n.d.).

3.5 Air and noise pollution in the urban local bodies of Kerala

Urban local bodies in Kerala are grappling with the critical environmental issues of air and noise pollution. These challenges not only pose a threat to human health but also have detrimental effects on the environment and the economy. Tackling these problems is essential for the pursuit of sustainable development in the region. In Thiruvananthapuram, the capital city, air pollution is a major concern, with average PM2.5 levels of 25.6 µg/m³, as reported by IQ Air (Thiruvananthapuram Air Quality Index (AQI) and India Air Pollution | IQAir, n.d.). The primary sources of air pollution are vehicular and industrial emissions, as well as biomass burning. Traffic congestion caused by a high volume of vehicles on the roads is a major contributor, and industrial areas like Technopark also significantly contribute to air pollution. Noise pollution from vehicular traffic, construction work, and public speakers is also a significant concern, with the Palayam market experiencing high noise levels during peak hours S M Maya & C Sreedevi, 2015; Thiruvananthapuram Corporation Master Plan, n.d.). The Kollam Municipal Corporation faces similar challenges, with heavy vehicular traffic, industrial activities, and ongoing construction projects contributing to air and noise pollution. The presence of small-scale industries, particularly cashew processing units that use coal and wood as fuel, as well as brick kilns, worsens the air quality (Kerala State Pollution Control Board PCB Kerala, n.d.). Noise pollution is prevalent in areas with high traffic density and commercial activities (City Development Plan for Kollam, 2041, 2014). In Thrissur, air pollution is primarily caused by the high number of vehicles and industries, including large and small-scale textile mills, that emit considerable amounts of particulate matter and other pollutants. Construction activities in the city also contribute to pollution levels, with the city's growing population and urbanization fueling more construction and further exacerbating air pollution (Thrissur Air Quality Index (AQI) and India Air Pollution | IQAir, n.d.). Noise pollution is also a significant concern, with traffic, construction activities, and industries contributing to high noise levels (Master Plan for Thrissur City Environment, n.d.). Kozhikode is also grappling with air and noise pollution issues. Studies indicate that the average

PM2.5 level in the city in 2020 was 52.2 µg/m³, which is higher than the National Ambient Air Quality Standard (NAAQS) of 40 µg/m³ set by the Central Pollution Control Board. Vehicular emissions, construction activities, and biomass burning are some of the sources of PM2.5 in the city. Additionally, the average NO2 concentration in Kozhikode in 2020 was 25.9 µg/m³, which exceeds the NAAQS of 20 µg/m³ city (Calicut Air Quality Index (AQI): Real-Time Air Pollution | Kerala, n.d.) (Kerala State Pollution Control PCB Kerala, n.d.). To address these challenges, municipal corporations have implemented various measures, including deploying air quality monitoring systems, promoting the use of public transportation and clean energy, imposing strict regulations on construction sites, and prohibiting the use of loudspeakers after specific hours. However, the progress in reducing pollution levels has been slow, highlighting the need for more coordinated and sustained efforts. Effective enforcement of regulations, stakeholder engagement to promote behavioral change, and the adoption of innovative solutions are crucial for addressing the root causes of air and noise pollution (Noise Pollution is a Major Problem, Both for Human Health and the Environment- European Environment Agency, 2020.). Transitioning towards cleaner energy sources, sustainable transportation, and circular economy practices can help create a more sustainable future. By taking a holistic and collaborative approach, municipal corporations can lead the way in mitigating the adverse impacts of air and noise pollution and promoting environmental sustainability.

4. Policy interventions at the urban local bodies level

Kerala's journey towards sustainable development is marked by its rich resources and educated population. Despite these advantages, the state has struggled with the practical application of sustainable practices state (Towards Kerala's Sustainable Development- The New Indian Express, 2022). In response, the Government of Kerala has initiated several projects, such as the Kerala Sustainable Urban Development Project (KSUDP), which is a Special Purpose Vehicle designed to enhance urban infrastructure in a sustainable way. This project has garnered support from both the Government of India and the Asian Development Bank. Additionally, KSUDP has been designated as the State Level Nodal Agency for the UIG and UIDSSMT under the Jawaharlal Nehru National Urban Renewal Mission (Kerala Sustainable Urban Development Project | Local Self Government Department, n.d.). The state's Responsible Tourism (RT) Mission is another significant initiative that seeks to harness tourism for the development of local communities, poverty reduction, and women's empowerment, all while maintaining a balance between economic, social, and environmental sustainability (Responsible Tourism Mission - Kerala Tourism Mission, n.d.). To bolster its preparedness for natural disasters, Kerala has implemented strategic urban planning, investment budgeting, and emergency management systems, supported by a $125 million program from the World Bank aimed at enhancing the resilience of the agricultural and road

sectors to climate-related challenges (World Bank Approves $125 Million Program to Support a Green and Resilient Kerala, 2021). Addressing the pressing issues of land use, water supply, waste management, and pollution is crucial for Kerala's sustainable urban development. The state's policies are now geared towards encouraging mixed-use development, improving water supply and distribution, and establishing effective waste management systems that focus on segregation, recycling, and composting. The 2023-24 budget reflects Kerala's commitment to sustainable and modern development, with initiatives like 'Nava Kerala', energy parks, and the Kerala Solid Waste Management Project (Government of Kerala budget speech 2022-2023, 2022; Kerala Budget Analysis 2023-24, 2023.). However, the state's financial commitments, particularly towards employee salaries and pensions, which account for a significant portion of the budget, present a challenge to sustainable asset creation and future development. It is imperative that all stakeholders, including local governments, the private sector, and civil society, collaborate to foster innovation, utilize technology in addressing urban challenges, and prioritize education, healthcare, gender equality, and poverty reduction. This collective approach is essential for shaping a sustainable future for Kerala.

5. Conclusion

Kerala's municipal corporations have made significant strides in creating a sustainable future through their efforts in land use management, water service delivery, and solid waste management. The implementation of policies and programs such as organic farming, rainwater harvesting, and waste segregation have yielded positive results. Still, the state has problems with noise, water, and air pollution. Land and water resources have been contaminated as a result of excessive fertilizer and pesticide use in agriculture as well as a lackluster waste management infrastructure. In the meantime, air and noise pollution in urban areas negatively impacts residents' health and well-being.. While municipal corporations have made progress, there is still much work to be done to achieve a truly sustainable future. A comprehensive and integrated approach, fostering better coordination and collaboration among government agencies, the private sector, and civil society organizations, is crucial. By encouraging the use of innovative technologies and practices, stakeholders can work together to reduce the negative impact of human activities on the environment. To achieve a sustainable future, it is essential to focus on creating better land use management practices, improving water service delivery, and implementing more effective solid waste management. Promoting mixed-use development can reduce commuting distances and encourage walkability, while rainwater harvesting systems can make use of Kerala's heavy rainfall. Efficient water distribution networks can reduce water loss and ensure equitable access to clean water for all residents. The utilization of smart city technologies can also play a role in optimizing traffic flow and reducing energy consumption in buildings. Encouraging the use of public

transportation, cycling, and electric vehicles can further reduce the number of vehicles on the road and cut carbon emissions. The journey toward a sustainable future is complex and challenging, but continued efforts by all stakeholders can create a cleaner, greener, and more livable future for everyone. By adopting a collaborative approach and leveraging innovative technologies and practices, stakeholders in Kerala can work towards achieving a truly sustainable future.

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Exploring the impact of social factors on graduate earnings in Kerala

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Abstract

This study examines the influence of social factors on the earnings of graduates in Kerala, India. Analyzing both IHDS 2011 data and primary data from Kozhikode district, the research explores the impact of gender, caste, parental education, field of study, and employment type on earnings. Findings indicate a significant gender wage gap and the influence of parental socio-economic status on graduate earnings. The study also highlights shifts in the relative economic value of different educational streams and the crucial role of early academic performance. It suggests the need for policy interventions addressing these disparities, particularly for first-generation students and in addressing gender biases in the workforce.

Keywords: *Graduate Earnings Kerala, Socio-Economic Factors in Education, Gender Wage Gap in Kerala, Educational Impact on Employment, Higher Education and Earnings, Social Class and Graduate Income, Educational Streams and Earnings, Family Background and Graduate Success, Labour Market Kerala, and Gender Disparity in Employment.*

Introduction

Education is pivotal for individual and societal advancement, fostering scientific and technological growth essential for national development. Especially in higher education, it significantly impacts employment opportunities and earnings. Typically, workers with lower education levels find employment in less complex or manual jobs, whereas those with higher education occupy specialized roles demanding greater complexity. Education is often seen as a conduit for social mobility, an aspect particularly noticeable in Kerala, a state distinguished for its high Human Development Index largely due to educational factors. However, in Kerala, the effect of social aspects like gender, caste, parental education, and study disciplines on earnings has been under-explored. This study addresses this gap by examining the influence of these variables on the income

of higher-educated individuals, using both the IHDS 2011 dataset and primary data from graduates in Kozhikode district.

Several international studies have examined the factors influencing graduate earnings. Crawford and Vignoles (2014) found a notable difference in earnings between UK private and state school graduates. Robin, Smith, and McKnight (2002) highlighted how various factors, including gender, course characteristics, social class, and student traits, affect graduate incomes in the UK, analyzing data from the 1993 cohort of 'old' UK universities. Walker and Zhu (2010) focused on the impact of graduation subjects on earnings in the UK, observing significant gender disparities in this influence. Macmillan, Tyler, and Vignoles (2013) explored the connection between family background and early career success in top jobs, utilizing data from the Destinations of Leavers from Higher Education and HESA surveys to investigate the role of family backgrounds and networks in securing higher-status occupations. The study reveals that graduates from private schools are more likely to secure high-status jobs than their counterparts from state schools in similar socio-economic conditions. Machin and Puhani's (2005) research in Britain, France, and Germany focuses on how the choice of degree subject contributes to the gender wage gap among university graduates. Arnaud Chevalier's (2011) study examines the varied earnings of UK graduates from different disciplines, noting significant gender wage disparities within the same subjects. Meraz's (1983) research at the Durango Institute of Technology, Mexico, using data from senior engineering students, found that socioeconomic status alone didn't significantly influence academic achievement, suggesting that a mix of socio-economic and school factors contribute to this, though they only account for a small portion of the variance in achievement.

Sharma's 2016 study using NSSO data from 2011-12 delves into the link between education levels and employment patterns in India, uncovering a significant, positive relationship between educational attainment and employment status. It highlights that higher education increases the likelihood of regular employment while decreasing the probability of casual jobs. While numerous studies outside India have investigated the determinants of graduate productivity and earnings, such research is lacking in Kerala. This gap is what the current study aims to address.

The IHDS 2011-12 data set includes 400 graduates aged 25 to 45, with a gender distribution of 42.5% males and 57.5% females. Among these individuals, 229 are employed, comprising 149 males and 80 females. To supplement these findings with more recent data, additional research was conducted on graduates from 2007 to 2010 batches in three colleges in Kozhikode district. This primary research, conducted in 2021, gathered data from 108 working individuals, consisting of 78 males and 30 females.

Determinants of earnings of graduates in Kerala by using IHDS data

This section delves into examining the

primary occupational status of graduates and the factors that influence the earnings of those who are employed. Understanding the work status of graduates is crucial, especially since the study's core objective is to assess the impact of social factors on earnings. It's essential to focus on those who are actively working, as analyzing the non-working graduates won't yield relevant insights for this study's purpose. Therefore, exploring the employment status of these young graduates is a key part of the research (Table 1).

Table 1 highlight that only 57.2% of young graduates in Kerala are employed, with a 5% unemployment rate. Gender disparities are evident, as only 34.8% of young female graduates are employed compared to 87.6% of their male counterparts. A striking 56.1% of female graduates are primarily engaged in household work, contrasting sharply with just 0.6% of males, indicating persistent gendered labor divisions despite educational advancements. The majority of females, regardless of education, remain outside the paid labor market. Among those employed, there's a preference for regular salaried jobs among females (93.8%) compared to a more diverse employment pattern among males, including casual jobs and self-employment. This echoes Mathew's (1995) findings that higher-educated individuals tend toward regular salaried work over casual or self-employment. Under standing these gender differences in employment and earnings is crucial in analyzing the determinants of earnings among educated individuals (Table 2).

Table 3 reveals a significant gender disparity in both employment type and earnings among Kerala graduates. While a high percentage of employed women hold regular salaried positions, their earnings are substantially lower than their male counterparts. On average, male graduates earn significantly more than female graduates, indicating a gender wage gap. This disparity suggests that economic factors heavily influence women's participation in the labor market, with men being more likely to engage in market work due to perceived higher productivity, while women are more involved in domestic roles. This situation reflects deeper socio-economic dynamics affecting gender roles in employment and income in Kerala (Table 3).

Table 3 illustrates a clear gender gap in earnings among graduates in Kerala, with males earning an average of Rs. 141,875 per year compared to females who earn Rs. 97,671. This data highlights a significant wage disparity based on gender.

Furthermore, the study suggests that caste continues to be a significant factor in the wage labor market in India, as evidenced by Das and Dutta (2007). In Kerala, which is often viewed as a progressive society, caste still influences earnings. Graduates from the general caste category tend to earn more than those from the OBC and SC categories, with the SC caste graduates earning the least. The earnings gap between the general and OBC categories is less pronounced. This data points to persistent social stratifications impacting economic outcomes, even in regions with advanced social indices (Table 4).

Table 1 - Activity status of the young graduates of Kerala(IHDS 2011-12 data) Per cent

Primary activity status	Sex		Individual
	Male	Female	
Employed	87.6	34.8	57.2
Unemployed	6.5	3.9	5
Students	4.1	3.5	3.8
Housework	0.6	56.1	32.5
Others	1.2	1.7	1.5

Source: IHDS data 2011-12

Table 2 - Gender difference in type of employment of the graduates in Kerala (per cent)

Employment status	Sex	
	Male	Female
Regular salaried	69.1	93.8
self-employment	18.8	3.8
Casual labour	12.1	2.5

Source: IHDS data 2011-12

Table 3 - Gender difference in earnings(Rs. per year)

Sex	Mean
Male	141875
Female	97671

Source: IHDS data 2011-12

Table 4 - Social class-wise difference in average earnings (Rs per year)

Social class	Mean
General	127291
OBC	126125
SC&ST	100158

Source: IHDS data 2011-12

The data presented in Table 5 indicates a relationship between the field of study and earnings among graduates, supporting the findings of Machin & Puhani (2005). Science graduates, regardless of gender, tend to earn more than those in commerce and arts. Interestingly, male commerce graduates earn less compared to their counterparts in arts and science, whereas for female graduates, commerce seems to offer better earnings than arts and science. This suggests a nuanced interaction between the field of study and earnings, influenced by gender (Table 5).

This analysis clearly demonstrates that the subject of study is a significant determinant of earnings, with science graduates generally earning higher salaries than their peers in other fields during the 2011-12 period. This trend holds true irrespective of gender, indicating a consistent value placed on science education in the context of earnings.

Table 6 suggests that, on average, regular salaried work yields higher earnings for both genders, with a notable difference for males. Interestingly, for females, self-employment appears more lucrative than either regular salaried work or casual labor. The earnings gap between genders is prominent, with female regular workers earning significantly less than their male counterparts. The disparity is even more acute in casual labor. However, in self-employment, women tend to earn more than men, indicating their potential for higher income in entrepreneurial roles. This highlights the importance of exploring gender-based earning differences, particularly in the context of employment types, to address potential discrimination (Table 6).

While the regular salaried sector generally offers higher salaries for men, and the majority of women are employed in this sector, the specific sector of employment plays a crucial role in determining earnings. The preference for government sector jobs is often cited as a reason for high unemployment in Kerala, highlighting the need to examine how the sector of employment affects earnings. This aspect is particularly important in understanding the broader employment and economic landscape of the region (Table7).

Table 7 sheds light on the earnings gap based on employment sector, revealing a significant disparity. Government jobs, favored for their higher pay, are more lucrative for both genders, particularly for women. The data shows a female in the private sector earns significantly less than her government-employed counterpart, more so than the disparity seen in men. This difference in earnings by sector clarifies reasons for lower female workforce participation. The analysis suggests that gender, field of study, employment sector, and job type are key factors in determining earnings for educated individuals in Kerala. Further regression analysis would provide deeper insights into these relationships.

In the study, the logarithm of monthly earnings is the dependent variable, with independent variables categorized into demographic, educational, and employment-related factors. The resulting

Table 5 - Gender wise earning difference based on the stream of study (Rs. Per year)

Stream of study	All person	Male	Female
Arts	124513	139175	87290.91
Commerce	117791	124371.8	95200
Science	139302	169686.7	106912

Source: IHDS data 2011-12

Table 6 - Type of Employment and Mean Annual Earnings (Rs. Per year)

Stream of study	All person	Male	Female
Regular salaried workers	128228	145491.1	98160.56
Self-employed workers	101640	94000	125000
Casual workers	100033	109193.8	22000

Source: IHDS data 2011-12

Table7 - Gender gap in earnings by the sector of employment of young graduates in Kerala (per cent)

Sector	Person	Male	Female
Government	160927	166232.4	142109.6
Private	100449	119161.8	51800

Source: IHDS data 2011-12

wage equation, which includes variables like gender, caste (OBC), marital status, field of study (Science, Commerce), and sector of employment (government or private), provides a detailed insight into the determinants of earnings.

The model summary presented in Table 8 indicates an R value of .743 and an R Square of 553. This suggests that about 55.3% of the variation in the logarithm of monthly earnings can be explained by the included independent variables. The adjusted R Square, at .518, accounts for the number of predictors in the model, and the standard error of estimate at .52702 reflects the average distance that the observed values fall from the regression line. These results provide valuable insights into how different factors contribute to earnings disparities.

ln E = a+ B1Mi+ B2Gen + B3 OBC + B4 married +B5 Sci +B7Com + B8 sec + B9 Wm + ei

The result of the wage equation is given in the below tables (Table 8).

The model summary of the earnings equation in Table 8, with an R square value of 0.553, suggests that 55.3% of the variance in graduates' earnings is accounted for by the model's variables. Following this, Table 9's results, featuring an F value of 15.9 and a P value of .000 (less than .05), reinforce the model's significance in predicting earnings. These findings together indicate a robust model that effectively captures key factors impacting the earnings of graduates (Table 9 & 10).

The analysis of the wage equation, as shown in Tables 8 and 10, offers insightful revelations about factors influencing earnings. Key findings include the significant impact of gender on earnings, with male workers earning considerably more than their female counterparts. Marital status also plays a role, with married employees earning more, potentially due to greater financial responsibilities. Employment sector emerges as another crucial factor, with government sector employees out-earning those in the private sector. Additionally, the number of working months significantly affects earnings. These factors collectively highlight the complex interplay of gender, marital status, employment sector, and work duration in determining earnings. It's noted that the IHDS data from 2011-12 is dated, prompting the need for more current data, which the next session aims to address with the 2021 dataset, incorporating additional social variables not covered in the IHDS data.

Determinants of Earnings of graduates in Kozhikode district.

In this section, the study uses a wage equation to examine how a graduate's family socio-economic status influences their earnings. The dependent variable is the logarithm of annual earnings, and independent variables include gender, social class, study stream, and educational and employment status of the father. The model's R square value of 35.9% indicates that these factors predict 35.9% of the

Table 8 - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743a	.553	.518	.52702

a) Predictors: (Constant), Working days in month -person total, Dsci, Dummy OBC, D married, dummy male, Dgovtsector, DCOM, Dummy general

Table 9 - ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.348	8	4.419	15.908	.000b
	Residual	28.608	103	.278		
	Total	63.956	111			

a. Dependent Variable: LNYEARLYEARNING

b. Predictors: (Constant), Working days in month -person total, Dsci, Dummy OBC, D married, dummy male, Dgovtsector, DCOM, Dummy general

Table 10 - Estimated results of the wage equation

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.600	.333		25.820	.000
	Dummy male	.482	.110	.307	4.361	.000
	Dummy general	.291	.192	.188	1.513	.133
	Dummy OBC	.310	.184	.205	1.685	.095
	D married	.270	.130	.146	2.077	.040
	Dcom	-.132	.131	-.074	-1.011	.315
	Dsci	.169	.117	.105	1.443	.152
	Dgovtsector	.470	.108	.308	4.347	.000
	Working months in a year	.174	.024	.489	7.130	.000
a. Dependent Variable: LNYEARLYEARNING						

variance in earnings. The ANOVA results, with an F value of 7.6 and a P value of .000, demonstrate the model's statistical significance in capturing these socio-economic influences on graduate earnings (Table 11, 12&13).

The data in Table 11 and Table 12, when combined, show a comprehensive picture of the factors influencing graduate earnings. The model's R Square value of 0.414 in Table 11 indicates that over 40% of the variation in earnings is explained by the factors included in the model. This is significant, as shown by the ANOVA results in Table 12, where the model achieves an F value of 7.609 and a significant P value.

Table 13 provides detailed coefficients for each variable. It suggests gender is a significant determinant of income, with male graduates earning more. The influence of the graduate's social class and the father's education and employment status also appear relevant, along with the graduate's academic performance and field of study. These factors collectively provide a nuanced understanding of what influences graduate earnings in this context.

The findings from Table 13 highlight the significance of gender, educational stream, and parental background in influencing graduate earnings. The data indicates a substantial gender wage gap, with males earning considerably more than females, a disparity that hasn't shown much improvement over the past decade in Kerala. This gender wage gap might contribute to lower female participation in the labor market. The analysis underscores that merely having an education does not necessarily equate to equal productivity gains in the market, especially for women. These insights align with previous studies, underlining the ongoing challenges in achieving gender parity in the workforce.

The shift in the relative earning capacity of graduates from different streams over the past decade is noteworthy. Commerce graduates now earn significantly more than their counterparts in humanities, marking a change from the previous trend where science graduates dominated earnings. This shift highlights the evolving nature of job market demands and the varying economic value of different educational streams over time.

The study reveals that a father's education level is a significant factor in influencing a graduate's earnings. Graduates with fathers who have secondary or higher education tend to earn considerably more than those whose fathers have lower levels of education. This suggests that higher educational levels in parents might lead to better awareness of lucrative job opportunities for their children. The employment status of the father also plays a crucial role; children of salaried fathers earn more than those whose fathers are in casual work. This insight highlights the need for increased focus on first-generation students to bridge these socio-economic gaps.

The analysis indicates that academic performance in higher secondary

Table 11 - Model Summary

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.643a	.414	.359	.40414

a. Predictors: (Constant), DfatempItsala, Dobc, Dfathersec, Dmale, % Mark in degree, Dcommerce, Dscience, Dgeneral, Dfatherednhigher

Table 12- ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.185	9	1.243	7.609	.000b
	Residual	15.843	97	.163		
	Total	27.029	106			

a. Dependent Variable: Lnincome

b. Predictors: (Constant), DfatempItsala, Dobc, Dfathersec, Dmale, % Mark in degree, Dcommerce, Dscience, Dgeneral, Dfatherednhigher

Table 13 - Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.985	.273		32.867	.000
	Dmale	.404	.093	.358	4.355	.000
	Dgeneral	.232	.149	.165	1.562	.122
	Dobc	.070	.108	.066	.644	.521
	Dscience	-.009	.116	-.008	-.076	.939
	Dcommerce	.250	.099	.231	2.510	.014
	% Mark in degree	.008	.004	.161	1.937	.056
	Dfathersec	.269	.113	.240	2.390	.019
	Dfatherednhigher	.271	.123	.247	2.204	.030
	DfatempItsala	.265	.105	.223	2.527	.013

a. Dependent Variable: Lnincome

education (plus two) has a quantifiable impact on earnings, with every 1% increase in marks correlating to a 1.1% increase in monthly earnings. However, there's no substantial evidence suggesting that graduation marks significantly influence earnings in the early thirties. This points to the importance of early academic performance over later academic achievements in determining income potential.

Conclusions

The study concludes that while education significantly influences earnings, other factors like gender, caste, field of study, employment type, and sector also play crucial roles. In the private sector, women's earnings are markedly lower, indicating that government jobs or self-employment might be more viable for women seeking equitable pay. The limited participation of women in casual jobs could be attributed to lower salaries in these roles. The findings emphasize the importance of considering gender, parental education, and employment in developing policies and support systems to aid first-generation students and address gender disparities in the workforce.

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Resource allocation in education schemes for marginalized communities: A comparative analysis based on centrally sponsored schemes

Indhu T R

Abstract

The Scheduled Castes (SCs) are among the most socially and educationally disadvantaged groups in India. Scheduled Castes have different histories of social and economic deprivation, and the underlying causes of their educational marginalisation are also strikingly distinct. However, comparing educational outcomes among Scheduled Castes yields a common picture the government has sought to address through a common set of policy prescriptions. This paper examines, how the allocation from the Centrally Sponsored Scheme (CSS) for scheduled caste communities, particularly for pre-matric and post-matric scholarships, helps in reducing dropout rates and increasing the Gross Enrolment Ratio. How far does this scheme help the marginalised communities to develop their education and thereby increase their standard of living?

Keywords: *Centrally Sponsored Scheme (CSS), Public expenditure, Gross Enrolment Ratio, Post matric fellowship, Pre matric fellowship.*

1. Introduction

The Scheduled Caste community in India has faced longstanding challenges stemming from social discrimination, lack of access to education, and economic deprivation, all of which have contributed to their lagging behind in various aspects of development. Recognising the need to address these disparities and elevate the status of these marginalised groups within society, independent India adopted a comprehensive approach. This approach involved two main strategies: first, providing constitutional and legal safeguards to protect their interests and prevent exploitation, and second, integrating specific components targeting their developmental needs into the country's Five-Year Plans. The central and state governments have taken several initiatives to develop scheduled castes. From 2017-18 onwards, D/o Social Justice and Empowerment have been entrusted with monitoring the physical and financial

outcome of schemes under the Development Action Plan for scheduled castes (DAPSC). The Ministry of Social Justice and Empowerment is the central authority responsible for supervising the progress and empowerment initiatives targeted towards the scheduled castes. While the main duties lie with different central ministries and state governments/union territory Administrations, the Ministry of SJ&E has been designated as the primary coordinating body for this purpose (SJ&E 2021-22). It supports these efforts through interventions such as scholarships, hostels, concessional loans, and more. The principal aim of implementing the post-matric scheme is to increase the gross enrolment ratio and mitigate dropout rates among scheduled castes, which aligns with the main objective of the pre-matric scheme. This paper primarily examines two centrally sponsored educational schemes: post-matric and pre-matric Scholarships and analyses the effect on dropout ratio and GER.

Terms

- Gross Enrolment Ratio or GER, at the higher education level, is the ratio of people enrolled in higher education to the population in the age group of 18-23.
- Dropout rates refer to the percentage of students who leave an educational institution or program before completing it.

Significance of the study

This paper examines some of the centrally sponsored education schemes for the development of scheduled caste communities. Education is a pivotal tool for social empowerment, laying the foundation for all developmental aspirations. Ensuring access to quality education is crucial in empowering individuals, enhancing their employment opportunities, and alleviating issues of marginalization and deprivation in the job market. The government prioritizes education to uplift the Scheduled Caste community, allocating significant resources towards this venture. These initiatives encompass various education schemes, including improvements in pre-matric and post-matric studies, establishment of Model Residential Schools, and provision of assistance to students enrolled in self-financing colleges etc. Education has been a key focus of programs aimed at improving the status of Scheduled Castes. These programs have included laws against untouchability and caste-based discrimination, as well as reservation of seats in educational institutions and employment opportunities.

Objective of the study

How the allocation from the Centrally Sponsored Scheme (CSS) for scheduled caste communities, particularly for pre-matric and post-matric scholarships, help in reducing dropout rates and increasing the Gross Enrolment Ratio?

Methodology of the study

This study is descriptive as it describes the characteristics of a particular group with a narration of facts concerning them. This study has been carried out with the help of secondary data. Secondary data were collected from the statistical and Annual reports of the Ministry of Social Justice and Empowerment, SCDD, UDISE + and

AISHE. Data were collected from the period of 2017-2022. Descriptive analysis is used to analyse the data.

Literature review

Education is seen as a way to empower Scheduled Castes and enable them to succeed in a society where their status is determined by merit rather than social background. (Suma Chitnis 1972) The main factors that contribute to the educational backwardness of Scheduled Castes and Scheduled Tribes are poverty, lack of access to quality education, and social discrimination. These communities are often marginalised and excluded from mainstream society, which makes it difficult for them to succeed in school. Despite these challenges, there have been some efforts to improve the educational attainment of Scheduled Castes and Scheduled Tribes. These efforts include providing scholarships, building schools in remote areas, and training teachers to be more sensitive to the needs of these students. While these efforts have had some success, there is still much work to be done. The educational backwardness of Scheduled Castes and Scheduled Tribes is a complex problem, and there is no easy solution. However, by continuing to research the issue and implement effective programs, we can make progress towards ensuring that all children have the opportunity to succeed in school.1998, Joseph Kacharayil) The provision of hostel and scholarship facilities has led to a notable increase in the enrolment of scheduled caste students in schools and colleges. Given the acute poverty faced by these scheduled caste groups, such support systems play a crucial role in encouraging and motivating them to pursue their education. These facilities help alleviate financial burdens and provide the necessary encouragement for scheduled caste students to continue their educational journey. (Sharma K.L. 1974) Students encounter challenges in obtaining scholarships for college education. In some cases, even if they are awarded scholarships, the disbursement may be delayed, leaving them to bear the financial burden for up to six months after admission. Due to these limitations and financial constraints, many parents are unable to send their children to higher education. This predicament is particularly acute for the Harijan community, making it a significant and genuine concern for them. (Singh, R.G.1986). Scholarships are provided to all scheduled caste students throughout their education, serving as a motivating factor and creating opportunities for them. A majority of scheduled caste students complete their education with the assistance of government facilities. Therefore, these government provisions play a vital role in facilitating the education of scheduled caste students. (Parvatamma, Satyanarayan 1984).

Data analysis and interpretation

This paper discusses Some of the centrally sponsored schemes of scheduled caste communities for their educational development during 2017 -22 and to find whether this scheme fulfilled its objective during this period. The Two important Centrally sponsored schemes are discussed below;

1. Pre-matric scholarships to the students belonging to scheduled castes

Background

The Government of India has implemented two Centrally Sponsored Schemes aimed at fostering literacy and ensuring uninterrupted education for specific groups of children. These include the Pre-Matric Scholarship Scheme for SC Students and the Pre-Matric Scholarship Scheme for children of parents or guardians involved in unclean and hazardous occupations. These schemes have been operational since July 1, 2012, and April 1, 1977, respectively. Day scholars were later incorporated into the scheme in 1991. Financial aid is extended under these schemes to support pre-matric education for children belonging to targeted groups, including scavengers of dry latrines, tanners, and flayers.

Objectives

The objective of the scheme is to offer financial aid to parents belonging to Scheduled Castes and other marginalized groups to support their children's education at the pre-matric stage. The aim is to boost their engagement, reduce dropout rates during transitions from primary to higher levels, enhance academic achievements, and elevate their prospects of advancing to post-matric education levels. The following figures show the primary dropout, upper primary dropout and secondary dropout of all states and Kerala from 2017-2022 (Figure I).

From this figure, it is clear that the primary dropout of all states shows an increasing trend and Kerala shows a decreasing trend (Figure II).

From this figure, it is clear that the primary dropout of all states shows an increasing trend and Kerala shows a decreasing trend (Figure III).

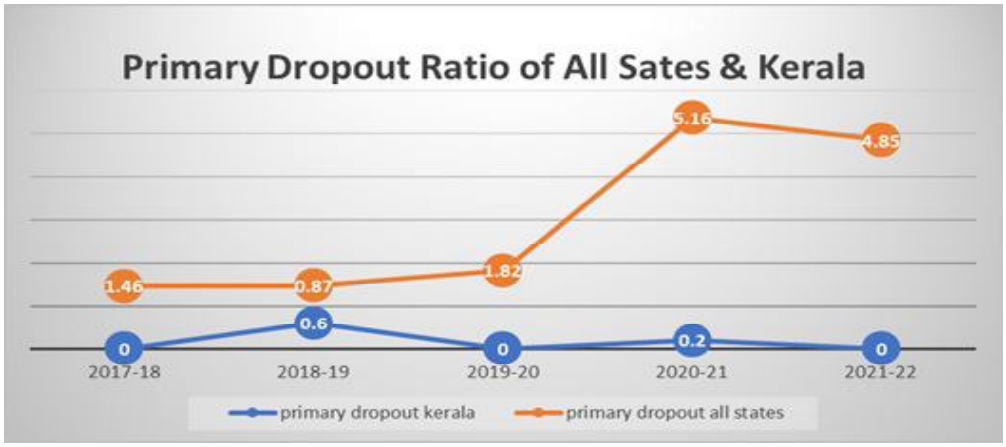
From this figure, it is clear that the primary dropout of all states shows an increasing trend and Kerala shows a decreasing trend.

Funding pattern of the scheme:

The funding ratio between the Centre and States is 60:40. However, for the North Eastern States and the states of Uttarakhand and Himachal Pradesh, the ratio is 90:10. For UTs without legislatures, the Centre provides 100% of the funds. The total number of scholarships per year will be based on the highest number from the past three years for which a database is available. The sharing of funds between the Centre and State will be based on the total demand of eligible students under the Scheme for that particular year. All State Governments and Union Territory Administrations implementing the scheme should maintain data on all beneficiaries and the scholarship amounts on their online portals. The implementation of the scheme should follow the provisions of the General Financial Rules (2017). The below Table, Shows the central assistance released to all states and Kerala (Table-1 & Figure IV).

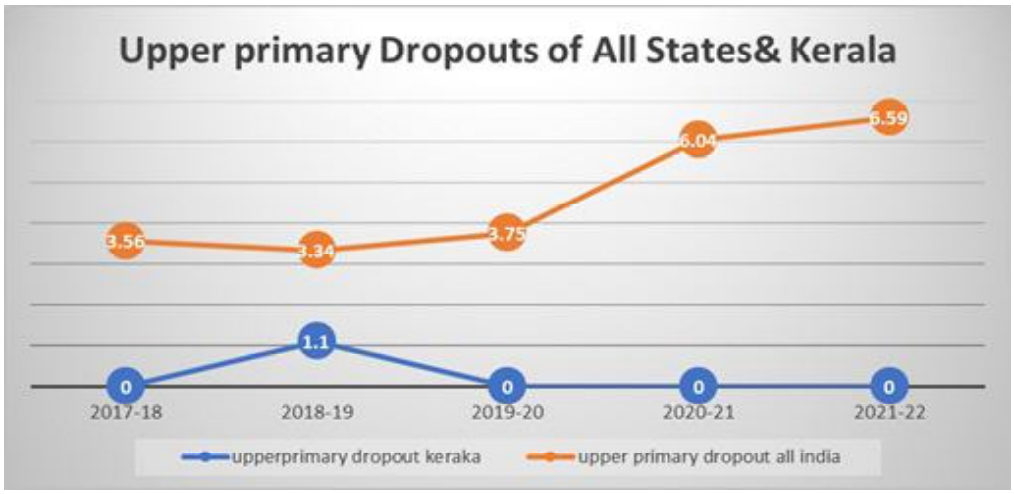
From the figure, pre-matric scholarship releases to all states show an increasing trend and in the case of Kerala, show a reduction from 2020-22.

Figure I - Primary dropout ratio of all states and Kerala from 2017-2022



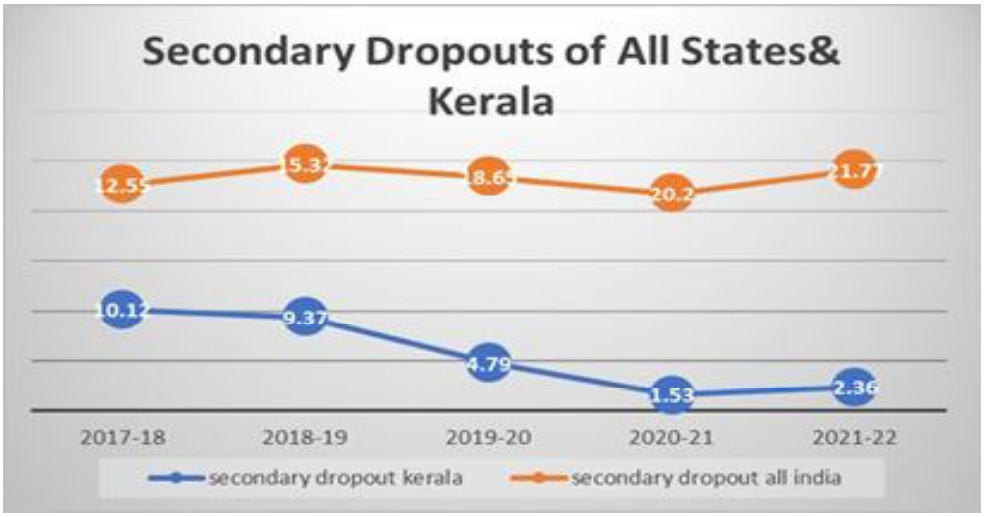
Source: Statistical report of UIDSE+,2017-2022

Figure II - Upper primary dropout ratio of all states and Kerala from 2017-2022



Source: Statistical report of UIDSE+,2017-2022

Figure III - Secondary primary dropout ratio of all states and Kerala from 2017-2022



Source: Statistical report of UIDSE+,2017-2022

II. Post-matric scholarship for scheduled caste students (1944)

Objective

The post-matric scholarship scheme serves a dual purpose: firstly, to increase the gross enrolment ratio of students from Scheduled Castes (SC) in higher education; and secondly, to offer financial support to economically disadvantaged individuals during the post-matriculation or post-secondary phase, facilitating the completion of their education. The scheme, along with other measures of the Government, has been successful in increasing the enrolment of SC students in post-matric education in all states and Kerala shown in the following (Figure -V)

The Gross Enrolment Ratio (GER) in all States has increased over the years.GER for SC-Category has increased to 25.9 in 2021-22 from 23.1 in 2020-21 and 21.0 in 2017-18 i.e. 4.9 points increment over 5 years. Over a period, the scheme has resulted in considerably reducing the gap in Gross Enrolment Ratio (GER) for higher education (age group 18-23). But GER during the last 5 years of Kerala showed a decreasing trend in 2021-22 as compared with 2020-21. From 2017-18 to 2020-21 there was an increasing trend in the GER of Scheduled caste communities in Kerala.

Funding pattern of the scheme:

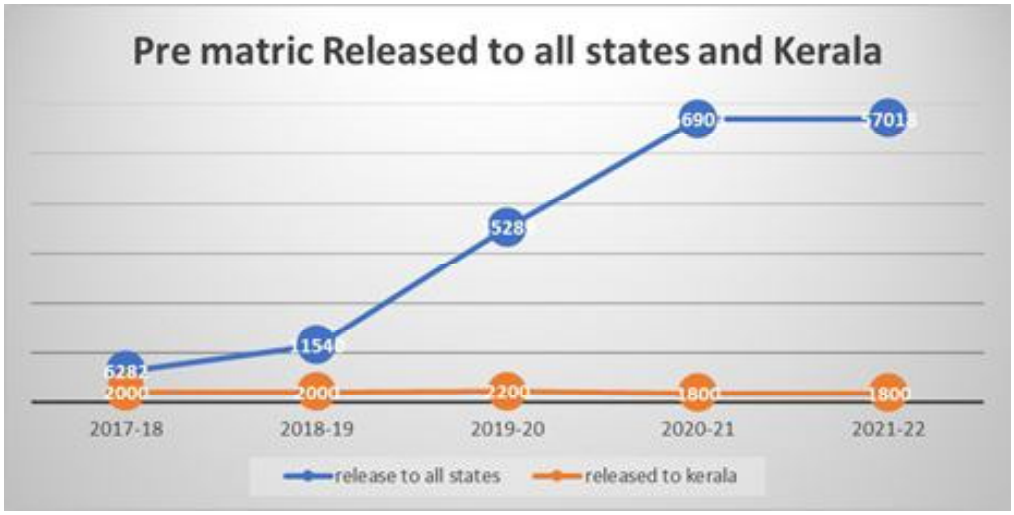
The scheme operates on a sharing ratio of 60:40 between the Centre and States (90:10 for North Eastern States). Post matric

Table I - Pre-matric allocation & amount released during 2017-2022 (Rs in lakh)

year	central assistance to all states	Central Assistance to Kerala
2017-18	6282	2000
2018-19	11540	2000
2019-20	35289	2200
2020-21	56903	1800
2021-22	57018	1800

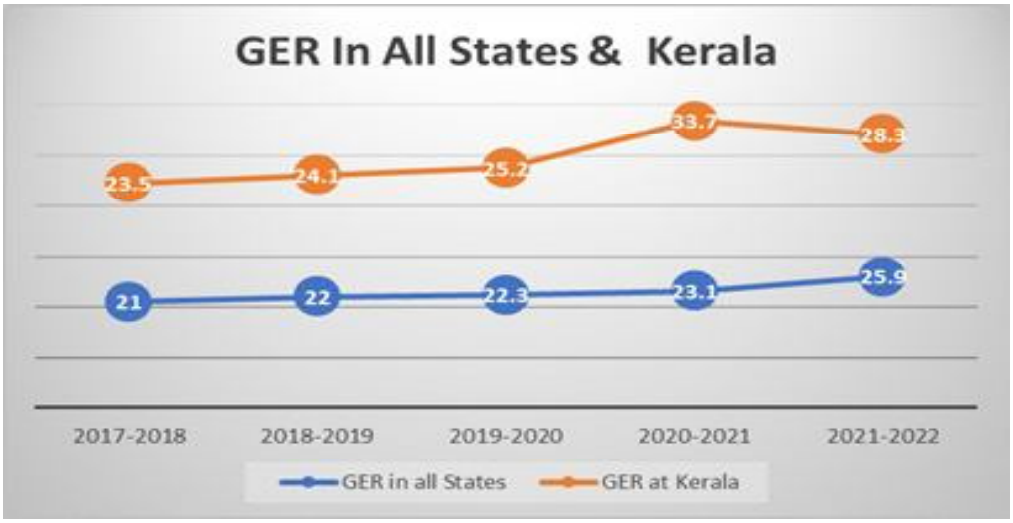
Source: Annual performance report of SJ&E and SCDD 2017-22

Figure IV - Pre matric scholarship released to all states & Kerala (in lakh)



Source: Annual performance report of SJ&E and SCDD 2017-22

Figure V - GER during the last 5 years in all states & Kerala



Source: All India survey on higher education 2021-22

Central assistance from 2017-2022 is given to all States and Kerala shown in the below (Table - II)

From the above table, it is clear that there are some fluctuations in the amount released in all States and Kerala for the post-matric fellowship scheme for the development of marginalised communities (Figure VI)

From the Figure, it is clear that there is a huge fluctuation in the amount released by central to all the states and Kerala under the post-matric scheme for the educational development of scheduled castes during the period from 2017-2022.

Conclusion and suggestions

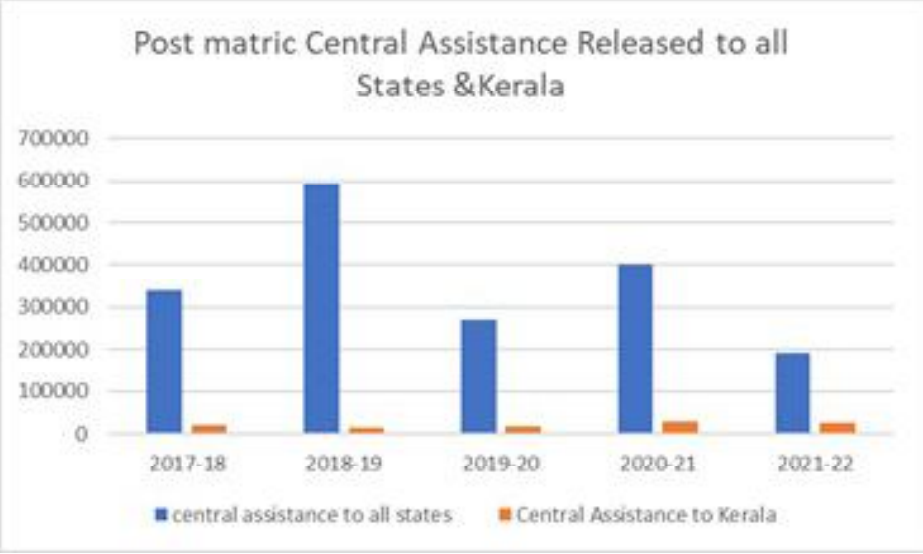
The primary aim of implementing the post-matric scheme is to enhance the Gross Enrolment Ratio (GER) among scheduled caste communities. However, while the scheme aligns with this objective, budget allocation and central assistance have exhibited fluctuating patterns over time. In Kerala, recipients of post-matriculation benefits encounter delays in receiving fellowship funds, leading some to discontinue their education due to financial constraints. Therefore, the government must ensure the timely disbursement of scheme funds to students during their academic pursuits rather than afterwards. The pre-matriculation scheme marked its 40th anniversary in 2017 with the primary objective of extending financial support and curbing dropout rates among scheduled caste communities. Kerala witnessed a concerning 10.12%

Table II - Post matric central assistance released to all states &Kerala from 2017-22 (Rs in lakh)

year	central assistance to all states	Central Assistance to Kerala
2017-18	341409	20744.84
2018-19	592815	14891.02
2019-20	271130	16876.41
2020-21	400860	28383
2021-22	193038	26906.43

Source: Annual report of SJ & E, 2022-23

Figure VI - Post matric central assistance released to all states & Kerala from 2017-22(Rs in lakh)



Source: Annual report of SJ &E, 2022-23 & SCDD Kerala

dropout rate at the secondary stage after four decades of the scheme's implementation, indicating a negative trend. However, there has been significant improvement as evidenced by the reduction of dropout rates to 2.36% in 2021-22. Budget allocation & central assistance released under the pre-matric scheme are almost utilised over the periods and the number of beneficiaries of the scheme has incremental trends over the periods. The Government should take the necessary steps to make the scheme amount available in time otherwise it may adversely affect the financially backward students.

■

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An analysis of drivers of inflation in India over the past decade

Surya K and Jobin George

Abstract

Inflation affects purchasing power, investment, and economic growth, making it an essential component in determining the overall trajectory of the economy. This study focuses on India's inflation dynamics over the past decade through trend analysis, emphasizing components of inflation and evaluating interest rate adjustments from time to time. It focuses on food inflation, which is found to be the main cause of headline inflation and is greatly impacted by the erratic prices of pulses, grains, and vegetables. Furthermore, assessing the policy interventions implemented by the Reserve Bank of India (RBI), specifically alterations in interest rates, throughout inflation levels.

Keywords: *Inflation, Drivers of inflation, monetary policy*

1. Introduction

Economies across the world are concerned about inflation and its trajectory, given its importance as a macroeconomic indicator linking purchasing power, investment, and economic growth. An economy's degree of inflation is an essential indicator of the business cycle, the path of a country's growth, and the relative value of its currencies. A spike in inflation indicates a break from a stable macroeconomic equilibrium, which can be caused by several events, including increases in aggregate demand, rising production costs, or supply chain disruptions (e.g., unfavorable weather occurrences or changes in the price of oil globally). On the other hand, as exhibited by pandemics, meager inflation might signal economic stagnation. Thus, inflation has a widespread impact on the macroeconomic structure of the economy and the microeconomic processes of individual decision-makers. off late inflation trajectory across the globe shows high volatility, especially among Emerging Market Economies (EMEs). In India, inflation stayed volatile breaching the Reserve Bank of India's (RBI) comfort zone of 6 percent sometimes. The food component has been responsible for this swing. RBI has consistently raised concerns about the untamed inflationary tendency

of the country and maintained the policy rate intact at 6.5 percent since May 2022. Therefore, the present study examines the inflation trajectory of India over a decade and the factors contributing to the volatile swing. The present study investigates component-wise inflation and quantifies how much it contributes to the headline inflation in the country. It also examines RBI's policy interventions in terms of changes in interest rates during various episodes.

The RBI targets inflation largely through monetary policy, which involves interest rate adjustments along with ongoing fiscal policy interventions. In Post independence era, there was a broad range in the inflation rate during the 1950s, from a high of positive 13.8 percent to a low of negative 12.5 percent. The 1980s saw equally turbulent inflationary tendencies, peaking at 18.2 percent in 1980-1981 and falling to 4.4 percent in 1985-1986 (Reddy, Y. V. 1999).

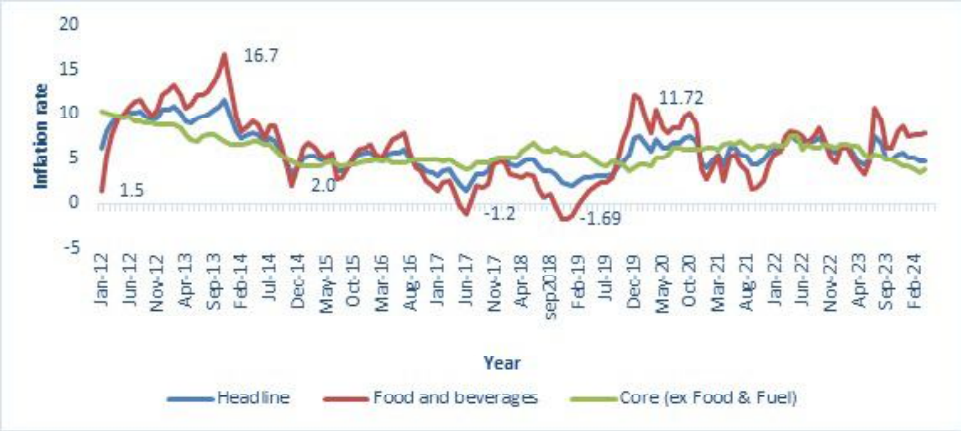
The global economic landscape of the twenty-first century is different from that of the twentieth, even though the 1990s brought about a period of relative stability regarding inflation and price levels. For the majority of the previous century, inflation was controlled; but, with the global financial crisis and the ensuing recovery, inflation resumed, especially in developing nations like India, known as a "two-speed recovery," this phenomenon emerged from developing markets' higher growth trajectory relative to developed economies' slow pace of expansion (Mohanty, 2011). The various inflationary behaviour called for policy vigilance as demonstrated by various events in the 20th and 21st centuries.

2. Inflation dynamics in the last decade

This session presents various episodes of inflation, including headline inflation, core inflation, and food inflation, measured by the Consumer Price Index (CPI) since 2012 (see Figure 1). The inflation trajectory exhibited upward trends in 2013, 2020, 2022, and 2023, driven by diverse factors. During 2013, in November, the CPI peaked at 11.5 percent due to rocketing food prices, which had firmed up considerably during April-November. On the contrary, the core inflation was at 7 percent during this period. Several supply-side factors played a role in the increase in inflation. From April to November, the price of vegetables more than doubled, pushing inflation from one year to the next to a 15-year high of 95.2 percent in November 2013. Even with exchange rate depreciation and rising input costs, non-food manufactured product (NFMP) inflation showed a moderate increase as weak demand conditions contained generalized inflationary pressures to some extent. (Reserve Bank of India, 2015) (Figure 1**).**

Following on, though, there was a stretch of rather stable prices, with inflation even dropping below 4 percent in November 2014. Owing to the fall in prices of food and fuel components, the headline inflation had a fall in the consequent months. Together, these two variables make up 57% of the consumer price index (CPI), which tracks changes in the costs of a chosen basket of goods and services for Indian households over time. due to the increased availability or the absence of supply-side bottlenecks, vegetable prices plummeted 13.2 percent between December 2013 and January 2014.

Figure 1: Month-wise annual inflation patterns in India (y.o.y growth in percentage)



Source: Authors' computation based on the Reserve Bank of India database

Decreased oil prices were also advantageous in the situation. Since June 2014, the price of crude oil has been declining globally. From $111.25 per barrel in mid-June 2014 to $56.55 per barrel in December 2014, US crude prices have collapsed by approximately 95 percent (Dharamsi, K,2015)

India's Consumer Price Index (CPI) exhibited significant fluctuations from June 2016 to April 2024. In June 2016, CPI spiked to 5.8 percent, followed by a decline to a low of 1.5 percent in June 2017, the lowest since 1991, driven by a sharp fall in food prices, particularly pulses, vegetables, and perishables (India Today, July 12, 2017). Post-demonetization, inflation experienced a temporary increase, with the RBI attributing the rise to uncertainty in vegetable prices due to distressed sales and seasonal factors (RBI, 2019).

In the case of core inflation, the period from Sep 2016 to Oct 2019 witnessed the core surpassed the headline, which was mainly fuelled by the negative food inflation. Price pressures were visible during March- July 2018 because of transportation interruptions, a decrease in cold storage stock availability, and protests organized by potato farmers. It quickly decreased to the 1.97 percent range in January 2019, where from a peak of 40.6 percent in July 2018 to (?) 57.1 percent in January 2019, the inflation of vegetable prices was lower for onions. This fall was helped by rises in kharif production, an increase in mandi arrivals, and the release of old inventories. The increase in the minimum selling prices of sugar by ? 2 per kg. to ? 31 per kg. by the central government in February 2019 has not yet been reflected in domestic retail prices (Reserve Bank of India, 2019).

For most countries, the dip in inflation during the pandemic was such that inflation touched or went below last year's average

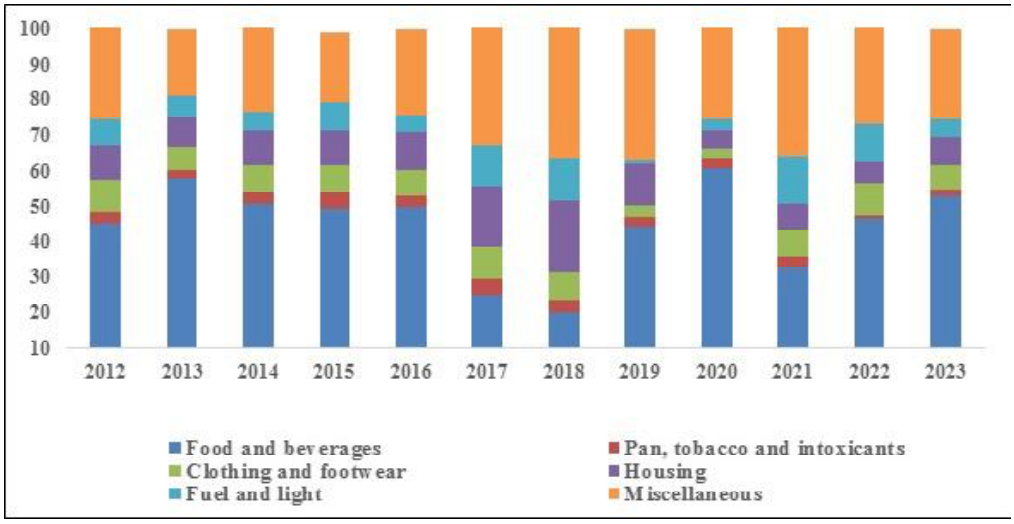
inflation level. On this aspect, too, the Indian situation was different. The average inflation in developing economies in Asia would be around 2.9 percent, quite lower than the range in which India's inflation has hovered in 2020. However, supply constraints in India are so great that inflation has been high throughout the board. During the first lockup, when demand was suppressed, during the festival season, and even on the leeward side of a minor fall in pent-up demand. Meat and dairy have remained expensive even after early jumps in industrialized economies, despite persistently high inflation in India over the pandemic period (Waghmare, A, 2020). Due to an advantageous base effect, inflation dropped to 4.23% in April 2021, with fuel inflation increasing while food inflation fell. (PTI, 2021).

Despite this, there was a surge in July 2023 that showed 7.44 percent inflation, mostly due to rising costs for fruits and vegetables. For the first time in five months, this increase exceeded the RBI's 6 percent upper tolerance limit. Essential food items with inelastic demand, such as vegetables, cereals, and dairy products, cause disproportionate expenditure adjustments in response to price rises, which has a big effect on household budgets. For example, unpredictable monsoons have sent tomato prices plunging more than 1,400 percent. Recent months have shown encouraging signs of inflation control and it reached 11 months' lowest of 4.83 percent of CPI inflation in the month of April mainly driven by primarily, a contraction in fuel and light inflation of 4.24 percent helped keep the CPI rate within the RBI's tolerance range of 2-6 percent. This time witnessed a core of 3.84 percent. Just like fuel, Clothing, and footwear as well as housing inflation also eased, albeit slightly, in April to 2.85 percent and 2.68 percent respectively on a month-on-month basis (Money control, May 2024).

3. Drivers of headline inflation in India

This section outlines the major components contributing to the headline inflation of the country. Figure 2 shows how each component has contributed to headline inflation over the past decade. Food inflation-whose primary drivers are vegetables, cereals, and oil and fats-as well as miscellaneous inflation are the primary drivers that contribute to CPI inflation. These components also have the highest weights in the CPI calculation, by 28.32 and 45.9, respectively. However, the inflation over the past period has not been greatly fuelled by the other variables. Nevertheless, the other factors haven't contributed significantly to the inflation over the last few years. Prices and demand for food are thought to be driven by elements including the farmers' debt waiver, the sixth pay commission, and the growth of the MGNREGS. Rapid price variations were caused by erratic supply due to weather and climate changes. However, massive food subsidies have led to the build-up of substantial inventories of rice and wheat. Although the direct effects of the crisis-response policies are poorly understood or researched, overall poverty rates have been falling, but given the strong economic development, much work still needs to be done. (Gulati, A. and Ganguly, K. (2013) (Figure 2).

Figure 2: Component-wise contribution to the headline inflation (In percentage)



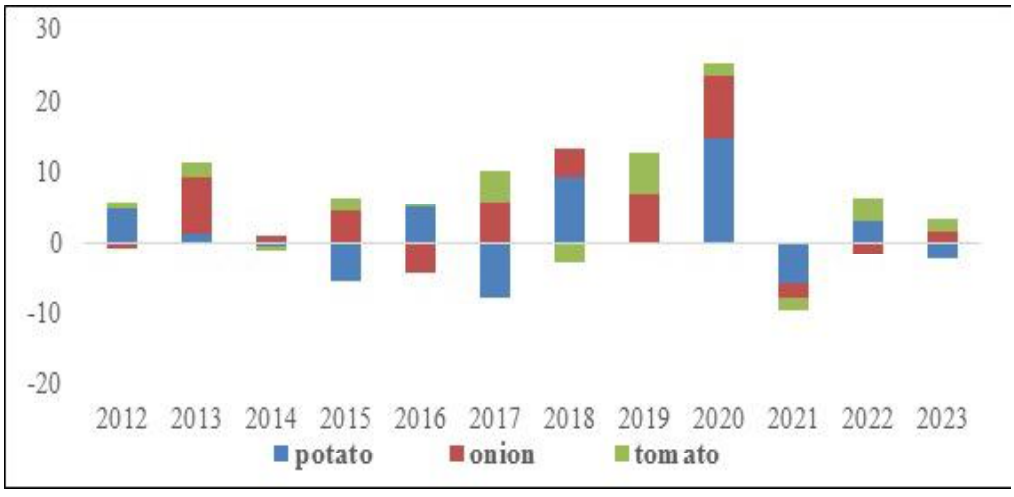
Source: Authors' computation from RBI database

The highest inflation in Nov 2013 (11.5 percent) was mainly contributed by the food inflation, which was contributed around 66.4 percent with largest contribution of vegetable to headline by 36 percent whereas contribution of miscellaneous to total inflation was only around 15.8 percent in Nov 2013.The food inflation was the sole determinant from 2012 Jan to Nov 2016, where it can be seen from figure 3 that, the vegetable is the major contributor to the healine. Then, the miscellaneous inflation takes the route for around one year (led by transport and communication) and again from April 2018 to August 2019, (Health expenditure was very high due to covid 19 pandemic), where the contribution of food inflation and vegetable inflation was negative in the pandemic period. Post-demonetisation in November 2016, India has experienced extraordinarily low food inflation, staying below 4% except for three months (November 2017-January 2018) and consistently lower than overall consumer inflation. This period of low/negative food inflation has led to agrarian unrest. The decline in food inflation is attributed to supply-side surpluses from bumper domestic harvests and low global prices, which have undermined agricultural exports and increased import vulnerability. Government measures, including export restrictions and duty-free imports, have compounded these effects, aligning with the RBI's inflation targeting policy. Additionally, liquidity issues have impacted farm commodity trading, traditionally cash-based, with demonetisation and the goods and services tax causing traders to be cautious in purchasing and stocking produce. While cash may have returned to

the system, it isn't circulating as freely as before (The Indian Express, December 17, 2018). Then the sudden rise in headline led by sharp upward moving food contribution (Mainly by vegetables) to inflation which was set top in contribution in Dec 2019 at 75 percent with vegetable inflation contributing around 49 percent of total inflation. The current scenario portrays a mild fall in headline inflation mainly by falling miscellaneous where the contribution of transport and communication declined to 1.9 and education fell to 3.9 percent respectively. Even though there is a high food inflation contribution of about 74 percent in April 2024, mainly because of vegetable contribution at 34 percent it is evident that the impact is set off by falling part of other components including housing, clothing, and footwear, and negative fuel & light inflation (Figure 3).

Together with oil and grains, vegetable inflation is the main factor influencing India's inflation trend. The subject at question is why vegetable inflation is so high in India and what factors influence it? Food inflation, which is vulnerable to supply shocks, is also taking on a structural aspect due to dietary changes and increased demand in the absence of sufficient supply response. The sharp rise in inflation for non-food manufactured goods indicates that, given the increased demand, companies may be able to pass on cost increases. Food inflation has become more persistent, despite the high persistence of inflation in non-food manufactured goods (Mohanty, D, 2011). The main ingredients that significantly contribute to India's overall inflation trend are onion, tomato, potato, and garlic (Figure 3). Costly vegetables, especially

Figure 3: Vegetables' lead components contribution to headline inflation

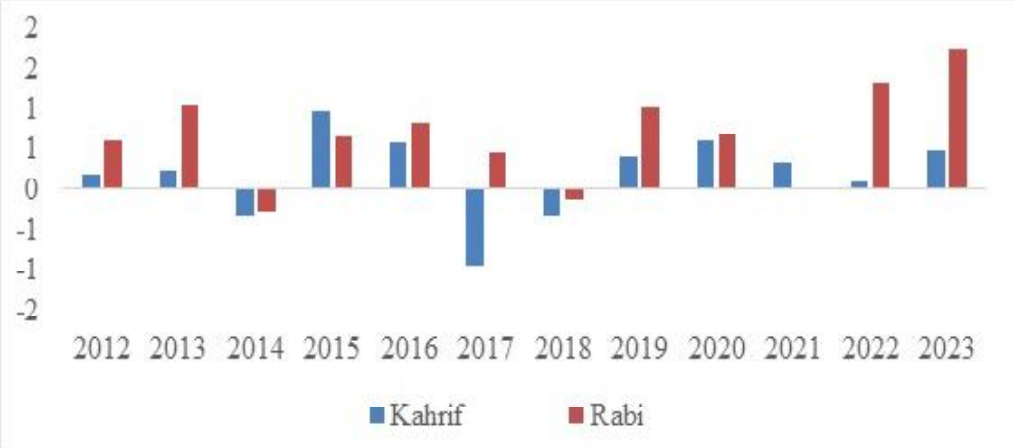


Source: Authors' computation from RBI database

potatoes and onions, drove November wholesale inflation to a 14-month high of 7.52%, making it difficult for the Reserve Bank to lower key policy rates. As previously mentioned, vegetable inflation contributed the most to the highest inflation of the decade in November 2013. In November, onion inflation stood at 190.34 percent. India Today, December 16, 2013. Later, in June 2017, the lowest inflation in the decade was primarily caused by negative food contributions, namely negative inflation related to onions, potatoes, tomatoes, and garlic. This trend continued in January 2019, when negative food contributions contributed to low headline inflation. Tomatoes and garlic started to make headlines in the middle of 2023. By April 2024, however, potatoes take the lead with the largest contribution of 10.9 percent. Based on this data, it can be determined that while potatoes and onions have historically contributed to the highest levels of food inflation, garlic, and tomatoes are currently leading the current inflation after the first few months of 2021 (Figure 4).

The inflation trends in India demonstrate the significant impact of both kharif and rabi crops on overall inflation. These trends underscore the critical role of agricultural commodities in influencing inflationary dynamics in India. Cereals and pulses, which can be divided into two categories-kharif and rabi crops-contribute to overall inflation in addition to vegetable inflation. The most substantial inflation recorded in 2013-November was mainly caused by vegetable inflation, alongside wheat, a rabi crop, contributing 2.31 percent (MSP) (Figure 4). The main causes of the decline in inflation in both June 2017 and January 2019 were the negative kharif crops, namely tur, moong, and groundnut. coming to recent

Figure 4: Average contribution of Kharif and Rabi products to headline inflation



Source: Authors' computation from RBI database

trends April 2024 was another recent month where the largest contributor to inflation was tur, accounting for almost 5.2 percent of the total.

4. Interest rate changes in the last decade

The monetary authority performs an instrumental part in regulating inflation and rectifying market distortions. Examining how the central bank adjusts interest rates during each inflation cycle to figure out whether or not their actions propel the economy into inflation becomes critically important in this situation. Over the past decade, the RBI has adjusted interest rates by an average of 25 basis points every time, taking into account the economic and inflationary climates. The RBI adopted a dovish stance from January 2012 to October 2013, dropping the repo rate from 8.5 percent in Jan 2012 to 7.75 percent in oct 2013 by 0.75 basis points. The largest prices during that period may have been caused in part by the countercyclicality of interest rates with inflation. Owing to the ensuing inflation, the RBI adopted a stronger stance in January 2014, raising the rate by 25 basis points to 8 percent. Then, in opposition to the theoretical foundations, the era experiences a procyclical movement in both interest rates and inflation. In June 2017, inflation dropped to a lower rate of 1.5 percent, and in August 2017, the repo rate dropped by around 2 basis points to 6 percent. The deepest and longest interest cycle occurred during and after the pandemic period the deeper cycle with the largest base point shift in interest rates happened during the pandemic in March 2020, when it dropped by 75 basis points to 4.40 percent to meet the economy's persistently weak demand and support moderate inflation and he longest interest cycle with maintaining status quo occurred in march 2020 to May 2022, where interest kept at 4 percent. The justification made by the RBI Governor is that the recovery that had been interrupted by the second wave of the pandemic is regaining traction, but it is not yet strong enough to be self-sustaining and durable. This underscores the vital importance of continued policy support (The Indian Express, December 9, 2021). In the recent downward trend in inflation also not urging the RBI to change the interest rate and is keeping the repo at 6.50 percent.

5. Conclusion

This study portrayed the inflation trajectory in India over the last decade and the responsible factors as well as the interest rate dynamics. Tackling inflation is crucial for sustaining growth and purchasing power. Food inflation, driven by volatile prices of vegetables, cereals, and pulses, has been a significant contributor to overall inflation. The main driver of notable spikes, including the 11.5 percent CPI inflation in November 2013, was the skyrocketing cost of food, particularly vegetables. Food inflation remained persistently high during the pandemic, and as of June 2020, prices for dairy and meat were still high. The RBI's monetary policy measures had a vital role, such as hiking the repo rate to 8 percent in January 2014 during rising inflation and cutting it to 4 percent in March 2020 during the pandemic. With CPI inflation of 4.83 percent in April 2024, inflation has begun to moderate recently. However, due to factors like the unpredictable monsoons, food inflation-especially that related to

vegetables-remains high. India's experience indicates that to stabilize food prices and increase the effectiveness of the supply chain, proactive actions are required. To guarantee stable and sustainable economic growth, policymakers-especially the RBI-must be aware at all times and act promptly.

■

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Monetary policy: Upholding growth confidence amidst inflation woes and climate risks

Aswathy Rachel Varughese

Abstract

The RBI's decision to maintain the status quo for the seventh consecutive time indicates a cautious approach amidst efforts to align inflation at 4% for FY2025. Climate change concerns add complexity to the economic landscape. The geopolitical tensions in the Middle East impacted the market sentiments. The cascading effects of these factors are weighing on Mint Street's decision-making, although the growth impulses are strong.

Keywords: *Geopolitical tension, rate cycles, price shock, liquidity management.*

1. Introduction

The Reserve Bank of India (RBI) has signaled a clear shift away from following the United States Federal Reserve's policy decisions in its June Monetary Policy Committee (MPC). The RBI Governor has emphasized that while they consider the impact of policy changes in Advanced Economies like the US, their rate decisions will primarily be based on domestic growth and inflation outlook. In its June 2024 meeting, MPC maintained its policy rates for the eighth consecutive time. The repo rate remained at 6.5%, the Standing Deposit Facility (SDF) at 6.25%, and the Marginal Standing Facility (MSF) and bank rate at 6.75%. The RBI also kept its "withdrawal of accommodation" stance unchanged. Interestingly, these decisions were not unanimous this time. The vote was 4-2, compared to 5-1 in the April 2024 policy meeting. Two MPC members advocated for a 25 basis points cut and a change to a neutral stance. Despite some members pushing for a rate cut, the Governor stressed that interest rate transmissions are not yet complete, and inflation expectations still need to be brought in line with the targeted level.

The RBI's current tone and stance suggest a potential divergence in the timing and approach to rate cuts compared to other central banks. While institutions like the European Central Bank, Bank of Canada, Swiss National Bank, and Swedish Riksbank have already begun cutting rates, the RBI appears to be charting its own course. Historical data indicates that synchronized rate actions across central banks often lead to increased market volatility. This

independent approach by the RBI may help mitigate such risks.

2. Rate cycles of major central banks

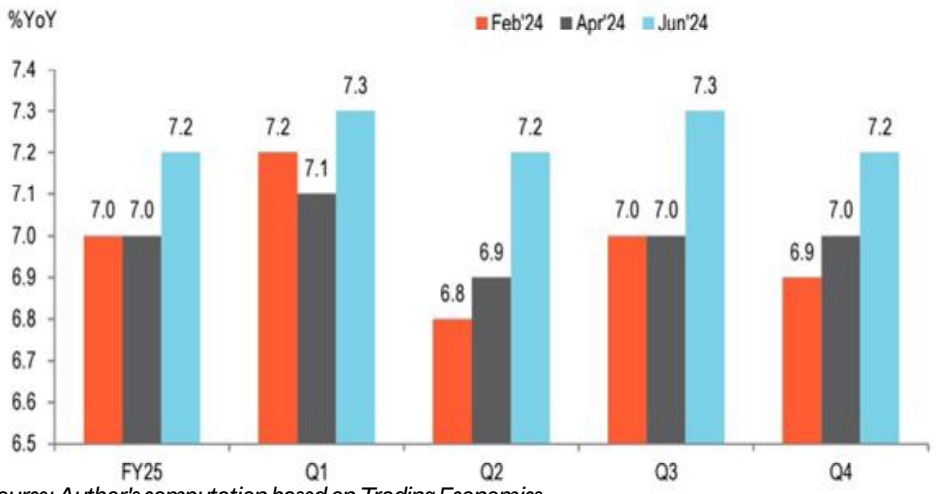
Central banks worldwide often align their monetary policies with the US Federal Reserve's decisions. When the Fed increases interest rates, it typically triggers a chain reaction. Capital tends to flow out of other countries and into the US, attracted by higher returns. To counteract this, other central banks often feel compelled to raise their own interest rates. This serves two main purposes - Managing the interest rate differential to prevent excessive capital outflows and stabilizing their currency's exchange rate against the US dollar to avoid depreciation. By raising rates, these central banks also aim to keep domestic inflation in check, as a weaker currency can lead to higher import costs and inflationary pressures.

The pattern of central banks following the US Federal Reserve's lead highlights the Fed's substantial impact on global financial markets. It also illustrates the difficulties other central banks encounter in balancing economic stability with external pressures. Traditionally, the Reserve Bank of India (RBI) has been viewed as following the Fed's interest rate decisions. However, the RBI Governor has now clearly indicated a shift towards prioritizing domestic growth and inflation trends over aligning with Advanced Economies' (AEs) interest rate paths. Currently, both Emerging Market Economies (EMEs) and AEs are in an interest rate easing cycle (Figure 1). The RBI Governor's recent statement strongly suggests that the RBI's approach may diverge from the Fed's. If domestic conditions warrant it, the RBI might initiate rate cuts before the Fed does. Market analysts anticipate the RBI's first-rate cut could occur in the third quarter of the 2025 fiscal year. However, they expect this rate-cut cycle to be relatively modest in scale. This shift in approach demonstrates the RBI's increasing focus on tailoring monetary policy to India's specific economic needs, rather than automatically following global trends led by the US Fed. (Figure 1 & Figure 2)

Figure 2 portrays the changing interest cycle of the major central banks across the world. The European Central Bank (ECB) implemented a 25 basis point cut to its deposit facility rate in June, bringing it to 3.75%. This move was anticipated and driven by easing underlying inflation and declining inflation expectations. Despite this rate cut, the ECB projects that inflation will remain above its 2% target until well into 2025. To address this, the bank intends to maintain sufficiently restrictive policy rates for as long as necessary to achieve its inflation target.

Additionally, the ECB has outlined plans to gradually reduce its pandemic emergency purchase programme (PEPP) portfolio. It aims to decrease this by an average of €7.5 billion per month during the second half of 2024. Market analysts anticipate further rate cuts from the ECB, expecting a 25 basis point reduction in September and another in December. These policy moves are likely to impact currency markets. The EUR/USD exchange rate is expected to face depreciation pressure as the ECB cuts rates ahead of the US Federal Reserve. Adding to the euro's challenges, political uncertainty in France is likely to exert downward pressure on the currency in the short term. This uncertainty stems from President Macron's call for a snap general election.

Figure 1: Advanced Economies (AEs) move toward rate cuts



Source: Author's computation based on Trading Economics

Figure 2: Policy actions of major central banks

Central Bank Policy Actions

	Hike	No Change	Cut
Q1 2024	Japan (20bps)	Australia, Canada, Euro Area, New Zealand, Norway, South Korea, Sweden, UK, US China, Indonesia, India, Malaysia, Philippines, , Romania, Serbia, South Africa, Thailand	Switzerland (25bps) Brazil (100bps), Chile (100bps), Colombia (75 bps), Mexico (25 bps), Peru (50bps)
Q2 2024*	Indonesia (25bps)	Australia, Japan, New Zealand, Norway, South Korea, UK, US China, India, Malaysia, Mexico, Philippines, Romania, South Africa, Thailand	Canada (25bps), Euro Area (25 bps), Sweden (25bps), Switzerland (25bps) Brazil (25bps), Chile (150bps), Colombia (50 bps), Peru (50bps), Serbia (25bps)

Source: Compiled from CareEdge Rating

Bank of England (BoE) left policy rate unchanged at 5.25 percent in June even as headline inflation fell to its 2 percent target in May. However, core inflation remains elevated & BoE expects headline inflation to rise slightly in H2. BoE noted monetary policy will need to remain restrictive for sufficiently long for inflation to return to its 2 percent target sustainably in the medium term. Market expects a 25bps rate cut in August followed by another in December. UK's upcoming general elections scheduled for July 4 will be a key event, with polls indicating the opposition Labor Party is poised to secure a majority.

Bank of Japan (BoJ) maintained its key short term interest rate at around 0 to 0.1 percent in June, as expected. BoJ will decide on a detailed plan for reducing its Japanese government bond (JGBs) purchases at its July meeting. Market expects BoJ to gradually raise policy rate by 10bps each at its July and December meeting. Over the next year monetary policy divergence between Fed and BoJ should support JPY.

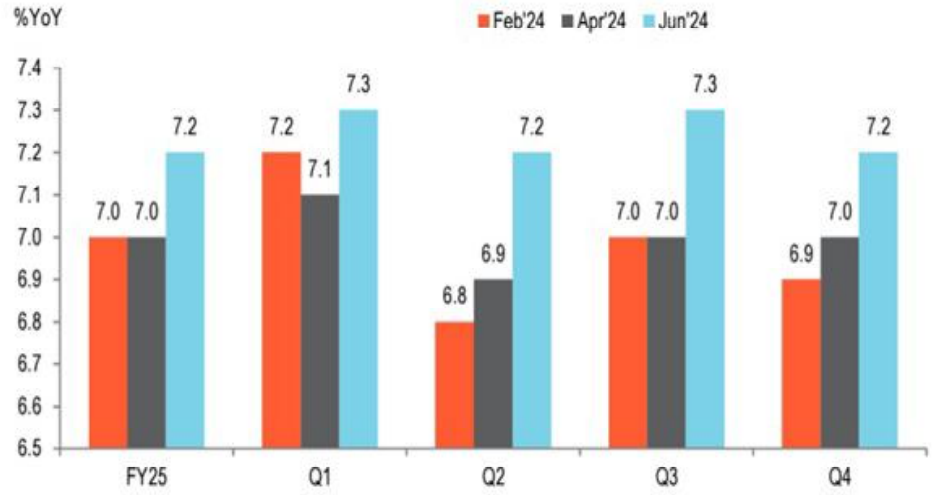
3. RBI's growth projections for the Indian economy

The RBI has revised its GDP growth projection for FY25 upward to 7.2% (Figure 3), an increase from the 7% projected in its April 2024 policy. This follows a strong 8.2% growth in FY24, which exceeded the National Statistical Office's (NSO) advanced estimate of 7.6%. The RBI has also adjusted its quarterly growth projections for FY25: In Q1: 7.3% (up from 7.1%), Q2: 7.2% (up from 6.9%), Q3: 7.3% (up from 7%) and Q4: 7.2% (up from 7%). The robust growth forecast for FY25 is based on several factors. They are sustained urban demand, as evidenced by strong passenger vehicle sales and air passenger traffic. Besides, a revival in rural demand, indicated by increased two-wheeler sales and decreased demand for the MGNREGA employment scheme. Continued improvement in investment activity, shown by increased steel consumption, cement and capital goods production, government-led infrastructure development, and investments under the Production-Linked Incentive (PLI) scheme. Looking ahead, an above-normal monsoon is expected to boost Kharif crop output, potentially further stimulating rural demand. The services sector expansion is likely to be driven by urban consumption, while government spending is anticipated to support investment activity (Figure -3).

4. Inflation Projections

The RBI has maintained its inflation projection for FY25 at 4.5% (Figure 4). The quarterly projections also remain unchanged, with Q1 at 4.9%, Q2 at 3.8%, Q3 at 4.6%, and Q4 at 4.5%. It has also not revised these projections, as the impact of the Indian Meteorological Department's (IMD) forecast of above-normal monsoon for this season is yet to be seen. For now, the RBI has noted several upside risks to inflation. These include ongoing heat wave conditions and low reservoir levels, which are putting pressure on summer vegetable and fruit crops. Additionally, the current increase in global food and non-oil commodity prices, along with volatility in oil prices, may add to inflationary pressures. However, if abundant rainfall occurs, domestic pressures could

Figure 3: RBI's growth projections revised upwards



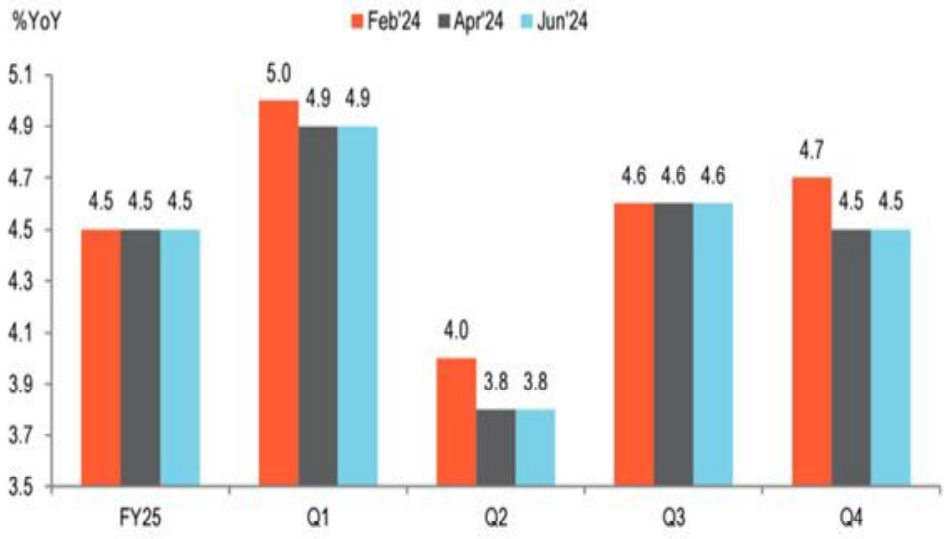
Source: RBI Monetary Policy Statement, June 2024

dissipate, potentially helping to reduce inflation in cereals and pulses. The RBI also noted that the LPG price cut announced in March 2024 is already contributing to a disinflationary trend in fuel inflation. The central bank appears to be taking a cautious stance, balancing potential risks against possible mitigating factors in its inflation outlook. This approach allows for flexibility in responding to evolving economic conditions throughout the fiscal year (Figure -4).

5. Food Inflation continues as a key risk

The Consumer Price Index (CPI) reached 4.75% year-over-year in May, primarily due to persistent food inflation. Food items, which account for 32% of the overall CPI basket, are showing significant upward momentum sequentially, though much of this can be attributed to seasonal factors. There's a potential for another price shock in tomatoes and onions. As of June 2024, prices of these vegetables are already rising, due to adverse weather conditions and mismatches between supply and demand. It's unlikely that food inflation will fall below 7.5-8% in the near future. Consequently, headline CPI may exceed the Reserve Bank of India's (RBI) inflation projections for Q1. Some relief is expected in Q2 due to a favorable base effect. Core inflation continues to provide comfort, although there might be some upward pressure if rural demand increases following a good Southwest monsoon. Given these factors, the RBI is likely to adopt a flexible approach, carefully balancing various risks. Several key events will be closely monitored from a monetary policy perspective, including the impact of the final Budget on growth and inflation, as well as the evolution of global policy rates. The central bank's decision-

Figure 4: Inflation forecast for the financial year remained unchanged



Source: RBI Monetary Policy Statement, June 2024

making process will need to consider multiple factors, balancing short-term inflationary pressures against longer-term economic growth prospects and global economic trends. This complex environment underscores the need for nimble and responsive monetary policy adjustments.

In the food category, half of the 12 broad subcategories have inflation rates exceeding 6%. The most significant increases are seen in vegetables (27.3% year-over-year), pulses (17.1%), cereals (8.7%), and eggs (7.6%). Oils, fats, and fruits are also experiencing notable upward pressure. A month-to-month analysis provides a clearer picture of food inflation trends. In May 2024, food inflation rose by 0.7% compared to the previous month. However, when adjusted for seasonal factors, it actually decreased by 0.3%, indicating that some of the increase can be attributed to seasonal patterns.

Several food items are contributing to inflationary pressures, including cereals, eggs, vegetables, pulses, sugar, and spices. Looking ahead, there's significant potential for further increases in overall food inflation, though it's expected to stay below 8% in the near term. A particular concern is the possibility of another price shock in tomatoes and onions. Such an event could cause the headline CPI to exceed the Reserve Bank of India's projected trajectory. This complex food inflation scenario presents challenges for monetary policy. The RBI will need to carefully monitor these trends, particularly the interplay between seasonal factors and more persistent inflationary pressures, as it makes policy decisions. The

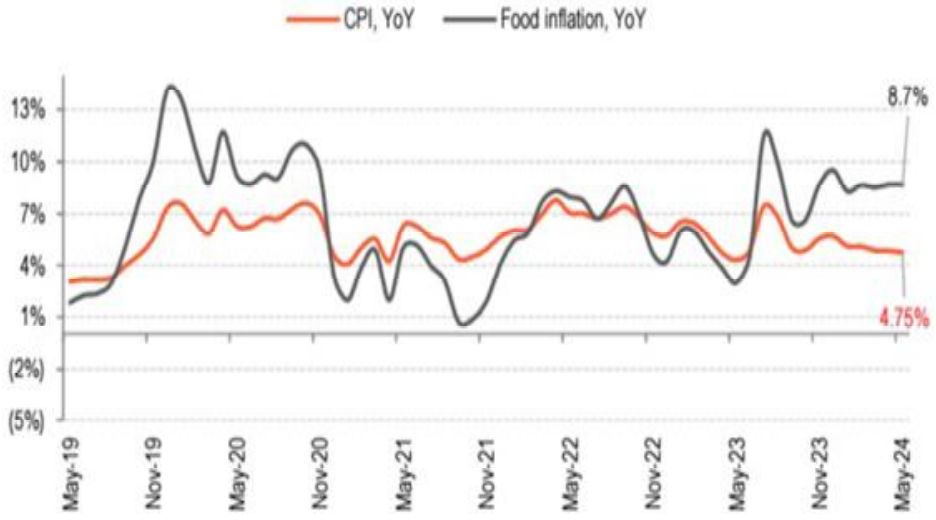
potential for sudden price shocks in specific food items adds layer of uncertainty to the inflation outlook (Figure 5).

As of June 2024, food inflation continues to present significant upside risks (Figure 5). There have been notable monthly price increases in vegetables, particularly tomatoes and onions. The December-June tomato harvest has been affected by April and May heatwaves and early rains in some states. Onion prices are also rising due to supply-demand imbalances.

Beyond vegetables, pulses like Gram and Tur are experiencing price increases. Reports suggest that existing buffer stocks of pulses may be under strain. If these food price shocks persist, the Q1FY25 inflation figure might exceed the Reserve Bank of India's (RBI) projection of 4.9%.

Water reservoir levels are lower compared to last year (22% vs 28% for the same period, as of June 6th), which could impact agricultural output. Additionally, global food prices remain sticky. Given these factors, the trajectory of the headline Consumer Price Index (CPI) now largely depends on the distribution of the South-West monsoon. On the demand side, the picture remains unclear. Fast-Moving Consumer Goods (FMCG) companies have reported shifting to a volume-led approach by implementing price cuts in their recent financial performances. As a result, while upside risks to core inflation remain limited, some correction is expected with the anticipated pickup in rural demand. This complex interplay of supply-side pressures and demand-side uncertainties presents a challenging environment for monetary

Figure 5: Untamed food inflation (y.o.y %)



Source: Ministry of Statistics and Program Implementation (MOSPI)

policy decisions. The RBI will need to closely monitor these developments, particularly the progress of the monsoon and its impact on food prices, as well as any shifts in consumer demand patterns, to inform its policy stance in the coming months.

6. RBI's liquidity management

In the past two months, government cash balances held with the Reserve Bank of India (RBI) have remained high, partly due to the general elections. These elevated balances, combined with the RBI's dividend transfer, have maintained a surplus in durable liquidity. However, the banking system liquidity has mostly been in deficit, with only brief periods of surplus due to month-end inflows.

The government's surplus cash balances and the RBI's dividend transfer are expected to create room for increased government spending. A rise in spending following the upcoming budget is anticipated to support overall liquidity conditions.

The RBI has committed to maintaining a flexible and adaptive approach to liquidity management. This approach aims to ensure that money market interest rates develop in an orderly manner. To achieve this, the central bank will continue to manage liquidity through both main and fine-tuning operations as needed. A key priority for the RBI is to maintain ample liquidity to support credit demand in the economy. This commitment underscores the central bank's focus on balancing monetary policy objectives with the need to support economic growth. The RBI's approach reflects its recognition of the complex interplay between government finances, banking system liquidity, and broader economic conditions. By remaining responsive to these factors, the RBI aims to create a supportive environment for stable financial markets and sustained economic growth.

7. Global front

The global economy has demonstrated resilience, with major economies performing better than anticipated. In April, the International Monetary Fund (IMF) revised its 2024 global growth projection upward by 10 basis points to 3.2%. This improved global outlook is expected to benefit India's exports. India's external economic position remains stable, characterized by adequate foreign exchange reserves and a manageable current account deficit. Foreign investment inflows are projected to remain robust, particularly due to passive inflows into the debt market following India's inclusion in major global bond indices.

Looking ahead, strong domestic growth in India, coupled with rate cuts by major central banks, is likely to attract further Foreign Institutional Investor (FII) inflows. This favorable external position, marked by high forex reserves and anticipated increases in FII inflows, provides the Reserve Bank of India (RBI) with flexibility to consider rate cuts independently of the US Federal Reserve's decisions. The European Central Bank's (ECB) recent decision to cut policy rates may signal a potential shift in the global monetary policy cycle. This global trend, combined with India's strong economic fundamentals, could influence the RBI's monetary policy decisions in the coming months. Overall, India's external economic environment appears supportive of potential monetary easing, should domestic

conditions warrant it. The RBI will likely continue to balance these external factors with internal economic indicators as it formulates its monetary policy stance.

8. Justification of FOMC Policy stance and major economic indicators of the economy

The FOMC unanimously decided to keep the federal funds rate target range at 5.25-5.50% during its June 11-12 meeting, aligning with market expectations. The policy statement noted "modest further progress" towards the 2% inflation goal, a change from the previous "lack of further progress" statement. However, the Committee still views inflation as elevated and doesn't anticipate reducing the policy rate until there's greater confidence in sustainable movement towards the 2% target. In the Summary of Economic Projections (SEP), 2024 projections for real GDP growth (2.1%) and unemployment rate (4%) remained unchanged from March. However, inflation projections were revised upward. The median 2024 PCE inflation projection increased to 2.6% from 2.4%, and the 2025 projection rose to 2.3% from 2.2%. Core PCE inflation projections for 2024 and 2025 were also raised. Despite these increases, both PCE and Core PCE inflation are still expected to return to the 2% target by 2026.

The median federal funds rate projection now suggests only one 25 basis point rate cut in 2024, down from the three cuts projected in March. The number of participants projecting no rate cut in 2024 has doubled to four, while seven project one cut and eight project two. No participants foresee a rate hike in 2024. For 2025 and 2026, the projections now indicate more aggressive rate cuts, with four 25 basis point cuts expected in each year, up from three previously. The median longer-run federal funds rate projection has been revised upward to 2.8% from 2.6%.

These projections reflect a more cautious approach to rate cuts in the near term, balanced by expectations of more substantial easing in the following years. This shift suggests the Fed is carefully weighing inflation risks against economic growth considerations in its policy outlook.

Recent indicators suggest the U.S. economy is showing signs of cooling (Figure 6). After some unexpected increases, Consumer Price Index (CPI) inflation eased in April and May. The anticipated moderation in shelter prices is expected to contribute to inflation's gradual descent towards the Federal Reserve's 2% target. While the labor market remains tighter than pre-pandemic levels, some softening is evident. This is reflected in a decrease in job openings and a slight increase in the unemployment rate. Given these trends, we anticipate the Federal Reserve may implement rate cuts of 25 to 50 basis points in the second half of 2024, potentially starting from September. This expectation is based on easing inflationary pressures and slowing economic growth. However, it's important to note that the Fed's policy decisions will remain data-dependent. If incoming economic data indicates stronger-than-expected economic conditions, the Fed may delay these anticipated rate cuts. The central bank's decisions in the coming months will likely be influenced by a wide range of economic indicators, particularly those related to inflation and labor market dynamics (Figure 6).

Figure 6: Major indicators of US economy

Source: Fed Reserve Database

9. Way forward

Despite overall robust growth, the economy faces challenges due to weak consumption demand. While core inflation has moderated, elevated food inflation keeps headline numbers high. The benign core inflation is a comfort for the Reserve Bank of India (RBI), as strong growth has remained largely non-inflationary. However, the Monetary Policy Committee (MPC) remains cautious, closely monitoring potential risks to the inflation outlook, particularly those arising from weather-related events and higher global commodity prices.

The RBI Governor has emphasized that domestic factors will primarily influence the bank's decisions, although they will remain vigilant of the external environment. This stance reinforces the expectation that the RBI could implement policy interest rate cuts by the third quarter of FY25, provided domestic inflation moderates. By then, the RBI will have a clearer picture of risks associated with food inflation, domestic fiscal policy outlook, and the policy direction of major central banks. India's comfortable external position, characterized by high foreign exchange reserves and expected increases in Foreign Institutional Investor (FII) inflows due to India's inclusion in bond indices, provides the RBI with flexibility for rate cuts, independent of the U.S. Federal Reserve's decisions. Bond yields are expected to soften, with 10-Year Government Securities (G-Sec) yields projected to range between 6.5% and 6.6% by the end of FY25. This outlook reflects a balanced approach by the RBI, weighing domestic economic conditions against global factors. The central bank's policy decisions in the coming months will likely be influenced by a combination of inflation trends, growth dynamics, and external economic developments.

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GIFT GULATI INSTITUTE OF FINANCE AND TAXATION

GST updates

Meenu Mohan

GST Council's Recommendations for Simplifying the Compliance and Easing the Burdens of Business: A Great Relief to the Taxpayers

The GST Council inter alia made the following recommendations relating to changes in GST tax rates, measures for facilitation of trade and measures for streamlining compliances in GST in different sectors.

I.Recommendations of the 53rd GST Council

A. Changes in GST Tax Rates:

I. Recommendations relating to GST rates on Goods

A. Changes in GST rates of goods

1) A uniform rate of 5% IGST will apply to imports of 'Parts, components, testing equipment, tools and tool-kits of aircrafts , irrespective of their HS classification to provide a fillip to MRO activities subject to specified conditions.
2) All milk cans (of steel, iron and aluminium) irrespective of their use will attract 12% GST.
3) GST rate on 'carton, boxes and cases of both corrugated and non-corrugated paper or paper-board' (HS 4819 10; 4819 20) to be reduced from 18% to 12%.
4) All solar cookers whether single or dual energy source, will attract 12% GST.
5) To amend existing entry covering Poultry keeping Machinery attracting 12% GST to specifically incorporate "parts of Poultry keeping Machinery" and to regularise past practice on 'as is where is' basis in view of genuine interpretational issues.
6) To clarify that all types of sprinklers including fire water sprinklers will attract 12% GST and to regularize the past practice on 'as is where is' basis in view of genuine interpretational issues.
7) To extend IGST exemption on imports of specified items for defence forces for a further period of five years till 30th June, 2029.
8) To extend IGST exemption on imports of research equipment/ buoys imported under the Research Moored Array for African-Asian-Australian Monsoon Analysis and Prediction (RAMA) programme subject to specified conditions.

9) To exempt Compensation Cess on the imports in SEZ by SEZ Unit/ developers for authorized operations w.e.f 01.07.2017.

Other Miscellaneous Changes

10) To exempt Compensation cess on supply of aerated beverages and energy drinks to authorized customers by Unit Run Canteens under Ministry of Defence.

11) To provide Adhoc IGST exemption on imports of technical documentation for AK-203 rifle kits imported for Indian Defence forces.

II. Recommendations relating to GST rates on services

1) To exempt the services provided by Indian Railways to general public, namely, sale of platform tickets, facility of retiring rooms/waiting rooms, cloak room services and battery-operated car services and to also exempt the Intra-Railway transactions. The issue for the past period will be regularized from 20.10.2023 to the date of issue of exemption notification in this regard.

2) To exempt GST on the services provided by Special Purpose Vehicles (SPV) to Indian Railway by way of allowing Indian Railway to use infrastructure built & owned by SPV during the concession period and maintenance services supplied by Indian Railways to SPV. The issue for the past will be regularized on 'as is where is' basis for the period from 01.07.2017 till the date of issue of exemption notification in this regard.

3) To create a separate entry in notification No. 12/2017- CTR 28.06.2017 under heading 9963 to exempt accommodation services having value of supply of accommodation up to Rs. 20,000/- per month per person subject to the condition that the accommodation service is supplied for a minimum continuous period of 90 days. To extend similar benefit for past cases.

Other changes relating to Services

4) Co-insurance premium apportioned by lead insurer to the co-insurer for the supply of insurance service by lead and co-insurer to the insured in coinsurance agreements, may be declared as no supply under Schedule III of the CGST Act, 2017 and past cases may be regularized on 'as is where is' basis.

5) Transaction of ceding commission/ re-insurance commission between insurer and re- insurer may be declared as no supply under Schedule III of CGST Act, 2017 and past cases may be regularized on 'as is where is' basis.

6) GST liability on reinsurance services of specified insurance schemes covered by Sr. Nos. 35 & 36 of notification No. 12/2017-CT (Rate) dated 28.06.2017 may be regularized on 'as is where is' basis for the period from 01.07.2017 to 24.01.2018.

7) GST liability on reinsurance services of the insurance schemes for which total premium is paid by the Government that are covered under

Sr. No. 40 of notification No. 12/2017-CTR dated 28.06.2017 may be regularized on 'as is where is' basis for the period from 01.07.2017 to 26.07.2018.

8) To issue clarification that retrocession is 're-insurance of re-insurance' and therefore, eligible for the exemption under Sl. No. 36A of the notification No. 12/2017-CTR dated 28.06.2017.

9) To issue clarification that statutory collections made by Real Estate Regulatory Authority (RERA) are exempt from GST as they fall within the scope of entry 4 of No.12/2017-CTR dated 28.06.2017.

10) To issue clarification that further sharing of the incentive by acquiring bank with other stakeholders, where the sharing of such incentive is clearly defined under Incentive scheme for promotion of RuPay Debit Cards and low value BHIM-UPI transactions and is decided in the proportion and manner by NPCI in consultation with the participating banks is not taxable.

B. Measures for facilitation of trade:

1. **Insertion of Section 128A in CGST Act, to provide for conditional waiver of interest or penalty or both, relating to demands raised under Section 73, for FY 2017-18 to FY 2019-20 :** Considering the difficulties faced by the taxpayers, during the initial years of implementation of GST, the GST Council recommended, waiving interest and penalties for demand notices issued under Section 73 of the CGST Act for the fiscal years 2017-18, 2018- 19 and 2019-20, in cases where the taxpayer pays the full amount of tax demanded in the notice upto **31.03.2025.** The waiver does not cover demand of erroneous refunds. To implement this, the GST Council has recommended insertion of Section 128A in CGST Act, 2017.

2. **Reduction of Government Litigation by Fixing monetary limits for filing appeals under GST:** The Council recommended to prescribe monetary limits, subject to certain exclusions, for filing of appeals in GST by the department before GST Appellate Tribunal, High Court, and Supreme Court, to reduce government litigation. The following monetary limits have been recommended by the Council:

   GSTAT: Rs. 20 lakhs

   High Court: Rs. 1 crore

   Supreme Court: Rs. 2 crores

3. **Amendment in Section 107 and Section 112 of CGST Act for reducing the amount of pre-deposit required to be paid for filing of appeals under GST:** The GST Council recommended reducing the amount of pre-deposit for filing of appeals under GST to ease cash flow and working capital blockage for the taxpayers. The maximum amount for filing appeal with the appellate authority has been reduced from Rs. 25 crores CGST and Rs. 25 crores SGST to Rs. 20 crores CGST and Rs. 20 crores SGST. Further, the amount of pre- deposit for filing appeal with

the Appellate Tribunal has been reduced from 20% with a maximum amount of Rs. 50 crores CGST and Rs. 50 crores SGST to 10 % with a maximum of Rs. 20 crores CGST and Rs. 20 crores SGST.

4. **Applicability of Goods and Services Tax on Extra Neutral Alcohol (ENA) Taxation of ENA under GST:** The GST Council, in its 52nd meeting, had recommended to amend GST Law to explicitly exclude rectified spirit/ Extra Neutral Alcohol (ENA) from the scope of GST when supplied for manufacturing alcoholic liquors for human consumption. The GST Council now recommended amendment in sub-section (1) of Section 9 of the CGST Act, 2017 for not levying GST on Extra Neutral Alcohol used for manufacture of alcoholic liquor for human consumption.

5. **Reduction in rate of TCS to be collected by the ECOs for supplies being made through them:** Electronic Commerce Operators (ECOs) are required to collect Tax Collected at Source (TCS) on net taxable supplies under Section 52(1) of the CGST Act. The GST Council has recommended to reduce the TCS rate from present 1% (0.5% CGST + 0.5% SGST/ UTGST, or 1% IGST) to 0.5 % (0.25% CGST + 0.25% SGST/UTGST, or 0.5% IGST), to ease the financial burden on the suppliers making supplies through such ECOs.

6. **Time for filing appeals in GST Appellate Tribunal:** The GST Council recommended amending Section 112 of the CGST Act, 2017 to allow the three-month period for filing appeals before the Appellate Tribunal to start from a date to be notified by the Government in respect of appeal/ revision orders passed before the date of said notification. This will give sufficient time to the taxpayers to file appeal before the Appellate Tribunal in the pending cases.

7. **Relaxation in condition of section 16(4) of the CGST Act:**

   a) **In respect of initial years of implementation of GST, i.e., financial years 2017- 18, 2018-19, 2019-20 and 2020-21:**

   The GST Council recommended that the time limit to avail input tax credit in respect of any invoice or debit note under Section 16(4) of CGST Act, through any return in FORM GSTR 3B filed upto 30.11.2021 for the financial years 2017-18, 2018-19, 2019-20 and 2020-21, may be deemed to be 30.11.2021. For the same, requisite amendment in section 16(4) of CGST Act, retrospectively, w.e.f. 01.07.2017, has been recommended by the Council.

   b) **with respect to cases where returns have been filed after revocation:**

   The GST Council recommended retrospective amendment in

Section 16(4) of CGST Act, to be made effective from July 1st, 2017, to conditionally relax the provisions of section 16(4) of CGST Act in cases where returns for the period from the date of cancellation of registration/ effective date of cancellation of registration till the date of revocation of cancellation of the registration, are filed by the registered person within thirty days of the order of revocation.

8. **Change in due date for filing of return in FORM GSTR-4 for composition taxpayers from 30th April to 30th June:** The GST Council recommended an amendment in clause (ii) of sub-rule (1) of Rule 62 of CGST Rules, 2017 and FORM GSTR-4 to extend the due date for filing of return in FORM GSTR-4 for composition taxpayers from 30th April to 30th June following the end of the financial year. This will apply for returns for the financial year 2024-25 onwards. The same would give more time to the taxpayers who opt to pay tax under composition levy to furnish the said return.

9. **Amendment of Rule 88B of CGST Rules, 2017 in respect of interest under Section 50 of CGST Act on delayed filing of returns, in cases where the credit is available in Electronic Cash Ledger (ECL) on the due date of filing the said return:** The GST Council recommended amendment in rule 88B of CGST Rules to provide that an amount, which is available in the Electronic Cash Ledger on the due date of filing of return in FORM GSTR-3B, and is debited while filing the said return, shall not be included while calculating interest under section 50 of the CGST Act in respect of delayed filing of the said return.

10. **Insertion of Section 11A in CGST Act for granting power not to recover duties not levied or short-levied as a result of general practice under GST Acts:** The GST Council recommended inserting a new Section 11A in CGST Act to give powers to the Government, on the recommendations of the Council, to allow regularization of non-levy or short levy of GST, where tax was being short paid or not paid due to common trade practices.

11. **Refund of additional Integrated Tax (IGST) paid on account of upward revision in price of the goods subsequent to export:** The GST Council recommended to prescribe a mechanism for claiming refund of additional IGST paid on account of upward revision in price of the goods subsequent to their export. This will facilitate a large number of taxpayers, who are required to pay additional IGST on account of upward revision in price of the goods subsequent to export, in claiming refund of such additional IGST.

12. **Clarification regarding valuation of supply of import of services by a**

related person where recipient is eligible to full input tax credit: The Council recommended to clarify that in cases where the foreign affiliate is providing certain services to the related domestic entity, for which full input tax credit is available to the said related domestic entity, the value of such supply of services declared in the invoice by the said related domestic entity may be deemed as open market value in terms of second proviso to rule 28(1) of CGST Rules. Further, in cases where full input tax credit is available to the recipient, if the invoice is not issued by the related domestic entity with respect to any service provided by the foreign affiliate to it, the value of such services may be deemed to be declared as Nil, and may be deemed as open market value in terms of second proviso to rule 28(1) of CGST Rules.

13. **Clarification regarding availability of Input Tax Credit (ITC) on ducts and manholes used in the network of Optical Fiber Cables (OFCs):** The Council recommended to clarify that input tax credit is not restricted in respect of ducts and manhole used in network of optical fiber cables (OFCs), under clause (c) or under clause (d) of sub- section (5) of section 17 of CGST Act.

14. **Clarification on the place of supply applicable for custodial services provided by banks:** The Council recommended to clarify that place of supply of Custodial services supplied by Indian Banks to Foreign Portfolio Investors is determinable as per Section 13(2) of the IGST Act, 2017.

15. **Clarification on valuation of corporate guarantee provided between related persons after insertion of Rule 28(2) of CGST Rules, 2017:** GST Council recommended amendment of rule 28(2) of CGST Rules retrospectively with effect from 26.10.2023 and issuance of a circular to clarify various issues regarding valuation of services of providing corporate guarantees between related parties. It is inter alia being clarified that valuation under rule 28(2) of CGST Rules would not be applicable in case of export of such services and also where the recipient is eligible for full input tax credit.

16. **Clarification regarding applicability of provisions of Section 16 (4) of CGST Act, 2017, in respect of invoices issued by the recipient under Reverse Charge Mechanism (RCM):** The Council recommended to clarify that in cases of supplies received from unregistered suppliers, where tax has to be paid by the recipient under reverse charge mechanism (RCM) and invoice is to be issued by the recipient only, the relevant financial year for calculation of time limit for availment of input tax credit under the provisions of section 16(4) of CGST Act is the financial year in which the invoice has been issued by the recipient.

17. Clarification on following issues to provide clarity to trade and tax officers and to reduce litigation:

i. Clarification on taxability of re-imbursement of securities/shares as ESOP/ESPP/RSU provided by a company to its employees

ii. Clarification on requirement of reversal of input tax credit in respect of amount of premium in Life Insurance services, which is not included in the taxable value as per Rule 32(4) of CGST Rules.

iii. Clarification on taxability of wreck and salvage values in motor insurance claims

iv. Clarification in respect of Warranty/ Extended Warranty provided by Manufacturers to the end customers

v. Clarification regarding availability of input tax credit on repair expenses incurred by the insurance companies in case of reimbursement mode of settlement of motor vehicle insurance claims.

vi. Clarification on taxability of loans granted between related person or between group companies.

vii. Clarification on time of supply on Annuity Payments under HAM Projects.

viii. Clarification regarding time of supply in respect of allotment of Spectrum to Telecom companies in cases where payment of licence fee and Spectrum usage charges is to be made in instalments.

ix. Clarification relating to place of supply of goods supplied to unregistered persons, where delivery address is different from the billing address

x. Clarification on mechanism for providing evidence by the suppliers for compliance of the conditions of Section 15(3)(b)(ii) of CGST Act, 2017 in respect of post-sale discounts, to the effect that input tax credit has been reversed by the recipient on the said amount.

xi. Clarifications on various issues pertaining to special procedure for the manufacturers of the specified commodities, like pan masala, tobacco etc.

18. The Council recommended amendment in section 140(7) of CGST Act retrospectively w.e.f. 01.07.2017 to provide for transitional credit in respect of invoices pertaining to services provided before appointed date, and where invoices were received by Input Service Distributor (ISD) before the appointed date.

19. The Council recommended providing a new optional facility by way of **FORM GSTR-1A** to facilitate the taxpayers to amend the details in **FORM GSTR-1** for a tax period and/ or to declare additional details, if any, before filing of return in **FORM GSTR-3B** for the said tax period. This will facilitate taxpayer to add any particulars of supply of the current tax period missed out in reporting in **FORM GSTR-1** of the said tax period or to

amend any particulars already declared in **FORM GSTR-1** of the current tax period (including those declared in IFF, for the first and second months of a quarter, if any, for quarterly taxpayers), to ensure that correct liability is auto-populated in **FORM GSTR-3B.**

20. The Council recommended that filing of annual return in **FORM GSTR-9/9A** for the FY 2023-24 may be exempted for taxpayers having aggregate annual turnover upto two crore rupees.

21. Amendment was recommended to be made in section 122(1B) of CGST Act retrospectively w.e.f. 01.10.2023, so as to clarify that the said penal provision is applicable only for those e-commerce operators, who are required to collect tax under section 52 of CGST Act, and not for other e-commerce operators.

22. The Council recommended amendment in rule 142 of CGST Rules and issuance of a circular to prescribe a mechanism for adjustment of an amount paid in respect of a demand through **FORM GST DRC-03** against the amount to be paid as pre-deposit for filing appeal.

Other measures pertaining to Law and Procedures

23. Rolling out of bio-metric based Aadhaar authentication on All-India basis: The GST Council recommended to roll-out the biometric-based Aadhaar authentication of registration applicants on pan-India basis in a phased manner. This will strengthen the registration process in GST and will help in combating fraudulent input tax credit (ITC) claims made through fake invoices.

24. Amendments in Section 73 and Section 74 of CGST Act, 2017 and insertion of a new Section 74A in CGST Act, to provide for common time limit for issuance of demand notices and orders irrespective of whether case involves fraud, suppression, willful misstatement etc., or not: Presently, there is a different time limit for issuing demand notices and demand orders, in cases where charges of fraud, suppression, willful misstatement etc., are not involved, and in cases where those charges are involved. In order to simplify the implementation of those provisions, the GST Council recommended to provide for a common time limit for issuance of demand notices and orders in respect of demands for FY 2024-25 onwards, in cases involving charges of fraud or willful misstatement and not involving the charges of fraud or willful misstatement etc. Also, the time limit for the taxpayers to avail the benefit of reduced penalty, by paying the tax demanded along with interest, has been recommended to be increased from 30 days to 60 days.

25. The Council recommended amendment in section 171 and section 109 of CGST Act, 2017 to provide a sunset clause for anti-profiteering under GST and to provide for handling of anti-profiteering cases by Principal bench of GST Appellate Tribunal (GSTAT). Council has also recommended the sun-set date of **01.04.2025** for receipt of any new application regarding anti-profiteering.

26. Amendment in Section 16 of IGST Act and section 54 of CGST Act to curtail refund of IGST in cases where export duty is payable: The Council recommended amendments in section 16 of IGST Act and section 54 of CGST Act to provide that the refund in respect of goods, which are subjected to export duty, is restricted, irrespective of whether the said goods are exported without payment of taxes or with payment of taxes, and such restrictions should also be applicable, if such goods are supplied to a SEZ developer or a SEZ unit for authorized operations.

27. The threshold for reporting of B2C inter-State supplies invoice-wise in Table 5 of **FORM GSTR-1** was recommended to be reduced from Rs 2.5 Lakh to Rs 1 Lakh.

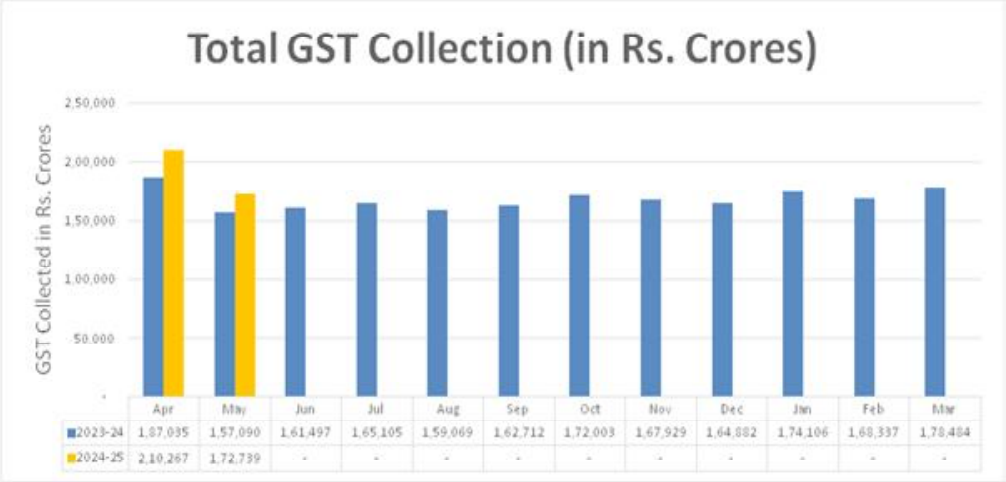
28. The Council recommended that return in **FORM GSTR-7,** to be filed by the registered persons who are required to deduct tax at source under section 51 of CGST Act, is to be filed every month irrespective of whether any tax has been deducted during the said month or not. It has also been recommended that no late fee may be payable for delayed filing of Nil **FORM GSTR-7** return. Further, it has been recommended that invoice-wise details may be required to be furnished in the said **FORM GSTR-7** return.

II. GST Revenue Collection from April to June 2024

April 2024 showed the highest-ever GST revenue of Rs 2.1 lakh crore, an increase of 12.4% year-on-year growth. This records an all-time high revenue collection which breaks all the previous GST revenue collection records. As per the statement of the Finance Minister, this achievement is due to a strong increase in domestic transactions (up 13.4 percent) and imports (up 8.3 percent). However, the gross GST revenue in May fell down to Rs. 1,72,739 crore which indicates a 10% year to year growth compared to the last year. Since the Central Government has stopped the monthly official release of the GST revenue collection, there is only the rates disclosed by the officials regarding the GST revenue collection in the month of June 2024 available . Trends in GST Collection till the month of May 2024 is available in Chart -1.

Reaching Rs.1.92 lakh crore in GST revenues for the month of April, it was 15.5% more than collected in April 2023. After accounting for refunds, the net GST revenue for April 2024 stands at Rs.1.92 lakh crore, reflecting an impressive 15.5% growth compared to the same period last year. Reported Rs.43,846 crore was the gross GST income collected in April 2024. Further Rs.53,538 crore, Rs. 99,623 crores, including Rs. 37,826 crores collected on imported goods & Rs.13,260 crore, including Rs.1,008 crore collected on imported goods which are collected as CGST, SGST, IGST and Cess revenue collected respectively. Mizoram stands as the high growth rated state at 52% and the second position was taken by Assam showing 25% growth rate followed by Delhi, Bihar & Goa at 23% growth rate in the revenue collection. Similarly, the

Chart 1: Trends in GST Collection in April-May 24 Compared with the same period in 2023-24



Source: https://pib.gov.in/PressReleasePage.aspx

GST compensation cess also hit the highest collection rate.

The GST revenue for May was Rs. 1.73 lakh crore, a 10% increase from the previous year. Compared to April 2024, the revenue collection in May was low mostly due to 15.3% increase in domestic transactions and a decline of 4.3% in imports. However, compared to May 2023 which stood at Rs.1,57,090 crore, the gross GST collection of May 2024 is higher. The net GST revenue for the FY 2024-25 up to May 2024, after taking into account GST refunds, is Rs. 3.36 lakh crore, an increase of 11.6% over the same month the previous year. Rs.3.83 lakh crore collected as gross GST collection in the finance year 2024-25 till May (Table-1) & (Chart -2).

The GST Collection in June 2024 touched 1.7 lakh crores which shows an 8% year-to -year growth. The latest numbers show that Rs.5.57 lakh crore was collected in the first three months. Better consumption and compliance, according to sources, have enhanced collecting.

III. Other Important Updates

- Justice (Retd.) Sanjaya Kumar Mishra, the Former Judge High Court of Jharkhand was appointed as the President of GST Appellate Tribunal in May 2024 and took the oath from Union Minister for Finance and Corporate Affairs, Nirmala Sitharaman. The National Bench of the Appellate Tribunal shall be situated at New Delhi and shall be presided over by its President and

Table 1: GST Collection in April- May 2024 (in crore)

Month	CGST	SGST	IGST (excluding importedgoods)	IGST on Imported Goods	CESS (excluding imported goods)
April 24	43,846	53,538	61,797	37,826	12,252
May 24	32,409	40,265	47,902	39,879	11,208

Source: PIB Press Release

Chart 2: Comparison of GST Revenue in April & May 2024

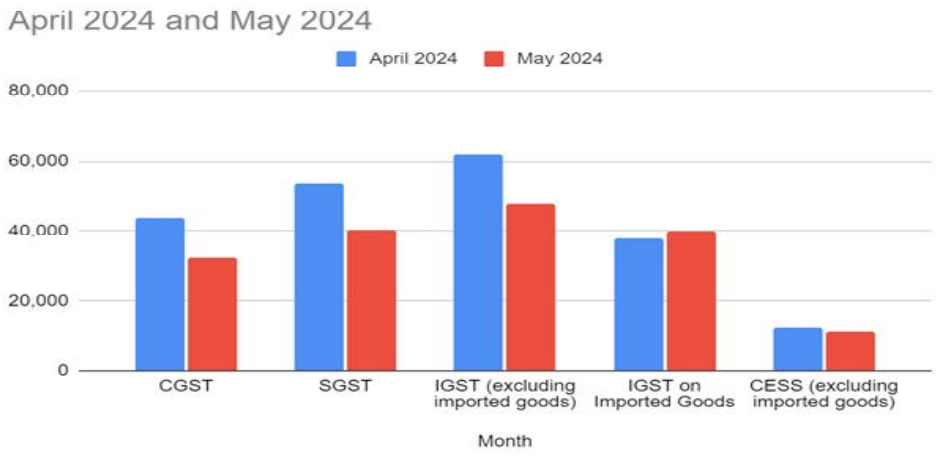
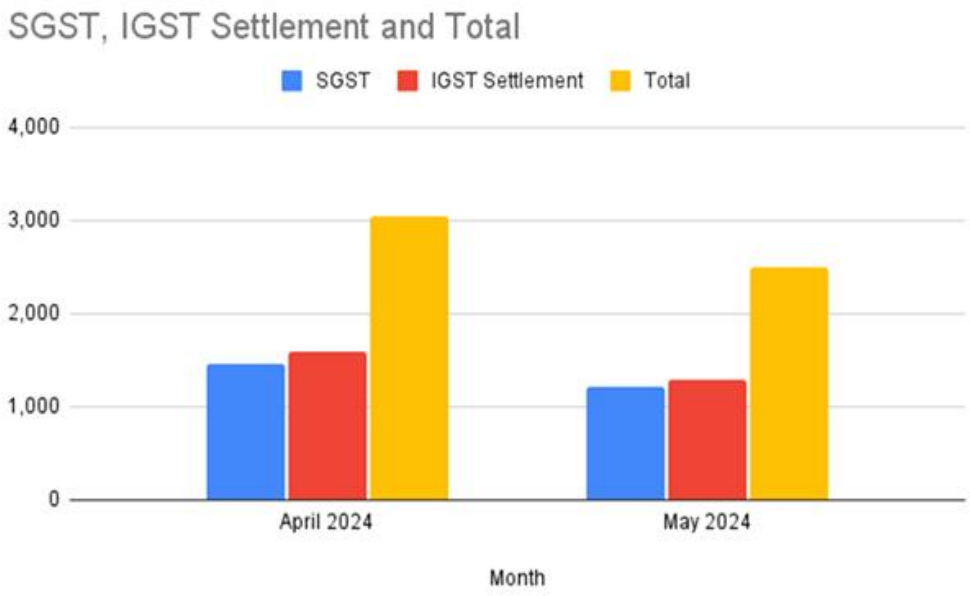


Table - 2 GST collection and IGST Settlement of Kerala during April and May 2024 (in crore).

Month	SGST	IGST Settlement	Total
April 2024	1,456	1594	3,050
May 2024	1,209	1288	2497

Source: Compiled from GSTN Portal

Chart 3: GST Revenue of Kerala During April & May 2024



shall consist of one Technical Member (Centre) and one Technical Member (State). Further the Government has also designated 31 State Benches in various locations nationwide.

- An enhanced version of the GST portal was launched on 3rd May 2024. Key highlights of the enhanced portal include the News and Updates Section, User Interface Improvements and Updated Website Policy.
- Taxpayers whose turnover exceeds Rs. 5 crores in the financial year 2023-2024 are now requested to start e-Invoicing from the next financial year (2024-25). Self-enabling facility for e-Invoicing is now available in the GSTN portal.
- A request for amending the penalty provisions under section 73(9) of the CGST Act, 2017 was presented before the Union Finance Minister by All Gujarat Federation of Tax Consultants (AGFTC) and the Income Tax Bar Association (ITBA). As per their concern, in the current GST system, it imposes a penalty of ten percent of the tax amount or ten thousand rupees, whichever is higher, for genuine mistakes which would amount excessively harsh.
- Taxpayers dealing in the manufacture of Pan Masala and Tobacco products can now report the details of inputs and outputs procured and consumed for the relevant month. GSTN is now providing Form GST SRM - I & GST

SRM-II in their portal. The former pertains to the registration and disposal of machines while the latter asks for information on inputs and outputs during a month. Form GST SRM-I meant for registration of machines has already been made available on the portal w.e.f. 15-05-2024.

IV. Notifications and Circulars in the month of April -June 2024

Waiver of interest for specified registered persons for specified tax periods

In exercise of the powers conferred by sub-section (1) of section 50 read with section 148 of the Central Goods and Services Tax Act, 2017 (12 of 2017) (hereinafter referred to as the Act), the Government, on the recommendations of the Council, hereby notifies the rate of interest per annum to be 'Nil', for the class of registered persons have the Goods and Services Tax Identification Numbers which is mentioned in the notification. Those who are liable to furnish the return as specified under sub-section (1) of section 39 of the Act but could not file the return for the month as mentioned in the corresponding column (2), by the due date, because of technical glitch on the portal but had sufficient balance in their electronic cash ledger or electronic credit ledger, or had deposited the required amount through challan, the interest is to be Nil from the due date of filing return in Form GSTR 3B to the actual date of furnishing such return.

Source: Notification No 07/2024- Central Tax dated 08-04- 2024.

Extend the timeline for implementation of Notification No. 04/2024-CT dated 05.01.2024 from 1st April, 2024 to 15th May, 2024

The Central Government, on the recommendations of the Council, makes the amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue) No. 04/2024-Central Tax, dated the 5th January, 2024 published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), vide number S.O. 85(E), dated the 5th January, 2024 in which the timeline for implementing the notification from 1st day of April, 2024 15th May, 2024

Source: Notification No. 08/2024- Central Tax dated 10-04-2024

Extend the due date for filing of FORM GSTR-1, for the month of March 2024

The Commissioner, on the recommendations of the Council, extend the time limit for furnishing the details of outward supplies in FORM GSTR-1 for the registered persons required to furnish return under sub-section (1) of section 39 of the Central Goods and Services Tax Act, 2017 for the tax period March, 2024 to 12-04- 2024. This extension is applicable for the registered persons who are required to furnish return under the proviso of the said Sub-section.

Source: Notification No. 09/2024- Central Tax dated 12-04- 2024.

Amendment to the Notification no. 02/ 2017-CT dated 19.06.2017

In exercise of the powers conferred under section 3 read with section 5 of the Central Goods and Services Tax Act, 2017 (12 of 2017) and section 3 of the Integrated Goods and Services Tax Act, 2017 (13 of 2017), the Central Government amend the notification of the Government of India in the Ministry of Finance (Department of Revenue) No. 02/2017-Central Tax, dated the 19th June, 2017 with effect from 5th August 2023 in which it substituted 3 entries in Table two with another words.

Source: Notification No. 10/2024- Central Tax dated 29-05-2024

Seeks to Amend the Notification for assigning district of Kotputli-Behror to CGST Alwar Commissionerate

In exercise of the powers conferred under section 3 read with section 5 of the Central Goods and Services Tax Act, 2017 (12 of 2017) and section 3 of the Integrated Goods and Services Tax Act, 2017 (13 of 2017), the Central Government amend the notification of the Government of India in the Ministry of Finance (Department of Revenue) No. 02/2017-Central Tax, dated the 19th June, 2017 with effect from 5th August 2023. Notification no. 02/2017-CT dated 19.06.2017 notified the jurisdiction of central Tax officers. By the new notification 10/2024, some more areas are included in the jurisdiction of Alwar, Jaipur, Jodhpur, and Udaipur.

Source: Notification No. 10/2024- Central Tax dated 29-05-2024

Reduction of Government Litigation - fixing monetary limits for filing appeals or applications by the Department before GSTAT, High Courts and Supreme Court

In exercise of the powers conferred by Section 120 of the CGST Act read with section 168 of the CGST Act, the Board, on the recommendations of the GST Council, fixes the following monetary limits below which appeal or application or Special Leave Petition, as the case may be, shall not be filed by the Central Tax officers before Goods and Service Tax Appellate Tribunal (GSTAT), High Court and Supreme Court under the provisions of CGST Act, subject to the exclusions mentioned in para 4 below:

Appellate Forum	Monetary Limit (amountinvolved in Rs.)
GSTAT	20,00,000/-
High Court	1,00,00,000/-
Supreme Court	2,00,00,000/-

The entire tax under the heads of CGST/ SGST/UTGST/IGST will be taken into account for the computation of monetary limit. If only the case is relating to interest and/or penalty and/or late fee is demanded, then the aggregate amount would be taken into consideration for applying the monetary limit.

Monetary limit would not be a bar in the following circumstances:

a. where the provisions of Act or Rules or notification/ circular/ instructions/

have been held as ultra vires the Constitution of India or the Act or the Rules.

b. where the issue involved is relating to Classification of goods or services, valuation, place of supply, refund or any other issue which is recurring in nature and/or involves interpretation of the law or circular.

Source: Circular No. 207/1/2024-GST dated 26th June 2024

Clarifications on various issues pertaining to special procedure for the manufacturers of the specified commodities like pan masala, gutkha and tobacco products

In case of dealing with various issues pertaining to the procedures to be followed by the manufacturers of the specified commodities such as pan masala, tobacco etc., the clarification will be as per the clarification in Notification No. 04/2024- Central tax dated 05.01.2024.

Source: Circular No.-208/2/2024-GST dated 26th June 2024

Clarification relating to place of supply

Government issued clarification regarding the place of supply of goods where the delivery address is different from billing address. In cases involving supply of goods to an unregistered person, where the address of delivery of goods recorded on the invoice is different from the billing address of the said unregistered person, the place of supply of goods shall be the address of delivery of goods recorded on the invoice.

Source: Circular No.209/3/2024-GST dated 26th June 2024

Clarification on valuation of supply of import of services by a related person

In cases where the foreign affiliate is providing certain services to the related domestic entity, and where full input tax credit is available to the said related domestic entity, the value of such supply of services declared in the invoice by the said related domestic entity may be deemed as open market value in terms of second proviso to rule 28(1)of CGST Rules. Further, in cases where full input tax credit is available to the recipient, if the invoice is not issued by the related domestic entity with respect to any service provided by the foreign affiliate to it, the value of such services may be deemed to be declared as Nil, and may be deemed as open market value in terms of second proviso to rule 28(1)of CGST Rules.

Source: Circular No.210/4/2024-GST dated 26th June 2024

Clarification on time limit in respect of RCM supplies received from unregistered persons

In cases of RCM supplies, invoice has to be issued by the recipient of supplies and on that basis only ITC can be taken. Further, the time limit prescribed under Section 16(4) would apply to RCM supplies. In case self-invoice has been issued after the time of supply, the financial year in which the self- invoice is issued will be the relevant financial year subject to payment of tax along with interest.

Source: Circular No.211/5/2024-GST dated 26th June 2024

Condition for deduction of post supply discount

In the case of post-supply discounts given by way of credit note under Section 34 of the Act, the taxable value can be reduced to such extent subject to a condition that the recipient has reduced the ITC to the extent of the credit note. Till such time a suitable functionality is made available to enable the suppliers to verify the reversal of ITC, the supplier has to get a certificate from Chartered Accountant or Cost Accountant (CMA) to the effect that the recipient has reduced his credit along with details of CN, original invoice, DRC 03/return details through which reversal was made, etc. Where the value of the discount in a financial year is less than 5Lakhs, the recipient himself can give a certificate to the above effect.

Source: Circular No.212/6/2024-GST dated 26th June 2024

Clarification on the taxability of ESOP/ ESPP/RSU provided by a company to its employees through its overseas holding company

No supply of service appears to be taking place between the foreign holding company and the domestic subsidiary company where the foreign holding company issues ESOP/ESPP/RSU to the employees of domestic subsidiary company, and the domestic subsidiary company reimburses the cost of such securities/shares to the foreign holding company on cost-to-cost basis. However, in cases where an additional amount over and above the cost of securities/ shares is charged by the foreign holding company from the domestic subsidiary company,by whatever name called, GST would be leviable on such additional amount charged as consideration for the supply of services of facilitating/ arranging the transaction in securities/ shares by the foreign holding company to the domestic subsidiary company. The GST shall be payable by the domestic subsidiary company on reverse charge basis in such a case on the said import of services.

Source: Circular No.213/7/2024-GST dated 26th June 2024

No reversal of ITC on Life insurance part premium

In the case of life insurance claims, the part of premium charged by the insurance companies which is not includible as taxable value for the purposes of GST in terms of Rule 32(4) of the CGST/SGST Rules, 2017 is not an exempt supply and therefore there is no requirement of reversal of ITC on such amount which does not form part of the taxable value as per Rule 42/43 of the CGST Rules, 2017.

Source: Circular No.214/8/2024-GST dated 26th June 2024

Clarification on taxability of wreck and salvage values in motor insurance claims.

In case of settlement of insurance claim by the insurance companies towards the salvage/wrecked vehicle, if the value of salvage is deducted from the insured declared value and such netted value alone is paid to the insured, then there is

no GST payable on such deductibles as the ownership of salvage remains with the insured. In case of full settlement is made and the ownership of the salvage is transferred to the insurer, GST is payable by the insurance company at the time of supply of salvage.

Source: Circular No.215/9/2024-GST dated 26th June 2024

Clarification relating to warranty supply

In cases where the goods are replaced as such under warranty by the manufacturer/suppliers, there is no requirement of reversal of ITC. In cases where the distributor replaces the goods out of his own stock with no additional cost on behalf of the manufacturer and subsequently gets replenished by the manufacturer, there is no reversal of ITC either in the hands of the manufacturer or distributor.

Source: Circular No.216/10/2024-GST dated 26th June 2024

Entitlement of ITC by the insurance companies on the expenses incurred for repair of motor vehicles in case of reimbursement mode of insurance claim settlement.

There are two valid modes that can be adopted by the insurance companies for settlement of claim of insurance for motor vehicle claims.

a. Cashless mode - When the Insurance companies settle the amount towards repair and maintenance directly to the network garage, ITC is available.
b. Reimbursement mode - Where the vehicle owner/ policy holder makes the payment to the non-network garage first and then claims the reimbursement from the insurance companies, ITC is available only if the invoice is in the name of insurance companies & such transaction is reflected in GSTR 2B to the extent of amount borne by the insurance companies.

Source: Circular No.217/11/2024-GST dated 26th June 2024

Clarification regarding taxability of the transaction of providing loan by an overseas affiliate to its Indian affiliate or by a person to a related person.

The Central Government clarified that the transaction of extending loan by the person to related person/an overseas affiliate to the related party in India, without any consideration other than by way of interest or discount, is not applicable to GST. GST is leviable only if consideration is received in the nature of administration charges, processing fee, etc. Otherwise, the GST is not applicable in such cases.

Source: Circular No.218/12/2024-GST dated 26th June 2024

Availability of input tax credit on ducts and manholes used in network of optical fiber cables (OFCs)

As per the Circular, ducts and manholes used in network of optical fiber cable for providing telecommunication services are considered as Plant and machinery and hence ITC is not blocked under Section 17(5)(c) or (d).

Source: Circular No.219/13/2024-GST dated 26th June 2024

Clarification on place of supply applicable for custodial services provided by banks to Foreign Portfolio Investors (FPI)

The custodial service (i.e. maintaining the account of securities held by FPI) provided by Indian banks to Foreign Portfolio Investors (FPI) does not fall into the ambit of services provided by the bank to account holder in the ordinary course of business by drawing inference from the Education guide under Service Tax Law. Therefore, the place of supply of service would be the location of the recipient i.e. FPI as per Section 13(2) of IGST Act, 2017. It would qualify as export of services by the bank subject to the other condition mandated.

Source: Circular No.220/14/2024-GST dated 26th June 2024

Time of supply on Annuity Payments under HAM Projects

Time of supply in case of supply of construction of road along with its repair and maintenance under HAM model of NHAI which is in nature of continuous supply would be date of issuance of invoice or receipt of payment, whichever is earlier. In cases where invoices have not been raised within the specified date or date of completion of event specified in the contract, the TOS would be the due date of payment as per the contract or date of receipt of payment, whichever is earlier. In case interest is payable for such contracts, the same should include in the taxable value for the purposes of payment of tax as S 15(2)(d) of the CGST Act, 2017.

Source: Circular No.221/15/2024-GST dated 26th June 2024

Clarification on time of supply of services of spectrum usage and other similar services under GST

Time of supply in respect of supply of allotment of Spectrum to Telecom companies in cases where an option is given to the Telecom Companies for payment of license fee and Spectrum usage charges in instalments in addition to an option of upfront payment is where the successful bidder for spectrum allocation (i.e. the telecom operator) opts for making payments in instalments under deferred payment option as per Frequency Assignment Letter (FAL) issued by Department of Telecommunication (DoT), Government of India.

Source: Circular No.-222/16/2024-GST dated 2th June 2024.

V. Instructions/ Guidelines

Guidelines for initiation of recovery proceedings before three months from the date of service of demand order dated 30th May 2024

The Central Board of Indirect Taxes and Customs (CBIC) has issued guidelines for the initiation of recovery proceedings before three months from the date of service of demand order. As per Sections 78 and 79 of the CGST Act, in normal cases time for initiation of recovery proceedings from taxpayers is three months from the date of service of the demand order. But in exceptional cases the proper officer can demand payment within a period shorter than three

months with reasons recorded in writing. As per these Guidelines, the proper officer can demand the payment within a period less than three months only in exceptional circumstances in which it is necessary in the interest of revenue. Reasons may be high risk to revenue, potential closure of business operations, deteriorating financial conditions, and possible insolvency under the Insolvency and Bankruptcy Act, 2016. While demanding early payment, the proper officer must duly consider the financial health, status, infrastructure and credibility of the taxpayer in order to balance revenue interests and ease of doing business. As per the Guidelines, the jurisdictional Deputy or Assistant Commissioner of Central Tax ('DC/AC') is responsible for recovery under s. 79 of the CGST Act. If early proceedings are initiated, that matter must be placed before the jurisdictional Principal Commissioner/Commissioner of Central Tax, who must review and record reasons as detailed above before issuing directions. If the jurisdictional Principal Commissioner/Commissioner of Central Tax satisfied with the reasons for the early proceedings, he can take steps to direct the recovery proceedings and for implementation, copy must be provided to jurisdictional Deputy or Assistant Commissioner of Central Tax. standard recovery proceedings under s. 79(1) of the CGST Act can be initiated upon the failure from the part of the taxpayer to comply with the direction.

Source: Instruction No. 01/2024- GST dated 30th May 2024

Sources

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(Dr.Meenu Mohan is Assistant Professor, GIFT)

New studies on Kerala

Young Scholars' Forum, GIFT
Led by Anuraj P K & Surya K

Economics

Scopus Indexed

Krishna, N. G., Alam, S., Prakash, S., Yadav, K., Ahmad, S., & Ojha, A. (2024). Understanding the spatio-temporal variation of urbanisation in Kerala, India. GeoJournal, 89(4), 126.

Urbanisation is indeed a global trend that is significantly transforming societies and landscapes. India, in particular, has been experiencing rapid urbanisation in recent years, and this is fundamentally changing the country's social and economic dynamics. However, the state of Kerala, located in the southwestern part of India, stands out for its unique pattern of urbanisation, which is closely aligned with its distinctive topography and socio-economic factors. This study offers a comprehensive examination of urbanisation in Kerala, focusing on its unique spatial and temporal characteristics. The spatial analysis of urbanisation in the state reveals that urban development is not concentrated solely within its major cities, but is widespread. These urban clusters align with Kerala's topographical diversity, with the majority concentrated along the coastal regions in the west, while the eastern highlands of the Western Ghats exhibit fewer urban centres. The state has witnessed a substantial surge in urbanisation rates, with projections anticipating that approximately 68 percent of the population will reside in urban areas by the middle of this century. Understanding these temporal shifts and spatial variations is essential for policymakers and urban planners to effectively address the challenges and opportunities linked to increasing urbanisation.

Raqib, M., & Khandekar, A. (2024). Innovative Pathways to Social Transformation: Disruptive Maintenance Through Social Impact Start-ups in Kerala. Science, Technology and Society, 09717218241246358.

This article describes an emergent innovation ecosystem in the southern Indian state of Kerala. In contrast to a dominant national imagination of start-ups in India as spaces for the development of novel products with high economic potential, we suggest that start-ups in Kerala exhibit a tendency towards 'social innovation', that is, start-ups that are strongly oriented by the goal of addressing particular societal needs in addition to being successful on the market. Drawing on ethnographic interviews with start-up founders and other related stakeholders, as well as media and documentary analysis, we highlight in this essay key characteristics of

social innovation in Kerala, including their reliance on tech-fix approaches. We also highlight the central role of the Kerala Start-up Mission (KSUM), a state-sponsored nodal agency, as a crucial enabler and shaper of the state's innovation ecosystem. We further suggest that even as this innovation ecosystem is able to address important societal concerns, it nonetheless bypasses underlying social structures that produce them in the first place. Building on the work of sociologist Cornelius Schubert, we argue that it is analytically productive to interpret social innovation in Kerala as an instance of 'disruptive maintenance'.

Cherian, A. P., & Rajan, S. I. (2024). Migrant Vulnerabilities: 'Guest Workers' in Kerala, India. Indian Journal of Human Development, 09737030241254254.

This article explores numerous socio-economic facets of internal migrants from West Bengal, including their subjective conceptions of their social standing and social class, and analyses how these facets are intimately tied to growth in Kerala. In Kerala, a sizeable portion of internal migrants come from North India. With approximately 2.5 million internal migrants in 2013 and a population growth of 235,000 annually, Kerala is a preferred destination state for migrant labourers in India. Migrant workers from outside have grown to be a significant and essential component of the Kerala economy as a result of the state's demographic shifts and high rates of educated unemployment, which has led to a severe labour shortage for low-wage frontline jobs. Due to the extreme labour scarcity, the state's unorganised industries are seeing exceptionally high pay rates. Most migrants come from impoverished and marginalised communities and are employed in the state's unorganised sector. These migrants frequently find themselves on the periphery of society despite being essential to the economy. The onset of the COVID-19 pandemic led to job losses worsening the situation for migrant workers. The article examines the position of migrants in West Bengal, the source state, and Kerala, the destination state. Further, the article explores the governance of labour migration within the context of migration policies adopted in Kerala and examines how the term 'guest workers', which is used to describe internal migrants, can be seen as a distinct, complicated social dynamic in and of itself.

Praveen, A. (2024). International tourism and economic growth: Empirical evidence from Kerala. International Journal of Tourism Research, 26(3), e2647.

This study evaluates the trend and growth pattern of international tourism and analyzes the impact of tourism on the economic growth of Kerala for the past four decades from 1980 to 2019. The time series analysis employed in this study uses the secondary data on Net State Domestic Product (NSDP) of Kerala at constant prices, foreign tourist arrivals (FTA), and foreign exchange earnings (FEE) at constant prices, collected from various sources of the State and Central Government. The methodology of this study uses the Augmented Dickey Fuller (ADF) test for unit root, followed by the Johansen Cointegration test, the Vector Error Correction Model (VECM), and the Granger Causality test. The results of the analysis reveal the existence of a positive and significant unidirectional long-run causality running from tourism to the

economic growth of Kerala and a bidirectional causal relationship between tourism development and the economic growth in the short run.

Salim, S. S., Sathianandan, T. V., Mohamed, K. S., Narayankumar, R., & Athira, N. R. (2024). A Fisher Development Index (FDI) for assessing Human Development in marine fishers of Kerala, India. Environment, Development and Sustainability, 1-20.

Growth and development are two different connotations in the context of fishers. Over the years, the fisher community in Kerala has had a Human Development Index (HDI) which are lower (by 16%) than the general population of Kerala State. Many development indices take into account the state of fishers in a community. However, the fisher community is intertwined with the complexities of the natural resource system, whose mismanagement, unsustainable practices and other intersectoral conflicts lead to situations wherein fishers are unable to get adequate returns. With this focus, an attempt was made to develop a Fisher Development Index (FDI) based on the fact that fisher well-being is dependent on resource sustainability, state of technology and infrastructure support; all of which lead to substantial externalities on the fisher development across the production and distribution domains. The study documents the fisher growth and development over years in terms of four components namely, social status, economic wellbeing, technological proficiency and resource sustainability. The results are a set of values comparable with the HDI. The study found that over the 15 years, the HDI scores were improved due to an increase in values for income and literacy. However, the FDI was improved by 74% due to very high improvements in technological proficiency and moderate improvement in the economic wellbeing of fishers. The wide use of communication and fishing aids has been attributed to the increased literacy rate of the fishers over time. There is also a positive relation between government expenditure on fisher welfare and the increase in FDI and HDI over the period pointing to an affirmative policy impact.

Other Journals

Krishna, N. G., Alam, S., Scaria, R., & Yadav, K. (2024). From risks to resettlement: A study on development-induced displacement in the Cochin international airport project, Kerala. National Geographical Journal of India, 70(1).

Development-induced displacement presents a global challenge, with its effects particularly severe in developing countries where resettlement policies are often insufficiently managed. This paper delves into the socio-economic and cultural consequences of displacement resulting from the Cochin International Airport project, with a focus on the resettlement process and its effectiveness. The airport project required the acquisition of 1252 acres of land, leading to the displacement of approximately 830 families and, in the process, significantly impacting their livelihoods and social networks. This paper is based on primary data, gathered by engaging with resettled individuals through a carefully designed and structured questionnaire. The paper employs the Impoverishment Risk and Reconstruction (IRR) model to identify key risks linked to displacement and also to evaluate the effectiveness of the airport project's

resettlement policy. It concludes that a comprehensive approach to resettlement is crucial to alleviate the negative impacts of displacement and foster long-term stability and inclusion among re-settlers. By prioritizing these key aspects, future resettlement policies can provide stronger support to displaced communities, leading to a more equitable recovery process.

Environment

Scopus Indexed

Krishna, B., & Achari, V. S. (2024). Groundwater for drinking and industrial purposes: A study of water stability and human health risk assessment from black sand mineral rich coastal region of Kerala, India. Journal of Environmental Management, 351, 119783.

The abstract presents a detailed analysis of groundwater quality and geochemical interactions in Alappad village, Kollam, Kerala, India, with a focus on its suitability for drinking and industrial purposes. This coastal village, rich in black sand minerals, is characterized by unique ecological features and interactions between alluvial soil aquifers, saline water, and freshwater. These interactions significantly influence the region's hydrochemistry and groundwater quality, which vary seasonally.

The study assesses groundwater quality and health risks by analyzing various water quality parameters and using a health risk assessment model. The findings reveal potential health risks from ions such as Pb, Ni, Cu, Ba, Fe, Al, Mn, and Zn. Notably, children face low to medium non-carcinogenic risks from these trace metals but are at high carcinogenic risk from Ni due to long-term ingestion. The study underscores the importance of understanding the groundwater quality and health risks in coastal areas, particularly in light of increasing demand for rare earth minerals, which could destabilize the coastal hydrosphere. This comprehensive analysis aims to support sustainable development and human well-being by highlighting the drinking and industrial use of coastal groundwater based on quality criteria, corrosion proneness, water stability, and health risk factors.

Other Journals

Anju, T., & Kumar, A. (2024). Traditional ecological knowledge and medicinal plant diversity usage among the Mullu Kuruman tribes of Wayanad district of Kerala, India and its implications for biodiversity conservation in the face of climate change. Trees, Forests and People, 100595.

Mullu Kuruman tribes majorly reside in the Wayanad district of Kerala, India. Their dietary practices and food systems are deeply intertwined with wild and underutilised plants, but modern interventions and globalisation have altered them. Therefore, understanding their traditional ecological knowledge regarding the plants used for food and medicine is important for biodiversity conservation and the sustainability of the resources. This study, therefore, explores traditional ecological knowledge of the diversity of wild plant use among 125 respondents from the Mullu Kuruman tribe. Data was collected through semi-structured interviews in Malayalam during household visits and walks in gardens and forests. This study documents 111 plant species across 85 genera and 42 botanical families. Most of these plants were used for food (66.66%), while 26.13

% were used for medicinal purposes. Bambusa bambos recorded the highest Use Report (281), Cultural Importance Index (2.248), Relative Importance Index (1), Use Value (2.248), and Cultural Value Index (1.327). This study shows the rich diversity of the plants used by the Mullu Kurumans, which is important for their food security and resilience. The agroecological diversity of climate-resilient crops such as Eleusine coracana, Panicum sumatrense, and Sorghum bicolor is suitable for dryland agriculture. Leafy vegetables such as Alternanthera sessilis, and Basella rubra, and fruits such as Artocarpus incisus, Canavalia brasiliensis and Ziziphus oenopolia which are rich in minerals and vitamins can enhance their health and well-being. Using carbohydrate-rich plants such as Dioscorea spp., Amorphophallus paeonifoliius, and Colacasia esculenta contributes to their food security. These insights are crucial for sustainable species use and conservation. This and similar studies from other parts of the world offer new insights into the use of local agro-ecological diversity of plants by the tribal communities to deal with climate change and food security challenges.

Angel PA, S. (2024). Empowering change: The crucial role of civil society in climate change mitigation. American Journal of Economics and Sociology.

Climate change mitigation is a global imperative, necessitating multifaceted efforts from various sectors. This paper digs into civil society's critical role in mitigating climate change, focusing on the ways that civil society organizations empower communities, advocate for policy reforms, and implement grassroots projects. The goal of this study is to thoroughly examine civil society's various contributions to climate change mitigation and provide conclusions that can guide more effective collaboration strategies. The study's fundamental research topic is the need to understand the exact mechanisms by which civil society plays a crucial role in climate change mitigation. This includes their involvement in community empowerment, public awareness campaigns, legislative advocacy, and the of sustained programs. The study intends to offer light on the particular characteristics of civil society in stimulating climate action by exploring these aspects. This study adopts a mixed-methods approach in its methodology in Ernakulam district, Kerala. It entails doing a qualitative analysis of case studies to examine the numerous ways in which civil society organizations work to mitigate climate change. Quantitative data are also collected to analyze the impact of their activities on policy reforms, community participation, and climate resilience. Civil society encourages communities to take ownership of climate action through education, capacity-building, and resource allocation, supporting sustainable practices at the grassroots level. The study further demonstrates that civil society plays a significant part in holding the government to account regarding their climate guarantees. Their activities, such as renewable energy projects and sustainable agriculture practices, generate community-led solutions that help to accomplish global climate targets while additionally enhancing local resilience. Furthermore, civil society promotes collaboration among the commercial sector, governments, and communities, leading to a more inclusive approach to climate change

mitigation. These insights may assist policymakers, stakeholders, and civil society organizations develop more effective climate change mitigation strategies, thereby ensuring a sustainable and resilient future.

Agriculture and Rural Economy

Scopus Indexed

Rajan, S. I., Heller, A., & John, A. (2024). Food security among female migrant workers in Kerala returning from the Gulf Cooperation Council countries. Global Food Security, 41, 100773.

This paper seeks to enhance our comprehension of the interplay between COVID-19, international labour migration, and food security. The primary objective is to discern food security characteristics among female migrant workers (FMWs) returning to Kerala from Gulf countries, particularly under heightened social and economic uncertainties shared with male migrant workers (MMWs). This study conducted in the state of Kerala, India, examines the food security perceptions of Gulf migrants using the Household Food Insecurity Access Scale (HFIAS). Samples of both returning FMWs and MMWs were identified through snowball sampling from the latest Kerala Migrant Survey (KMS) 2018 and Return migrant survey 2021. Oversampling was conducted for return FMWs, otherwise only constituting 20 per cent of the random sample. A total of 1154 samples were collected across all 14 districts in Kerala. The analysis indicates that food insecurity was not prevalent among the majority but was significant among a minority of surveyed migrant workers. The results also show that while FMWs experience food insecurity as a lack of access to food variety, MMWs experience food insecurity in the access to food varieties and the absolute quantity of food.

Kasim, C. M., & Harikumar, S. (2024). Determinants of Food Security Status of Agricultural Households: An Empirical Investigation from Kuttanad Wetland System in Kerala, India. Studies in Microeconomics, 23210222241247697.

Recent debates highlight that agriculture-based strategies can enhance food security. Thus, this article examined the incidence and determinants of food security of agricultural households in Kuttanad, a wetland region situated in the southern part of the state of Kerala in India. Towards this objective, we have collected food consumption data from households and converted them into an equivalent amount of calorie intake. Further, we define food security in terms of calorie adequacy using the minimum calorie norm of 1,800 kcal suggested by the Food and Agricultural Organization for India. The empirical results reveal that 37% of the sample households are food insecure. The incidence of food insecurity is higher among poor sections like labour households, Antyodaya Anna Yojana (AAY), and Scheduled Castes families. Results of Probit regression show that below poverty line and AAY families are less likely to be food secure than above poverty line families. The purchase of cereals from the Public Distribution System is found to have a positive impact on the food security status of the households. Both farm income and non-farm income positively influence the probability of food security. The study concludes that there are impediments to realizing the linkages between agriculture and food security.

Other Journals

Nikhilraj, K., & Thomas, J. (2024). Textile Tourism and the Challenges of the Indigenous Handloom Sector in Northern Kerala. In Examining Tourist Behaviors and Community Involvement in Destination Rejuvenation (pp. 194-206). IGI Global.

This study investigates the functioning of indigenous handloom enterprises and their relationship with textile tourism. It also explores the regional textile industry and the challenges weavers encounter in promoting their goods to visitors and exporters. Data was collected using a purposive sampling method, and a structured questionnaire was administered to 120 weavers from four textile weaving centers in Kozhikode, Kerala. The most significant obstacle for weavers and independent producers is the lack of direct communication with customers and the limited access to information provided by manufacturers, corporations, and gallery owners. Firstly, handcrafted items are becoming more accessible and affordable; secondly, the interest of the younger generation is gradually fading, which reduces the number of skilled professionals. The result of this study provides insight into how Khadi Textiles has the potential to contribute positively to socioeconomic achievements and enhance weaver's and destination image.

Banking

Scopus Indexed

Sahadevan, M. S., & Mary, V. S. (2024). A Studyon Knowledge Management Practice in Kerala Bank. Boletin de Literatura Oral-The Literary Journal, 11(1), 541-556.

The banking sector plays a crucial role in a nation's economy. In the modern banking landscape, there is a unanimous consensus on the significance of knowledge management as a fundamental business practice. Banks, insurance companies, and other financial service providers have come to realize that knowledge is a powerful asset. Knowledge management serves as a vital tool for banks to unlock their full potential by harnessing global knowledge across the organization and assessing its impact on performance. This research paper aims to assess the level of knowledge management and awareness among employees at Kerala Bank. Additionally, it seeks to explore the knowledge management practices, knowledge Management Sharing (KMS), and the challenges faced by the bank's employees. The study focuses on a random sample of Kerala Bank employees. Primary data will be collected through personal visits and interactions with both public and Kerala Bank employees. Secondary data will be gathered from various sources that provide relevant information. The research will be conducted in the state of Kerala, India. A simple random sampling technique will be employed to select the sample. A questionnaire will be designed for the survey. The study concludes with recommendations based on the findings.

Other Journals

Kumar, N. S., & Nirmala, M. M. (2024). Digital Financial Inclusion and Educated Service Pensioners. In AI in Business: Opportunities and Limitations: Volume 2 (pp. 303-310). Cham: Springer Nature Switzerland.

Digital financial inclusion made revolutionary changes in the global as well as the Indian economy. The modern method of carrying out

transactions with digitalization and technologies has transformed the conventional financial system into digital finance. The Young generation adopted and accepted it as the smartest way of financial development, but the senior citizen and their digital literacy are still a challenge for digital financial inclusion in the country. This study focuses on the digital financial inclusion of senior citizens in general and educated government service pensioners in particular. The study is based on primary data and it is collected from fifty government service pensioners with bank accounts and personal electronic gadgets, from the Kottayam District of Kerala. Factor analysis is the major statistical tool used for the analysis and the paper derived a conclusion due to different reasons educated and economically sound senior citizens in the country are not an active part of the national digital financial transformation.

Health

Scopus Indexed

Sankar D, H., Benny, G., Jaya, S., & Nambiar, D. (2024). National Rural Health Mission reforms in light of decentralised planning in Kerala, India: a realist analysis of data from three witness seminars. BMC Public Health, 24(1), 678.

The People's Planning Campaign (PPC) in the southern Indian state of Kerala started in 1996, following which the state devolved functions, finances, and functionaries to Local Self-Governments (LSGs). The erstwhile National Rural Health Mission (NRHM), subsequently renamed the National Health Mission (NHM) was a large-scale, national architectural health reform launched in 2005. How decentralisation and NRHM interacted and played out at the ground level is understudied. This study aimed to fill this gap, privileging the voices and perspectives of those directly involved with this history.

Other Journals

Sankar D, H., Joseph, J., Benny, G., Surendran, S., Sharma, S. K., & Nambiar, D. (2024). The role (s) of community health workers in primary health care reform in Kerala, before and during the COVID 19 pandemic: a qualitative study. Frontiers in Health Services, 4, 1321882.

Accredited Social Health Activists (ASHA) are Community Health Workers (CHWs) employed by the National Health Mission of the Government of India to link the population to health facilities and improve maternal and child health outcomes in the country. The government of Kerala launched primary health reform measures in 2016 whereby Primary Health Centres (PHCs) were upgraded to Family Health Centres (FHCs). The COVID-19 pandemic in 2020 impacted essential health service delivery, including primary care services. The CHWs network of Kerala played a crucial role in implementing the primary care reforms and COVID-19 management efforts that followed. Authors carried out a study to understand the perspectives of the CHWs in Kerala about their role in the recent primary healthcare reforms and during the COVID-19 pandemic management efforts.

What is new(s) from GIFT

A. Webinars

Webinar on Fiscal Space for Financing Human Development in India conducted on 09 April 2024

The webinar on "Fiscal Space for Financing Human Development in India" was chaired by Prof. K. J. Joseph Director, GIFT. Dr Surajit Das, Assistant Professor, CESP, JNU, was the speaker.

Abstract: The government expenditure on health and education is one of the lowest in this part of the world. However, the social sector gaps are huge. The interest payment component on the accumulated past debt is also one of the highest as percentage of GDP in India. This paper tries to argue that substantial fiscal space can be created by restructuring of the public debt for larger social sector spending in the country.

Seminar on "Special component plan and the educational status of scheduled castes in Kerala" conducted on 18-04-2024

The webinar on "Fiscal Space for Financing Human Development in India" was chaired by Dr. P. K. Jameela, Member, State Planning Board. Prof. K. J. Joseph Director, GIFT welcomed the participants. Dr. U. P. Anil Kumar, Assistant Professor, GIFT presented the paper. Dr. N. Ramalingam, Associate Professor, GIFT and Dr. Shaji Varkey, Emeritus Professor, Department of Political Science, University of Kerala, discussed the paper.

Abstract: This paper investigates the effectiveness of the Special Component Plan (SCP) in improving the educational status of Scheduled Castes (SC) in Kerala. Utilizing primary data from a household survey conducted by the Gulati Institute of Finance and Taxation (GIFT), the study examines various educational indicators, including enrolment rates at different levels, dropout patterns, and challenges faced by SC communities in availing educational schemes. The analysis identifies issues like financial constraints, lack of awareness about programs, and procedural hurdles hindering access to educational opportunities. Based on the findings, the paper proposes policy suggestions to enhance the effectiveness of the SCP. These include increasing scholarship amounts, streamlining application processes, and implementing targeted awareness campaigns. The research contributes to the ongoing dialogue on educational equity in India by

providing empirical evidence on the experiences of SC communities in Kerala

Book Launch: Reimagining Innovation Systems in the Covid and Post-Covid World edited by Lakhwinder Singh and K J Joseph on 21-04-2024

The book Launch jointly organized by Globelics - Indialics in association with GIFT, was chaired by Professor Bengt-Ake Lundvall, Alborg University, Denmark and Professor Erika Kraemer-Mbula, University of Johannesberg, South Africa. Professor Prof. K. J. Joseph Director, GIFT made the opening remarks. Professor Lakhwinder Singh, IHD, New Delhi talked about the book.

Seminar on "Growth Implications of Subnational Fiscal Space in India" organized on 29-04-2024

The webinar on "Growth Implications of Subnational Fiscal Space in India" was chaired by Smt. Anitha Kumary L., Visiting Faculty, GIFT. Prof. K. J. Joseph Director, GIFT welcomed the participants. Ms. Suha A. M., Research Scholar, GIFT presented the paper. Dr Aswathy Rachel Vargheese, Assistant Professor, GIFT was the discussant.

Abstract: This study empirically examines the growth implications of sub-national fiscal space in India using a panel of 17 major states from 2000 to 2021. To assess the fiscal space of each state, we develop a composite index named the Fiscal Space Index (FSI), which combines four key sub-indices: revenue space, expenditure space, transfer space and borrowing space. The constructed index is then incorporated into the growth equation to examine the relationship using static panel data models. The results were also validated using the panel ARDL model. The results suggest that, on average, fiscal space shows a positive and significant relationship with the economic growth of Indian States. However, the results vary across Individual States. Among the 17, only eight states exhibit a positive and significant relationship between the two. Further, we explore the impacts of fiscal space expansion and contraction on state economic growth by employing the non-linear panel ARDL model. At the aggregate level, expanding fiscal space is associated with increased economic growth, while contraction may lead to a decline, indicating asymmetry. Notably, at the disaggregate level, we found mixed results across states. Overall, fiscal space emerges as a critical factor influencing the economic growth of Individual states. Asymmetric growth response indicates that a customized strategy rather than a uniform approach is needed for expanding fiscal space due to the diverse characteristics of Indian states.

One Week Workshop on Time Series and Panel Data Econometrics conducted during 29-04-2024 to 4-05-2024

KEA in association with GIFT, organized a "One Week Workshop on Time Series and Panel Data Econometrics". Professor Vijayamohanan Pillai, Honorary Fellow, GIFT was the resource person.

Seminar on "Assessing Regulatory Dynamics in the Indian Direct Selling

Industry: A Stakeholders' Perspective" organized on 13.05.2024

The webinar on "Assessing Regulatory Dynamics in the Indian Direct Selling Industry: A Stakeholders' Perspective" was chaired by Dr. N. Ramalingam, Associate Professor, GIFT. Prof. K. J. Joseph Director, GIFT welcomed the participants. Ms. Aisha Ibrahim Mohammed, Research Scholar, GIFT presented the paper. Dr Kiran Kumar Kakarlapudi, Assistant Professor, GIFT was the discussant.

Abstract: The direct selling industry has gained prominence in the Indian retail marketing scenario, benefiting from better goods and services and increased employment opportunities. However, the industry has been viewed with negative skepticism due to its close resemblance to pyramid and Ponzi schemes, leading to regulatory challenges. In this context, the study quintessentially addresses the basic question of why the direct selling industry has been subjected to regulatory interventions and, secondly, how effective the regulation has been in addressing the issues of direct selling. To understand the pre-regulatory challenges in the Indian direct selling industry, a content analysis of court cases has been used. The results show that direct selling cases have been subjected to criminal offenses arising from a lack of transparency, discrepancies between stated and actual practices, and ultimately leading to dissatisfaction among transacting parties. Furthermore, to explore the effectiveness of regulation, a questionnaire has been developed based on the results of the content analysis. A field survey of direct sellers and consumers in Kerala has been undertaken, and a logit model has been used to explicate the results of the field. The findings indicate that the regulated period is more effective compared to the pre-regulatory period. However, certain implementation issues still demand attention

Seminar on "Towards making public finance more public: A call for trans-disciplinary perspectives" conducted on 14.05.2024

The webinar on "Towards making public finance more public: A call for trans-disciplinary perspectives" was chaired by Dr. N. Ramalingam, Associate Professor, GIFT. Prof. K. J. Joseph Director, GIFT welcomed the participants. Dr. U. P. Anil Kumar, Assistant Professor, GIFT presented the paper. Dr Nirmal Roy V P, Assistant Professor, GIFT was the discussant.

Abstract: Public finance, traditionally viewed as a domain of economics, faces growing complexities in the contemporary world, particularly in developing countries. This presentation argues that a siloed approach is insufficient to address these challenges. It proposes a trans disciplinary perspective that integrates insights from economics, political science, sociology, psychology, law, public administration, history etc. A transdisciplinary perspective offers a richer understanding of public finance. Political science can illuminate how power structures and institutions influence resource allocation. Sociology can shed light on the social impact of fiscal policies. Psychology can help us understand how public perception shapes financial decisions. Law and public

administration provide frameworks for transparency and accountability. Finally, historical analysis can inform us of past successes and failures in public finance management. By drawing on these diverse disciplines, we can develop more effective and equitable public finance policies. In developing countries, this is particularly important for navigating complex issues like poverty reduction, infrastructure development, and sustainable resource management. This presentation will explore the key areas where transdisciplinary perspectives can contribute to improved public finance in developing countries. It will call for a shift towards a more holistic understanding of public finance, fostering collaboration between academics and practitioners across disciplines.

Book Talk on "Making Policy for the New Information Economy" organized on 07.06.2024

GIFT in collaboration with Digital University of Kerala organized a book talk on "Making Policy for the New Information Economy". The talk was given by Professor Krishna Jayakar, Professor and Head, Department of Telecommunications and Media Industries, Penn State University, USA. The discussion was initiated by Dr. Pradeep Kumar Kalampukatt, Assistant Professor, Digital University of Kerala. Prof. K. J. Joseph Director, GIFT chaired the session and welcomed the participants.

Seminar on "A Critical Appraisal of Gender Budgeting in Kerala" held on 14.06.2024

The webinar on "A Critical Appraisal of Gender Budgeting in Kerala" was chaired by Dr. Niyati R. Krishna, Assistant Professor, Department of Development Studies, RGNIYD Regional Center, Chandigarh. Prof. K. J. Joseph Director, GIFT welcomed the participants. Dr Ashraf Pulikkamath, Assistant Professor (Economics), VIT - AP University, presented the paper.

Abstract: The discourse on economic development has recently focused on gender-sensitized fiscal policies like gender audits and budgets to ensure gender mainstreaming. Gender budgeting, often misunderstood as simply allocating funds to women, actually involves integrating gender considerations into all aspects of policymaking. The notion that budgets affect women differently invalidates the 'neutrality' claim, suggesting that gender-sensitive allocation of resources can address societal gender disparities. Historical debates on women's roles, especially in the 19th century, laid the foundation for gender-inclusive finance. Scholars view gender budgeting through different lenses. Budlender et al. (2002) see it as vital for equitable human development, while Chakraborty (2010) highlights the need for financial transparency. Ichii (2010) emphasizes prioritizing human rights, and Vargas-Valente (2002) focuses on changing societal views on gender inequities. However, these theories often involve abstract concepts that are hard to implement in patriarchal societies. Stotsky and Zaman (2016) suggest a more practical approach, emphasizing equity and efficiency over separate budgetary allocations for women. Eapen (n.d.)

connected the 'woman question' to socialist ideas of freeing women from unpaid care work. The 1995 Beijing World Conference on Women significantly promoted gender-sensitive finance, leading to the global acceptance of gender budgeting. In India, gender budgeting was adopted at the Union Budget level in 2005-06 and later at the state level in Kerala in 2008-09, integrated with the 11th Five-Year Plan. Despite its 15-year trajectory, Kerala's gender budgeting has faced implementation challenges and lacks critical appraisal. This study critically examines Kerala's gender budgeting over 15 years, arguing that it has not fully materialised. Existing research often focuses on macro-level comparisons, overlooking state-specific critiques. This study uses a descriptive methodology, analyzing secondary and primary sources, including Kerala's Gender Budget Statements from 2017-2024. It incorporates stakeholder interviews to interpret policy implications. The study is grounded in theories by Caroline Moser (1989) on differential gender needs, Srilatha Batliwala's (2013) empowerment framework, and M Kunhaman's (2018) critique of the Kerala development model. It questions Kerala's claims on gender budgeting, its association with WCP, and the focus on numerical targets. The study prioritizes education and health, key pillars of Kerala's development model, using specific programs as case studies to assess gender budgeting policy.

Seminar on "Climate Change Vulnerability in India: An Integrated Assessment" organized on 27.06.2024

The webinar on "Climate Change Vulnerability in India: An Integrated Assessment" was chaired by Professor Madhura Swaminathan, professor and Head, Economic Analysis Unit, ISI Bangalore and Visiting Professor, GIFT. Prof. K. J. Joseph Director, GIFT welcomed the participants. Ms. Rju Mohan, Research Scholar, GIFT presented the paper. Professor Anitha V., Department of Economics, University of Kerala, was the discussant.

Abstract: India is one of the world's most disaster-prone countries, highly exposed to recurrent natural hazards of earthquakes, cyclones, floods, landslides, and droughts. The problem gets further compounded by climate change and environmental degradation, increasing the frequency and intensity of disasters. However, these extreme events as such do not necessarily cause extreme disaster risk; the risk on the other hand occurs only when potentially vulnerable populations and assets remain exposed to the impacts of such extreme events. This paradigm thus recognises the spectrum of man-environment relations as an integral part of disaster risk along with the 'naturalness'. The present paper seeks to synthesise the available conceptual assessment attempts of climate change vulnerability and policy performance and to measure the same in the context of India. The paper contributes to the existing literature in terms of (i) developing an integrated conceptual framework of climate change vulnerability by explicitly

including the source of the anthropogenic greenhouse gas emissions and describing climate change vulnerability as the net result of exposure and sensitivity to climate change impacts in a possibly amended context of adaptive and coping capacities in the social-economic-institutional-political space, and (ii) constructing and assessing integrated climate change vulnerability and policy performance indices for India for a period from 1990 to 2020. An attempt also is made to synthesise and document the relevant concepts and schools of thoughts.

B. Teaching and Training programmes

1. Post Graduate Diploma in GST (PGDGST)

PGDGST 2023-24: Batch

Classes of 2023 -24 Batch was completed in March. The examination was conducted in May 2024. The exams commenced on 11th May 2024 and completed by 26th May 2024. Exams were conducted offline at three centers, Kozhikode, Ernakulam, and Thiruvananthapuram.

The notification of admission to the new batch of PGD GST 2024-25 was issued on 21st May 2024. The last date for application is 6th July 2024. The classes for the new batch is proposed to begin by the end of July. Practical training will be provided this year by using a technological platform.

Dr. Vidya V Devan and Dr. Akhil M P are the new coordinators of PGD-GST

Course Co-ordinators: *Dr. N Ramalingam, Dr. Vidya V Devan & Dr. Akhil M P*

For more details: https://www.gift.res.in/index.php/course/detail/14/PGD-GST

2. PhD programme

The activities of the Ph.D programme during April to June, 2024 are listed below. Following the completion of foundation course, the core courses such as Public Finance, Economy and Development (PED) and Taxation, Finance and Economy were started in January 2024 for the fifth batch of the Ph. D Scholars. A Ph.D Research Committee meeting was held on 5th April, 2024, where the fourth batch of Ph.D scholars presented their research proposal. Suha A.M, first batch Ph.D scholar presented her Ph.D pre-submission seminar on 6th May, 2024. A Ph.D committee meeting was held on 28-06-2024 to review the Ph.D coursework and activities. The first four batches of scholars are having their Ph.D bi-annual work progress seminar started from 22nd July 2024. The invited lectures organised as part of the Ph. D programme include Budgeting: Concepts and Practices by Dr. Shyjan Davis on 2nd April 2024, MSMEs and Industrial clusters in India: Issues in policy and research by Prof. Keshab Das on 31st May 2024, Women workers in Rural India and Public expenditure on agriculture and the food subsidy by Prof. Madhura Swaminathan on 17th and 25th July, 2024.

Publications by Research Scholars

Surya K and Jobin George, Ph.D Scholars at GIFT published an article titled 'An analysis of drivers of inflation in India over the past decade' in Kerala Economy 2024, Vol. 5, No.2. pp:58-68.

Paper presentations by Research Scholars

Shagishna K, Ph.D Scholar at GIFT presented a paper titled 'Role of Religious Faith in Financial Access and Deepening in India: An Empirical Analysis' in the 16th Doctoral Thesis Conference organised by ICFAI School of Social Science, ICFAI Foundation for Higher Education, IBS, Hyderabad during May 09-10, 2024.

Rju Mohan A, Ph.D Scholar at GIFT presented a paper titled Climate Vulnerability in India: An Integrated Assessment on 4th March, 2024, as part of the GIFT Webinar series hosted by the Gulati Institute of Finance and Taxation.

Meghna Jayasankar, Ph.D Scholar at GIFT presented a paper titled Towards the Path of Green Finance: Unravelling the Co-movement between Green Crypto currencies and Bit coin in the APAEA-GIM 1st International Conference on Sustainable

Energy Economics in the Asia-Pacific Region on 12th and 13th April 2023 (Co-authored with Niveditha P S, Ph.D scholar, GIFT).

Niveditha P.S, Ph.D Scholar, GIFT got an opportunity to participate in the IDEAs-UFRJ workshop and conference on "Rethinking International Financial Architecture" happening at Rio de Janeiro, Brazil on 5-9 August 2024.

Amalu Seby, Anand Babu A, Anjalikrishna Sudhakaran, Anuraj P K, Gopika G, Rhwithwik M S, Surya K, Jobin George and Greeshma K S, Ph.D scholars at GIFT, attended a one-week workshop on 'Time Series and Panel Data Econometrics' hosted by the Kerala Economic Association and the Gulati Institute of Finance and Taxation, from April 29 to May 4, 2024.

Course Coordinators: *Dr Sumalatha and Dr Renjith P S*

3.Research Capacity Building Programme (RCBP)

GIFT in collaboration with Kerala State Higher Education Council (KSHEC) jointly commenced the Research Capacity Building Programme (RCBP) 2023-24 in February 2024.

The program aims to make meaningful interventions toward enhancing cognitive skills and the quality of research, teaching and learning outcomes. After successfully completing the RCBP edition 2024-25 on April 13th with a valedictory lecture by Prof. Rajan Gurukkal, the Chairman of the Kerala State Higher Education Council (KSHEC), the RCBP office reviewed the candidates' attendance, assignments, software exercises, etc. Accordingly, a total of 36 scholars were reported eligible to receive certificates. After getting approval from the KSHEC, we sent the certificates to all eligible candidates via post, and an e-copy was sent through email. We also collected feedback from the candidates using a feedback form, the responses suggestions and motivates the RCBP team to initiate a proposal for RCBP 2024-25.

Course Coordinators: *Dr. P.S Renjith, Dr. Aswathy Rachel Varughese, Dr. Nirmal Roy V.P*

4. GIFT Internship programme 2024

The GIFT internship call for 2024

received an overwhelming response, with a total of 54 applications from universities within Kerala and beyond. Due to the large number of applicants, we divided the interns into two batches. The first batch, consisting of approximately 20 interns, joined on April 22, 2024, for a period of one month. During this time, the interns worked as a team to collect data on union finances, including receipts, budgets, and expenditures from 2001 to 2023. Each intern was assigned a faculty member as a mentor, and after data collection, they wrote an internship report on a topic identified in consultation with their mentor. The second batch, consisting of 24 students, worked from May 20, 2024, to June 20, 2024, focusing on collecting data from the Comptroller and Auditor General (CAG) for 20 major states. This data was then cleaned, and the interns wrote their internship reports on topics using the data they had collected. Additionally, faculty members conducted classes on basic data analysis using Excel, and the interns were connected with PhD students at GIFT. These PhD scholars mentored the interns and taught them the basics of R software. This structured program provided the interns with hands-on experience in data collection, analysis, and report writing, while also enhancing their technical skills through mentorship and training sessions.

C New Faculty at GIFT

Dr Akhil M P

Dr. Akhil M P is an Assistant Professor (Commerce/Management) at the Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram. He holds a Ph.D. from University of Kerala in the domain of Commerce. His research deals with understanding the challenges and potential of newly introduced Goods and Services Tax (GST) regime. He has cleared UGC Junior Research Fellowship (JRF) as well as National Eligibility Test (NET) in Commerce. He also comes with industry experience in Central School Education sector, Ministry of Education, Govt of India. Prior to joining GIFT, Dr. Akhil was an Assistant Professor at Narsee Monjee Institute of Management Studies (NMIMS) and Alliance University, Bengaluru. His work has featured in journals and books indexed in Scopus/ABDC/WoS databases. He has also presented his research in a number of national and international conferences. His current research areas includes Taxation, Public finance, Green Finance & Climate Finance, SDG, Circular Economy etc.

Dr Geetha Rani

Dr. Geetha Rani V. joined as Assistant Professor of Commerce/ Management in Gulati Institute of Finance and Taxation from June 2024. She was awarded Ph.D. in the field of Commerce from Department of Commerce, School of Business Management and Legal Studies, University of Kerala. The area of the doctoral work

was finance with the topic titled 'Inflation and Investment Management - A Study among Salaried Class'. Preceding to join the institution, served as FDP Substitute faculty in PG Department of Commerce, All Saints' College, Thiruvananthapuram for a two years period, and also worked as the Guest faculty in PG Department of Commerce, M.M.S. Government Arts and Science College, Malayinkeezhu, Thiruvananthapuram for two academic years. The areas of interest are finance, investment management, international trade and business. Published research articles and concept papers in UGC care list journals and other peer reviewed journals. Furthermore, presented papers in various international and national seminars/ conferences/ workshops.

D. Publications

1. Kerala Tax Reporter (KTR)

April and May 2024 issues of KTR published Online and offline.

https://www.gift.res.in/ktr

2.Innovation and Development

A Routledge journal from GIFT, Volume 14, No. 2 (2024) published, Editor in Chief, K J Joseph.

For details, please visit https://www.tandfonline.com/toc/riad20/current

3. Weekly update on Finance, Taxation and the Indian Economy

This is an attempt by the Young Scholar' Forum in GIFT, led by Dr. Shency Mathew to update on important developments on Finance, Taxation and the Indian economy. Twelve issues of Weekly updates published during January to March 2024 which are available in GIFT Website. Latest issue: 22-28 June 2024.

For details, please visit https://www.gift.res.in/index.php/publish/publish_list/14/Weekly-Updates-on-Finance

4.Monthly Content Alert from GIFT Library

The GIFT library provides a monthly content alert service, extensively designed to support the research endeavors of our PhD scholars. This attempt provides a selection of recently published journal article titles, abstracts, and links, delivering them directly to the GIFT community each month. The content alert service is more than just a monthly update and the initiative aims to be an indispensable tool for scholars, providing them with timely access to the latest research developments in their fields. It is drawn from a wide array of reputed journals.

Six issues of the content alert service have been published, covering the period from January to June 2024. The preparation of this content alert is led by Smt Soudhamini GS, Assistant Librarian, GIFT. Latest issue: June 2024.

For details, please visit https://www.gift.res.in/library/

F.Faculty Publications

GIFT Discussion Paper

Narayana D and Aswathy M A , Distributive politics of the central government with the health budget (2024), , GIFT Discussion Paper Series No.2/2024

Abstract: Distributive politics/pork-barrel politics was popularized by the researchers in the United States in the 1960s. It showed that incumbent governments try to allocate disproportionately high public expenditure to their constituencies to get re-elected. The allocation is for new programmes with big outputs and high visibility at the expense of cost-effective projects. This paper argues that the National Democratic Alliance (NDA) governments in recent years have been playing distributive politics with Union health budgets. The initial years of 21st century saw the Indian central governments make three major interventions, namely Prime Minister's Swasthya Suraksha Yojana (PMSSY), National Rural Health Mission (NRHM) and Rashtriya Swasthya Bima Yojana (RSBY). The United Progressive Alliance (UPA) government (2004-2014) redesigned PMSSY to upgrade large number of Government Medical Colleges whereas the NDA government (2014-present) set up AIIMS like institutions, neglected NRHM and renamed RSBY raising the sum assured to a visibly high amount. It refused to accept the recommendations of XV Finance Commission (FFC) to fill the health infrastructure deficits that resulted in many lives lost during COVID-19. Post-COVID Union health budgets too show the neglect of primary care and national disease control programmes promoting large projects under central control confirming the play of distributive politics.

Publications

Thachaparamban, Shamna. (2024). Central Tax Share Decline Hits Karnataka and Kerala Despite Economic Diversity, Financial Express. https://www.financialexpress.com/opinion/central-tax-share-decline-hits-karnataka-and-kerala-despite-economic-diversity/3484189/

Thachaparamban, Shamna. (2024). Kerala's Central Tax Share: Population-Driven Allocation Spurs Unease over Fair Share,Policy circle. https://www.policycircle.org/economy/kerala-economy-taxshare-row/

Thachaparamban, Shamna. (2024). Can Kerala Balance Social spending and Fiscal goals, Policy Circle.https://www.policycircle.org/economy/why-kerala-faces-financial-woes/

Vidya V Devan (co-authored with Suranya S Kumar) Allocation for Women-Centered Policies in Kerala Budget 2024 - 2025 - An Analysis. -in International Journal of Creative Research Thoughts, ISSN: 2320-2882, Volume 12 Issue 6 June 2024.

Paper Presentations

Meenu Mohan: presented a paper titled **"Green Tax: A Better Solution for Better Environment Protection"** in the One Day National Conference on Environmental Law, Policy and Practice: Issues and Challenges:" organized by Bharat Group of Institutions, Bharat College of Law on 05th April 2024.

Call for Papers: Kerala Economy Journal

Dear Scholars and Researchers,

We welcome submissions for publication in the Kerala Economy Journal, an esteemed peer-reviewed quarterly publication of the Gulati Institute of Finance and Taxation (GIFT).

Aims and scope of the journal

Kerala Economy has been a beacon of knowledge, enlightening readers with its monthly publication since its inception in September 2020. As a testament to our commitment to accessibility, we present not only the English edition but also a meticulously translated Malayalam counterpart, ensuring that our invaluable insights reach audiences far and wide. In a world of constant evolution, we adapt and evolve. From 2022 onwards, Kerala Economy has blossomed into a quarterly journal, offering deeper analyses, fresher perspectives, and richer content.

Priority is given to papers which are

- relevant to important current research in finance and taxation, macroeconomics and development issues from a public economics perspective either at regional, national, or international levels
- that offer critical evaluations, based on empirical research, of alternative theories, perspectives, or schools of thought

We welcome original research articles, insightful reviews, thought-provoking analyses, and innovative perspectives from scholars, researchers, and practitioners across the globe. Whether your expertise lies in economics, finance, taxation, or multidisciplinary fields, we encourage you to submit your work for consideration.

The editors also welcome surveys of the literature in the relevant fields.

Each research article in this journal undergoes a thorough peer-review process, which includes initial screening by the editor and anonymous peer review.

Instructions for Authors on how to submit your article

- Authors/Researchers are encouraged to submit their academically significant and original works for publication.
- Submission of any article/paper will be taken to imply that it is unpublished and not in communication for publication with any other publisher/journal.
- Every article should carry a short abstract between 150-250 words,

summarising and foregrounding the significance of the article.

- The article length shall not be more than 4000 words(excluding references).
- The manuscript shall be anonymous in nature
- A separate title sheet with article title, author affiliation and communication address shall be provided
- Images/Tables shall be continuously numbered and appropriately placed in the manuscript
- For initial submissions, there are no formatting requirements. However, the authors are expected to follow a uniform formatting criteria. After acceptance, the authors shall format the article as per journal requirements.
- Spelling, dates, references and footnote numbers should be checked for accuracy.
- All the works of others used for the preparation of the article should be cited appropriately
- Referencing should be done in APA format

Articles submitted for publication will be subjected to anonymous peer-review and the authors are expected to revise/respond to the comments offered by the peer-reviewer(s) in the final submission.

After Acceptance

After accepted, the authors shall format the article as per the journal requirements and submit it to the journal. Proofs of the articles in PDF format would be sent to the author who is expected to return them to the Handling Editor within a week. Substantive alterations or additions cannot be made at this stage and hence, authors should ensure that their final submissions must be thoroughly checked for accuracy.

Journal Information

ISSN No. 2583-4436

Articles shall be submitted to *keralaeconomy@gift.res.in*

For details contact: Smt Anitha Kumary L, Associate Editor, Kerala Economy, 9495511136, Dr Aswathy Rachel Varughese, Assistant Professor, GIFT, 9897885522

തിരുവനന്തപുരം ആസ്ഥാനമായി പ്രവർത്തിക്കുന്ന ഗുലാത്തി ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ഫിനാൻസ് ആൻഡ് ടാക്സേഷൻ (ഗിഫ്റ്റ്), സെന്റർ ഫോർ ടാക്സേഷൻ സ്റ്റഡീസ് എന്ന പേരിൽ 1992ലാണ് പ്രവർത്തനമാരംഭിച്ചത്. ദേശീയ - സംസ്ഥാന തലങ്ങളിലെ നയരൂപീകരണ രംഗത്തുള്ളവർക്ക് ഫിനാൻസും ടാക്സേഷനുമായി ബന്ധപ്പെട്ട വിവിധ പഠന ശാഖകളിൽ തിയറി അധിഷ്ഠിതവും റിസർച്ച് അധിഷ്ഠിതവുമായി വിവിധ തലങ്ങളിൽ ആവശ്യമായ സഹകരണം പ്രദാനം ചെയ്യുക എന്ന ലക്ഷ്യത്തിൽ അധിഷ്ഠിതമായാണ് ഈ സ്ഥാപനത്തിന്റെ പ്രവർത്തനം. ഇൻഡ്യൻ കൗൺസിൽ ഓഫ് സോഷ്യൽ സയൻസ് റിസേർച്ച് (ഐ.സി.എസ്.എസ്.ആർ) അംഗീകൃതമായ ഈ സ്ഥാപനം കൊച്ചി സാങ്കേതിക സർവകലാശാലയുമായി അഫിലിയേറ്റ് ചെയ്തുകൊണ്ട് പൊതു സാമ്പത്തിക ശാസ്ത്രത്തിന് ഈന്നൽ നൽകിക്കൊണ്ടുള്ള കോഴ്സ് വർക്കിലധിഷ്ഠിതമായി, സാമൂഹ്യ ശാസ്ത്ര വിഷയങ്ങളിൽ പി.എച്ച്.ഡി പ്രോഗ്രാം നടത്തുന്നു. ഇതിനു പുറമെ പോസ്റ്റ് ഗ്രാജ്വേറ്റ് ഡിപ്ലോമാ ഇൻ ഗുഡ്സ് ആന്റ് സർവീസ് ടാക്സേഷൻ (പി.ജി.ഡി.ജി.എസ്.ടി), റിസേർച്ച് കപ്പാസിറ്റി ബിൽഡിംഗ് പ്രോഗ്രാം (ആർ.സി.ബി.പി) എന്നീ രണ്ടു കോഴ്സുകളും നടത്തുന്നു. സർക്കാർ ജീവനക്കാർ അടക്കം വിവിധ മേഖലകളിൽ പ്രവർത്തിക്കുന്നവർക്ക് ആവശ്യമായ പരിശീലന പരിപാടികളും നിർവഹിക്കുന്നതിന് നിയുക്തമാക്കപ്പെട്ട ഒരു സ്ഥാപനമാണിത്. കേരള ഇക്കോണമി (ത്രൈമാസികം), കേരള ടാക്സ് റിപ്പോർട്ടർ (മാസിക) എന്നീ രണ്ട് പ്രസിദ്ധീകരണങ്ങൾ ഗിഫ്റ്റിനുണ്ട്.

വൈജ്ഞാനിക രംഗത്തെ പ്രഗത്ഭർ, കേന്ദ്ര, സംസ്ഥാന ഭരണ രംഗത്തെ മുതിർന്ന ഉദ്യോഗസ്ഥർ എന്നിവരടങ്ങിയ ഒരു ഗവേർണിംഗ് ബോഡിക്കും എക്സിക്യൂട്ടീവ് കമ്മറ്റിക്കുമാണ് ഈ സ്ഥാപനത്തിന്റെ ഭരണനിർവഹണ ചുമതല. കേരള സംസ്ഥാന ധനകാര്യ വകുപ്പ് മന്ത്രി ശ്രീ. കെ. എൻ. ബാലഗോപാലാണ് ഈ സ്ഥാപനത്തിന്റെ ചെയർപേഴ്സൺ.