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GST updates

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GULATI INSTITUTE OF FINANCE AND TAXATION

Role of educational development and religious affiliation in the upliftment of tribes in Kerala

D Narayana

Introduction

Scheduled Tribes (ST) in Kerala numbering around 4.85 lakh in 2011 account for only 1.45% of the population of the state. Although every district now reports the presence of ST, over 75% of them reside in just six districts, namely Kasaragod, Kannur, Wayanad, Palakkad, Kottayam and Idukki. There are about 35 scheduled tribes in the state, their numbers ranging from a few hundreds, or less - Arandan (283), Kochuvelan (38), and Maha Malasar (154) to name a few - to more than 20,000 each - Kanikaran (21,251), Malai Arayan (33,216), and Paniyan (88,450) are some of the examples. In a highly urbanized state with the level of urbanization close to 50%, the ST are a largely rural group with close to 90% of the population confined to rural areas in 2011.

Traditional settlements and means of livelihoods of the ST too are highly differentiated. Kadars and Muthuvans lived deep in the forests collecting roots, honey, and catching birds and animals for subsistence. Paniya and Adiya became bonded labourers as outsiders began occupying vast tracts for settled cultivation in Wayanad and neighbouring districts around two centuries ago. Koragas were basket weavers living in the midlands in close proximity to other inhabitants, carrying out scavenging, removing dead cattle and buffaloes. The highly varying groups of population has been subjected to an almost uniform instruments of development, some of which are assigning land for cultivation and housing, provide housing and sanitation, education, affirmative action in formal employment and so on.

The rapid urbanisation of the state of Kerala has affected the Scheduled Tribes who are a small percentage of the population. The tribes of the southern districts have been moving out to the urban areas of other districts as well as the urban areas of the districts where they were traditionally rural dwellers.

One of the main channels of migration into non-farm employment in Kerala is education. Educational attainment of the Scheduled Tribes in the northern districts is lower than that of the Scheduled Castes and also the general population. But in the southern districts the STs are performing better than that of SCs, and that is the channel through which they migrate to the urban areas.

A clue that things have been changing for the tribes becomes evident when we look at the movement of tribes across the districts. In the year 1981, 68% of the tribes lived in four districts of the state - Wayanad (36.5%), Idukki (14.8%), Palakkad (11.0%) and Kottayam (5.8%). The same four districts show the share of tribes falling to 57% by 2011. An 11 percentage point fall over thirty years is significant and suggests that tribes have been shifting from their traditional land and forest based occupations to non-land based occupations. What is the pattern of such movement of tribes? Which tribes have been able to move? What channels have helped them move out of land? Have the development initiatives of the state played a part in it? These are the issues taken up for investigation in this paper.

The pattern of spatial movement of tribes

As regards the pattern of spatial movement of tribes, it may be presented in a tabular form as shown in Table 1.

One of the striking dimensions of the transition that could be read from the Table is that the tribes in the upper panel (small change in spatial concentration) mostly belong to the northern (north of Thrissur) districts and the tribes in the lower panel to the southern districts. Urban living is also higher for the tribes in the lower panel. The two together suggest that tribes in the southern districts have been moving out to urban areas of other districts, or in districts where they were traditionally rural dwellers (Table - 1).

Any analysis of de-concentration of scheduled tribes is incomplete without a look at the growth of tribal population in relation to that of the non-tribal population in the districts of Kerala. The population of Kerala grew by 4.9% between 2001 and 2011. While the tribal population grew by a phenomenal 33%[1] overall, population growth is negative or close to zero in most of the districts which are largely rural, such as Idukki, Pathanamthitta and Kottayam, but relatively higher (more than 5%) in rapidly urbanizing districts such as Thrissur, Ernakulam and Kozhikode. The scheduled tribe population too shows a similar pattern but with more intensity. In the rapidly urbanizing districts such as Ernakulam, Thrissur and Kozhikode the tribal population has risen by between 65 to 150 percent over the ten years. In the largely rural districts (urbanization level less than 5%) of Idukki and Wayanad, the growth of tribal population is around 10%. It is obvious that rapid urbanization of the districts is fueled by movements of population into these

Table 1. Spatial and rural-urban movement of tribes in Kerala over 1991-2011

District level concentration	Urbanisation rising	No change in urbanisation
Small Change in Spatial Concentration	Arandan(2.8%), Kadar(6.3%), Koraga(40%), Kudiya(2%), Kurichiya(5%), Kuruma (3.5%), Malai Pandaram (11%), Uraly(2.4%)	Adiyan(1.2%),Eravallan(0.4%), Hill Pulaya(1.7%), Irular(1.8%), Kattunayakan(4%), Paniyan(3.5%)
Large Reduction in Spatial Concentration	Kanikaran (8.7%), Malai Arayan (9.6%), Malai Vedan (10.5%), Malayan (3%)	Malayarayar(10.5%), Mannan (3.4%), Muthuvan (1.5%)

Source: https://censusindia.gov.in/DigitalLibrary/Tables.aspx, 1991 and 2011.

Note: Small change – less than two percentage points.

Figures in brackets are level of urbanization in 2011.

districts of both non-tribal and tribal. The growth of tribal population in these districts is relatively higher because their base is lower (Table-2) .

Overall, Kerala has urbanized rapidly during 2001 - 2011. This decade has also seen negative growth of non-tribal population in the rural areas suggesting that intense rural urban migration has been taking place. Not only non- tribal population has been moving to non-farm employment (a key characteristic defining urbanization) but also tribal population. The tribal population has been migrating from their homelands to urban areas in other districts. Not all tribes in Kerala have been able to migrate to urban areas. It is largely the tribes of the southern districts who are leaving their rural home lands in search of non-farm employment in urban areas.

Educational attainment of tribes in a comparative perspective

One of the main channels of migration into non-farm employment is education. A look at the educational attainment of scheduled tribes in comparison with scheduled castes and all population would tell us whether it could play any role in migration. There are many educational indicators that could be used for this purpose. We use only one indicator, namely the proportion of graduates in the population by age class. The distribution by age class is important as it will throw some light on the progress in this indicator in time (Table-3).

The sample of northern districts shows that educational attainment (% Graduates) of scheduled tribes in 2011 is lower than that of scheduled castes which in turn is lower than that of all population in the

Table 2. Distribution of districts by level of urbanisation and tribal population growth

Urbanisation % -2011	Tribal Population Growth % -2001 to 2011			
	Above 100	51-100	26- 50	25 or below
Above 60	Kannur (65,110) Kozhikode (67,156)	Thrissur (67,95) Ernakulam (68,65)		
36 – 60	Alappuzha (54,110) Kollam (45,107)	Kasaragod (39,61) Malappuram (44,87)	Thiruvanant-hapuram(54,29)	
11-35				Palakkad (24,11) Kottayam (29,20) Pathanamthitta (11,24)
10 or Less				Wayanad (4,11) Idukki (5,10)

Source: https://censusindia.gov.in/DigitalLibrary/Tables.aspx, 2001 and 2011.

three districts (Table 3). Compared to the tribes, the percentage of graduates is 3.7 times for scheduled caste and 4.7 times for the overall population in Kannur. This is a huge difference. The difference between scheduled caste and tribe has not shown any sign of decline over the last forty years. This is not the case with the difference with all population; the difference has been coming down although at a slow pace. Part of the reason for the rising difference with the scheduled caste group is that they have been gaining at a higher pace compared to all population. In Kannur, the proportion for all population in the 60+ year's age group which was one percent point higher than that for scheduled caste has virtually disappeared when we come to the 20-24 years age group. The differentials between scheduled tribe and caste are slightly lower in Wayanad and Palakkad but the trend of the difference not coming down is persistent in both the districts. Same is the pattern with regard to the differential between scheduled tribe and all population. The picture is no different in the northern districts not shown here in Table 3. Overall, the proportion of population attaining graduation among the scheduled tribes is lower compared to scheduled caste and all population and there is hardly any sign of the difference coming down over the years.

It is an altogether different story in the southern districts. While the proportion of graduates in the population 15+ years for all population is higher than that for

In the face of uniform educational policy and government support for SC and ST, one of the important differences between the northern and southern districts is the religious affiliation of tribes. While in the northern districts a small proportion of tribes profess Christianity, in the southern districts of the state as a whole, the proportion of tribes professing Christianity is 20.77%. And the fact that more than 30% of them reside in the urban areas suggests that they are migrants. Tribes following Christian religion makes a difference to their educational achievements and migration to urban areas.

scheduled caste and scheduled tribe in the southern districts of the state, there is hardly any difference between the scheduled tribes and scheduled castes (Table 4). In fact, in two of the districts the scheduled tribes are performing better than the scheduled castes. Turning to the time trend, it may be seen that while in Idukki the scheduled tribes have lost the advantage over the scheduled caste during the last ten years, in Kottayam and Thiruvananthapuram the scheduled tribes continue to maintain their higher educational attainments. Overall, the proportions of graduates in the southern districts are two to three times those in the northern districts for all population groups and the scheduled tribes too (Table 4).

A comparison of the educational attainments of the people of the two regions within Kerala is quite revealing. Firstly, the proportion of graduates in the northern districts is significantly lower than those in the southern districts for both scheduled tribe and all population; for scheduled caste they are comparable across the districts of both southern and northern regions. Secondly, the proportion of graduates in population among the scheduled castes is higher than that among the scheduled tribes in north Kerala and is the other way round in south. Thirdly, in Kottayam, the scheduled tribes are racing to achieve parity with all population in educational gains. If education is a channel of transition to non-farm employment, then scheduled tribes are definitely taking advantage of it in the southern districts of the state and performing better than the scheduled castes.

Access to education as public policy

As regards tribal development planning in India, two major steps taken were Tribal Sub Plan (TSP) started during the Fifth Five Year Plan (1974-79) and decentralisation since the mid- 1990s. In Kerala, the TSP has undergone many transformations through the fifth to the thirteenth five year plans. Since 2009, the amount allocated for TSP has stood consistently above 2% of the total plan size. As the sub-plan can be prepared at any level starting from the habitat, village, or panchayath and get consolidated at the level of block panchayat or above, the voices of the most disadvantaged at the lowest level could be responded to by incorporating their concerns in the plan and acted upon. Plans at the Gram

Table 3. Proportion of graduates in population by age class in a few districts of Kerala, 2011

Age Class (Years)	%Graduates - Kannur			%Graduates-Wayanad			%Graduates-Palakkad		
	ST	SC	All	ST	SC	All	ST	SC	All
Total	1.97	7.21	9.25	1.28	4.14	6.29	1.44	3.13	6.96
20-24	4.64	20.10	20.73	3.70	11.13	13.32	3.73	9.57	15.79
25-29	4.47	16.35	19.72	3.18	8.96	12.44	3.46	7.21	13.20
30-34	2.79	9.34	13.52	1.55	4.67	9.23	1.57	3.63	9.19
35-59	1.07	4.57	7.68	0.44	3.02	5.19	0.64	1.52	5.68
60+	0.54	1.65	2.69	0.05	0.72	1.18	0.31	0.36	2.64
Age not stated	2.27	4.09	5.45	0	0	4.01	0	2.83	4.69

Source: https://censusindia.gov.in/DigitalLibrary/Tables.aspx, 2011.

Table 4. Proportion of graduates in population by age class in a few districts of Kerala, 2011

Age Class (Years)	%Graduates - Idukki			%Graduates - Kottayam			%Graduates - Thiruvananthapuram		
	ST	SC	All	ST	SC	All	ST	SC	All
Total	3.56	3.87	7.87	7.56	6.92	12.40	6.45	6.34	13.89
20-24	8.79	11.15	18.13	20.20	18.56	25.71	13.35	13.47	23.26
25-29	9.05	9.95	17.88	20.62	18.64	27.56	12.73	13.79	26.97
30-34	5.39	5.29	12.01	10.62	9.86	18.58	9.25	9.03	20.75
35-59	1.88	1.86	6.26	5.01	4.18	11.35	4.98	4.69	12.75
60+	0.71	0.45	1.89	2.08	2.10	5.87	3.33	2.61	7.59
Age not stated	0	4.90	8.14	10.00	5.50	7.88	2.44	7.58	9.94

Source: https://censusindia.gov.in/DigitalLibrary/Tables.aspx, 2011.

Panchayath/ Municipal levels could identify the needs much better than plans from above. Political representation in the local government councils could add to this process.

In Kerala, development programmes for the scheduled tribes are implemented through the Scheduled Tribe Development Department (STDD) and Local Governments (LG). The STDD has seven Integrated Tribal Development Project offices, nine tribal development offices and 48 tribal Extension Offices. The STDD implements various schemes which can be categorized under five heads: education, health care, social upliftment, cultural development, and other development schemes. Since 1997-98, the Government of Kerala has handed over a sizable number of development programmes to the local governments. TSP funds are substantial and 50% are handed over to the local governments.

Education is regarded as one of the most important catalysts for social development of ST and in turn for their economic development. In the initial years after independence, only a few feeble attempts were made to invest in the education of tribes. The introduction of TSP since the Fifth Five Year Plan made a huge difference to the educational development of the tribes. The universalization of primary education as part of Sarva Shiksha Abhiyan too made some significant contribution in this regard. Further, for enhancing tribal education, Model Residential Schools, Ashram Schools and Tribal Schools were set up by the government. Tribal students were also provided with hostel facilities along with financial assistance and other allowances.

The state has 18 Model Residential Schools / Ashram Schools distributed across the districts where the presence of tribes is substantial. The number of schools is the highest in Wayanad (5), followed by Idukki (2), Palakkad (2), and Thiruvananthapuram (2). Kollam, Pathanamthitta, Kottayam, Thrissur and Malappuram have one school each. Out of the 18 schools, eight of them have classes up to higher secondary, nine up to high school, and one up to upper primary. Seven schools are exclusively for boys, five for girls, and the remaining six both for boys and girls. These schools provide free food, accommodation, school uniforms and some monthly allowance.

The focus of MRS/Ashram Schools sponsored by the Central government is to provide education at higher classes, and is residential in nature. Access to these schools is a problem for many tribal students. The state government runs a number of schools closer to the tribal settlements which are not residential. There are 90 such schools spread over all the districts of the state, except Alappuzha which has less than 1500 tribal households over half of whom reside in urban areas. Of the total number of schools, 49 are Lower Primary schools (I to IV class), 15 are Upper Primary schools (V to VII class) and the remaining 26 are High Schools. These are spread over the tribal dominated districts more or less in proportion to the tribal population.

The lack of access to schools and colleges of tribal children is addressed to some extent by locating hostels in various parts of the state. The Scheduled Tribe Development Department runs 108 pre-metric hostels distributed across districts where there is a concentration of tribal households. Wayanad has 28 hostels followed by Palakkad at 23 and Idukki at 12. There is good demand for these hostels as most of them are running beyond their intake capacity.

Turning to financial support for education, Kerala government provides lump-sum grant and monthly stipend to each tribal student. The amount rises with the level of education. The government provides financial support to tribal students for post-metric education too. The government bears the complete educational fees without any income limit for various courses. Monthly stipend and annual lump-sum grants are provided. Monthly stipend is not paid to students staying in hostels where the cost of food and accommodation is borne by the government. Only pocket money is paid to such students.

In addition to running schools and hostels and providing financial support, schemes have been designed for the educational development of tribal students. Ayyankali memorial talent search and development scheme seeks to identify brilliant students studying at SSLC, Plus-one and Plus-two classes and failed students are also being run. There is a special scheme for students who secure first class in SSLC, Plus-one, Plus-two and graduation. Hence, financial support is not a constraint for tribal development and no distinction is made among tribes or regions.

Early childhood care and education got a boost with the introduction of ICDS programme in 1975. It is operated through the Anganwadi Centres (AWC). Over the years the attendance of tribal children in AWCs has grown and it is on par with other communities. In Kerala, apart from AWC, the Scheduled Tribe Development Department runs nursery schools and single teacher schools for enhancing primary education. Only around 11 percent of the 4644 tribal settlements in the state do not have AWCs. The absence of AWCs near tribal settlements was slightly higher in the northern districts of the state in the year 2010. A similar picture was present with regard to the presence of Multi Grade learning centres as well.

In recent years, Five Year Plans have been emphasizing the goal of ending the scourge of social disparity between the people of the scheduled tribes and other sections of the population. Education takes a pride of place in this endeavor. But the approach is one of starting additional finishing schools to motivate students for competitive exams, starting Model Residential Schools, pre-metric hostels, post-metric hostels, and of raising educational assistance like stipends and grants. Then there is the usual prescription that local governments should concentrate on social and economic empowerment of the scheduled castes, scheduled tribes, and other marginalized groups. Beyond replicating the hackneyed schemes anything innovative is hard to find.

Religious affiliation and urban living

One of the important differences between the northern and southern districts is with regard to the religious affiliation of tribes. It may be seen from Table 5 that the northern districts report almost insignificant proportion of tribes as followers of Christian religion. Excluding Wayanad from the list of northern districts too does not make a difference. The proportion stays around 1.4%. Out of this small proportion some, such as Malai Arayan and Hill Pulaya have migrated from the southern districts and if they are excluded then the proportion drops to 1.27%. Thus, it can be said that among the tribes in the northern districts of the state hardly any one professes Christianity, with only one exception of Koragas of Kasaragod. But their number in Kerala of 1582 is too small to make a difference to the overall percentage.

In the southern districts of the state as a whole, the proportion of tribes professing Christianity is 20.77%. Excluding Pathanamthitta and Idukki, the rest of south reports 24.63% professing Christianity. Among the districts, Kottayam reports 39.40% of the tribes professing Christianity. Thrissur and Thiruvananthapuram which are not included in any of the groupings report around 10% of the tribes being Christian. Thus, unlike the northern districts, the districts south of Thrissur report the presence of a sizable proportion of scheduled tribes adhering to the Christian faith. And the fact that more than 30% of them reside in the urban areas suggests that they are migrants (Table -5).

Table 5. Proportion of urban population and christians among the scheduled tribes in Kerala

District	%Urban		%Christian -2011
	1961	2011	
Thiruvananthapuram	2.49	25.18	8.38
Thrissur	0.29	37.87	11.75
Southern Districts	0.83	15.04	20.77
Northern Districts	0.15	7.12	1.40
Southern Districts excluding Pathanamthitta and Idukki	-	30.42	24.63
Northern Districts excluding Wayanad	-	11.39	1.39

https://censusindia.gov.in/DigitalLibrary/Tables.aspx, 2011

Note: Southern districts – Ernakulam, Alappuzha, Kottayam, Pathanamthitta, Kollam, Idukki

Northern districts – Kasaragod, Kannur, Wayanad, Kozhikode, Malappuram, Palakkad.

Do tribes following Christian religion make a difference to their educational achievements? It seems it does, if we go by the example of Malai Arayans - the numerically dominant tribe in Idukki and Kottayam - 46.30% of whom are Christians. In 1961, only 2.93% of them were Christians. Malai Arayan Christians in south numbering around 15,000 account for 60% of all Christians in the south; the rest are Malayarayar, Ulladan and generic tribes.

Malai Arayans were called the Lords of the jungles who became tenants of the Rajas of Poonjar and Pandalam following the proclamation of the Maharaja of Travancore in 1789 investing all the forest land of the realms with the government. For almost a century thereafter they languished in bondage, penury and indignity and were subjected to various forms of taxation. It was Rev. Henry Baker's visit to the settlements of Malai Arayans that changed their lives. Baker established 11 churches, and 27 schools across the High Ranges. The change in their lives brought about by adopting Christianity has been described by Joseph (2004) as,

"No aspect of the life of the Christian Malai Arayans was left untouched by the church …Baker himself had delivered them from the clutches of Mohammedan merchants, who were the tax collectors of the Poonjar Rajah … Shri M S Joseph, the first Malai Arayan to enter the IAS observes that the Missionaries came to their midst not with the bible in one hand and gun in the other as alleged, but with the word of God in one hand and the World of Science in the other. The religious classes introduced them to the heroes of Old Testament, who inspired the Malai Arayan youth immensely. The Church was also instrumental in inculcating in them an aversion for liquor, to which they had been traditionally addicted (p.163).

While the Church played an important role among the Malai Arayans in their cultural development and attitude towards education, Malai Araya Mahasabha of the Hindu segment in competition with their Christian brethren was awakening the Hindus. The two together helped the Malai Arayans to compete with the other Hindu groups to achieve educational development.

Similar initiatives must have taken place among the Malayarayar and Ulladans in the southern districts. The only tribe in the north which adopted Christianity is the Koragas of Kasaragod district, 16.50% of whom are Christians. As seen in Table 1, 40% of the Koragas live in urban areas, the highest for any tribal group in Kerala. What has worked for the Malai Arayans seems to have worked for the Koragas as well. Thus, religious affiliation has played a role in the educational development and the related movement out of the traditional occupations of tribes into urban occupations.

Summary and conclusions

The paper has focused on the movement of tribes from their land and forest based occupations to non-farm occupations in the urban areas. It is observed that such migration is taking place to a much greater extent among the tribes in the southern districts of the state. The rapidly urbanizing districts of the state have seen phenomenal growth of tribal population. One of the main channels of migration has been education. As regards the proportion of graduates in the population, the achievements of scheduled tribes in the southern districts are better than that of scheduled castes and they are seeking to achieve parity with general population. In the northern districts the achievements of scheduled tribes is lower than that of scheduled castes and is significantly poorer than that of the scheduled tribes in the southern districts.

Providing access to education has been one of the main pillars of public policy in the state. Allocations under Tribal Sub Plan in Kerala have remained consistently high in recent decades. Institutions have been set up in all districts of the state to provide early child care and nursery education to pre-metric schooling. Financial assistance without income limit of the households has been provided at all levels including higher education. There is no evidence of discrimination by tribe or region as regards assistance, and hence it could be said that equal access has been the hallmark of education as a public policy. But educational achievements of scheduled tribes have been different between the southern and northern districts and among distinct tribal groups residing therein. Their movement to urban areas too has been at different rates as reflected in the proportion residing in the urban areas.

A hint of an explanation of the differing performance of regions and tribes in educational attainment may be found in their religious affiliation. Those tribes who have migrated to urban areas have a higher proportion of Christians among them. An illustration of the historical experience of Malai Arayans suggests that religious affiliation does play a role in social development and educational attainments. It is not necessary that the entire tribe turns to a religion to achieve this goal. A certain segment switching over to a religion instills competition among those left behind resulting in higher achievement of both segments. The experience of Koragas, traditionally confined to the northern district of Kasaragod, too confirms this inference.

The policy message is clear. Allocating funds, and setting up institutions of care and learning is a necessary condition for educational gains of population groups but it is not sufficient. Social development and building an environment of dignity and equality among population groups too plays a very important role. It is not expected that a line department will be able to achieve this result. But what is surprising is that despite half the funds going to the local governments no significant change has come about. Local governments are expected to respond to local needs by developing innovative schemes. Have they failed is an issue calling for introspection.

■

(Prof D Narayana is former Director, GIFT)

End Note

[1] There is a problem with the counting of scheduled tribe population in Kerala. The ST population is reported to be 320,967 in 1991 and 364169 in 2001. The increase is only 13.46%. In 2011, the count shows 484839 reporting an increase of 33.14% when the count of non-tribals is in fact showing a fall. We suspect the inclusion of some tribes in one census followed by their exclusion in the next or such practices would have led to this situation.

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Fiscal provisions in the Indian constitution - federal and counter tendencies-brief overview

R Mohan

The fiscal provisions in Indian Constitution have been more or less adopted from the Government of India Act, 1935. Personal income tax collected by the Union was treated as the balancing factor to ameliorate vertical fiscal imbalances between the Union and the States. Consequent to the Government of India Act, 1935, the Otto Neimeyer Commission suggested sharing of 50 per cent personal income tax with the provinces. In the Constituent Assembly, the report of the Nalini Ranjan Sarkar committee was considered and ultimately, no fixed share of personal income tax was fixed in the constitutional provisions. Under Article 280 of the Constitution, Finance Commissions are to be constituted every five years or earlier, as per a Presidential notification and the Commission shall make recommendations to the President on the prescribed share of the taxes collected by the Union to the States and how this has to be distributed among the States. Till the 80th constitutional amendment, only personal income tax was mandatorily shareable and central excise duty was shareable through legislation as per Article 272 (which is not in existence after the 80th amendment). Based on the recommendations of the 10th Finance Commission, 80th constitutional amendment made all taxes collected by the Union (except surcharges and cesses) became shareable with the States. This has come into effect from 2000-2005 onwards. Through this, a long standing demand of the States was met. Till then, the grievance of the States was that more buoyant taxes like corporation tax and customs duties were kept outside the divisible pool of taxes. This is an important federal tendency in the fiscal area.

The provision for mandatory constitution of Finance Commission

There are important federal aspects in the fiscal provisions of Indian Constitution like mandatory formation of Finance Commissions every 5 years, provision for distribution of prescribed share of net proceeds of taxes collected by the Union and clearly demarcated powers of taxation

At the same time emergency provisions like Articles 352,354 and 360 reflect strong unitary features.

itself is an important federal feature of the Indian Constitution. The recommendations of the Finance Commission are submitted to the President, who shall cause it to be laid before each House of Parliament along with an explanatory memorandum as to the action taken thereon as required under Article 281 of the Constitution.

The share of taxes accepted by the President does not form part of Consolidated Fund of India and is not voted in the Parliament. The grants recommended by the Finance Commissions under Article 275 of the Constitution to the States in need of assistance are charged to the Consolidated Fund of India and hence not subject to vote in Parliament.

Under Article 74 of the Indian Constitution, President is bound to act in accordance with the aid and advice of the Council of Ministers headed by the Prime Minister. Though, President can ask the Council of Ministers to reconsider the advice, if the same advice is tendered again, President is bound to act in accordance with it, in short, the Union Cabinet can modify the recommendations of the Finance Commission submitted to the President. Finance Commission decides on the recommendations regarding distribution of taxes and disbursement of grants after hearing the sides of the Union and the States. The fact that one of the parties before the Commission, the Union can alter its recommendations is an unitary feature of Indian Constitution. But so far, the recommendation of the Finance Commission regarding share of taxes to be distributed to the States or the formula for distribution among the States have not been altered by the Union. This is a federal feature that has evolved through practise. But other recommendations like that of the Third Finance Commission on the Commission taking a holistic view of the revenue account of the States, including plan and non-plan, was not accepted by the Union Government. The Member Secretary to the Commission had written a dissent note that the Commission should confine to the non-plan side of the revenue account of the States and this was accepted by the Union. But later, the recommendation of the Ninth Finance Commission (for the period 1990-95) for considering the plan side also was accepted.

After five year plans have been done away with after 2015-16, the Fourteenth and Fifteenth Finance Commissions have considered revenue account as a whole for recommending grants under Article 275.

The Fourteenth Finance Commission did not recommend conditional grants to the States. This was an important step towards fiscal federalism. On subjects enumerated in the State List of the Seventh

Routine grants through Article 282, which is a miscellaneous financial provision confers substantial discretion to the Union.

Schedule of the Constitution, the States will have freedom to spend according to their priorities. But the Fifteenth Finance Commission has given conditional grants.

The grants other than those given based on the recommendations of the Finance Commission, which is a constitutional body, are given under Article 282, which is under Miscellaneous Financial Provisions. But the discretionary grants given under Article 282, comprises four-fifths of the total central grants to the States. This includes central assistance to Centrally Sponsored Schemes (CSS). The criteria of CSS are fixed by the ministries of Government of India and States have very limited flexibility. The Ninth Finance Commission report constrains a discussion on whether grants under Article 282 can be disbursed as a matter of routine, ultimately, Supreme Court in Bhim Singh Vs Union of India and others (5 SCC 538, 2010) held that Article 282 is not subject to any other Article of the Constitution and its scope is not restricted and the only requirement is that it should be for a public purpose. The apex court upheld the validity of the Members of Parliament Local Area Development Scheme (MPLADS) in this case.

The general power to disburse discretionary grants not through the route of the Finance Commissions gives Union a wide latitude to disburse grants through State specific packages.

In the interests of cooperative federalism, grants should be disbursed on the basis of criteria and States should have the maximum flexibility to spend in the subjects enumerated in the State List.

We have already noted that the fiscal resource sharing arrangement is an important federal feature of our Constitution. But when emergency provisions are invoked (Article 352), Union can modify the provisions of Articles 270 to 279 (Article 354). It is in the provisions of these Articles that fiscal sharing arrangements with the States are mentioned, Even though, the Finance Commissions will have to be constituted every quinquennium, even when emergency provisions are invoked, the fiscal sharing arrangements can be modified. This is a very important unitary feature. But this provision has not so far been invoked.

Another power which the Union has is the proclamation of Financial Emergency (Article 360) in whole or part of India. When such an emergency is in force in part of India, President can issue directions all money bills and bills requiring Finance memorandum under Article 207, will have to be sent for Presidential assent. This power makes the fiscal provisions completely unitary when Financial Emergency is invoked. So far, this provision also has not been invoked.

By virtue of powers under Article 293 (3), States which have loans or guarantees from the Union are to get Union's approval before further borrowings, the pressure on the States to adhere to deficit targets in Fiscal Responsibility Legislations (FRAs) is more than that of the Union.

In the fiscal provisions, Indian Constitution has important federal features like constitution of Finance Commissions, there are substantial provisions with unitary nature, though these have so far not been invoked. In a meaningful cooperative set up, how these provisions are worked is most important.

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State of state finances: Kerala's turnaround in fiscal consolidation

K J Joseph and Anithakumary L

Introduction

Going by the available evidence, Indian economy is turning around post COVID-19. India's GDP at current prices in September 2022-23 is estimated at Rs 130.26 lakh crore as against Rs 107.47 lakh crores during the first half of the previous year. This implies a rate of growth of 21.2 per cent in H1 2022-23 as against 25.0 per cent during the same period last year. (NAS, 2022-23). Normally, economic turnaround gets translated to fiscal turnaround. But this need not necessarily be so at the subnational level in India because, given the existing fiscal federal relations in our country, the fiscal health of states is contingent on the decisions by the Centre. For instance, in the case of Kerala, along with indications of strong turnaround in the economy, certain decisions of the Centre for example, decision on GST compensation, could affect the fiscal health of the state. We also note that the implementation of pay revision, when the fiscal boat was confronted with wild waves, added fuel to the fire. Hence any turnaround in the fiscal situation would be possible only through the concerted effort by the state government towards fiscal consolidation.

Against this background this article examines the fiscal performance of Kerala during the first eight months of this fiscal to discern whether there are any indications of fiscal consolidation. We approach the problem, to begin with, by taking the first half of this fiscal, in comparison with other states. Subsequently, we present the picture of Kerala's fiscal performance till November 2022 since the data for all the other states is not available for the extended period.

To place the story in place

The states in India account for over 62.4

During the first half of the current fiscal, Kerala's performance in terms of growth in revenue receipts (35.8%) is found to be lower than only two states; Maharashtra (40.4%) and Telangana (38.9%). With respect to tax revenue growth, Kerala's growth rate of 42.2% is surpassed only by Maharashtra (45.5%); all states' average tax revenue growth is 30 per cent.

Kerala's revenue expenditure declined by 5.6% as compared all states average growth of 14.5 per cent, indicating a strong fiscal consolidation.

per cent of the combined expenditure (Centre and States) and their share in total revenue is only 37.6 per cent (15th Finance Commission, 2021). This could be termed as the great Vertical Fiscal Imbalance (VFI) which is perhaps the characteristic aspect of India's Fiscal Federalism. Addressing VFI inter alia through devolution remained the major challenge of Finance Commissions appointed in every five years since 1951. The task of Finance Commissions turned to be all the more challenging when the size of the divisible pool has been shrinking because of the smart moves by the Centre through increasingly resorting to cess and surcharges which are not be shared with the states. As per Union budget 2022-23, the share of cess and surcharges is as high as 19.00 per cent of the tax revenue 2021-22 (RE), up from 6.5 percent in 2009-10. Given the commitment of Finance Commissions to ensure horizontal equity (between states) the devolution criteria adopted is often inimical to the interests of better performing states like Kerala. Accordingly, Kerala's share in central taxes almost halved from about 3.875 per cent in 10th Finance Commission (1995-2000) to 1.925 per cent at present (15th Finance Commission, 2021-26). Although Kerala has new generation problems like ageing, it is yet to receive the attention that it deserves. The manner in which GST was introduced also turned out to be against the interest of the states as they had to forgo a larger proportion of their revenue as compared to the union. Above all, with the approach of one size fits all, severe restrictions are imposed on borrowing by states along with the inclusion of off-budget borrowing within the borrowing limit turning the fiscal situation from bad to worse.

In what follows we shall begin by an analysis of the key indicators of fiscal performance during first six months (April- September) of the current fiscal.

Revenue receipts

Half-yearly growth in total revenue receipts, comprising of state's own tax revenue, own non-tax revenue, share in

Kerala's recorded growth in capital expenditure (5.0%) has been marginally lower than the all-states average of 5.6%, which however, conceals actual capital investment. This is because much of Kerala's capital expenditure is being undertaken through KIIFB, Rebuild Kerala and such other initiatives as alternative modes for financing capital investment over and above the budgeted capital expenditure.

Kerala substantially reduced its borrowing (- 53.4%) as compared to the all states average of -20 per cent which is also indicative of fiscal consolidation.

central taxes and grants-in-aid, showed a remarkable growth rate of 35.5% during the first half of the current fiscal as compared to the corresponding period in the previous year. Given the base effect, we need to be careful in drawing definite inference. Hence, we compared performance of Kerala with that of other major states. It is evident that (see Table 1) the recorded growth rate of Kerala is lower only to Maharashtra (40.4 per cent) and Telangana (38.9 per cent). Kerala's performance with respect receipts during the first half of 2022-23 is found to be better when compared to all the major states average (25.0%) as well.

The performance of Kerala becomes all the more encouraging when it comes to tax revenue, with a growth rate of 42.2 per cent which is exceeded only by Maharashtra (45.5 per cent). The all states' average tax revenue growth being much lower at 30 per cent. The other states, which registered higher than all state average growth, are Tamil Nadu (38.2 per cent), West Bengal (37.6 per cent), Gujarat (32.7 per cent), Uttar Pradesh (33.5 per cent) and Telangana (30.5 per cent) (Table - 1).

Revenue expenditure

Increase in expenditure more than commensurate with revenue growth is at the root of fiscal stress of states. Given the predominance of revenue expenditure in total expenditure, fiscal consolidation perhaps should begin with containing revenue expenditure. If the available data for the first half of the current fiscal is any indication, a firm beginning in this direction has already been made since the revenue expenditure in Kerala declined with the recorded growth being - 5.6% (table 1). It is also evident that revenue expenditure for all states registered a growth of 14.5 per cent. The only state that recorded negative growth other than Kerala is Orissa (-3.7%). The highest growth in revenue expenditure was registered in Punjab (27.7 per cent), which is known to be confronted with a highly stressed fiscal situation. The containment of revenue expenditure growth, indeed, needs to be seen as yet another indicator of Kerala's path towards fiscal consolidation.

Capital expenditure

When it comes to capital expenditure, Kerala's recorded growth (5.0%) has been marginally lower than the all state average of 5.6%. To put this in perspective, we need to keep in mind the following. First, out of the 15 major states, six of them recorded negative growth rate, indicating an approach of apparent fiscal consolidation by compromising on capital expenditure which is bound to have its implications on future growth. Secondly, the recorded growth rate of 5.6%, however, conceals Kerala's actual capital investment. This is because much

Table 1 - Half yearly growth rates across in states 2022 over 2021

States	Revenue Receipts	Tax Revenue	Revenue Expenditure	Capital Expenditure
Andhra Pradesh	12.5	15.4	16.2	1.8
Bihar	12.1	17.5	18.6	2.7
Gujarat	27.9	32.7	11.3	40.0
Haryana	16.1	21.6	10.6	-31.8
Karnataka	20.8	27.0	8.9	4.0
Kerala	35.8	42.2	-5.6	5.0
Madhya Pradesh	28.5	30.0	18.8	-4.9
Maharashtra	40.4	45.5	22.1	36.2
Odisha	13.3	28.0	-3.7	33.6
Punjab	23.3	21.5	27.7	-42.6
Rajasthan	17.3	29.0	9.2	-23.8
Tamil Nadu	31.6	38.2	22.9	18.4
Telangana	38.9	30.5	26.3	-47.8
Uttar Pradesh	31.3	33.5	21.5	-3.8
West Bengal	25.8	37.6	12.3	96.7
All states average	25.0	30.0	14.5	5.6

Source: Estimates based on C&AG Data

of Kerala's capital expenditure is being undertaken through KIIFB, Rebuild Kerala and such other initiatives as an alternative mode for financing capital investment over and above the budgeted capital expenditure. Thus viewed, Kerala's attempt at maintaining higher capital expenditure growth along with reduced revenue expenditure point towards the state's trajectory of fiscal consolidation.

Borrowing and deficit

Public debt in Kerala has always been an issue of public attention. Of late however, it appears to have emerged as the issue of heightened public discourse. However, the discussion, very often than not, ignores the fact that growing debt burden is not just a Kerala-specific phenomenon. IMF observed that in 2021, the Global debt (public and private) was 247 per cent of GDP, of which public debt accounted for 96%. The World Bank states that *"Public debt reached record levels during the pandemic, in both advanced economies and low- and middle-income countries. For the poorest and most fragile countries, high fiscal and debt vulnerabilities undermined macroeconomic stability".* It also to be noted that analysis of debt sustainability by GIFT based on Domar condition indicates that the excessive concern on debt sustainability is misplaced and our concern shall on the use of debt.

The outcome of revenue mobilization and expenditure compression measures is evident from a remarkable decline in all indicators of deficit; fiscal deficit the (-53.4%) and primary deficit (-76.3%) which could be rightly be termed as an indication of salutary fiscal consolidation in the state.

During the first half of the current fiscal, with a recorded growth of -53.4 per cent, there has been a drastic decline in the borrowing by Kerala (Table 2). This has to be compared with an all-state average decline of - 20.0%. In fact, all the states in India, except four, reduced their borrowing and hence recorded negative growth in borrowing and liabilities. This is indicative of the concerted efforts across states to keep borrowing within FRBM limits and debt under control. Thus viewed, the recorded negative growth in borrowing and liabilities of Kerala is another strong indication of the state being on path of fiscal consolidation. At this juncture we also note the Centre's move to include off Budget borrowing of the States with in the budgetary process.

The outcome of revenue mobilization and expenditure compression measures is evident from a remarkable decline in revenue deficit recording a growth rate of -67.3% during the first half of the current fiscal. It is also evident that five states registered a growth in revenue surplus during the period under consideration. These states are Gujarat, Karnataka, Punjab, Bihar and Andhra Pradesh. Yet when all the major states are taken into consideration, there has been only a marginal reduction in revenue deficit with the recorded growth being only -4.8%. On the whole, Kerala, with a drastic reduction in revenue deficit along with a corresponding reduction in other deficit indicators like fiscal deficit the (-53.4%) and primary deficit (-76.3%) could be rightly be termed as an indication of salutary fiscal consolidation in the state (Table-2).

Fiscal position beyond H1 in Kerala

The analysis so far in comparison with other states has been for the first six months. By now we have access to the data from CAG for the first eight months for Kerala and it is important to know where Kerala stands by November 2022; first eight months of 2022 (Table 3).

In the case of revenue receipts, Kerala recorded a growth rate of 27.13 per cent which is lower than the 35.8 per cent growth recorded during the first half of 2022. When it comes the tax revenue the recorded growth rate is 35 per cent as

The trend towards fiscal consolidation observed during the first half of the current fiscal has been continued till November 2022.

Table 2- Half yearly growth rates of borrowing and deficits across in States 2022 over 2021

States	Borrowings & Other Liabilities	Revenue Deficit	Fiscal Deficit	Primary Deficit
Andhra Pradesh	23.4	23.6	23.4	27.4
Bihar	27.4	37.6	27.4	20.0
Gujarat	-82.7	786.6	-82.7	288.9
Haryana	-13.7	-9.4	-13.7	-54.5
Karnataka	-86.0	310.8	-86.0	-1241.2
Kerala	-53.4	-67.3	-53.4	-76.3
Madhya Pradesh	-34.6	-311.1	-34.6	-60.0
Maharashtra	-135.8	-425.0	-135.8	763.5
Odisha	144.5	-3.4	79.3	144.5
Punjab	17.2	52.7	17.2	50.0
Rajasthan	-20.3	-22.3	-20.3	-40.5
Tamil Nadu	-15.9	-55.6	-15.9	-89.2
Telangana	-17.2	-56.7	-17.2	-34.0
Uttar Pradesh	-46.8	-304.7	-46.8	-131.4
West Bengal	-6.4	-27.4	-6.4	-36.7
All states average	-20.0	-4.8	-24.4	-31.3

Source: Estimates based on C&AG Data

compared to 42 per cent during the first half. Even with this lower growth compared to first six months, Kerala would be able to reach almost the budgeted revenue receipts of Rs 91,818.3 crore. The increase in revenue receipts by increasing state's own tax and non-tax revenue is to been seen as an outcome of the rebound of the economy after COVID-19. Overall, on the revenue front, our performance is highly satisfying.

However, the negligible growth (2.9%) in grants-in-aid from the Centre indeed affects the fiscal space of the state to meet the committed expenditure and also infrastructure development. What is important from the fiscal consolidation is the continued decline in borrowing at the same pace (-52.4%) and the decline in revenue expenditure (-4.63%) backed by the decline in salary and pension at -17.7 per cent and -2.2 per cent respectively. As a result, decline in revenue deficit, (-67.3%) and Fiscal deficit (-53.4%) was at the same pace as the first six months while the decline in primary deficit (-82.7%) was at a still higher pace than the first six months (-76.3%). On the whole, the empirical evidence suggests that the impressive fiscal consolidation during the first six months as compared to other states, backed by significant revenue growth and

Table 3: Fiscal position of Kerala up to November 2022 compared to November 2021

Description	2021-22 (RE)	2022-23 (BE)	Nov-22	Nov-21	Growth rate Nov 2022 over Nov 2021
Revenue Receipts	117888.2	134097.8	81736.6	64292.0	27.13
Tax Revenue	76200.0	91818.3	55751.8	41349.5	34.83
Non-Tax Revenue	10038.0	11769.6	6634.7	4133.7	60.50
Grants-in-aid	31650.0	30509.9	19350.1	18808.8	2.88
Capital Receipts	46912.0	39489.7	20053.3	42180.0	-54.13
Borrowings & Other Liabilities	46395.5	39144.9	19887.8	41772.5	-52.39
Total Receipts	164800.2	173587.5	101789.9	106472.0	-4.40
Revenue Expenditure	149803.2	157065.9	92115.7	96591.8	-4.63
Expenditure on Interest Payment	22115.4	25965.9	14850.0	12706.6	16.87
Expenditure on salaries and wages	45585.4	43305.0	26632.7	32370.0	-17.72
Expenditure on Pension	26898.7	26834.0	18588.5	19002.1	-2.18
Expenditure on Subsidy	3889.5	2170.5	1278.9	2960.7	-56.81
Capital Expenditure	14996.9	16521.6	8009.0	7558.9	5.95
Expenditure on Capital outlay	12226.3	14890.8	7931.3	7463.1	6.27
Total Expenditure	164800.1	173587.5	100124.7	104150.8	-3.87
Revenue Surplus (+)/Deficit (-) *	-23176.1	-22968.1	-10379.1	-32299.9	-67.87
Fiscal Surplus/Deficit*	-37656.5	-39116.6	-19887.8	-41772.5	-52.39
Primary Deficit	-15541.0	-13150.6	-5037.9	-29065.9	-82.67

** GST compensation balance and balance from Revenue Deficit grant excluded from reven ue deficit.*
Note: 2021-22 and 2022-23 figures are taken from Budget in Brief, 2022-23, Government of Kerala

Despite the substantial reduction in borrowing, the public concern on public debt continues.

expenditure compression, continued till November 2022. The challenge for the state is to keep up the trend so far in the coming months. This will call for more initiatives towards further hike in revenue including GST, which the state has already undertaken, while sustaining the success in expenditure compression.

Conclusion

Given the Vertical Fiscal Imbalance inherent in India's fiscal federalism along with criteria of devolution adopted by the Finance Commission which is inimical to the interest of Kerala, the state's fiscal health is very much contingent on its own initiatives in fiscal consolidation. Given the commitment of the state towards saving the lives and livelihood of people during the once in a century pandemic, there were serious limits for the state in resorting to such efforts. GIFT (2022) observed that the social sector expenditure by the state during the pandemic recorded the highest growth among Indian states (163%). The second highest growth of 60% recorded by Gujarat was not even half of that of Kerala.

The evidence presented in the study confirms that there are strong indications of fiscal turn around in the state and Kerala has been way ahead of other states in this respect. This is manifested in significant increase in revenue growth coupled with moderation in expenditure and borrowing leading to a significant decline in all indicators of deficit; revenue deficit, fiscal deficit and primary deficit. More importantly, the trend towards fiscal consolidation observed during the first half of the current fiscal has been continued till November 2022. Despite the substantial reduction in borrowing, the public concern on public debt continues. But it is important to note that increasing debt is not a Kerala specific phenomenon. As observed by IMF in the aftermath of Covid-19 pandemic, the Global debt (public and private) was 247 per cent of GDP in 2021, of which public debt accounted for 96%. Perhaps, it is high time for a shift in our public concern from the quantity of public debt to quality of debt utilization. On the whole, we note a salutary effort towards fiscal consolidation which needs be sustained

Increasing debt, however, is not a Kerala specific phenomenon. IMF observed that in the aftermath of Covid-19 pandemic, the Global debt (public and private) was 247 per cent of GDP in 2021, of which public debt accounted for 96%.

by continued efforts towards revenue mobilization and expenditure rationalization.

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Two years into COVID: What's the state of GST recovery?

Santosh Kumar Dash and Jerome Joseph

Introduction

By eliminating various indirect taxes, improving the flow of goods and services, and reducing entry barriers at the state level, the GST implementation in India was an attempt at economic integration of the nation with the goal of enhancing trade and assisting the economy. The implementation of GST, thus, though not directly, was expected to accelerate the tax revenue of both the Union and State governments. This anticipation can be attributed to a simplified tax system and a reduction in the cost of compliance which would improve compliance and ease of doing business, thereby generating a huge thrust in the country's economic activities. But the Indian economy was already in a plaintive state due to the demonetization of 2016, and GST was implemented before the economy could regain its pre-demonetization growth momentum. It was like jumping out of the frying pan into the fire when COVID -19 struck the country in the early months of 2020. The pandemic emaciated the economy more than any other issue. The consumption of people shrunk during the pandemic, adversely affecting the GST collection of states.

But recent GST collection figures are encouraging and display some confidence in the stability and recovery of collections. The gross GST collections in the month of August touched Rs 1.43 lakh crore, 28 percent higher than the corresponding month of 2021. This was the sixth month in a row where the monthly collections have been more than Rs 1.4 lakh crores, indicating the strong recovery of GST from its low points during the pandemic. Though the collections at the aggregate level have been satisfactory, analyzing at the state level may tell a different story about the pace and robustness of recovery.

This paper aanalyses the magnitude of the fall in GST revenue of states during the pandemic and assess the recovery in the collection of states in the post-pandemic phase. To this end, we compare the recovery of GST revenue in 2021-22 with the previous year (2020-21) and the pre-pandemic year (2019-20). While a comparison of GST in collections between 2021-22 with 2020-21 tells us to what extent the states have recovered, comparing collections in 2021-22 with 2019-20 would indicate whether the states have surpassed the collection recorded in the pre-pandemic year.

Data sources and variables

This study considers two aspects, namely State GST (SGST) and Total GST (TGST) collection, to assess the revenue performance of the states. SGST refers to the State Goods and Services Tax collected by the states on intra-state transactions of goods and services. TGST refers to the total collection of the states. It is the sum of SGST collection and IGST settlement revenue. The IGST collected by the Centre is shared with the state where the goods or services are sold and not the state where the production happens. TGST is the actual revenue of the states.

Eighteen major states are considered in this study. Monthly data sourced from the GST portal (https://www.gst.gov.in/download/gststatistics) is added to get the yearly numbers. The study period is from 2019-20 to 2021-22. 2019-20 is the pre-pandemic year, 2020-21 is the pandemic year, and 2021-22 is the recovery or post-pandemic year. The collections of the three financial years have been compared to analyze the revenue performance of the states during these years.

The pandemic year: Revenues plummeted

Table 1 exhibits the annual revenue collection of states for the years 2019-20, 2020-21, and 2021-22 (Columns 1-3), along with their growth rates (Columns 4-6). Column 4 reports the percentage change in 2020-21 (pandemic year) over 2019-20 (normal year); Column 5 presents the percentage change in 2021-22 (recovery year) over 2020-21 (pandemic year), and Column 6 shows the percentage change in 2021-22 (recovery year) over 2019-20 (normal year or pandemic year) (Table 1).

SGST revenue in the pandemic year

A cursory look at Table 1 reveals that SGST revenue collection of states precipitated in absolute numbers in the aftermath of the pandemic. The total SGST collection of 18 states declined from Rs 2,84,649 crores in 2019-20 to Rs 2,52,932 crores (-11.1%) in 2020-21. Compared to the normal year 2019-20, the SGST collection of 18 major states, on average, saw a dip of 9.67% in 2020-21. This is higher than the decline in GDP which fell 7.7%. The states with the highest fall are Maharashtra (-14.41%) and Haryana (-14.15%). On the other hand, Chhattisgarh (-2.54%) and Odisha (-4.87%) suffered the least.

The degree of revenue fall of developed states has been higher than that of less developed states like Odisha, Bihar, Chhattisgarh, and Madhya Pradesh. Dash and Kakarlapudi (2022) argued that

The SGST collection of 18 major states, on average, declined 9.67% in 2020-21 compared to 2019-20. However, Kerala's SGST collection fell 12% during the same period.

Table 1: SGST revenue collection of states

State	Rs Crore				Percent	
	2019-20	2020-21	2021-22	FY21/ FY20	FY22/ FY21	FY22/ FY20
	(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	9265	8562	10567	-7.6	23.4	14.1
Assam	4212	3885	4638	-7.8	19.4	10.1
Bihar	5842	5367	6083	-8.1	13.4	4.1
Chhattisgarh	5581	5439	6818	-2.5	25.3	22.2
Gujarat	27271	24667	32724	-9.5	32.7	20.0
Haryana	13922	11952	15116	-14.2	26.5	8.6
Jharkhand	5490	4863	6328	-11.4	30.1	15.3
Karnataka	26472	23209	28660	-12.3	23.5	8.3
Kerala	9457	8326	9887	-12.0	18.7	4.6
Maharashtra	62275	53300	70516	-14.4	32.3	13.2
Madhya Pradesh	8841	8218	9433	-7.0	14.8	6.7
Odisha	8713	8288	12743	-4.9	53.7	46.3
Punjab	6133	5520	6896	-10.0	24.9	12.4
Rajasthan	12197	11103	13443	-9.0	21.1	10.2
Tamil Nadu	27142	23819	29441	-12.2	23.6	8.5
Telangana	12977	11788	14603	-9.2	23.9	12.5
Uttar Pradesh	22043	19711	23766	-10.6	20.6	7.8
West Bengal	16815	14915	18164	-11.3	21.8	8.0

Note: Authors' own calculation using data from the GST Portal. FY20: 2019-20, FY21: 2020-21, FY22: 2021-22.

while factors such as the stringency and duration of the lockdown could have contributed to this, the extent of urbanization could be a plausible candidate to explain this. The COVID-19 pandemic affected urban areas more severely than rural areas in the first wave of the pandemic. As a result, consumption in rich states declined sharply while the poor states experienced more or less stable consumption, thus explaining the relative stability in the GST revenue growth rate.

TGST revenue in the pandemic year

Total GST revenue is the sum of State GST and IGST remitted to states. Data on the collection of TGST (Columns 1-3) and percentage change (Columns 4-6) of states is reported in Table 2. The states' revenue during the pandemic year fell sharply compared to the normal year. The combined TGST of the states declined by 9.8%, from Rs 4,60,426 crores in 2019-20 to Rs 4,15,279 crores in 2020-21. To put it into perspective, the loss of GST revenue was two percentage points higher than the decline in India's GDP (7.7%) in the same year.

The pandemic capsized all major states, which was manifested through a

States on average lost 8.1% of TGST revenue between 2019-20 and 2021-21.

deceleration of TGST growth by 8.1 per cent, on average, between 2019-20 and 2020-21. Maharashtra (-14.6%), Tamil Nadu (-12.7%), Gujarat (-11.7%), Punjab (-11.5%), and Uttar Pradesh (-11%) are states with the highest decline in the TGST revenue. On the other hand, states with minimal decline are Odisha (-1.8%), Bihar (-2.2%), Chhattisgarh (-3.4%), and Haryana (-4.2%).

Comparing SGST growth with TGST growth between 2019-20 and 2020-21 reveals that loss of TGST is less than SGST revenue. Whereas states on average lost 9.67% of SGST revenue, TGST revenue declined by 8.1%. The total collection of 18 states declined by 11.1% for SGST revenue and 9.8% for TSGT revenue. The less decline in TSGT compared to SGST collection can be attributed to higher IGST collections, mainly IGST revenue from imports.

2021-22: The story of GST recovery

The second wave of the pandemic began in March 2021 and continued till the end of May. It is worth remembering that the second wave was much more devastating than the first wave, with shortages of vaccines, hospital beds, oxygen cylinders, and other medical supplies in many parts of the country. Although a nationwide lockdown was not imposed in India, 35 of 36 of India's states and union territories had some form of state-wide and localised restrictions. As a result, the severity of the pandemic reduced thereafter and accordingly, phased unlocking was announced starting in June in Delhi, Tamil Nadu, Maharashtra, Uttar Pradesh and a number of other states. Things started getting better for the states.

Two major events took place simultaneously in 2021-22. First, as the economy opened up slowly, travel and mobility resumed, and thus, aggregate demand started rebounding. After the easing of Omicron-related curbs by various states, people started going out to relieve their pent-up emotional demands and engaged in 'Revenge shopping'[1]. Second, the mass vaccination program started in all states in May 2021. India had administered about 1.4 billion doses of vaccine to its population by December 2021. According to Health ministry data, 95% of India's adult population was given the first dose of the Covid vaccine, and 74% were fully inoculated by January 2022.

These two measures aided the Indian economy in its revival. A press release by the Ministry of Finance stated that because of the receding of the COVID second wave, fast-paced vaccinations, and enhanced mobility, India's economic recovery gained impulse in September. And this was reflected in better GST collection, which started picking up in August 2021.

Table 2: TGST revenue collection of states

State	Rs Crore			Per cent change in		
	2019-20	2020-21	2021-22	FY21/FY20	FY22/FY21	FY22/FY20
	(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	19780	17847	23234	-9.8	30.2	17.5
Assam	8521	8038	10152	-5.7	26.3	19.1
Bihar	15301	14970	18389	-2.2	22.8	20.2
Chhattisgarh	7625	7362	8931	-3.4	21.3	17.1
Gujarat	34721	30664	45769	-11.7	49.3	31.8
Haryana	18855	18069	23812	-4.2	31.8	26.3
Jharkhand	8153	7383	9146	-9.4	23.9	12.2
Karnataka	42175	38205	51094	-9.4	33.7	21.1
Kerala	19390	17669	22578	-8.9	27.8	16.4
Maharashtra	82966	70870	100475	-14.6	41.8	21.1
Madhya Pradesh	18768	17301	21516	-7.8	24.4	14.6
Odisha	13008	12768	16291	-1.8	27.6	25.2
Punjab	12699	11241	15542	-11.5	38.3	22.4
Rajasthan	21619	20010	27117	-7.4	35.5	25.4
Tamil Nadu	40142	35032	46329	-12.7	32.2	15.4
Telangana	23411	22300	29230	-4.7	31.1	24.9
Uttar Pradesh	46407	41291	53642	-11.0	29.9	15.6
West Bengal	26884	24258	30487	-9.8	25.7	13.4

Note: Same as Table 1.

SGST revenue in the post-pandemic year

A glance at Table 1 indicates that 2021-22 was a year of recovery for the states in terms of SGST revenue. The aggregate SGST collection of 18 major states increased from Rs 2,52,932 crores in 2020-21 to Rs 3,19,826 crores in 2021-22. i.e., a growth rate of 26.4 per cent. The state-wise average increase in the SGST collection was 25 per cent. No states exhibited a downward bend in the growth of revenue collection in 2020-21. Odisha was an outlier with a growth rate of 53.7 per cent. Other top states in terms of performance are Gujarat (32.66%) followed by Maharashtra (32.3%). Meanwhile, Madhya Pradesh (14.8%) and Kerala (18.7%) were the states with the lowest growth.

TGST revenue in the post-pandemic year

Following the SGST collection, the TGST collection of states witnessed a strong recovery in 2021-22. The combined collection of major states increased from Rs 4,15,279 crores in 2020-21 to Rs 5,53,735 crores in 2021-22. This translates into a record increase of 33.3 percent from the previous year. Table 2 shows that, on average, the TSGT revenue of major states

Revenue growth of states recovered sharply in 2021-22. The state-wise average increase in the SGST collection was 25 per cent. Similarly, TGST revenue of states, on average, increased by 30.7%.

Kerala's TGST revenue grew at 27.8% in 2021-22 from a year earlier, less than the all-states average.

upsurged by 30.7 percent from the previous year. All the major states were able to increase their TGST by at least 21 percent. Gujarat (49.3%) and Maharashtra (41.8%) raised their TGST collection by more than 40 percent. This is because of a huge increase in IGST revenue remittance to these states. On the other hand, Chhattisgarh and Bihar recorded the lowest increase in TGST collection, 21.3% and 22.8%, respectively.

As discussed earlier, factors such as faster and mega vaccination drive, unlocking of the economy, and resumption of mobility coupled with economic recovery contributed to this revival of revenue collection. Besides this, higher compliance, along with the use of data analytics and assault on ITC frauds, has a positive impact on the GST revenue of states. Needless to say, these factors contributed to observed disparity among states' recovery.

Is the recovery complete?

Comparing the revenue collection of 2021-22 with 2020-21 suggests that there was a revival in revenue collection. But was the growth in 2021-22 enough to compensate for the loss in 2020-21? Stated otherwise, were the states able to surpass the revenue collection of the pre-pandemic year collection? If yes, by how much? Did they make upthe loss of revenue growth in 2020-21? This section examines to what extent major states have exceeded pre-pandemic level collection. Accordingly, we compare revenue collection in 2021-22 (the recovery year/post-pandemic year) over 2019-20 (the normal year/pre-pandemic year).

With respect to State GST (SGST) revenue, all the states under study were able to outstrip the revenue collections of the pre-pandemic level (2019-20). Column 6 of Table 1 exhibits the percentage change in SGST revenue in 2021-22 compared to 2019-20. Between the two years, the combined SGST revenue of all states increased by 12.4 percent, from Rs 2,84,649 crores in 2019-20, the pre-pandemic year, compared to Rs 3,19,826 crores in 2021-22. States that have beaten the 2019-20 level with superior growth are Chhattisgarh (22.2%) and Gujarat (20.0). In contrast, Bihar, despite its spectacular growth in 2021-22, could better its pre-pandemic collection only by 4 percent. Other states with marginal increases are Kerala (4.6%) and Madhya Pradesh (6.7%).

States, on average, surpassed the pre-pandemic SGST collection by 13 percent in 2021-22. However, there exists a wide

Comparing the revenue collection in 2021-22 with 2019-20 shows that in terms of SGST collection, all states, on average, have surpassed the pre-pandemic year level by 13 percent.

While Chhattisgarh and Gujarat exceeded the 2019-20 SGST collection by 20.0%, Kerala's revenue was up 4.6 percent.

On the other hand, all states were able to increase their TGST collection significantly, i.e., at least by 12 percent between 2019-20 and 2021-22. The all-state average increase was 20 percent.

This higher recovery in TGST collection compared to SGST is due to higher IGST growth.

diversity in the revenue revival of states. Odisha was a distinct outlier with a record 46.3 percent growth in SGST collection.

While it is observed that the recovery of SGST of states has been uneven, it remains to see how the Total GST collection has recovered. The total collection of TSGT revenue grew 20.3 percent in 2021-22 compared to 2019-20, the pre-pandemic year, from Rs 4,60,426 crores to Rs 5,53,735 crores. The noteworthy point is that all states were able to increase their TGST collection significantly, i.e., at least by 12 percent between 2019-20 and 2021-22 (Table 2). Further, the average growth rate of states' TGST collection in 2021-22 over 2019-20 was 20 percent. This indicates that all states have regained the lost revenue in 2020-21 and improved their collection significantly over the pre-pandemic level.

States like Gujarat (31.8%), Haryana (26.3 %), Rajasthan (25.4%), Odisha (25.2%), and Telangana (24.9%) were able to increase their collection by around 25 percent. Among the underachievers, Jharkhand (12.2%), West Bengal (13.4), and Madhya Pradesh (14.6%) exceeded TGST revenue of 2019-20 comfortably in 2021-22.

It is noteworthy to mention here that there exists a wide disparity among states in the recovery of SGST revenue in 2021-22 compared to the pre-pandemic year (2019-20). Eight states have beaten the 2019-20 revenue by less than 10 percent. The standard deviation of growth rates is 9.6 for SGST. But for the TGST revenue, such a wide variation in recovery is absent, with a standard deviation of 5.3. Instead, all states have exceeded the revenue of 2019-20 by at least 12 percent.

Comparing column 6 of Table 1 with Table 2 throws up an interesting fact.

Kerala surpassed the 2019-20 TGST collection by 16.4%.

Excluding Odisha, the average growth of SGST revenue in 2021-22 over 2019-20 was around 11 percent. That is to say, SGST revenue outgrew the revenue of 2019-20 (the pre-pandemic year) by 11 percent. But the growth in TGST revenue was close to 20 percent. This extra growth of 9 percentage points in TGST revenue came from growth in the IGST remittance revenue. Recall that IGST is levied on the inter-state supply of goods and services and import of goods and services. This suggests that by 2021-22, the supply chain management has been restored across states, and inter-state transactions were at full pace.

Our analysis suggests that though the states have surpassed the pre-pandemic level of collections, it would be early to say whether the momentum in GST revenue recovery will continue and whether it reflects the accurate picture of State GST (SGST) revenue growth. It is because 2021-22 was a year of pent-up demand and revenge shopping, weddings and tourism revival. Thus, the correct picture of State GST revenue growth will begin once people exhaust pent-up demand and revenge tourism.

Conclusion

Analysis of 18 major states clearly shows that each state, on average, suffered a loss of total GST revenue by 8.1 percent in 2020-21 over 2019-20 on account of the onslaught of the COVID-19 pandemic and subsequent nationwide lockdowns. However, following faster vaccination, easing lockdowns, and recovery of travel and mobility services, GST collections started to recoup in 2021-22. On average, each state registered a growth of 30.75 percent in 2021-22 compared to 2020-21. This suggests that most of the states have recovered from the pandemic shock.

Further, analysis of revenue collected in 2021-22 over 2019-20 (the pre-pandemic year) suggests that no states stand below the pre-pandemic level of revenue collection, either in the case of SGST collection or TGST collection. However, there is wide variation in the recovery of SGST collection across states but not in the case of TGST revenue. One major reason is the recovery of the economy and, thereby, an acceleration in the consumption of the people. A recent SBI study quoted that 8 percent of the increase in GST revenue is attributed to inflation.

Besides the economic rejuvenation, better governance of GST also plays a dominant role here. E-invoicing has helped in reducing input tax credit abuses to an extent. Similarly, better reporting coupled with greater compliance and economic recovery had a positive impact on GST revenue.

As mentioned in the beginning, the recent monthly collections have been robustly growing and display high buoyancy. Although the statistics give a positive signal of recovery during 2021-22 for the states, the end of the GST compensation period is expected to hit the states' revenue collection. However, the only silver lining is that the monthly collections in this fiscal year have been growing at a robust pace and are expected to reduce the impact of the expiration of

GST compensation. However, some big states continue to grow at a lesser rate and are expected to suffer a loss because of the non-extension of the GST compensation beyond July 2022. Notably, the fact that two years (2020-21 and 2021-22) were Covid affected and states' revenue dried up, and expenditure shot up, extending compensation for a minimum of two years would help stabilise the state economies.

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End Note

[1] Revenge shopping implies consumers making up for lost time with an increase in spending.

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Five Years of GST: Kerala's experience and implications for fiscal federalism

Relfi Paul

The Goods and Services Tax (GST) regime has exhibited both strengths and weaknesses as it completed its fifth anniversary. It continues to make significant impact on India's fiscal federalism. With more than a dozen of taxes enjoyed by both Union government and States subsumed under GST, States have cooperated a lot in the implementation of GST. When Union Government compromised 35 per cent of its gross tax revenue, the States lost 44 per cent of their own tax revenue. Naturally the States need to get more share from GST, but that has not happened. More importantly along with the taxation powers the States have sacrifaced some of their legislative powers also, but did not get enough gain from GST. This game change in States' taxes pattern and their legislative competency has affected their political courage, development activities and welfare programmes.

Fiscal growth: The story so far

Despite political mistrust and disagreements between the Union government and the opposition party-ruled States, the GST Council managed the spirit of cooperative federalism in the initial stage. Even though, it is a fact that many States, including Kerala, are under severe fiscal constraints and are compelled to depend more on the Union government. When we look at the revenue performance of the States and Union government under GST regime for last five years, it is evident that most of the States have failed to achieve their desired goals. According to a recent study by the National Institute of Public Finance and Policy (NIPFP), the revenue attributable to the Union government appears to regularly be higher than the revenue from State GST, including IGST settlement. Comparing the growth in revenue collections before and after the GST is instructive when discussing revenue collection trends. It shows that the State's own tax revenue and revenues from taxes on goods and services before the implementation of GST was higher than that in the years after. Additionally, there are significant regional differences in the average growth of State revenue from taxes on goods and services. The study makes two features clear. One, compared to the pre-GST era, certain States' average growth rates increased as a result of GST implementation, while others saw a fall. Two, the majority of the main States see

It has been five years since GST was rolled out. The journey was, no doubt, beset with multifarious challenges. This included achieving a consensus between stakeholders under the federal structure, facilitating a smooth and orderly migration of the existing taxpayers to the new regime and ensuring that the new system resonates with the diverse aspirations of the citizens. Nevertheless, the proactive and consultative approach between the Centre and the states in the initial years helped overcome many of the challenges. But then the GST Council has failed to maintain this rapo by failing to provide the states with the respect they deserve. This article aims to analyse how GST impacted our Fiscal Federalism for the last five years with special reference to Kerala's experience.

nominal growth of less than 14 per cent, as guaranteed by the Union government.

Kerala's case is not much different. The State has not been able to achieve the desired growth even after five years. The optimum was 14% annual rise. Ever since the GST came into force, the growth in tax collections consistently remained below 10%. The compensation, therefore, increases. The State has received Rs. 26,501 crore from this account so far and came in the fifth position. Maharashtra, Karnataka, Gujarat and Tamil Nadu came in the first four positions, respectively. When we look at the GST revenue, in 2019-20 Kerala received Rs. 27,474 crore from SGST, share of IGST and compensation, which got decreased to Rs 18,595 crore in 2020-21 because of the COVID-19 pandemic and two consecutive floods. In the last financial year, it again picked up to Rs. 33,459 crore, but there is nothing to be proud of because out of this Rs 11,157 crore was received as compensation from Union government. However, the situation is changing gradually, compared to previous financial years, and the SGST revenue has shown positive growth in the first six months of the current fiscal. Till September 2022, Kerala has been able to collect Rs. 16,163 crore from SGST, even though the compensation has ended in June 2022. Although the data show a positive trend, it is a fact that along with other central policies GST would affect the State's finance in the current fiscal also. The State's Finance Minister K.N Balagopal has stated that the State stood to be deprived of around Rs 23,000 crore in 2022-23 compared to last financial year due to various factors, including the discontinuation of GST compensation.

On the other side, the revenue performance of Union government is impressive. It has managed to make reasonable growth in tax collection since last year. Even among the initial technical glitches and other confusions, the financial year 2018-19 witnessed healthy growth with Rs 11.7 lakh crore. In the backdrop of rate reduction without considering the 'Revenue Neutral Rate', the collection during financial year

2019-20 was below estimates and marginally grew at 4 per cent over previous financial year to reach Rs 12.2 lakh crore. While the early months of 2020-21 were heavily impacted by the pandemic, there was an improvement in the later months of the year and managed to reach Rs 11.32 crore, even though it was lower than the previous year. There was a strong recovery in 2021-22, with total collections reaching Rs 14.76 lakh crore, which is 28% higher than the previous year and 23% more than 2019-20. This growth indicated that the economy is recovering from the impact of the pandemic. It is also the result of various policy and administrative measures that have been taken recently. The initiatives like enhancement of system capacity, nudging non-filers after last date of filing of returns, auto-population of returns, blocking of e-way bills and passing of input tax credit for non-filers, etc. have led to consistent improvement in the filing of returns over the last few months. Moreover, the Central enforcement agencies, along with the State counterparts have detected large number of tax evasion cases. Various rate rationalisation decisions taken by the last GST Council meetings to correct inverted duty structure have also contributed largely to this account. It is clear that this positive trend in the revenues will continue.

Federal conflict at GST council

During the pandemic period, all the States have gone through severe fiscal stress. On the one hand, the economic slowdown due to the COVID-19 brought significant reduction in the States' tax revenues. On the other hand, the State governments were primarily positioned to deal with the health crisis raised by pandemic. Both have significantly increased their financial requirements. Federal disagreement over the Union government's slow payment of GST compensation to the States came to the fore in this circumstance of extreme urgency. States ruled by the opposition parties have accused the Union government of substantially hindering their efforts in fighting the health crisis and launching a post-pandemic economic recovery plan by failing to pay their dues. Instead, during the pandemic, the Union government advised the States to choose between two borrowing options to make up for the GST revenue shortfalls. This recommendation led to further protests from the States, which claimed that the Union government was pressuring them to take loans rather than providing its promised legislative commitment. Many States vehemently opposed this, finally the Union government has borrowed and released Rs 1.1 lakh crore in 2020-21 and Rs 1.59 lakh crore in 2021-22 as compensation to the States. This confusion created by Union Government during the time of extreme urgency has led to break the trust of States over GST Council. It is significant to note that apart from the opposition party-ruled States like Kerala, Rajasthan, Tamil Nadu, Chhattisgarh, West Bengal, Delhi and Punjab, there has been a growing support from at least few BJP-ruled States on many issues.

The demand of 12 more States for extension of compensation for ensuring a buoyant post-pandemic economic recovery has been denied by Union Government. In response to this, they said that no more compensation will be required by the States as the GST revenue collection for them have been very robust. It is significant to note that the GST Council has not even permitted to discuss this demand deliberately in its meetings. This attitude further led to lose of their trust on GST Council. The Hon'ble Union Finance Minister pointed out that Section 18 of the 101st Constitution Amendment Act, 2016, which says, Parliament shall, by law, on the recommendation of the GST Council, provide for compensation to the States for loss of revenue arising on account of implementation of the GST for a period of five years. It is clear that the timeframe for compensation to States has ended on 30th June 2022. However the 45th GST Council decided to extend the compensation cess collection till March 2026, exclusively to repay the back-to-back loans. Hence, the issue of GST compensation might snowball into another episode of federal conflict in the time to come.

Fallout of the supreme court judgement

In the *Union of India vs Mohit Minerals Pvt. Ltd*. case, the three-judge bench of the Supreme Court comprising Justices D. Y. Chandrachud, Surya Kant and Vikram Nath deliberated at length on the larger issues of the constitutional framework of GST law and concepts such as cooperative federalism. In its judgment, the bench clearly pointed out that Union and State legislatures have "equal, simultaneous and unique powers" to make laws on GST, and the recommendations of the GST Council are not binding on them. It also stated that the constitutional role and functions of the GST Council must be understood in the context of the simultaneous legislative power conferred on Parliament and the state legislatures. In a multi-party federal system, it is possible that the party in power in the Centre may or may not be in power in other States. Even if the States have been given lesser power, they can still resist the mandates of the Union by using different forms of political contestations permitted by the Constitution. It is not imperative that one of the federal units must always possess a higher share of power over the other units, the court stated. The judgment provides an appropriate occasion for dialogue on several issues surrounding GST in the true spirit of cooperative federalism.

In its judgment, the Supreme Court has mentioned that the Centre yields more voting power in the GST Council, which is against the principals of cooperative federalism. In the present scenario, without the support of the Centre, the states can never muster three-fourth voting strength in the Council. This point has not been discussed deliberately because there was a belief that all decisions will be taken based on consensus, and hence there is no need of voting in the Council. The GST Council successfully managed this believe till its 38th meeting where the voting was held for the first time since its inception. The Council has had 47 meetings so far and made more than 1500 decisions on various issues. With the exception of the rate set for lottery, all of these decisions were made in unanimity.

However, the Council **voted for the first time to decide tax on lottery. The question was whether a uniform rate is needed for** State-run lottery and private lottery? Even though Kerala's demand did not get majority support, it received greater attention among the opposition party-ruled States and also in the national media.

Conclusion

A conducive atmosphere for dialogue and discussion is necessary for the survival of cooperative federalism, especially in a country with such a diverse political landscape. Despite the pervasiveness of a sharp political division and partisan hostility, efforts must be made to reduce the disagreements and strife by forging a unifying stance on important governance issues. One such critical area that calls for a more deliberative and consensus-building environment is the GST reform, which was primarily made feasible through major federal bargains and discussions. This would help to strengthen fiscal federalism in particular. A more robust and transparent consultation approach between the Union government and the States, particularly on questions of resource distribution and decision-making, can advance the GST reform as we entered the significant milestone of five years of GST. As we move into the sixth year, many States are saying that the proactive outlook of the GST Council is decreasing gradually. Hence, it is imperative to re-evaluate the institutional framework and practices of the GST Council, especially in the light of the Supreme Court judgment, and explore how GST regime can be considered and modelled as a good example of cooperative federalism.

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Analysis of GST notifications in India

Jenny Thekkekara and Anitha Kumary L

Introduction

Goods and Services Tax (GST) is implemented in India with the slogan of 'one tax one nation'. Simplification of law and procedures are one of the important objectives of GST implementation in India. GST is known as a Good and Simple tax. Nevertheless, with the introduction of GST, the administrative system of the government was forced to issue a large number of notifications in respect of the various provisions of the GST Law. It resulted in the issuance of 718 notifications till 31 December 2022 (not including the notifications issued by various state governments and union territories) which makes the assessment, levy and administration of tax and its collection complex for both the officials and taxpayers

If a law is simple means the number of changes proposed in it should be less. Due to the frequent issuance of notifications under GST , tax payers are finding it difficult when they process a document for filing monthly returns and reply to assessment orders. The notification with regard to the same be changed overnight without being informed in advance and they are to be fined and charged for non-completion of the process within the time span and limit. Frequent changes in notifications increase the compliance cost of taxpayers by way of upgrading/updating software applications.

The small and medium businesses are the ones who may be affected more as they may fall back in getting timely updates and advise for want of engagement of professionals which normally, they cannot afford. A large number of notifications is likely to reduce compliance and adversely affect revenue. The issuance of these notifications is a major hassle with regard to simplifying tax procedures under GST Law.

Studies on GST are focused mainly on the initial implementation issues of GST in India. The structural bias, major concerns include RNR fixation, fiscal autonomy of states, GST rate fixation, issues of small business, compliance level, issues faced under VAT scenario etc. (Alok Kumar Prasanna (EPW, 2016),Raktim Dutta, Binod Kumar (EPW 2018), Surajit Das (EPW, 2017), The EPW editorial (EPW,

CGST notifications issued are related to different sections of CGST Act. The study observed that a large number of notifications issued are related to section 39 of CGST Act (101 nos). The second section having the maximum number of notifications is section 164. The third section that has a greater number of notifications issued is section 164. Section 37 and section 168 are placed in fourth and fifth positions. The number of notifications issued under Central tax is 394 covering 174 sections. It is observed from the study that a notification issued in one section is not restricted to that particular section only. Certain notifications have implications on 4 to 5 sections.

August 2019) Sudipto Banerjee and Sonia Prasad (EPW, September 2017), Sacchidananda Mukherjee (NIPFP WP No.301, 2020). So far very limited study has been conducted on this area. This study is the first attempt to analyse the notifications issued after the implementation of GST.

This study intends to understand the reasons for the alarming number of GST notifications both general and rate under the Central Goods and Services Tax Act (2017)/State Goods and Services Tax Act since its inception in July 2017 till December 2022. The study will also group the various notifications in relation to the different sections concerned and find out how many notifications have been issued under different sections of the Central Goods and Services Tax Act/State Goods and Services Tax Act, 2017. The study also proposes to look into the legal ambiguity if any for making changes under various sections of the Central Goods and Services Tax Act, 2017. The study will also look into the implication on state revenue due to the enormous number of notifications.

Status of GST notifications

GST notifications are issued under Central Goods and Services Tax Act, 2017 (CGST Act) and Integrated Goods and Services Acts, 2017. (IGST Act) .Notifications are under two categories such as central tax notifications and central tax (rate) notifications. The status of notifications issued from the inception of GST to December 2022 is presented in (Table 1).

Table 1 gives the total number of notifications issued from 2017 to 2022 under various Acts of goods and services tax. It is seen from table 1 that the majority of notifications are issued under central tax category (54.87 per cent). Central tax rate notifications come to 20.61 per cent of the total number of issued notifications. Central tax notifications showed an increase from 2017 onwards and a negligible decrease showed in 2019. In 2020, the number of notifications issued increased to 95. There has been a considerable decline in the number of issuance of notifications from 2021-22. Here one pertinent point to note is that

The study identified the number of sections under which the notifications under Central tax (rate) have been issued. Most of the notifications issued are having implications on sections 9 and 11 of CGST Act. Under section 9, 85 notifications (37.61 per cent) were issued while under section 11, 71 notifications (31.42 per cent) were issued. Section 9 is the charging section and section 11 deals with the power to grant exemption from tax.

along with CGST notifications, there is a need for the issuance of corresponding notifications under State Goods and Services Tax Act, 2017 (SGST Act) . It is observed that the corresponding SGST notifications are not issued on time. For eg;, in Kerala, only the SGST notifications are available in the website of State Goods and Services Tax Department for a limited period. It is learned that the state taxes department issues corresponding notifications for meeting the administrative requirement but not making them available to the public (Table 2).

CGST notifications issued are related to different sections of CGST Act. Table 2 explains the relevant sections under which the number of notifications issued. It is observed from table 2 that large number of notifications issued are having implication on section 39 of CGST Act (16.32 per cent). The second section having the maximum number of notifications (66) is under section 168. Section 168 deals with instructions or directions to Officers for implementing the Act. Section 37 also having a greater number of notifications and placed in

Table 1- The status of notifications issued from the inception of GST to December 2022

Year	Central Tax[CT]	Integrated Tax[IT]	Central Tax (Rate)[CT (R)]	Integrated Tax (Rate) [IT (R)]	Total
2017	75	12	47	50	184
2018	79	4	30	31	144
2019	78	4	29	28	139
2020	95	6	5	5	111
2021	40	3	22	22	87
2022	27		15	11	53
Total	394	29	148	147	718
(per cent)	(54.87)	(4.04)	(20.61)	(20.47)	(100)

Table 2 - Central tax notifications and share of relevant sections involved under CGST Act,2017

Sl.No	Section involved under CGST Act	No. of sections involved in Central Tax Notifications	%sections dealt in notifications
1	Sec.1	8	1.29
2	Sec.5	11	1.78
3	Sec.10	26	4.20
4	Sec.16	6	0.97
5	Sec.19	8	1.29
6	Sec.23	9	1.45
7	Sec.25	14	2.26
8	Sec.29	5	0.81
9	Sec.31	22	3.55
10	Sec.37	57	9.21
11	Sec.38	8	1.29
12	Sec.39	101	16.32
13	Sec.44	16	2.58
14	Sec.47	30	4.85
15	Sec.50	9	1.45
16	Sec.51	17	2.75
17	Sec.54	11	1.78
18	Sec.67	4	0.65
19	Sec.68	6	0.97
20	Sec.128	18	2.91
21	Sec.148	36	5.82
22	Sec.164	62	10.02
23	Sec.168	56	9.05
24	Sec.168A	10	1.62
24	Others	69	11.13
	Total	619	100

third position. Section 168 placed as fourth and fifth positions.

Though the number notifications issued under Central tax is 394 covering 174 sections. By the analysis it is observed that notification issued in one section is not restricted to that particular section. Certain notifications having implications on 4 to 5 sections (Table 3).

It is observed that a larger number of notifications issued under central tax under CGST Act is in Section 39 (16.32 per cent). Section 39 deals with the return filing of inward and outward supplies of goods or services or both. As return filing is online, any difficulty in filing returns has been rectified with the issuance of notifications. Section 164 gives the power

Due to technological glitches, a lot of difficulties and delays occurred in return filing at various stages. This leads to the issuance of a large number of notifications. The lack of coordination of GSTN portal and corresponding provisions in the Act created a lot of anomalies.

to make notifications, 10 per cent of notifications issued on that basis. Section 39 and Section 168 are the two sections also have the issuance of more notifications. Due to technological glitches, a lot of difficulties and delays occurred in return filing at various stages. This leads to the issuance of a large number of notifications. The lack of coordination of GSTN portal and corresponding provisions in the Act created a lot of anomalies (Table 4).

Table 4 gives the number of sections under

Table 3 - Relevant sections dealt under central tax notifications

Sections	Sections dealt with	% sections dealt in notifications
Sec 1	Commencement of the provisions of the Act	1.29
Sec 5	Powers of Officers	1.78
Sec 10	Composition Levy	4.2
Sec 19	Taking input tax credit in respect of inputs and capital goods sent for job works	1.29
Sec 23	Persons not liable for Registration	1.45
Sec 25	Registration	2.26
Sec 31	Tax Invoice	3.55
Sec 37	Returns-Outward supplies	9.21
Sec 39	Returns-Inward and Outward supplies of goods or services or both	16.32
Sec 44	Annual Return	2.58
Sec 47	Levy of Late fee	4.85
Sec 51	TDS	2.75
Sec 128	Power to wave Penalty or fee or both	2.91
Sec 148	Notifying certain class of registered persons for furnishing returns and payment of tax	5.82
Sec 164	Power to make notifications	10.02
Sec 168	Power to issue instructions or directions	9.05
Sec 168A	Power of Government to extend time limit in special circumstances	1.62
Others	Other sections	19.05

Table 4 - Central Tax (Rate) notifications and share of relevant sections involved under CGST Act

Sl.No	Sections under CGST Act.	Central Tax (Rate) Total	Per cent
1	Sec.7	4	1.77
2	Sec.9	85	37.61
3	Sec.11	71	31.42
4	Sec.15	28	12.39
5	Sec.16	12	5.31
6	Sec.51	2	0.88
7	Sec.54	4	1.77
8	Sec.55	2	0.88
9	Sec.148	18	7.96
	Total	226	100.00

which the notifications under Central tax rate have been issued. Most of the rate notifications issued are based on sections 9 and 11 of CGST Act. Under section 9 (Levy and collection of tax-charging section), 85 notifications (37.61 per cent) were issued while under section 11,71 notifications (31.42 per cent) were issued. Section 9 is the charging section and section 11 deals with the power to grant exemption from tax.

Revenue implications on states happened due to the issuance of certain notifications. For E.g., Notification No 41, 2017, central tax (rate), slashed the rate of around 200 commodities from 28 per cent to 18 per cent. It indicates the decline of SGST rate from 14 per cent to 9 per cent. This definitely declines the SGST collection of states. (Joseph and Anitha Kumary, 2021).

Any reduction in tax rate indicates a corresponding reduction in tax revenue to the exchequer. A number of changes in the tax rate of commodities would definitely increase the compliance cost of taxpayers. Administratively also it creates difficulties in assessment for the tax officers. Frequent changes in rates through notifications definitely have an adverse impact on tax administration. Issuance of a large number of notifications has affected the revenue neutrality of rates. As notifications reduce rates or exempt various commodities and services directly reduce revenue collection.

Another issue identified is the lack of coordination of sections of the Act and GSTN network changes. Changes made with the issuance of notifications are carried out in the GSTN portal with a time lag. This lag leads to further issuance of notification for postponement of the date for return filing.

Further, the study analysed the relevant sections and content of notifications.

Revenue implications on states occurred due to the issuance of certain notifications. Another issue identified is the lack of coordination of sections of the Act and GSTN network changes. Changes made with the issuance of notifications are carried out in the GSTN portal with a time lag. This lag leads to further issuance of notification for postponement of the date for return filing. The study also analysed the relevant sections and content of notifications.

Ambiguities are identified in many sections. It is observed from the analysis that the main reason for the issuance of a large number of notifications is the lack of clarity in sections under CGST Act and the corresponding procedure in the GSTN system. It is observed from the analysis that the absence of a stable and simplified return filing system could be the main reason for the issuance of a large number of notifications. Delay in adaptability, lack of domain knowledge while developing the GSTN network, delay in making rule changes in the GSTN system are major factors. Dealers require sufficient time in understanding the legal changes and making corresponding changes/updates while filing monthly returns of 3B and GSTR1 returns.

Purpose of issuing notifications

From the analysis of the content of CGST tax notifications, it is observed that a large number of notifications are issued mainly for rectifying the problems of GSTN system. Around 25 per cent of notifications issued are related to return filing mainly postponement of the date of filing of returns. This indicates that the majority of notifications issued are based on technical issues of GSTN system. Certain notifications have direct implications on various sections of the CGST Act. This needs further analysis of the content of notifications.

Ambiguities identified in relevant sections

Ambiguities were identified in various sections of CGST Acts while analysing the notifications. It needs further analysis of the content of each notification and its implication in each section. It is noticed that notification relates to one section has implications on more than one section. Certain notifications have implications on 3 to 5 sections.

The content of the notification is not clear. The object and purpose of the notification should be given as explanatory notes in each notification. The number of sections dealt with in each notification is not clearly mentioned. This leads to ambiguity in the identification of other related to the notification concerned. This will adversely affect the assessment of both the administration and other stakeholders.

An increase in compliance cost on account of the frequent changes (eg.rate changes) requires upgrading of software

Ambiguities and inconsistencies are identified in many sections. It is observed from the analysis that the absence of a stable and simplified return filing system could be the main reason for the issuance of a large number of notifications. This leads to the lack of clarity in sections under CGST Act and corresponding procedures in GSTN system. Delay in adaptability, lack of domain knowledge while developing the GSTN network, delay in making corresponding rule changes in the GSTN system are some of the factors identified. Lack of sufficient time in understanding the legal changes and making corresponding changes/updates while filing monthly returns of 3B and GSTR1 returns by dealers are also created difficulties

and hardware. Hasty changes need more time to make the updating. This affected both businessmen, practitioners, officials concerned and other stakeholders. Particularly, these frequent changes affect heavily on small traders and MSME sectors.

Registration threshold deviations in certain states eg Telangana where they have not issued notifications for enhancing the threshold from 20 lakhs to 40 lakhs. (notification no.10/2019, Central tax). A similar type of deviation exists in other states. States like Kerala issued the enhancement of notification exclusively for goods with effect from 1 April 2019 (SRO 248/2019). This enhancement of the threshold to 40 lakhs for goods will affect states like Kerala where small dealers are large in number. Some of the notable problems/difficulties identified on account of the issuance of a large number of notifications are as follows.

1. Frequent Amendments in the Rules by issuing notifications make the procedure more complicated. The stakeholders find it difficult to run after the amendments. Reduce the number of issuing notifications. Businessmen have to do business rather than study the notifications for doing business. It will discourage engaging in business and also it will lead to an informal way of doing business and the result will be revenue loss.
2. Notifications issued by the Centre are copied by the States. The purpose for the issuance of the Notification is not explained in the notification. Hence there may arise contradictions in the implementation level even between states.
3. Many notifications are issued in tune with erstwhile service tax notifications like notification 12/2017 Central Tax. The language of the notification should be simple.
4. Same HSN is given for goods having different rates.
5. Complexity of language of the

notifications. Even an expert in law is finding it difficult to understand the meaning

6. All substantive provisions should be in the parent Act. Delegated power should not be exercised for making substantive law ((1026) 7 SCC 703) . Details are given in Appendix 1.

7. Power of government to issue delegated piece of legislation has to be done by rules and not by notifications (Munjaal Manish Bhai Bhat vs Union of India(Guj) (2022) 30 KTR 444 (Guj)

Policy inputs

Issuance of frequent notifications to be minimised. Issuance of notifications will be restricted to once in three months. Changes through notifications will be incorporated in the GSTN portal within the short stipulated time limit. Changes in Acts will be made twice a year. The purpose for the issuance of the notification will be explained in the notification. Notifications will be issued in tune with goods also rather than the practice of considering only the service tax notification method. The language of the notifications should be simple. The use of 8 digit HSN code will be made mandatory for clarity. It is high time to incorporate all substantive provisions in the parent act. Delegated power should not be exercised for making substantive law. Simplification of return filing will be made in order to avoid frequent issuance of notifications thereby reducing the compliance cost of taxpayers for upgrading/updating software applications. Small and medium businesses should get sufficient time for updating for return filing with tax professionals.

■

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3 Websites of cbic.gov.in, gst.gov.in and keralataxes.gov.in.

Appendix 1

Supreme Court in the case of Cellular Operators Association of India v. TRAI [(1026) 7 SCC 703] wherein the Apex Court has delineated the parameters of judicial review of subordinate legislation. It is also well recognised that a subordinate legislation can be challenged under any of the following grounds:

(a) Lack of legislative competence to make the subordinate legislation.

(b) Violation of fundamental rights guaranteed under the Constitution of India.

(c) Violation of any provision of the Constitution of India.

(d) Failure to conform to the statute under which it is made or exceeding the limits of authority conferred by the enabling Act.

(e) Repugnancy to the laws of the land, that is, any enactment.

(f) Manifest arbitrariness/unreasonableness (to an extent where the court might well say that the legislature never intended to give authority to make such rules).

The court considering the validity of a subordinate legislation, will have to consider the nature, object and scheme of the enabling Act, and also the area over which power has been delegated under the Act and then decide whether the subordinate legislation conforms to the parent statute. Where a rule is directly inconsistent with a mandatory provision of the statute, then, of course, the task of the court is simple and easy. But where the contention is that the inconsistency or non-conformity of the rule is not with reference to any specific provision of the enabling Act, but with the object and scheme of the parent Act, the court should proceed with caution before declaring invalidity."

Rule which does not conform to the provisions of the Act will have to be held ultra vires the enabling Act.

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Drivers of inflation during the pandemic: Kerala in a comparative perspective

Renjith P S and Kiran Kumar Kakarlapudi

Introduction

As economies across the globe started reviving in 2022 after the COVID-19 crisis that continued almost for two years, rising global inflation to multidecade highs in many advanced countries has emerged as a fresh challenge (IMF, 2022). This could be partly attributed to Covid-19-related stimulus measures in the form of increased social assistance programs in developed and emerging markets, along with pent-up demand. At the same time, the disruption of global supply chains due to physical restrictions and rising freight costs leading to increased input prices across the globe stoked global inflation during 2021 (Economic Survey, 2022). Food price inflation has been the main driver of inflation as prices of cereals increased due to the War in Ukraine and other export restrictions in several countries.

Consumer prices, especially in the United States, United Kingdom and Europe, have experienced the highest level of inflation in the last four decades (around 8-9%). Although with lesser intensity, in emerging market and developing economies, including India witnessed soaring prices (Figure 1). After an increase in 2020, in comparison to many Emerging Markets and Developing Economies (EMDEs) and advanced economies, consumer price inflation in India remained range bound in recent months, touching 4.9 per cent in November 2021 and 5.6 per cent in December 2021, owing to the proactive steps taken by the Government for effective supply management (Economic Survey 2022). Though prices in India are expected to rise from 5.9 per cent in 2021 to 6.9 per cent in 2022, it is much lower than other EMDEs and European Union (Figure 1). The data monthly CPI data published by MOSPI shows that consumer prices show a downward trend in Q2:2022-

After an increase in inflation in 2020, consumer price inflation in India remained range bound in 2021 compared to many Emerging Markets and Developing Economies (EMDEs) and advanced economies.

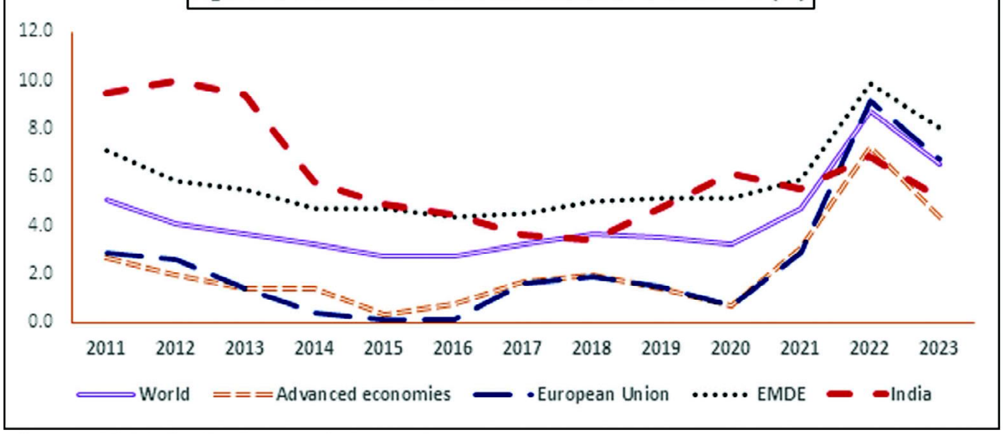
23. In this context, this study analyses the price trends in Kerala compared to other major Indian states. Secondly, we analyse the major drivers of inflation across states and the emerging trends therein.

For the empirical analysis, we use the monthly Consumer Price Index (CPI) data published by the Ministry of Statistics and Program Implementation (MOSPI) from April 2019-20 to September 2022. The monthly data has been averaged to get annual data. Since previous articles (Kakarlapudi and Renjith, 2020; Renjith and Kakarlapudi, 2021) compared the price trends of the pre-pandemic period with the pandemic period, this article compares pandemic and post-pandemic trends. For the comparison, our analysis uses twenty major states contributing to more than 90 per cent of the total GDP. The remainder of the paper is organised as follows. Section 2 discusses the price trends from 2020-21 onwards from a comparative perspective. Section 3 presents the major drivers of the observed trends by analysing the relative contribution of different components of inflation. The final section offers concluding observations.

Price trends during and after COVID-19

The average consumer price inflation in India showed a southward trend from 2013-14 to 2019-20. As many previous studies have already reported, the CPI inflation increased from 4.8 per cent in 2019-20 to 6.2 per cent in 2020-21 due to COVID-19-induced restrictions affecting demand and supply. At the domestic level, two opposing forces were at play. There was a reduction in household demand owing to the loss of income and lower economic activity. At the same time, disruption in domestic supply chains due to restrictions on the movement of goods and services affected supply. The CPI

Figure 1: Inflation Trends Before and After COVID-19 (%)



Source: IMF World Economic Outlook

In 2020-21, Kerala ranked third lowest in CPI inflation (4.94%) after Rajasthan (3.48%) and Punjab (4.26%). Kerala successfully managed to control prices during the pandemic.

inflation, however, varied across major Indian states due to differences in the magnitude of the Covid-19 crisis and the policy response in the form of stimulus measures. In 2020-21, Kerala ranked third lowest in CPI inflation (4.94%) after Rajasthan (3.48%) and Punjab (4.26%) (Table 1). The previous research showed that Kerala had higher than the national average inflation in 2019-20 and it is the only South Indian state to have reversed price trends during the pandemic (Kakarlapudi and Renjith, 2020).

The CPI inflation was higher than the national average in ten out of twenty states, with Tripura (8.01%), Andhra Pradesh (7.98%) and West Bengal (7.94%) among the top in 2020-21. As the lockdown restrictions eased and economic activity resumed, the CPI inflation declined in 2021-22. At the national level, it declined from 6.21 per cent to 5.57 per cent. The prices in Kerala declined further to 3.96 percent and ramined as the state with low inflation. It is important to note that among the states with low inflation, only Kerala continued its position in 2021-22 as the state with the third lowest inflation. Table 1 indicates that fourteen out of twenty states showed a deceleration in prices. The highest price decline was observed in Tripura (4.2%), followed by Chhattisgarh (3.28%), Odisha (3.23%) and Andhra Pradesh (2.12%). Among the six states which showed an increase in prices, Rajasthan (1.54%), Haryana (1.42%) and Karnataka (0.87%) are the top three. In terms of the level of inflation in 2021-22, Telangana (7.09%), Haryana (6.4%) and Madhya Pradesh (6.1%) are among the top three with higher inflation.

The price trends were reversed in many states in the first two quarters of 2022-23 due to a rise in global inflation contributed by a rise in oil prices, the Russia-Ukraine war, and the waning of fiscal stimulus measures. The imported inflation has put pressure on domestic input prices, thereby pushing consumer prices. India, for the first time, exceeded the inflation targeting range (bound 4 +/- 2 per cent) for six consecutive months from January 2022 since adopting the inflation targeting regime in October 2016[1]. Many states have shown an increase in consumer inflation in the first two quarters of 2022-23 compared to the previous year. We found that only three states (Goa, Karnataka, and Tamil Nadu) have shown a price deceleration in 2022-23 compared to 2021-22. Notably, 10 states have shown more than two percentage points increase in 2022-23. The highest price rise was observed in Odisha (3.28%), Rajasthan and Assam (2.46%), and West Bengal (2.43%). Kerala's consumer prices showed an upward trend in 2022-23 after a reduction for two consecutive years. However, it is important to note that Kerala's price (1.45 percentage points) is marginally lower than all of India's (1.59 percentage points). In terms of the level of inflation in Q1 and Q2 of 2022-23, Kerala records the lowest consumer inflation (5.41%) after Goa (3.18%), followed by Karnataka (5.83%) and Tamil Nadu (5.76%). On the other hand, Telangana, Maharashtra, West Bengal, and Andhra Pradesh recorded more than 8 per cent inflation during the same period (Table 1). The analysis shows that the inflation patterns across major states are diverse during the pandemic. Our findings call for a detailed empirical analysis exploring the factors behind the observed trends. Overall, it is evident that Kerala has been an exemplary state in curtaining prices during the pandemic. This could be broadly attributed to Kerala's 'in-kind'

The price trends were reversed in many states in the first two quarters of 2022-23 due to a rise in global inflation contributed by a rise in oil prices, the Russia-Ukraine war, and the waning of fiscal stimulus measures.

Table 1: Inflation trends during and after COVID-19 across major Indian states (%)

State	2020-21	2021-22	2022-23*
Andhra Pradesh	7.98	5.86	8.15
Assam	6.75	4.76	7.22
Bihar	6.49	4.90	5.90
Chhattisgarh	7.78	4.5	5.83
Goa	5.64	4.84	3.18
Gujarat	5.38	5.39	7.79
Haryana	4.98	6.40	7.96
Jharkhand	5.15	4.70	6.56
Karnataka	5.16	6.03	5.87
Kerala	4.94	3.96	5.41
Madhya Pradesh	6.75	6.11	7.77
Maharashtra	6.23	6.06	8.33
Odisha	6.95	3.72	7.00
Punjab	4.26	4.62	6.15
Rajasthan	3.48	5.02	7.48
Tamil Nadu	6.76	5.77	5.76
Telangana	7.73	7.09	9.45
Tripura	8.01	3.79	6.17
Uttar Pradesh	5.26	5.68	7.23
West Bengal	7.96	5.83	8.26
ALL India	6.21	5.57	7.16

Source: Authors' calculation based on MOSPI data

Kerala's consumer prices showed an upward trend in 2022-23 after a reduction for two consecutive years. However, in Q1 and Q2 of 2022-23, Kerala recorded the lowest consumer inflation (5.41%) after Goa (3.18%), followed by Karnataka (5.83%) and Tamil Nadu (5.76%).

transfers through food-kit during the pandemic (Renjith and Kakarlapudi, 2021). Kerala is the only state in the country to distribute food kits throughout the pandemic period. Similarly, Tamil Nadu and Karnataka performed better than many states as these states have a strong presence in the Public Distribution System (PDS), and the state provides several items through its PDS (Pande, 2022). It appears that states that have resorted to cash transfers during the pandemic have experienced higher inflationary pressures. For example, CMIE-CPHS data shows that Andhra Pradesh and Telangana have the highest per-capita government transfers compared to all other states. These two states show relatively higher inflation during the pandemic than many others.

Drivers of inflation

The main drivers of inflation during the pandemic have changed substantially and varied across states (Figure 2). At the national level, the relative contribution of food and beverages to overall CPI was around 10 per cent in 2018-19, with miscellaneous categories contributing to the largest change in prices (Economic Survey, 2019-20). However, during 2019-20 (April- December) and 2020-21, food and beverages emerged as the main contributor to CPI-C inflation, accounting for 54 per cent and 54 per cent, respectively. This is mainly because of supply chain disruptions that continued to persist during the unlocking of the economy, though the effect softened in 2021-22 (Figure 2: Panel B). At the sub-national level, the drivers of innovation varied significantly. The relative contribution of food and beverages is higher than the national average in 11 out of 20 states in 2020-21 and 7 in 2021-22. Figure 2A shows that Rajasthan and Haryana have the lowest food inflation, followed by Punjab and Kerala. In the previous article, Renjith and Kakarlapudi (2021) have shown that Kerala is the only South Indian state to have lowered the prices of food items during the pandemic. Since Kerala is an importing state, food prices should have increased faster during the pandemic due to supply chain disruptions. The factors behind observed variation in the relative contribution of food prices across major

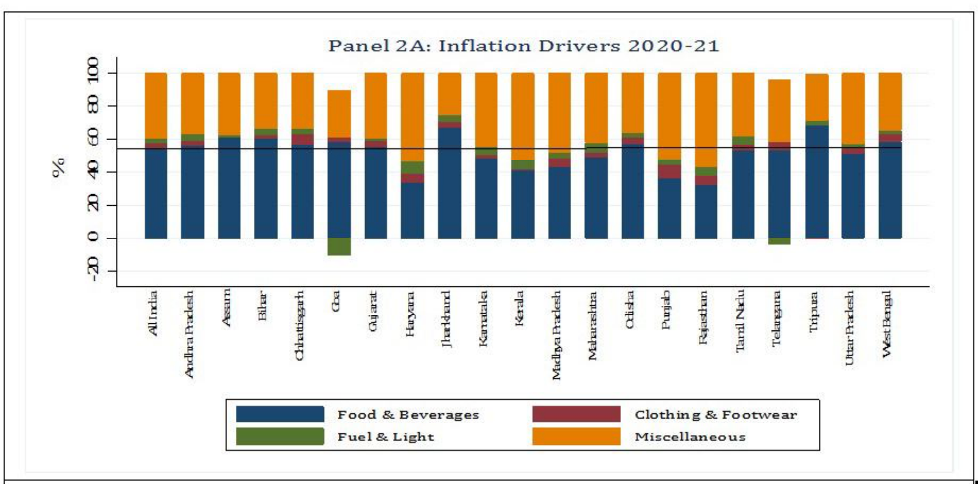
Overall, it is evident that Kerala has been an exemplary state in curtaining prices during the pandemic, largely due to in-kind' transfers. On the other hand, states that resorted to cash transfers (for e.g. Telangana and Andhra Pradesh) experienced higher inflation.

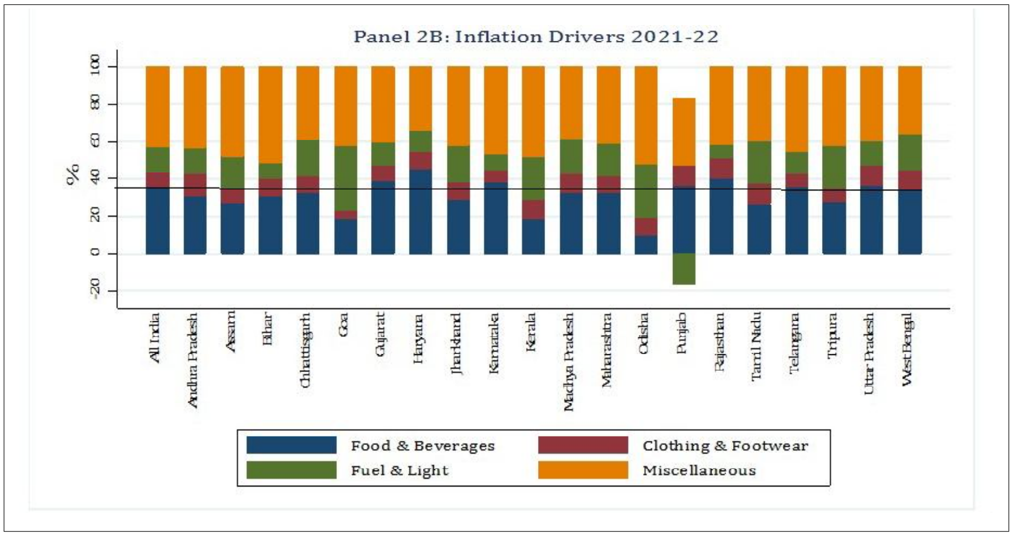
states call for a detailed empirical analysis.

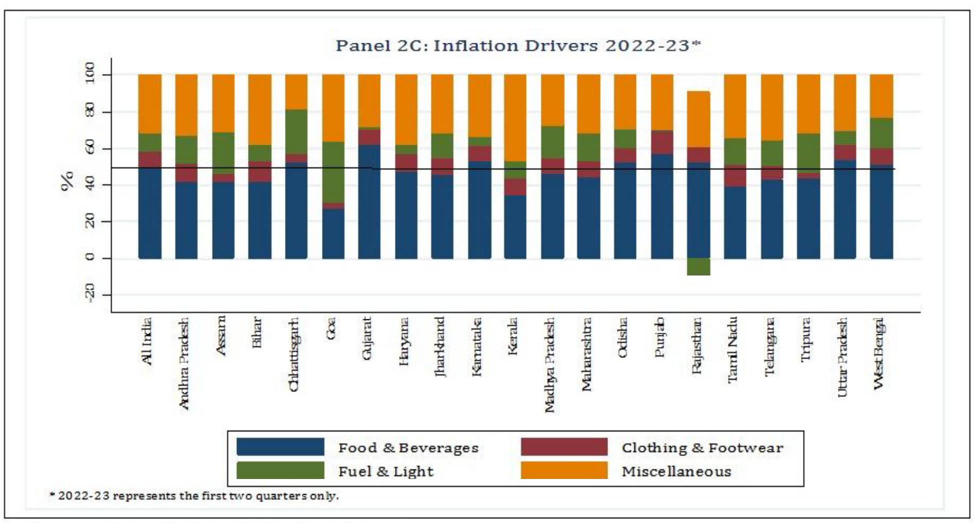
In 2021-22, as the economy recovered from the strict lockdown measures and restored supply chains resulted in a decline in the relative share of food prices in all the states. At the national level, the relative contribution of food and beverages declined from 54 per cent in 2020-21 to 35 per cent in 2021-22. States such as Odisha and Tripura have been successful in significantly lowering the contribution of food and beverages prices in 2021-22 compared to the previous year. Kerala continues to state with one of the lowest shares of food and beverages inflation (19%) among all the states. The relative contribution of fuel and light in overall inflation increased in all the states in 2021-22 compared to the previous year due to high international crude oil, petroleum product prices, and higher taxes. The upward trend was due to unprecedented cuts in crude oil supply by OPEC and other oil-producing countries. The upward trend continued as demand picked up with the easing of COVID-19 restrictions in most regions of the world. Besides, the unwinding of production cuts made last year by OPEC+ countries has been gradual and has not kept pace with the recovery in demand (Economic Survey 2022). Similarly, increased demand for non-food essentials led to an increase in the relative share of clothing and footwear in 2021-22.

The relative share of food prices was reversed in many states in the first two quarters of 2022-23 due to pressure on domestic input prices. We found that food and beverages emerged as the main contributor to CPI inflation, accounting for 49 per cent and 7 states registered the relative contribution of food and beverages is higher than the national

Figure 2: State-wise Drivers of Inflation during and after COVID-19 crisis







Source: Authors' calculations based on MOSPI data

In 2020-21, food inflation accounted for 54 per cent of total inflation at the national level, while in Kerala, it contributed to 40 per cent. The relative share of food inflation declined in 2021-22 across all the states.

average in 2022-23. The highest was observed in Punjab (57%), followed by Uttar Pradesh (54%), and Karnataka (53%). Kerala's share of food prices showed slightly an upward trend in 2022-23 compared to 2021-22. However, it is important to note that Kerala's position is much lower than all of India's. Notably, Kerala records the lowest share (34%) after Goa (27%), followed by Andhra Pradesh and Bihar (42%) (Figure 2).

Conclusion

In the post-Covid-19 recovery phase, global inflation has emerged as a new challenge, largely due to pandemic-induced public stimulus measures, continued disruptions in global supply chains, and pent-up private demand worldwide. While the intensity of inflation has been recorded close to double digits in advanced economies, prices have been rising with less intensity in developed countries, including India. Consequently, the inflationary pressures in India's national and sub-national economy have been a topic of discussion in recent times In this context, we have analyzed price trends in Kerala compared to other major Indian states, as Kerala was above the national average inflation before the pandemic and was the only South Indian state where price trends were reversed during the pandemic.

While we find that consumer prices in Kerala show an upward trend in 2022-23 after two consecutive years of decline, Kerala's price is lower than the all-India average and most importantly Kerala records the lowest consumer inflation after Goa. States like Telangana, Maharashtra, West Bengal, and Andhra Pradesh recorded more than 8 per cent inflation during the same period. Notably, states that resorted to 'in kind' transfers during the pandemic, such as Kerala, are observed to have experienced relatively low inflationary pressures, while states that have resorted to cash transfers during the pandemic have experienced higher inflationary pressures. Since food and beverages emerged as a major contributor to CPI inflation during the pandemic, we analysed the relative contribution of food and beverages to total inflation across states. Kerala continues to be the state with one of the lowest shares of food and beverages inflation among all the states.

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End Note

[1] https://theprint.in/macrosutra/10-in-telangana-5-4-in-kerala-why-some-states-are-feeling-inflation-heat-more-than-others/1038782/

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COVID-19 and unemployment: How does Kerala compare with other states?

Kiran Kumar Kakarlapudi and Shagishna K

Introduction

The outbreak of the COVID-19 crisis has disrupted the global socio-economic landscape resulting in an unprecedented decline in GDP growth, loss of lives and livelihoods of millions, and increased poverty and inequality. According to International Labour Organization (ILO 2021), 255 million full-time jobs are estimated to have been lost in 2020 due to the pandemic. As countries recovered from the COVID-19 shock in 2022, 52 million full-time jobs are yet to recover. The ILO (2022) shows that the labour market's recovery is highly uneven across the countries. While the high-income countries recovered the fastest, lower-middle-income registered a slow-paced recovery. As many scholars pointed out, India was grappling with very high levels of unemployment even before COVID-19 struck the economy. This situation worsened with the pandemic-induced lockdowns, with millions of people going without work for an extended period, resulting in a loss of income.

The issue of loss of employment and livelihoods during and after COVID-19 lockdowns has been subjected to intense debate and discussion. The evidence from the Centre for Monitoring Indian Economy (CMIE)-Consumer Pyramid Household Surveys (CPHS) showed a record rise in unemployment in the last week of March 2020 and April and May 2020 due to nationwide lockdowns. The last week of March 2020 recorded an unemployment rate of 23.8%, much higher than the first two weeks (7.6 %). It continued at 23.5 % in April and May 2020 and declined as the country relaxed the lockdown measures from mid-June 2020 (Vyas, 2020). As per CMIE-Consumer Pyramid Household Survey (CPHS), the average monthly employment in 2019-2020 was 403.7 million. The estimates

During the first wave of COVID-19, the unemployment rate in Kerala doubled from 7.3 % in Jan-March 2020 to 14.8 % in April-June 2020. The increase is, however, lower than the national average, where unemployment increased from 7.9 % to 18.4 %.

In the second wave, Kerala experienced the highest increase in unemployment rate (10.3%) compared to the previous quarter. The increase in unemployment in Kerala is threefold higher than the national average (3.03%).

published by the CMIE (2020) showed that 121.5 million people lost work in April 2020 due to the first lockdown indicating close to 30 per cent have lost their jobs. The severity of lockdowns had a differential impact on different sections. People working in the informal sector, casual labour, women, youth, and people belonging to marginalised communities lost significantly more jobs than others (ILO, 2020; OECD, 2020; United Nations, 2020).

However, the state-level experience of COVID-19 has been highly diverse in terms of COVID-19-related containment measures and caseload. The first COVID-19 case was reported in Kerala, but the state has effectively contained the spread of the virus in the first wave through coordinated efforts which have received international acclaim. However, the second wave has been devastating since Maharashtra and Kerala have accounted for more than 60 per cent of daily cases reported. Hence, the effect of COVID-19 on employment and its recovery is likely to be very different across states. Analysing the loss of employment across states, Kakarlapudi (2022) showed that Kerala experienced the highest employment loss during the first two waves of the pandemic.

This article analyses the unemployment trends of Kerala in comparison with other major states during and after the COVID-19 pandemic using the Employment Outlook publication of CMIE. The remainder of the paper is organised as follows. Section two presents the unemployment trends across states. Section three discusses unemployment differences across rural and urban areas. Section four presents gender-wise differences in unemployment. The last section provides concluding observations.

Unemployment rate across major Indian states in India

Due to the sudden lockdown in April 2020, employment declined in terms of both jobs and aggregate working hours (Mandal et al., 2020). The first wave of COVID (Q2 - April-May 2020) contributed to the increase in the unemployment rate by 23.5% (CMIE, 2020). The unemployment rate in Kerala doubled from 7.3 % in Jan-March 2020 to 14.8 % during April-June 2020. The increase is, however, lower than the national average, where the unemployment increased from 7.9 % to 18.4 % (about a 10% increase). Among other states, Jharkhand experienced the highest increase (32.2 %) in unemployment during the lockdown period, followed by Tamil Nadu (28.3%), Bihar (24.7%), and Karnataka (16.2%). The states with the lowest unemployment rise during the lockdown are Chhattisgarh, Assam, Rajasthan, and Telangana, with less than

Table 1: Unemployment trends across major states (in%)

States	Jan - Mar 2020	Apr - Jun 2020	Jul - Sep 2020	Oct - Dec 2020	Jan - Mar 2021	Apr - Jun 2021	Jul - Sep 2021	Oct - Dec 2021	Jan - Mar 2022	Apr - Jun 2022
Andhra Pradesh	5.70	13.73	7.23	6.43	4.70	8.37	7.10	5.77	7.50	4.73
Assam	4.63	7.10	3.50	4.87	1.40	0.30	4.03	4.53	8.80	8.87
Bihar	12.10	36.80	12.70	10.83	12.20	11.93	12.20	14.90	13.87	16.13
Chhattisgarh	8.53	9.37	5.97	5.77	5.03	4.53	3.80	2.30	1.77	0.87
Gujarat	6.20	11.33	2.37	3.63	2.87	1.97	1.57	1.80	1.83	2.23
Haryana	23.73	32.97	25.67	28.47	23.83	30.53	28.30	31.33	26.93	29.87
Jharkhand	10.20	42.40	8.90	11.23	12.10	15.07	12.83	15.53	12.80	13.13
Karnataka	3.33	19.40	2.30	1.63	2.33	4.27	2.20	1.90	2.23	3.57
Kerala	7.30	14.87	8.00	5.40	5.23	15.60	8.07	6.40	5.57	5.63
Madhya Pradesh	3.63	13.63	4.57	3.87	3.23	2.97	2.97	2.27	2.47	1.27
Maharashtra	5.17	15.20	4.87	3.70	3.70	5.20	4.40	4.27	4.17	4.03
Odisha	6.03	13.00	1.80	1.37	2.37	4.17	2.03	1.10	4.17	1.77
Punjab	10.80	15.93	9.93	7.27	7.53	7.47	7.40	8.30	8.40	8.30
Rajasthan	12.70	15.93	16.20	23.60	21.00	27.30	21.90	25.60	25.27	26.97
Tamil Nadu	3.37	31.73	4.80	1.27	3.93	12.87	6.03	5.63	4.20	2.80
Telangana	6.53	10.50	4.83	3.83	4.53	5.67	4.10	3.47	6.70	9.77
Uttar Pradesh	8.90	17.13	5.20	7.97	4.37	5.83	5.67	4.63	3.37	2.93
West Bengal	6.23	14.03	10.33	9.13	6.30	16.33	7.20	6.53	6.10	5.73
All India	7.93	18.46	7.46	7.53	6.63	9.66	7.40	7.53	7.43	7.56

Source: CMIE- Employment Outlook, Various Years

In the first wave, Kerala experienced the lowest rise in rural unemployment and the second lowest rise in urban unemployment among the south Indian states. In the second wave, in contrast to the national trends, the increase in unemployment in rural Kerala was higher compared to urban areas.

a four per cent rise. In the subsequent quarter, the unemployment trends restored to pre-pandemic levels in 10 out of 18 major states. Although Kerala's unemployment rate declined during July-September 2020, it was marginally higher (0.7%) than the pre-pandemic levels (Table 1).

India has emerged as a significant global hotspot in the second wave (Q2-April-June 2021) of the COVID-19 pandemic. India has overtaken the United States as the second-highest country in the world in terms of COVID-19 positive cases. However, the Reserve Bank of India predicted that the second wave of COVID-19 will be less affected than its first wave (RBI, 2022, p. 77) as the economy did not implement nationwide lockdowns. Many states have implemented partial lockdowns depending on the severity of the lockdowns. Approximately seven million jobs were lost in April 2021, according to CMIE, and the unemployment rate rose to 7.97% in April-May 2021 from 6.5% in March 2021. During the second wave (April-June 2021), Kerala experienced the highest increase in the unemployment rate (10.3%) compared to the previous quarter. The increase in unemployment is three-fold higher than the national average (3.03%). The significant rise in unemployment during the second wave in Kerala was due to the strict containment measures that the state implemented in the form of weekend lockdowns etc., to restrict rapidly rising caseload. Among other states, West Bengal (10.03%), Tamil Nadu (8.9%) and Haryana (6.7%) registered high increases in the unemployment rate compared to the previous quarters. The unemployment rate gradually declined in most states' subsequent quarters of 2021 (Table 1).

A comparison of unemployment trends in April-June 2022 with pre-pandemic levels (Jan-March 2022) indicates that unemployment levels have restored to pre-pandemic levels in 12 out of 18 states. The unemployment rates continue to be high in Rajasthan, Assam, Haryana, Bihar, Telangana and Jharkhand. Out of these six states, the unemployment rate continued to be higher in all the quarters after the second wave of the pandemic compared to the pre-pandemic levels. It is interesting to note that except for Rajasthan, Haryana, Bihar, and Jharkhand are poor-income states. The issue of persistently high unemployment rates in these states needs careful empirical scrutiny.

Differential impact on rural and urban areas

The number of COVID-19 cases has been considerably higher in urban areas compared to rural areas. Further, the

Gender differences in unemployment trends in Kerala during the pandemic are different from the national trends. While the unemployment rise in females was higher than in males at the national level, Kerala showed a decline in female unemployment during the first wave.

agricultural sector remained insulated from the COVID-19 shock, while the non-agricultural sector has been severely affected by the pandemic. Therefore, it is plausible to expect that rural areas, predominantly depending on agriculture, are less likely to get affected compared to urban counterparts. The evidence also suggests that south Indian states like Kerala, Tamil Nadu, Karnataka, Andhra Pradesh and Telangana, with relatively high urbanisation, showed a much higher spread of COVID-19 than north Indian regions. Therefore, the employment impact of COVID-19 is significantly higher in urban areas than in rural areas.

Even before the pandemic, the urban and rural unemployment rate was the highest in Kerala compared to other south Indian states. The average urban unemployment in Kerala in 2019 was 6.7 % compared to 2.8 % in Karnataka and 4 % in Tamil Nadu, the neighbouring states. Similarly, the average rural unemployment in Kerala in 2019 was 7.7% compared to 3% in Karnataka and 2.2% in Tamil Nadu. Interestingly, urban unemployment was lower than rural unemployment only in Kerala and Karnataka, while in other states, the trend is just the opposite (Table 2). For the analysis of COVID-19 impact, we have taken the average of two waves, Jan-April 2020 and June-August 2020, as CMIE-CPHS survey data reports data once in four months. Our analysis shows that Kerala had the second-lowest increase in the urban unemployment rate (3.5%) after Karnataka (3.25%) compared to pre-pandemic levels (i.e. average unemployment rate in 2019). Tamil Nadu and Andhra Pradesh experienced the highest rise in unemployment levels during the first wave. Similarly, the unemployment increase in rural areas during the first wave was the lowest in Kerala (2.7%) (Table 2).

In all the South-Indian states, unemployment was higher in urban areas than in rural areas, except in Telangana. The low increase in the urban unemployment rate in Kerala can be credited to various policies and programs adopted by the Kerala government. Such as, Ayyankali Urban Employment Guarantee Scheme (2010) aims to enhance the livelihood of the urban population by guaranteeing hundred days of wage employment. The urban employment guarantee scheme works efficiently in Kerala and aims to hit 50 lakh person-days of work in 2022. Rural unemployment rate reduction right after the lockdown quarter could be attributed to increased labour participation in the agriculture sector. In rural areas, MGNREGA has served as an important support system. According to

Table 2 - Unemployment rates across rural-urban areas (%)

	Urban						Rural					
	AP	KA	KL	TN	TS	AI	AP	KA	KL	TN	TS	AI
Jan-Apr 2019	5.38	1.97	6.65	2.11	3.07	7.56	4.4	0.84	7.89	1.42	2.25	6.55
May-Aug 2019	4.84	3.52	7.17	5.09	2.77	8.44	3.57	4.34	7.66	2.9	2.81	7
Sep-Dec 2019	6.88	2.87	6.31	4.7	5.68	9.04	4.1	3.85	7.6	2.31	4.51	6.79
Jan-Apr 2020	15.27	5.14	13.66	17.21	7.48	12.42	7.09	6.67	8.06	10.69	6	9.48
May-Aug 2020	10.84	6.94	6.81	10.38	7.41	12.7	6.9	8.78	12.92	11.13	10.14	11.02
Sep-Dec 2020	5.53	2.01	6.07	1.37	4.86	7.84	4.83	1.74	5.75	2.91	3.12	6.74
Jan-Apr 2021	6.37	2.33	6.01	4.86	5.2	7.67	4	2.43	6.2	2.47	4.05	6.44
May-Aug 2021	7.73	4.41	10.5	8.42	6.28	9.61	7.72	3.1	13.51	7.88	4.94	8.09
Sep-Dec 2021	5.41	2.26	6.81	5.93	5.61	7.94	4.88	1.77	7.31	5.22	2.97	7.02
Jan-Apr 2022	5.76	2.94	6.72	3.49	8.42	7.84	5.66	2.23	5.95	3.78	8.04	7.24
May-Aug 2022	5.68	2.78	6.89	3.09	9.23	7.84	3.33	4.3	5.97	3.19	7.81	7.24

Source: CMIE- Employment Outlook, Various Years

Note: AP - Andhra Pradesh, KA - Karnataka, KL - Kerala, TN - Tamil Nadu, TS - Telangana, AI - All India.

the official database, over 252 crore person-days of work were generated until November 2020, representing a 43% increase over the previous year. Since April, only 55% of rural respondents who requested work have obtained it. Furthermore, almost everyone (98%) who got a job said they would like to work more days (APU, 2021).

In the subsequent months of 2020, the unemployment rates in Kerala were restored to pre-pandemic levels both in rural and urban areas. Among other states, the urban unemployment rate did not reach the pre-pandemic level in the case of Telangana. In the case of rural unemployment, Andhra Pradesh and Tamil Nadu did not show the unemployment rate back to pre-pandemic levels. In the second wave, as noted at the aggregate level, Kerala experienced the highest unemployment rise among the Indian states. This trend is reflected in rural and urban unemployment trends, with rural areas experiencing higher unemployment (7.3%) than urban areas (4.4%) from May-August 2021. Similarly, Andhra Pradesh and Telangana also experienced a higher increase in rural unemployment than urban unemployment in the second wave.

The comparison of average unemployment during 2022 (Jan-Aug 2022) with the average unemployment of 2019 shows that except in Kerala, rural unemployment in 2022 is higher in all other south Indian states. In the case of urban unemployment, Kerala, Karnataka and Telangana show higher unemployment in 2022 than in 2019. The observed trends suggest that Kerala has yet to restore unemployment to pre-pandemic levels in urban areas.

In line with the aggregate trends, Kerala experienced the highest increase in male and female unemployment. However, female unemployment was higher than male unemployment.

COVID-19 and gender differences in unemployment

Women have historically had lower labour market involvement than men, and numerous causes have been suggested. Higher educational attainment or enrolment rates cause workers to enter the labour market later (Eapen, 2004; Lahoti and Swaminathan, 2013; ILO, 2013; Chaudhari & Verick, 2014; Sirisha, 2016), the belief that women's incomes are secondary sources of income and are not necessary for high-income households (ILO, 2013; Subramaniam, 2013; Abraham, 2013; Chaudhari and Verick, 2014), poor working conditions, and wage discrimination (ILO, 2013). Numerous studies have focused on women leaving the workforce "voluntarily" (Eapen, 2004; Sudarshan & Bhattacharya, 2009; Abraham, 2013; Chatterjee et al., 2016). While some research (Das et al., 2015) attribute the decreased participation of women in the workforce to marriage, others claim that no such retreat is seen (Unni, 1996). Patriarchal societal norms largely cause low Female Labour Force Participation Rates (FLFPR) in India, a disproportionate amount of care work, and home responsibilities, according to Chapman & Mishra (2019).

Kerala has been known for very high female unemployment rates. The previous research shows that the COVID-19 pandemic has disproportionately affected women compared to men. Table 3 shows the unemployment trends across gender categories during the pandemic. As in Table 2, the first wave corresponds to the average of Jan-Aug 2020, and the second wave corresponds to May-August 2021. As shown by many previous studies, even before the outbreak of the COVID-19 pandemic, Kerala had the highest female unemployment (34.5%) among the south Indian states in 2019, followed by Karnataka (21.2%). Comparing unemployment trends between males and females during the first wave reveals several trends. In contrast, with the findings of other studies (APU, 2021), unemployment was higher among males than females in Kerala during the first wave. The unemployment rate of females in Kerala during the first wave is 10 % lower compared to 2019. Kerala is the only state where female unemployment declined during the pandemic. This indicates distress-driven employment. The literature postulates that women work in times of distress to supplement household income. Secondly, during first-wave, Kerala effectively harnessed the Self-Help Groups to contain the virus spread. Women's active participation in Kudumbasree-led community kitchens etc., could have played a role in reducing the unemployment rate.

Table 3 - Gender-wise unemployment rate among south Indian states (in %)

	Male						Female					
	AP	KA	KL	TN	TS	AI	AP	KA	KL	TN	TS	AI
Jan-Apr 2019	4.79	1.11	3.86	1.26	3.22	5.64	3.89	3.46	35.96	3.37	0.73	15.77
May-Aug 2019	4.21	1.24	4.11	2.24	3.82	6.06	1.82	29.95	33.91	9.29	0.22	17.63
Sep-Dec 2019	4.88	1.02	3.81	2.37	6.57	6.16	5.02	30.09	33.67	7.46	1.03	17.47
Jan-Apr 2020	9.09	3.97	7.45	13.43	8.42	9.37	11.59	29.27	31.72	13.45	2.46	18.52
May-Aug 2020	8.56	7.01	9.3	10.72	8.01	10.87	5.65	14.09	16.63	11.06	11.52	17.14
Sep-Dec 2020	5.13	1.29	5.13	2.25	4.4	6.10	4.57	6.98	14.09	2	2.19	15.06
Jan-Apr 2021	4.63	1.91	5.24	3.43	5.69	6.04	5.23	6.04	15.03	4.35	1.67	13.28
May-Aug 2021	7.79	3.73	10.09	7.41	6.16	7.88	7.29	2.8	28.97	12.56	3.76	14.28
Sep-Dec 2021	4.94	1.68	5.47	4.42	5.42	6.65	5.63	3.95	21.44	13.13	0.55	12.80
Jan-Apr 2022	5.2	1.89	5.25	3.26	6.35	6.57	8.63	7.71	17.11	6.81	11.71	14.79
May-Aug 2022	3.73	2.9	5.37	2.55	7.59	6.57	6.69	12.36	17.11	7.53	10.21	15.20

Source: CMIE- Employment Outlook, Various Years

Note: AP - Andhra Pradesh, KA - Karnataka, KL - Kerala, TN - Tamil Nadu, TS - Telangana, AI - All India.

In the second wave (May-Aug 2021), Kerala has the highest increase in both male and female unemployment compared to other south Indian states. While male unemployment doubled in May-Aug 2021 compared to Jan-Apr 2021, female unemployment showed a 13 % increase. Among south Indian states, only Karnataka showed a decline in female unemployment in the second wave (Table 3). The spike in female unemployment in the second wave needs further analysis. Unlike in the first wave, during the second wave, women-led SHGs were not active as there were no complete lockdowns. This could explain the rise in female unemployment. A comparison of unemployment in 2022 (Jan-August 2022) with 2019 shows that male unemployment in Kerala did not return to pre-pandemic levels. It is 1.3 % higher than the pre-pandemic level, the highest among south Indian states. On the contrary, Kerala's female employment in 2022 is 17 % lower than pre-pandemic levels (Table 3). Similarly, in Karnataka, female unemployment in 2022 will be 11 % lower than in 2019. In Telangana, female unemployment in 2022 is 10 % higher compared to 2019 levels.

Conclusion

The analysis of the COVID- 19 impact on unemployment trends in Kerala and other Indian states shows that the unemployment rate in Kerala doubled in the pandemic quarter compared to the previous quarter. It is lower as compared to the national average during the first wave. In the second wave, Kerala witnessed the highest unemployment rate, and the increase was three-fold higher than that of India and higher among other Indian states. This trend is also reflected in rural and urban unemployment rates. In the case of rural-urban comparison of unemployment, Kerala and Karnataka have lower urban unemployment rates than rural areas.

Similarly, the unemployment increase in rural areas during the first wave is also lower in Kerala compared to other South-Indian states. The rural and urban unemployment rates are restored to pre-pandemic levels in Kerala. Looking into the gender-wise unemployment rates during the first wave, unemployment was higher among males in Kerala. It is the only state where female unemployment declined during the pandemic period. The second wave shows that Kerala has the highest increase in both male and female unemployment rates compared to other south Indian states. However, Kerala is among the 12 states in terms of restoring unemployment rates in the post-pandemic period.

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Global agenda of financial inclusion: Where does India stand?

Lekshmi Prasad and Kiran Kumar Kakarlapudi

Introduction

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost (The Committee on Financial Inclusion, 2008). India's journey of financial inclusion began even before its independence with the establishment of the Imperial Bank of India in 1920. Section 2(b) of the Act that led to the establishment of the bank clearly stated, *" that within five years from the commencement of this Act, the Bank shall establish and maintain not less than one hundred new branches, of which at least one-fourth shall be established at such places as the Governor General in Council may direct"* (IMPERIAL BANK OF INDIA ACT, 1920). This commitment is further confirmed by similar conditions put on the State Bank of India when it was nationalized in 1955 in independent India and took it forward by the nationalization of banks in 1969 and 1980. By the mid-1980s, however, there was a realization that despite the massive expansion of the branch network of public sector banks, disadvantaged groups still did not have access to credit as they lacked collateral and had low repayment capacity (RBI, 2018). The MYRADA experiment with self-help affinity groups in the mid-1980s and NABARD and RBI support later to the experiment, addition of the SHG-Bank Linkage model of access to formal credit become easier in the early 1990s. This spread rapidly in some parts of India, opening the door of banks to disadvantaged women (Fernandez, 2007).

The latest episode of India's financial inclusion journey is the introduction of the flagship programme Pradhan Mantri

India registered the highest growth in formal account ownership in the world compared to other countries during 2011-2021. Account ownership in India has increased from 35 per cent in 2011 to 77 per cent in 2021, while that of the world average increased from 61 per cent to 76 per cent.

It can be attributed largely to the introduction of PMJDY in 2014. However, this program seems to have created a large pile of duplicates, and inactive accounts

Jan-Dhan Yojana (PMJDY) in 2014. Though there has been a phenomenal increase in the share of adults having a bank account by 30 per cent after the introduction of PMJDY, several challenges including the duplication and dormancy of accounts along with a disproportionate increase in the number of borrowers raise the question of the appropriateness of PMJDY to achieve universal financial inclusion in India (Sinha and Azad, 2018). The objective of providing access to formal banking through PMJDY was also to facilitate Direct Benefit Transfers (DBTs) like welfare pensions, scholarships, MNREGA wages etc. Going by the definition of financial inclusion, financial access does not imply the availability/ affordability of financial services for the weaker and marginalized. In this context, this study analyses the trends in *financial access and financial use* in India from a comparative perspective.

This paper uses the Global Findex database 2021 to analyze performance in access and usage dimensions of financial inclusion by comparing with other country groups. The World Bank publishes Global Findex data, which provides information on the incidence of various financial services and the intensity of their use by adults in 148 economies around the globe. The various indicators used in the database are collected through interviews with more than 1,50,000 randomly picked individuals (adults) from the 148 economies. The first report of this triennial survey came out in 2011, next in 2014 followed by 2017, and the latest in 2021.

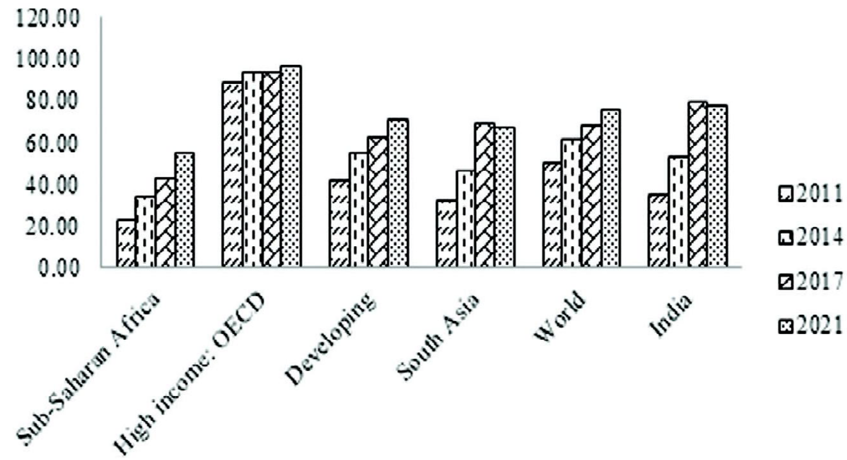
Access

Account ownership can be considered a proxy for the access component of financial inclusion. It can be placed at the very base since it is the gateway to the formal banking system and the first point of contact to the same. The Global Findex 2021 defines account ownership as the ownership of an individual or jointly owned account at a regulated institution, such as a bank, credit union, microfinance institution, post office, or mobile money service provider[1] (Figure-1).

There has been a gradual increase in account ownership in the last decade. As per the latest Global Findex database 2021, about 76 percentage of global adults[2] own bank accounts (Figure 1). Nonetheless, the cross-country variations are significant. While the advanced OECD countries have achieved close to 100 per cent account ownership, in Sub-Saharan Africa (SSA), more than 60 per cent of the adult population still does not have a bank account. In India, account ownership has grown from 35 per

Despite the phenomenal rise in account ownership, India is still home to World's largest unbanked population in 2021. Affordability and distance are cited as primary reasons for lacking a bank account.

Figure 1: Percentage of Adults owning a bank account



Source: Global Findex database, 2021.

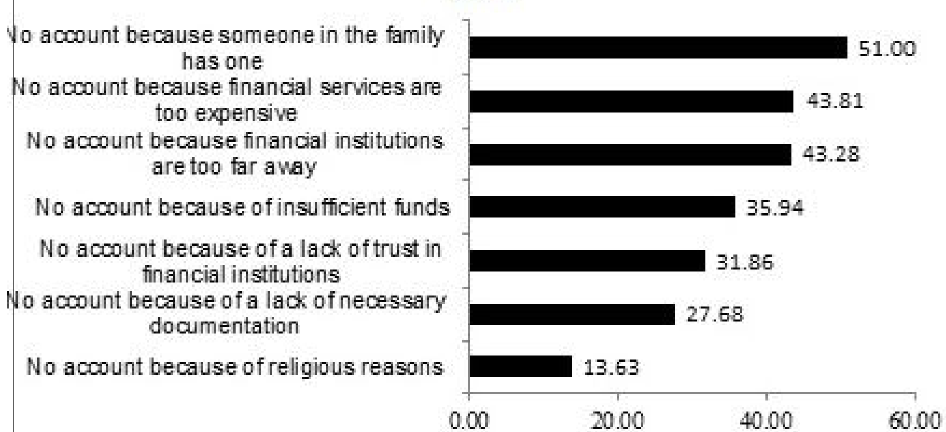
cent in 2011 to 77 per cent in 2021, the highest among the developing countries. India's account ownership marked a historical growth rate of 26 percentage points between 2014 and 2017, which can be attributed to the world's largest financial inclusion drive Pradhan Mantri Jan Dhan Yojana. During the same period, world account ownership has grown by 6.57 percentage points while that of developing economies by 7.27 percentage points. The growth rate of developing economies was led by India. The growth rate of the developing economies, excluding India is just three percentage points.

Another stylized fact is that account ownership has marginally fallen by three percentage points from 80 percentage to 77 percentage during 2017-2021 in India. Most importantly, India is the only comparator country with an absolute decline in ownership of formal bank accounts. All other groups under consideration show an increase in adult account ownership from 2017 to 2021. Another significant trend crucial for policy is that India has the largest share of inactive accounts, with 35 per cent of the adult population who reported having an account owned an inactive account. This trend corresponds to the finding in the previous studies, which argued that PMJDY contributed to dormant bank accounts (Sinha and Azad, 2018). Among the reasons for not using, 49 per cent of them reported that distance to the financial institution was the reason, while 46 per cent reported that they did not need an account (Figure-2).

Despite the impressive rise in account ownership, India is home to the largest number of people without a formal bank account (17%). Among the non- account holders, multiple factors that contribute to their status of unbanked. In the Indian case, individuals prefer not to hold an account because someone in the family has one is the most significant reason reported by the respondents. This can be considered a byproduct of PMJDY, and it is noteworthy that it leads to voluntary exclusion. That is the adults prefer themselves to be not a part of the formal financial system rather than due to supply bottlenecks. Affordability is the second most significant reason for exclusion from formal banking services, followed by distance to the banks. These two factors are quite disturbing since affordability is one of the most important components of financial inclusion, but still it acts as the prime hindrance for involuntary exclusion. Also, even after a century after the enactment of the Imperial Bank Act which stressed on the directed branch expansion followed by a series of other policies for the same, distance acts as the second most important cause of involuntary exclusion from the formal banking services in India (Figure-2).

In the era of digitalization, technology can

Figure 2: Reasons for not having a Financial Institution Account in India



Source: Global Findex database, 2021.

While India's account ownership is almost comparable to high-income OECD countries, only 26 per cent use formal sources for borrowing. This is far lower than the world average (53%) and developing country average (43%), indicating poor financial deepening.

be leveraged to bring the under-banked Indian population under the net of formal banking. The problem of proximity and affordability can be mitigated by popularizing mobile-based banking, and we have some successful models from Sub-Saharan Africa to adopt. There is a growing literature which underscored the importance of digital financial inclusion and fintech in fostering financial inclusion (Ghosh, 2019). Though India has a very high rate of mobile phone diffusion and digital financial inclusion compared to many other countries, India's achievement is not impressive. In the case of India, while 65.6 percentage of people own a mobile phone, only 12 percentage use a mobile phone to make some financial transactions (World Bank, 2021).

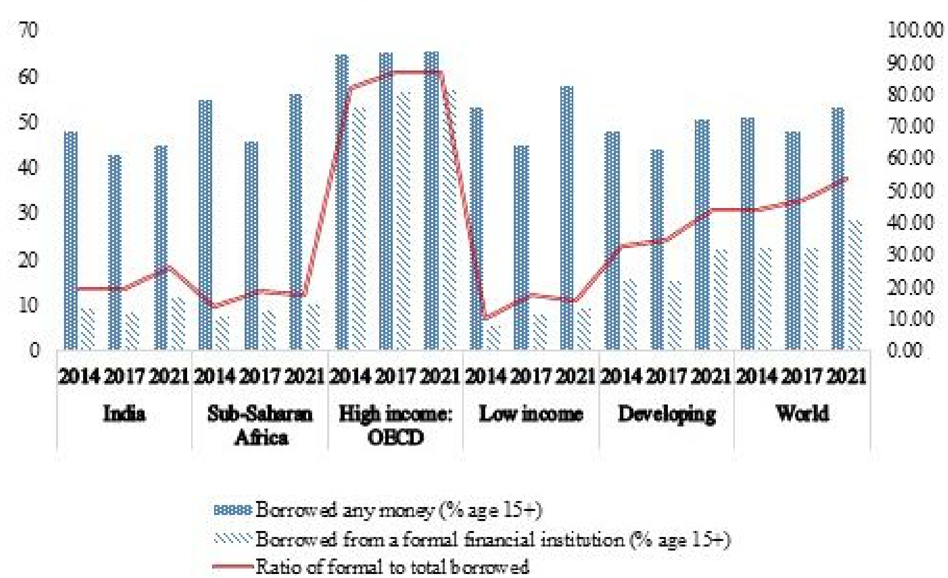
Use

The second main pillar of financial inclusion is the use of financial services from formal institutions. Formal financial institutions provide a wide range of financial services which ranges from deposits, loans, payment function, investment, etc. Among them, one of the important development functions that formal financial institution such as banks carry out is lending loans to their customers. So the usage dimension of financial inclusion is aptly captured by the borrowings. People can borrow from formal sources and informal sources. But formal sources are more desirable to the system since they can protect the marginalized and vulnerable sections from usurious interest and exploitation from informal sources such as money lenders, traders or landlords (Figure-3).

It could be observed from Figure 2 that a minimum of 45 percentage of households borrow money across country groups. But the differences in the proportion of people borrowing from formal sources are glaring across countries. High-income OECD countries have the highest share of institutional credit in total borrowings, while the share becomes very minimal in the case of SSA, low-income economies and the same for India. In India, the percentage of households borrowing money decreased from 47 percentage in 2014 to 42 percentage in 2017 and increased marginally to 44.7 percentage in 2021. There is an increase in borrowing in general, and holds the same for institutional borrowings in 2021. This increased indebtedness could be partly attributed to the COVID-19-induced income and livelihood crisis, where millions have lost their jobs across the world and resulting in an unprecedented rise in unemployment, especially for those employed in the informal sector (ILO-OECD, 2021). Significant variations exist in the proportion of people borrowed from the formal source. Though dependence on formal sources increased marginally from 2017 to 2021, India still has a very large dependence on informal sources as only 11.78 per cent borrowed from formal sources compared to the 28.3 per cent global average.

Among the people who borrowed, the share of people borrowed from formal sources in India is just 26 per cent compared to 53 per cent of the world average and 43 per cent for developing countries. On the contrary, in the high-income OECD countries, 87 per cent of those borrowed have been borrowed by formal financial institutions. While India made significant strides in improving access, almost comparable to OECD countries and way above the developing countries, in terms of formal financial access, The economy hardly showed any significant improvement in borrowing from formal sources after implementing PMJDY in 2014. This clearly shows that India's remarkable success in the financial inclusion journey has only been confined to improving access.

Figure 3: Total Borrowings and Borrowings from Formal Sources (in %)



Source: Global Findex database, 2021.

Conclusion

This paper analyzed the performance of India's financial inclusion in terms of financial access and use of financial services for the last 10 years in a comparative perspective using the World Bank Global Findex database. India has shown phenomenal progress in improving financial access measured in terms of percentage of adults having bank account. The highest increase in access to banking from 2014 to 2017 could be attributed to India's flagship financial inclusion program, PMJDY. In 2021, financial access in India is significantly higher than the developing country average and almost comparable to OECD countries. However, notwithstanding enormous progress in access, India is still home to the most significant proportion of the unbanked population in the world. Two factors stand out as primary reasons for not owning a bank account; distance to the banks and lack of affordability. The distance factor remains a significant barrier. Since India has much potential for harnessing the rapid diffusion of mobile phones enabling digital financial inclusion. India has one of the lowest proportions of people using mobile phones for banking.

This paper also shows that improvements in access did not culminate in improved use of formal financial services. India's proportion of people borrowing from formal sources compares poorly with other developing countries. Though there have been some improvements after 2017, only 26 per cent of borrowed depended on formal sources. This trend shows that India needs to focus on measures to improve the use component of financial inclusion, without which India's financial inclusion agenda remains half-completed. In the future, India should draw lessons from the successful experiments of technological innovations to deliver services unbanked at an affordable cost.

■

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End Note

[1] Global Findex Report, 2021.

[2] More than 15 years of age.

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Cop 27 and India: All is well that ends well

Rju Mohan A

Introduction

Climate science is now categorically clear that human activities - especially fossil-fuel combustion since the Industrial Revolution - have consistently and in a very short span of time considerably increased the concentration of heat-trapping GHGs, such as carbon dioxide (via fossil-fuel combustion and deforestation), methane (from rice cultivation, livestock, landfills, and other sources) and chlorofluorocarbons (from industrial sources)[1], consequently rapidly warming the Earth's atmosphere (Global warming), thereby fuelling distinctly rapid changes to the climate. Needless to add, the IPCC Fourth Assessment Report (AR4), the U.S. Geological Survey, and other reports categorically summarise this consensus scientific fact on anthropogenic climate change.

We are already experiencing the economic and social impacts of climate change (Bruce et al., 1996). According to the Fourth National Climate Assessment, published in 2018 by the US Global Change Research Program, warmer temperatures, sea level rise, and extreme weather damage property and critical infrastructure, impact human health and productivity, and negatively affect sectors such as agriculture, forestry, fisheries, and tourism, among others. Impacts from extreme-weather events hit the poorest countries hardest as these are particularly vulnerable to the damaging effects of a hazard, have a lower coping capacity, and may need more time to rebuild and recover (Eckstein et al., 2021). The Global Climate Risk Index of the German think tank, Germanwatch, analyses and ranks to what extent countries and regions have been affected by impacts of climate-related extreme weather events (storms, floods, heatwaves, etc.), with lower index scores indicating higher risk. Accordingly, India has been one of the worst-hit countries in the world, with a climate risk index of less than 20 in many recent years.

India has not been historically one of the largest emitters and its annual per capita emission is one of the lowest, about one-third of the global average.

Loss and Damage (L&D) refers to impacts of climate change that cannot be avoided either by mitigation or adaptation and include economic damage to property, loss of livelihoods and destruction of biodiversity and culturally important sites.

A phenomenon termed 'Hothouse Earth' illustrates a scenario where the Earth's temperature exceeds the threshold limit, plummeting it into a perpetually warm state where no countermeasures to reduce temperature will be effective. We are predicted to be just 2°C away from hitting the next hot earth stage. A full de-carbonization of the world economy by 2050 will still result in a temperature rise of 2.5°C to 3°C[2]. And hence it is advised that the world is to keep warming well below 2° (3.6°F) globally, and that comes with the challenge of a low carbon budget. Scientists estimate that humans can only emit 565 more gigatons of carbon dioxide and reasonably hope to meet the 2° target-a budget that would be exhausted in 15 years if emissions continue at the current rate of 36.6 gigatons of CO2 a year[3].

India has not been historically one of the largest emitters and its annual per capita emission is one of the lowest, about one-third of the global average[4]. However, there have been efforts by some of the advanced countries to bracket India along with the largest emitters. Therefore, it is imperative to study India's efforts to preserve its right to Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) at COP 27; and this study is an attempt to briefly examine this case.

What follows is divided into three sections. The next section discusses the historical background of the UN Conference of the Parties (COP), and Section three seeks to analyse the implications of the recently concluded COP 27 by contextualising India's key role in the Conference. The last section concludes the study.

COP 27: The background

This matter of urgency has elicited a wide range of responses from the global community. It was the 1972 United Nations Scientific Conference on the Human Environment, also known as the First Earth Summit, that adopted a Declaration setting out principles for the preservation and enhancement of the human environment, that raised the issue of climate change for the first time[5]. The United Nations Conference on Environment and Development, popularly known as the Earth Summit, in 1992 in Rio de Janeiro, Brazil, opened up for signature of the United Nations Framework Convention on Climate Change (UNFCCC); the parties to the convention meet annually in Conferences of the Parties (COP) to assess progress in dealing with climate change. The COP 16 held in Mexico from 28 November to 10 December 2010 recognized the IPCC Fourth Assessment Report (AR4) goal of

Acknowledging India as a major emitter would unjustifiably and incorrectly bracket her among the developed countries, who have been historically responsible for climate change.

a maximum 2°C global warming and agreed to mobilise by 2020 US$100 billion per annum 'Green Climate Fund' from the developed countries to assist developing countries in adaptation and mitigation practices to counter climate change, marking the genesis of Climate Finance.

Naturally, the logical culmination of all these was the adoption of the Sustainable Development Goals, also called the Global Goals, with 17 SDGs at its core, that came to replace the Millennium Development Goals in 2015 to provide all people peace and prosperity by 2030. SDG 13 urges climate action to combat climate change for which 196 countries adopted the Paris Agreement at the COP 21 in Paris on 12 December 2015; the Agreement came into force on 4 November 2016, with the goal of limiting global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels[6].

COP 27 and India

The 2022 United Nations Climate Change Conference or the 27th Conference of the Parties of the UNFCCC (COP 27) was held from 6 November until 20 November 2022 in Sharm El Sheikh, Egypt, with more than 92 heads of state and an estimated 35,000 representatives, or delegates, of 190 countries attending. Below we give an account of the important outcomes of the Conference and India's responses.

Cop 27 outcomes

(i) Loss and damage fund

For the last three decades, the Alliance of Small Island States (AOSIS) and poorer countries had been calling for compensation from developed countries, the largest emitters, for the climate change-induced damages to their communities. Though the emitters were ready to offer up a "mosaic of solutions" like insurance and early warning systems, the demand finally prevailed, under the pressure also from the G-27 (including India), and was rightfully hailed as a historic development at COP 27. Key details about the management of the fund, its contributors and their shares were left to a 'transnational committee' to chalk out and their proposal would be presented for adoption at COP28 next year. Loss and Damage (L&D) refers to impacts of climate change that cannot be avoided either by mitigation or adaptation and include economic damage to property, loss of livelihoods and destruction of biodiversity and culturally important sites.

ii) AWARe (Action on Water Adaptation or Resilience)

Launched by COP 27 in partnership with World Meteorological Organization (WMO), AWARe is an initiative that will

India has undoubtedly emerged at COP 27 as an essential, active and influential party such as to display a duty to solution-finding while being steadfastly committed to safeguarding the interests of developing and underdeveloped economies.

champion inclusive cooperation to address water-related challenges and solutions across climate change adaptation, such as (a) decreasing water losses worldwide and improving water supply, (b) proposing and supporting policy and methods for cooperative water-related adaptation action and its co-benefits and (c) promote cooperation and interlinkages between water and climate action in order to achieve SDG 6. It aims to contribute to a successful outcome at the 2023 UN Conference on Water.

(iii) Infrastructure Resilience Accelerator Fund (IRAF)

A multi-donor trust fund established with the support of the United Nations Development Programme (UNDP) and United Nations Office for Disaster Risk Reduction (UNDRR); IRAF was launched by the Coalition for Disaster Resilient Infrastructure (CDRI) at the India Pavilion of COP 27. Supported by India, the UK, Australia and the European Union, it aims to support global action on disaster resilience of infrastructure systems, especially in developing countries and Small Island Developing States (SIDS), with around 50 million dollars in financial commitments already announced over an initial duration of 5 years.

(iv) Global Shield Plan

The Global Shield, a funding mechanism that provides funding to countries suffering climate disasters, is designed to be coordinated by the Group of 7 (G7) and the V20 group of climate-vulnerable countries. Vulnerable Twenty (V20) Group was established at the inaugural meeting of V20 Ministers of Finance of the Climate Vulnerable Forum in 2015 in Lima, Peru, with 58 member nations (India is not a member of the V20 Group). The Plan aims to (a) close urgent protection gaps in countries by designing, funding, and facilitating interventions; (b) provide pre-arranged insurance and disaster protection funding after events such as floods, droughts and hurricanes hit; and (iii) complement the progress on loss and damage.

(v) Technology Mechanism

The UNFCCC launched the first joint work programme of the Technology Mechanism for 2023-2027 to focus on high-potential sectors and high-potential actions across water, energy, food, industry, and other systems.

(vi) Global Offshore Wind Alliance (GOWA)

Initiated by the International Renewable Energy Agency (IRENA), Denmark and

India has again made her presence strongly felt in the case of the efforts to reduce the usage of fossil fuels, by reiterating her proposal to phase down 'all fossil fuels' and not 'just coal'.

the Global Wind Energy Council to bring together governments, the private sector, international organisations and other stakeholders to ramp up the offshore wind power to tackle the climate and energy security crises, GOWA welcomed new countries including Germany, Japan, the UK, the US, Australia, etc. into its fold during the COP 27.

Role of India

India was a key actor at the international climate negotiation table, by strongly reiterating her commitment to the underlying issues of global justice and equity; at the same time, India objected to the use of terms such as 'major or top emitters' in the cover text of the Summit. Even though India is ranked the third 'largest emitter', her per capita emission remains one of the lowest (only 1.77 tonne, against 14.22 tonne of the US and 15.25 tonne of Australia, as in 2020). "The Summary for Policy Makers (SPM) of the Working Group III contribution to the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC) [2022] has noted clearly that the contribution of entire Southern Asia is only about 4% of historical cumulative net anthropogenic emissions between 1850 and 2019, even though the region includes almost 24% of the global population" (Government of India 2022: 1). Acknowledging India as a major emitter would unjustifiably and incorrectly bracket her among the developed countries, who have been historically responsible for climate change. Hence, India unequivocally asserted her resistance to this as an attempt to undermine the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC). Further, India also highlighted the regrettable fact that the world is still unequal with glaring disparities in energy usage, emissions, and incomes among countries, and therefore pressed for the provision of enhanced climate finance for poorer economies to cope with the impacts of climate change while agreeing to effect emission reduction based on respective capabilities.

According to the Climate Change Performance Index 2023 of the Germanwatch, India was ranked 8th out of 63 countries, thanks to its low emissions and the increasing use of renewable energy. In this background, we give an account of India's contributions to COP 27 below:

(i) Long Term-Low Emission Development Strategy (LT-LEDS)

India is the 58th country to submit its plans that focus on the strategic transition of high-emission sectors and a discussion of India's climate adaptation needs to the UNFCCC.

India had made two significant commitments at the COP26 held in Glasgow in 2021: (a) meeting 50 percent of her energy needs from renewable fuels by 2030 and (b) transitioning to a net zero carbon economy by 2070. Reiterating that "India is committed to pursuing low-carbon strategies for development and is actively pursuing them, as per national circumstances" (Government of India 2022: 2), the document on LT-LEDS, released at COP 27, also quotes a recent analysis by a sub-committee of India's Ministry of Finance that has estimated that the cumulative total expenditure for adapting to climate change in India would amount to INR 85.6 trillion (at 2011-12 prices) by the year 2030 (DEA, 2020).

Though the strategy document does not specify mid-term targets, India's other policies clearly offer insights into the net-zero pathway. For example, the National Hydrogen Mission launched in 2021 aims to make India a green hydrogen hub, and other clean energy plans such as 20 percent ethanol blending with petrol to burn less fossil fuel by 2025 and electric vehicle project. Adoption of these technologies in turn requires industries to make large-scale changes: share of electricity in industrial energy will have to multiply three-fold by 2070; electricity-driven four-wheelers should constitute 70-80 percent of the road traffic, and so on. That China dominates the market of most essentials in the electric vehicle supply chain is perhaps one reason for the strategy document to talk about scenarios in which fossil fuels continue to constitute a significant part of the energy mix in India, such as using the method of carbon capture and storage (CCS), a key constituent of decarbonisation strategies of countries such as the UK, to remove GHGs before they enter the atmosphere. India should find ways to make knowledge transfers in these emerging technologies part of its trade pacts with rich countries.

(ii) In Our LIFEtime campaign

This campaign was jointly launched by the Indian Ministry of Environment, Forest and Climate Change and the United Nations Development Programme (UNDP) at a side event of the COP 27 in Egypt on 14th November 2022, to encourage youth between the ages of 18 to 23 years to become message bearers of sustainable lifestyles. It also aims to foster responsible consumption patterns and influence the lifestyle choices of the younger generations to make them Pro-Planet-People.

(iii) Lifestyle for Environment (LiFE)

Introduced by the Indian Prime Minister during UNFCCC - COP 26 at Glasgow in 2021, LiFE is an international mass movement that recognizes the power of individual actions to protect and preserve the environment and envisions replacing the prevalent 'use-and-dispose' economy with a circular economy, which is cultivated by mindful choices. It also aims to develop a global network of individuals by nurturing "Pro Planet People". India also furthered the vision of LiFE by launching the LiFE Global Movement on the occasion of World Environment Day, on 5th June 2022. India has included LiFE in its Nationally Determined Contributions (NDCs) to take climate-oriented actions.

(iv) Leadership for Industry Transition (LeadIT) Summit

Launched by Sweden and India at the UN Climate Action Summit in 2019, LeadIT is supported by the World Economic Forum. At COP 27, India and Sweden hosted the LeadIT Summit 2022. The initiative focuses on the low carbon transition of the hard-to-abate industrial sector and gathers countries and companies that are committed to action to achieve the Paris Agreement.

(v) MoEFCC - UNDP Compendium

India launched the Ministry of Environment Forest and Climate Change (MoEFCC) - UNDP Compendium "Prayaas Se Prabhaav Tak - From mindless consumption to mindful utilization" on the sidelines of COP 27 on 14 November 2022. The compendium highlights traditional best practices from India that embody the ethos of LiFE in the following areas:

(a) Responsible Consumption by taking only as much as is needed, using products to the end of their lives, and repurposing or recycling whatever is left over.

(b) Circular Economy to improve resource efficiency, minimize waste and emissions to reduce the carbon footprint and improve ecological handprint.

(c) Living in Harmony with Nature by practising the philosophy of '*Vasudhaiv Kutumbkam'* (the World in One Family) and living a life with compassion for all living beings.

(d) Sustainable Resource Management through mindful and deliberate utilisation of the available resources and to reduce overconsumption and promote equitable access to resources.

(e) Coexistence and Cooperation among countries and communities through the promotion of science and innovation, knowledge exchange, dissemination of best practices, and conservation of traditional knowledge systems.

Conclusion

India has undoubtedly emerged at COP 27 as an essential, active and influential party such as to display a duty to solution-finding while being steadfastly committed to safeguarding the interests of developing and underdeveloped economies. This is evident in India's wholehearted support of the establishment of the Loss and Damages Fund, meant to compensate the most vulnerable countries for climate change-induced damages. At the same time, India has minced no words in stating that she would have no responsibility to contribute to the proposed fund but would rather stake her claims to it to cope with the impacts of climate change.

India has also stood in support of the BRICS nations to oppose the proposed Carbon Border Adjustment Mechanism of the European Union to tax carbon-intensive products such as cement, fertilisers, steel, etc. from 2026 onwards. India along with the BRICS allies has strongly argued that such taxes could result in market distortion and aggravate the trust deficit among the Parties and hence must be avoided, as such discriminatory and unfair market 'solutions' would lead to balance of trade issues between developed and developing economies. According to the group, the developed nations, instead, should lead others by fulfilling their finance and emission reduction commitments in an effort to protect the equity principle that no country is unfairly made to suffer disproportionately the burden of climate mitigation.

India has again made her presence strongly felt in the case of the efforts to reduce the usage of fossil fuels, by reiterating her proposal to phase down 'all fossil fuels' and not 'just coal'. India has taken the cue from a proposal, supported by the European Union at the Glasgow COP in 2021, that non-coal fuels such as oil and natural gas also contribute to greenhouse gases and hence must be phased down on an equal footing with coal. This stance however goes unsurprising, given India's heavy reliance on coal to meet her electricity demand. The 'all-fossil-fuel-phase-down' proposal has expectedly been countered by the oil and gas producing countries, mainly the USA and Saudi Arabia, and the text has finally settled on "coal phase down".

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National education policy 2020 - Impact on higher education based on theoretical analysis

Indhu T R

Introduction

The NEP aspires to develop an education system that directly contributes to the country's transformation by delivering high-quality education to all or any citizens and developing India into a world knowledge superpower. the 10+ 2 structure has been fully eliminated within the new education policy. The country's educational curriculum has been supported 10 + 2, but it'll soon be supported 5+ 3+ 3+ 4. this implies that one-half is from primary to second grade, the second portion is from third to fifth grade, the third part is from sixth to eighth grade, and also the last part is from ninth to 12th grade. The National Education Policy 2020 has 'emphasized' on the utilization of first language or local language because the medium of instruction till Class 5 while, recommending its continuance till Class 8 and beyond. Sanskrit and foreign languages will be emphasis. The Policy recommends that everyone students will learn three languages in their school under the 'formula'. a minimum of two of the three languages should be native to India. It also states that no language is going to be imposed on the scholars.

Historical background of national education policy

India has seen a series of reforms through, education policies, acts, plans of action, and curriculum frameworks.

(a) First national education policy on education (1968)

The Govt. led by, Smt. Indira Nehru Gandhi introduced the primary national education policy and supported the recommendations from the Kothari Commission. The policy had subsequent highlights. Three language formulas in educational activity - English, Hindi & the regional language Recommendation to spend 6% of national income on Education, Compulsory education for all

The NEP proposes to universalize childhood care and education (ECCE) for children ages 3 to 18 by 2030

The new curricular and pedagogical framework of 5+3+3+4 years

children up to 14 years old, following the Constitution of India

(b) National education policy 1986

This policy was introduced by Govt. led by Shri. Rajiv Gandhi and its highlights are, civil rights were the main focus, especially for girls, Scheduled Castes (SC), Scheduled Tribes (ST), a Child-centered approach in primary education, Operation blackboard to enhance the first school education

(c) National education policy 1992 (modification)

This was the modified version of the policy in 1986 - it absolutely was led by the government. of P. V. Narasimha Rao, a number of the numerous highlights were, the target of universal enrolment and retention of kids, Reducing Rural-urban disparities, and Common entrance exam for admission to technical and professional courses across the country.

Highlights of national education policy

School education In NEP 2020

- The NEP proposes to universalize childhood care and education (ECCE) for children ages 3 to 18 by 2030 and also achieve a 100% gross enrolment ratio in school education over an identical period. Besides the main focus on ECCE, there's also a stress on measuring learning outcomes and assessments. These are the foremost elements proposed for school education are the following:
- National Curricular and Pedagogical Framework for Childhood Care and Education (NCPFECCE) for students up to the age of 8. The new curricular and pedagogical framework of 5+3+3+4 years with a strong base of time of life Care and Education (ECCE) from age 3. Medium of instruction in maternal language or local language regional language a minimum of up to Class 5. English to be optional up to Class 8. School exams in Classes 3, 5 and eight and board exams in Classes 10 and 12. the Reduction in curriculum to core concepts. A National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of knowledge for Holistic Development) to be founded as a standard-setting body for all recognized school boards.
- Bagless days in schools.
- Gender-Inclusion Fund' to provide equitable quality education for all girls additionally transgender students. Board exams to test knowledge application, include 'modular exams'. Vocational programs to be introduced from Class 6.

Gender-Inclusion Fund' to provide equitable quality education for all girls additionally transgender students

Higher education in NEP 2020

Achieve a 50% gross enrolment ratio by 2035. Three categories of universities: research-intensive, teaching-intensive autonomous degree-granting Colleges. Undergraduate degree programmes will last three or four years with multiple exit options Exit options include a Certificate after completing one year in a very discipline, a diploma after 2 years, Bachelor's degree after a 3-year programme and a 4-year Multidisciplinary Bachelor's programme.

Major and system in degrees allow students the choice of multidisciplinary choices. for example, Physics with Fashion Design. Credit transfer are enabled through academic credit backs. Multidisciplinary Education and Research Universities (MERUs) are going to be founded. Internationalization of education -allow entry to foreign universities, and student and college mobility. More faculty and institutional autonomy. Governance of upper Education institutions (HEIs) by independent boards having academic and administrative autonomy. Fee fixation for personal and public universities. All HEIs are to be multidisciplinary by 2040. Professional education is an integral a part of the upper education system. one regulator, the upper Education Commission of India (HECI), will regulate with the identical norms for each variety of institution, private and public. Indian Institute of Translation and Interpretation (IITI) to be established. Efforts to preserve and promote all Indian languages including classical, tribal and endangered languages are going to be undertaken. The establishment of a National Research Foundation (NRF)National institutes for Pali, Persian and Prakrit are founded (Table-1).

Advantages and disadvantages of new education policy

- Changes within the School Structure: the present structure of 10+2 school education is replaced with the 5+3+3+4 pattern, to scale back students' burden of board exams
- Broader Options to Learn: The children in classes from 9 to 12 will now have multidisciplinary course options available to them, which implies that the various streams are going to be more porous with various subject combinations successfully doled
- Making Education a Basic Right: at the present, the govt. ensures that children from the age of 6 to 14 years may get compulsory education that numerous programs successfully doled out, including the one like "Sarva Shiksha Abhiyan". But it

Achieve a 50% gross enrolment ratio by 2035

omitted several children from the education system. Therefore, the updated NEP promises to universalize education to incorporate youngsters from 3 years old to 18 to produce them with free education at government-run establishments.

- Option to Learn Coding in School: The introduction of computers and coding classes as early as class 6 is going to be within the curriculum is a positive step toward upgrading the educational process.
- Focus on Critical Thinking: The board exams system that primarily tested the memorization and memorization ability of scholars is going to be replaced to develop critical thinking, rationalization, and creativity of scholars with the sensible application of their knowledge.
- More Inclusive Policy: The new NEP delves into the availability of funds and also the creation of education zones, and gender inclusion funds for underprivileged students to allow them access to learning and growth. Even the creation of the Bal Bhavan in every state are a welcome step that will support the scholars residing in remote regions.
- Improvement in Teaching Quality: By 2030, B.Ed. are going to be made a compulsory 4-year course to boost the standard of education for teachers and steps are going to be taken to create them capable of tackling various problems with the education system, including providing support and mentorship

Table - 1 Comparison of new education policy and old policy of education

New education policy	Old education policy
• School formula: 5+3+3+4	• School formula:10+2
• Science students free to choose arts subjects	• Science/Arts students mix subjects
• Option of taking board exams again to improve	• Students can't take more than one board exam
• Advises learning in regional language till class 5	• Regional language curriculum a choice
• 4-year undergraduate programme	• 3-year undergraduate programme
• Multiple exit options for students	• No exit options for students

Multidisciplinary Education and Research Universities (MERUs) are going to be founded

to the scholars, further as being trained to show the scholars with disabilities.

- Upgraded Undergraduate Program: The 3-year undergraduate program is going to be replaced with a 4-year program which will give the choice to own a one-year degree after completing the first year, a diploma after completing the 2nd year, and a degree for the completion of three years. The fourth-year are going to be researched-based. the scholars also will have the choice to alter their discipline, their accrued credits are transferable and available till their education pursuit is active.
- Regulating the Fees: The implementation of NEP will put a ceiling on the extent fee is charged, in order that the private institutions might not charge exuberantly for instruction.
- More Scope for Global Education: The new NEP will welcome worldwide educational institutions and foreign universities to line up their campuses in India. The Indians will have a higher reach to quality education in their nation, making the dream affordable to more students because it may even reduce the drain.

Disadvantages of NEP 2020

- Enforcement of Languages: The NEP emphasizes the introduction of first language within the primary classes which can be wont to teach the principal subjects, while English are going to be taught at a way later stage.
- Delay in Teaching of English: The NEP suggests that the govt schools will start teaching English after class 5, which goes to be a setback for the scholars who can only afford to travel to government-run institutes. While the private schools will stick with it with the practice of introducing English right from the start, which goes to be highly beneficial for his or her students
- Focus on Digital Learning: Though it sounds practical and therefore the need of the hour, the main focus on digitization of education and therefore the promotion of e-learning under the NEP 2020 seems to overlook the very fact that nearly 30% of Indians can afford smartphones and fewer still have access to computers.
- The Updated Terms of Undergraduate Program: Since under the updated policy a student can exit

Professional education is an integral a part of the upper education system

from the graduate program and still get a certification or diploma, this will cause the scholars to quit without completing their education, resulting in their non-seriousness and a high drop-out rate.

Impact of new education policy 2020 on higher education

- Colleges will need to give a certificate after completion of one year in any discipline or field, including vocational and professional areas; a diploma after two years of study; and a bachelor's degree after a three-year program. The new policy aims to extend the Gross Enrolment Ratio (GER) in higher education, including vocational training, from 26.3 percent (2018) to 50 percent by 2035. For this, 35 million new seats are going to be added to higher education institutions.
- The government will set up a National Research Foundation (NRF) with the aim of catalyzing and energizing research and innovation across all academic disciplines, particularly at the university and in grade. SAT-like college test - The National Testing Agency (NTA) will conduct a standard college entrance exam twice every year. Over the subsequent 15 years, colleges are going to be given graded autonomy to issue degrees. Affiliation with universities will end, and these institutions are going to be given the status of 'deemed to be university.
- The New policy suggests a cap on fee charged by private institutions within the higher education space. Top-rated global universities are going to be facilitated to come to India. Similarly, top Indian institutions are going to be encouraged to go global. M. Phil would be discontinued, paving the way for college kids with master's degrees to get PhD.
- To ensure the preservation of all Indian languages, the NEP recommends fixing an Indian Institute of Translation and Interpretation, National Institute (or Institutes) for Pali, Persian and Prakrit, strengthening the Sanskrit and everyone other language departments in higher education institutions. The National Education Policy aims to realize 100 percent literacy in the country

Conclusion

With the introduction of NEP 2020, many changes are made and one in every of those is that the discontinuation of M. Phil course. although there are many drawbacks within the new education policy, the merits are more in number. it's believed by many who by implementing these changes, the Indian academic system is going to be taken a step higher.

■

(Mrs Indhu T R is PhD Scholar, GIFT)

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GST updates

Relfi Paul

Highlights of 48th GST council meeting

The 48th GST Council meeting was held on 17th December 2022, virtually from New Delhi. Smt Nirmala Sitharaman, the Union Finance Minister, chaired the meeting, along with the Finance Ministers of the States and UTs. Since it was scheduled after a gap of more than five months, it had around 15 items on its agenda. But only eight points, including data-sharing matters, were discussed. The rest of the agenda items like revenue augmentation matters, setting up of GST appellate tribunal, GST on Gutkha and pan masala etc. could not be taken up in this meeting. The key highlights of the 48th GST Council meeting are as follows:

Rationalisation of rates & clarifications

GST on pulse husks for cattle feed (including chilka and concentrates) was reduced to nil from 5%. Further, the concessional 5% GST on ethyl alcohol was extended to refineries for blending with petrol, which was earlier charged at 18%.

The Council has also issued some clarifications on tax rates for supply of goods and services are as follows-

(i) Rab, also called rab-salawat is categorised under HSN code 1702, and GST rate of 18% gets charged.

(ii) GST at 18% is charged on fryums made using extrusion, particularly covered under HSN code 19059030.

(iii) Cess on SUV at 22% clarified- Applicable if meets 4 criteria-

(iv) Popularly known as SUV, The engine capacity of more than 1500 cc, Length more than 4000 mm and Ground clearance equal to or more than 170 mm.

(v) 5% GST is charged on imported equipment or goods classified in the concessional 5% GST rate category for petroleum operations and 12% GST applies if the general rate is higher than 12%.

(vi) No GST is chargeable if the residential dwelling is rented to a GST-registered person in their personal capacity for their own use/ account as a residence and not for business.

(vii) No GST on incentives paid to banks by the Central Government as a subsidy under the promotion of RuPay Debit Cards and low-value BHIM-UPI transaction schemes

Amendments for improving trade facilitation

1. Decriminalise three offences under the GST law

(i) The tax threshold for launching prosecution under GST or taking criminal action is increased from Rs.1 crore to Rs.2 crore, except for fake invoices. In other words, offences pertaining to the issuance of invoices without the sale of goods or services or both or dealing with fake invoices continue to be prosecuted if the tax amount is more than Rs.1 crore.

(ii) Reduction in the compounding amount from the current tax range of 50%-150% to the range of 25%-100%

(iii) Certain offences under Section 132(1) clauses (g), (j) and (k) of the CGST Act, such as obstruction or restricting any officer from discharging their duties, intentional tempering of material evidence and failure to provide the information.

2. Unregistered persons to get new GST refund rules

Earlier, there was no defined process for refund claims for the buyers not registered under GST upon cancellation of the contract/ agreement for the sale of services such as flat/house construction and long-term insurance policy and upon the expiry of the time limit to issue credit note by the supplier. The 48th GST Council decided to amend the CGST Rules and directed CBIC to issue a Circular for the procedure to file a refund application by such unregistered buyers.

3. Facilitate e-commerce for micro-enterprises

From 1st October 2023, GST-unregistered suppliers, dealers and composition taxable persons can sell goods through e-commerce operators within the state, subject to some conditions. CBIC and GSTN will make the necessary amendments to the Rules via notifications, an amendment to the Act and get the GST portal ready for the new functionality within the defined timeline.

4. Clarifying the date of applicability for new entries in Schedule III

New entries were added in Schedule III (Items not covered under GST) from 1st February 2019, such as para 7 (sale from one non-taxable territory to another, such as high sea sales), para 8(a) (sale of warehoused goods before clearance for home consumption) and para 8(b) (Sale of goods by the consignee to any other person where goods are dispatched from the foreign port but before clearance for home consumption).

Confusion arose about their taxability from 1st July 2017 up to 31st January 2019, so the 48th GST Council recommended giving effect to these additions from the inception of GST. However, no refund of tax already paid shall be granted.

5. Reversal of ITC for non-payment of invoice within 180 days

CGST Rule 37(1) will be amended retrospectively from 1st October 2022 for ITC reversal to provide for reversal of input tax credit as per the second proviso to Section 16 of CGST Act, only to the extent of the invoice amount unpaid to the supplier versus the value of the supply, along with tax payable.

6. New CGST Rule 37A for ITC reversal

The GST Council decided to insert Rule 37A in CGST Rules that will define steps to reverse ITC claimed on taxes undeposited by the supplier within a specified date. Further, the process of re-availing such ITC where the supplier pays it subsequently will be provided. It allows easy compliance with the condition for claiming an input tax credit as per Section 16(2)(c) of the CGST Act.

7. Amendments for timely and easier appeal processing

Changes in CGST Rules 108(3) and 109: More clarity for submission of a certified copy of the order against which the appeal is filed and the final acknowledgement issued by the appellate authority.

Change in CGST Rule 109C and insertion of new form GST APL-01/03 W: Gives facility for withdrawing an appeal application up to a certain defined stage, avoiding litigations at the level of appellate authorities.

8. Insurance - No Claim Bonus (NCB) offered by insurance companies, especially in motor vehicle insurance, is allowed as a deduction from the taxable premium amount for valuation purposes.

9. Fresh GST circulars will be issued on the following issues:

(i) Treatment of pending GST dues from bankrupt businesses where proceedings are filed under the Insolvency and Bankruptcy Code, 2016 (IBC). Rule 161 of CGST Rules and form DRC-25 will be amended accordingly.

(ii) Place of supply of mail/courier services for transportation of goods to places outside India under the proviso to Section 12(8) of the IGST Act and ITC availability to the recipient. The removal of that proviso from the law is further recommended by the Council.

(iii) Procedure for verification of ITC differences between GSTR-3B and GSTR-2A for FY 2017-18 and 2018-19. It would reduce the need for litigations and give much-needed clarity to taxpayers and officers.

(iv) Manner of demand re-determination as per Section 75(2) of the CGST Act. Suppose the tax officer claims there is a misstatement, suppression of returns, or fraud involving tax evasion but has not proved it. The taxes shall be recomputed under Section 73 and not as per Section 74.

(v) Applicability of e-invoicing for a business entity. For instance, suppose the turnover during FY 2022-23 exceeds the threshold limit of Rs.10 crore, whether e-invoicing applies from the next financial year, i.e., 1st April 2023 or from the current year.

10. Grant of GST registration to TDS and TCS

CGST Rule 12(3) will be amended to introduce a facility to the GST-registered TDS deductor and TCS collectors for applying for the cancellation of GST registration.

Streamlining GST compliance

1. Biometric-based Aadhaar authentication, as well as risk-based physical verification of GST registration applicants, is proposed in Gujarat on a pilot basis with amendments in CGST Rules 8 and rule 9 for curbing fake and fraudulent registrations.

2. Form REG-01 will capture PAN-linked mobile numbers and e-mail IDs (from the CBDT database) with OTP verification to restrict misuse of the PAN of a person and to curb identity thefts/frauds.

3. Amendment that will not allow the filing of all GST returns and statements, such as GSTR-1, GSTR-3B, GSTR-4, GSTR-9, GSTR-9C, etc., after a maximum of three years from the due date.

4. Amendment to GSTR-1 for allowing e-commerce operators and sellers to report sales through e-commerce operators, covered under Sections 52 and 9(5) of the CGST Act.

5. Insertion of CGST Rule 88C and form DRC-01B for intimation to the taxpayer, by the GST portal, for any tax liability differences between GSTR-1 and GSTR-3B for a tax period over a defined amount and/ or percentage, to either pay or explain the difference.

6. Further, a new clause (d) will be inserted in CGST Rule 59(6) to restrict the filing of GSTR-1 for future tax periods if the taxpayer has not deposited the tax laid down in the intimation. Further, that restriction may apply if he has also not replied to such intimation giving reasons for the pending unpaid tax without the intervention of the tax officers.

7. Amendment in the definition of "non-taxable online recipient" under section 2(16) of IGST Act, 2017 and definition of "Online Information and Database Access or Retrieval Services (OIDAR)" under section 2(17) of IGST Act, 2017 to reduce issues in interpretation and litigation on taxation of OIDAR Services.

Note: With related to the decisions of 48th GST Council, the CBIC has issued two notifications and six circulars on 26th and 27th December 2022. These changes will come into effect from 1st January 2023.

Source: PIB Press release, dated 17.12.2022

GST revenue performance

GST collections grow 15% to Rs 1.49 lakh crore in December 2022

This is the tenth month in a row, that the monthly GST revenues have been more than the Rs 1.4 lakh crore mark. The collections had touched a record high of nearly Rs 1.68 lakh crore in April. The second-highest collection was Rs 1.51 lakh crore in October. In November 2022, it was Rs. 1.45 crore.

The gross GST revenue collected during December 2022 is Rs 1,49,507 crore, of which CGST is Rs 26,711 crore, SGST is Rs 33,357 crore, IGST is Rs 78,434 crore (including Rs 40,263 crore collected on import of goods) and Cess is Rs 11,005 crore (including Rs 850 crore collected on import of goods). The Government has settled Rs 36,669 crore to CGST and Rs 31,094 crore to SGST from IGST as regular settlement. The total revenue of Centre and the States after regular settlements in the month of December 2022 is Rs 63,380 crore for CGST and Rs 64,451 crore for the SGST.

The revenues for the month of December 2022 are 15% higher than the GST revenues in the same month last year. During the month, revenues from import of goods was 8% higher and the revenues from domestic transaction (including import of services) are 18% higher than the revenues from these sources during the same month last year. During the month of November, 2022, 7.9 crore e-way bills were generated, which was significantly higher than 7.6 crore e-way bills generated in October, 2022.

Kerala has collected Rs. 2185 crore in December, which is 15% higher than the GST revenues in the same month last year. This month Maharashtra posted the highest GST collection in absolute terms at Rs.23,598 crore. States like Karnataka, Gujarat, Tamil Nadu, Haryana and Uttar Pradesh have also shown impressive numbers.

Source: PIB Press release, dated 01.01.2023

New studies on Kerala

Young Scholars' Forum, GIFT
Led by Munawwara Zubair

Economics

Scopus indexed

1. Coley, C., Sheshadri, S., & Devanathan, S. (2022). Men's experience of women's empowerment and gender equality: A phenomenological study in Kerala, India. *Global Social Welfare.* https://doi.org/10.1007/s40609-022-00262-7

This paper is about how men perceive women's empowerment, how these perceptions form, and the factors that influence a decision-making calculus in determining whether or not men will support such social changes. This paper takes up this issue and presents the experiences of men whose wives recently graduated from a women's empowerment project. The structure of their experience is explored using phenomenological analysis methods, and a set of important themes are defined that can be used to improve future interventions in a similar context. Notable themes identified include men's ability to acknowledge injustices faced by women and the level of understanding of and beliefs around women's role in society.

2. Hari K, H., & P A, K. (2022). The Politics of Representating Dalit Women: A Study of the Newspaper Khabar Lahariya and the Documentary Writing with Fire. *Journal of International Women's Studies, 24(7),*

Redefining power is the only means to redress the gender bias that women have had to endure in a male-dominated society. women's writing is the only way to emphasise women's perspectives and end stereotyping of women and their opinions in literature. This transformation is required not only in the literary world, but there is also an urgent need for the realistic representation of women in every section of society. . Dalit women also need the same reassurance and reception in the media so that their lives are also represented without any bias. Visual media often are biased because Dalit women's realities are still ignored in the mainstream media. The public domains of arts, politics, and media are still not offering a space for Dalit women. Meera is the chief editor of Khabar Lahariya, India's only newspaper run by Dalit women. The documentary writing with Fire, directed by Rintu Thomas and Sushmit Ghosh, showcases the redefinition of representation and the power of Dalit women. This study focuses on how a group of Dalit women can enter and break the traditions of the news media in India. This study tries to identify the possibility of redefining power politics through an inclusion of the Dalit community.

3. Senthamizh Sankar, S., Anandh, K. S., & Rama, M. (2022). Examining the influence of various factors that affect construction professionals lifestyle - a case of Tamil Nadu and Kerala. *Lecture Notes in Civil Engineering,* 625-634.

https://doi.org/10.1007/978-3-031-12011-4_50

The construction sector has a low quality of lifestyle when compared to other occupations due to a variety of problems associated with their work. The work-life balance is also harmed as a result of the unhealthy lifestyle prevalent among construction professionals. The factors that contribute to the scarcity of construction personnel ready to work in their sector are investigated in this study. This study reveals several common factors affecting construction professionals' lifestyles to improve their quality of life. The association between each factor and the more relevant factors was discovered using statistical analysis. A healthier lifestyle will increase an employee's productivity and, as a result, the company's worth.

4. Naznin, P. H., Anandu, V. G., Panackel, L. S., & Ravishankar, A. U. (2022). Estimation of willingness to pay for reducing road accident risk using route choice model. *Lecture Notes in Civil Engineering,* 1075-1086. https://doi.org/10.1007/978-3-031-12011-4_91

The proportionality of road accidents with urbanisation triggers road accident cost analysis, as a prime component in the planning and designing of road projects. proper quantification of accidents and its analysis requires expert approaches. This study deals with the cost of road accidents in Thiruvananthapuram city as it houses the most critical accident spots in Kerala. Essential stretches of roads to be analysed were identified using Accident Severity Index (ASI). A Stated Preference (SP) survey was conducted to estimate the trip-wise mean willingness to pay value (WTP) of road users of the selected road stretches based on logit models. Travel time, travel costs, and accident rates were taken as the attributes. The willingness to pay value to avoid a critical accident estimated from the final model was found higher for short trip settings which indicates the importance of safety of the short frequent trips among the road users compared to the longer trip setting.

Other Journals

1. G., D. D., Viswambaran, V., & M.K., P. (2022). Impact of covid-19 on livelihood and health experiences of migrant labourers in Kerala, India. CASTE/A *Global Journal on Social Exclusion,* 3(2), 299-318. https://doi.org/10.26812/caste.v3i2.447

Covid-19 is the most consequential crisis in our memory and has affected everyone irrespective of class, caste, gender and ethnicity. Inter-State Migrant Workers was one such community who were at the intersections of marginalisation. The paper explores the confluence of elements that helped Kerala to manage the Covid-19 pandemic during the first wave, March to May 2020. The study adopted mixed method, about 132 migrant workers were interviewed using a structured schedule and 10 case studies were collected. The study finds that a majority, 92 per cent are SC/ST/OBC, education level less than high school and economically very poor. The study examined the measures taken by the government to address the crisis and how it helped to address the need and concerns of the migrant workers. It also captured the life, livelihood, healthcare utilisation and overall experience of interstate Dalit migrant workers who reside in Kerala.

2. Baby, A. (2022). An Overview of Socio-Economic Condition Of Paniya Community In Aralam Farm Of Kannur District, Kerala. *EPRA International Journal of Economics, Business and Management Studies (EBMS)*, 9(11), 1-9.

Tribals, the original inhabitants of India have contributed much to the nation's culture, history and heritage. Under the constitutional provisions of Directive Principles, the States' major concern for tribes has been their welfare and development. It is ironic that despite a large number of well-meaning constitutional provisions aimed at protecting and safeguarding the welfare and interest of the tribal communities, the process of marginalisation of the tribal's has gone unabated. In this context, the paper has made an overview on the socio-economic conditions of tribals belonging to the Paniyas (Paniyas), which has the lowest standard of living, even though being the bulk of the tribal populace in Kerala

3. Varghese, B., & Chennattuserry, J. C. (2023). Community resilience and crisis management: Stakeholders perspective of the tourism industry. *Tourism and Hospitality in Asia: Crisis, Resilience and Recovery,* 21-33. https://doi.org/10.1007/978-981-19-5763-5_2

The study examines varied impacts affecting the tourism industry and addressed negative impacts like the Economic crisis and loss of brand image in the post-crisis situation. The study explores mechanisms to re-establish the brand image during the restoration phase and has indicated possible strategies for disaster risk reduction and makes suggestions which helps in the recovery phase of an affected region.

Environment

Scopus indexed

1. Arumugam, T., Kinattinkara, S., Kannithottathil, S., Velusamy, S., Krishna, M., Shanmugamoorthy, M., Sivakumar, V., & Boobalakrishnan, K. (2022). Comparative assessment of groundwater quality indices of Kannur district, Kerala, India using multivariate statistical approaches and GIS. *Environmental Monitoring and Assessment,* 195(1), 1-30. https://doi.org/10.1007/s10661-022-10538-2

The aim of the study is to determine the groundwater characteristics of rural and industrial zones in the Kannur region. To better understand the link between water quality parameters, multivariate statistical analysis approaches such as principal component analysis (PCA), hierarchical cluster analysis (HCA), correlation matrix analysis (CMA), and Pearson correlation bivariate one-tailed analysis (PCBOTA) were used to analyse the inter-relationship of data. By comparing the data with BIS and WHO standards, it is clear that groundwater in Kannur district is of good quality. GIS based WQI maps were obtained and utilised to gain a better knowledge of the study area's past and present water quality status.

2. Vasudevan, N., Ramanathan, K., Parvathy, R. S., Ramesh, A., & Joshy K, V. (2022). Landscape degradation: The August 2019 Puthumala Landslide in Kerala, India. *Lecture Notes in Civil Engineering,* 1-11. https://doi.org/10.1007/978-981-19-5077-3_1

The Western Ghats of Kerala State in particular have been witnessing several fatal and devastating landslides, especially during the annual monsoons. Both natural causes and anthropogenic activity, individually or in combination, are responsible for creating conducive conditions for the occurrence of landslides. The study conducts a preliminary field investigation at the Puthumala landslide site in Wayanad District, Kerala. The slide occurred on August 8, 2019, killing 17 people and leading to an entire village being abandoned, making it one of the most catastrophic landslides in Kerala.

3. Lekshmi, S., & Sudhakumar, J. (2022). A study on geopolymer mortar containing fly ash and dredged clay. *Lecture Notes in Civil Engineering,* 997-1005. https://doi.org/10.1007/978-3-031-12011-4_84

In this study, an effort is made to experimentally evaluate the durability properties of fly ash-dredged clay based geopolymer mortar. Low calcium fly ash was used in the study as source material for geopolymer. The fly ash was replaced with low grade waste clay dumped by dredging. The dredged waste clay was collected from Koyilandy, Calicut, Kerala. The geopolymer mortar was synthesised using 7 M NaOH solution with sodium silicate to sodium hydroxide ratio of 2.5 and percentage of dredged clay used was 25% at 75?C of oven curing temperature. The durability performances in terms of water absorption, abrasion resistance, acid attack resistance and sulphate attack resistance were evaluated.

4. Saha, S., Saha, A., Roy, B., Sarkar, R., Bhardwaj, D., & Kundu, B. (2022). Integrating the particle swarm optimization (PSO) with machine learning methods for improving the accuracy of the landslide susceptibility model. *Earth Science Informatics*, 15(4), 2637-2662. https://doi.org/10.1007/s12145-022-00878-5

Landslide is one of the serious concerns due to which, the safety and sustainability of hilly areas across the globe, become vulnerable. Preparation of landslide susceptibility maps (LSMs) with the sound methods is a preliminary task for the safe and sustainable land use planning and design. In this research, Particle Swarm Optimization (PSO) was integrated with the pre-existing machine learning techniques such as Artificial Neural Network (ANN), Radial Basis Functional Neural Network (RBF-net), Reduced Error Pruning Tree (REPTree), Random Tree, Multivariate Adaptive Regression Splines (MARS) and M5tree to increase their efficiency and accuracy of prediction of landslide susceptibility in upper catchment of Meenachil river of Kerala. A total of 189 landslide locations were analysed and datasets were obtained.

5. KT, A., & Firoz C, M. (2023). Critical appraisal and evaluation of India's first Carbon Neutral Community Project - a case of Meenangadi Panchayat, Kerala, India. *Springer Climate,* 465-492. https://doi.org/10.1007/978-3-031-15501-7_18

The paper critically values India's first carbon-neutral community project that targeted developing the Meenangadi Grama Panchayat (Village) of Wayanad district, of Kerala as a model carbon-neutral panchayat. With an in-depth passive and participatory observation, this research analysed every initiative taken by the core team to achieve the target within the planned time frame. The overall performance level of the project was evaluated on the premise of appropriateness, affordability, and implementation rate. The analysis reveals that the project lacked coherence and effectiveness and could not achieve its goal within the timeframe.

6. Anoop, V. S., & George, S. (2022). Population genetic structure and evolutionary demographic patterns of Phrynoderma Karaavali, an edible frog species of Kerala, India. *Journal of Genetics,* 102(1), 1-12. https://doi.org/10.1007/s12041-022-01407-5

The paper examines the population genetic and demographic structure of an edible frog species, *Phrynoderma karaavali.* Frogs from 11 sites show high mt DNA haplotype and nDNA diversity which indicates a stable or expanding population. The evolutionary demographic pattern suggests population expansion across its geographical range, even though the species is still subject to poaching. Two major population clusters were observed at the northern and southern end of the species range. Gene flow occurs despite geographic barriers. Genetic distance increases with geographical distance. *P. karaavali* diverged from its sister species in *Phrynoderma* around 11 mya in the late Miocene.

Other journals

1. Shubhasree, A., Sankaran, P., & Raghu, C. (2022). UAV image analysis of flooded area using convolutional neural networks. 2022 *International Conference on Connected Systems & Intelligence (CSI),* 01-07. https://doi.org/10.1109/csi54720.2022.9924038

India has seen numerous flood events with severe infra structural damages and fatalities in recent years. UAV images that capture a bird's eye view of the flooded area can be utilized for situation assessment and feedback. This work utilizes existing publicly available video data to create annotated data set of flooded areas in Kerala with 3 classes. This data set is then used to train YOLOv3 and YOLOv4 and the resulting models are analyzed. Within this framework the network behaviour is studied by varying the loss function utilized and by feeding patches of images as input. This resulted in models that have high average precision values. This work provides a framework which can be utilized to generate focused data set to expand the number of classes involved and the situations analyzed.

2. Mathew, S. O. J. O. M. O. N., & Radhika, R. (2022). Status of heavy metal contamination in major rivers of Kerala, South India - A Review. *UTTAR PRADESH JOURNAL OF ZOOLOGY, 23-31.* https://doi.org/10.56557/upjoz/2022/v43i213207

Kerala is home to 44 rivers, most of which are now polluted to a great extent due to anthropogenic activities. This paper reviews the research work on the heavy metal status of 10 rivers in Kerala. The levels of heavy metals such as lead (Pb), cadmium (Cd), copper (Cu), mercury (Hg), iron (Fe), manganese (Mn), nickel (Ni) etc. are increasing substantially in rivers of Kerala. Heavy metals cause irrevocable damage to the biota, when they are transferred from water bodies to the food chain via assimilation, bioaccumulation and bio methylation processes.

Agriculture

Scopus indexed

1. Bijith, P., Ramith, M., Megha, T., Shimod, K. P., & Pradeep, M. N. (2022). Shrimp Farms as a threat to mangrove forests in Kannur district of Kerala, India. *Wetlands Ecology and Management,* 30(6), 1281-1289. https://doi.org/10.1007/s11273-022-09896-y

Mangroves are one of the most productive, diverse ecosystems on the planet and serve as a protective barrier for coastal areas. Shrimps have a productive correlation with mangroves habitat, thereby large-scale shrimp farming pose a serious threat to mangroves ecosystems. The present study aims to estimate the total area under shrimp farming in the intertidal regions of Kannur district. The study finds that there are 140 shrimp ponds, which contributes to a total area of 524.4 ha and the active shrimp farming area in the district is 524.4 ha in 2020. The traditional shrimp farming method accounts for 60.6% of the total farmed area while non-traditional shrimp farming accounts for 36.9% of the total farmed area; both types are expanding fast in the district

Other journals

1. Suresh, N., & Sreedaya, G. S. (2022). Perception of farmers towards crop insurance schemes in Kerala, India. *Asian Journal of Agricultural Extension, Economics & Sociology,* 437-447. https://doi.org/10.9734/ajaees/2022/v40i111729

The paper examines the perception of farmers towards crop insurance schemes in Kerala's three selected districts namely Kottayam, Malappuram and Idukki. The findings of the study showed that the majority of the farmers (69.17%) had medium perception followed by low (18.33%) and high (12.50 %) perception. Characteristics like education, operational landholding, credit orientation and decision making ability had significant association with their perception regarding crop insurance. The study also revealed a significant difference between the central and state crop insurance schemes.

Education

Chapters published in books

1. Kumaran, A. (2022). Sustainability and education: Restoring dignity of communities in the classrooms and beyond. *Advances in Research,* 106-115. https://doi.org/10.9734/air/2022/v23i6925

The study is examining the sustainable aspects of the National Education Policy 2020. A mixed methods approach is used in the paper combining qualitative methods like ethnography and quantitative metrics such as the basic statistical indicators. The paper argues that provision of vocational education is within the ambit of SDG4 and to formulate it, reconciliation of community centric learning practices and indigenous knowledge with modern day curriculum is necessary.

Health

Chapters published in books

1. Francis, J., Dasgupta, B., Abraham, G. K., & Deb, M. (2022). Prediction of covid-19 cases in Kerala based on meteorological parameters using BILSTM technique. *Meta Heuristic Techniques in Software Engineering and Its Applications,* 338-347. https://doi.org/10.1007/978-3-031-11713-8_34

India has recorded a record high of more than 40,000 new cases on April 30, 2021.The article aims to study the possible relationship of Covid19 transmission with meteorological parameters namely humidity, temperature, rain, speed, and pressure. The weather data has been collected from NASA archives. The daily number of confirmed covid cases, deaths and recovered were extracted from a public website (https://data.covid19india.org/). Aggregated daily data were combined for a specific state for approximately nine months from 01-01-2021 and converted into a multivariate time series data frame. A Bi-LSTM architecture was built that gives the highest accuracy in predicting the number of confirmed covid cases for n days based on given data.

Scopus Indexed

1. Chacko, F. M., Santhosh, A., Philip, S. M., & Kumaraswamy, S. Awareness on Hazardous Noise, Importance of Ear Protective Devices and Safety among Carpenters in Kerala. International Journal of Research in Engineering and Science (IJRES), 602-607

The current study examines the awareness of hazardous noise, importance of ear protective devices and safety among carpenters in Kerala. In order to thoroughly assess the awareness of hazardous noise, importance of ear protective devices and safety, the study used questionnaires consist of 15 closed set questionnaires administered on Carpenters. According to the statistical analysis, Carpenters are not well informed on safety, the need for ear protective devices, and harmful noise. Carpenters require training on safety, ear protective devices, and hazardous noise in order to do their jobs effectively.

2. Anish, T. S., Valamparampil, M. J., Rahul, A., Saini, P., Prajitha, K. C., Suresh, M. M., Reghukumar, A., & Kumar, N. P. (2022). Region-specific improvisation on who case definition and environmental risk factors associated with dengue: A case-control analysis from Kerala, India. *Transactions of the Royal Society of Tropical Medicine and Hygiene.* https://doi.org/10.1093/trstmh/trac102

Our aim was to study the test positivity rate of the World Health Organization (WHO) 2009 probable dengue case definition and to suggest region-specific improvisations to it. The study also analyses the socio demographic and environmental risk factors of dengue fever in South Kerala. Arthralgia, palmar erythema and rashes have high discriminatory power for identifying dengue. Redness of eyes, altered consciousness, abdominal distension and chills were found to moderately discriminate dengue. The adjusted analysis showed the presence of mosquito breeding sites, solid waste dumping and open water drainage in the compound as significant predictors.

3. Manju, S. K., Anilkumar, T. R., Vysakh, G., Leena, B. K., Lekshminarayan, V., Kumar, P. G., & Shenoy, T. K. (2022). A case-control study of the association of leptin gene polymorphisms with plasma leptin levels and obesity in the Kerala population. *Journal of Obesity,* 2022, 1-11. https://doi.org/10.1155/2022/1040650

The study aims to draw relationships, if any, between the polymorphisms in the human leptin gene and the association of sequence variants with obesity among the population in Kerala. Socioeconomic aspects and anthropometric measurements along with plasma glucose, insulin, leptin, and lipid profile of 148 study participants were collected for the study. It is found that the common Single Nucleotide Polymorphism (SNP) of 5?-UTR of LEP???2548G/A was found to be present in the study population with "A" variant as dominant allele. SNPs of exons in LEP were found to be rare but associated with morbid obesity and altered levels of serum leptin in the study population in Kerala

4. Akula, S. C., Singh, P., Ul Hameed, W., Talukdar, R., Patlolla, S., & Murad, M. (2022). Diabetic emotional burden and post covid-19 health care services for Diabetic patient: A new dimension of access to healthcare. *Review of Diabetic Studies,* 18(4), 187-196. https://doi.org/10.1900/rds.2022.18.187

This study aims to investigate the role of diabetic emotional burden and healthcare services as a moderator in the relationship between interpersonal distress, physician & nurse distress, and access to healthcare. The population of this study was the patients with diabetes in different public and private hospitals from Kerala. The study concludes diabetic emotional burden and health care services positively moderate the relationship between interpersonal distress and access to healthcare. This study has practical and theoretical implications concerned to improve the access to the healthcare system for diabetic patients in Kerala and the rest of the world.

Other journals

1. Gupta, I., & Ranjan, A. (2022). Health Investments to reduce health inequities in India: Do we need more evidence? CASTE / *A Global Journal on Social Exclusion,* 3(2), 365-382. https://doi.org/10.26812/caste.v3i2.441

Large inequities in health outcomes and treatment-seeking behaviour continue to exist in India, across households, states and residence. A few large populous states continue to contribute the most to multi-dimensional poverty, including indicators for health outcomes. A significant contributor is the high out-of-pocket spending that continues to be a key feature of India's health sector, accompanied by one of the lowest levels of public investment on health. The COVID pandemic has brought out sharply the lack of preparedness of the country and its states to face a catastrophe of this kind. A resilient health sector can only be built by bridging the various gaps in key inputs into the sector - infrastructure, personnel, supplies and training. This investment is likely to bring down the demand for health services in the private sector and reduce spending on health services by households by making these affordable and accessible. A quantum jump in investment would also be required to offer health coverage that is truly universal in scope and coverage.

2. Dona, D., & Nimisha, V. (2022). The relationship between uric acid and dyslipidemia in type 2 diabetic patients with urolithiasis. *Baghdad Journal of Biochemistry and Applied*

Biological Sciences. https://doi.org/10.47419/bjbabs.v3i04.138

Type 2 diabetes mellitus (DM) is characterised by insulin resistance, which can increase the risk of kidney stone formation. This study aimed to find out the association between serum levels of uric acid and lipid profile in type 2 DM patients with urolithiasis in comparison to those without. A significant increase was found in uric acid, urea, serum uric acid to creatinine ratio, and triglyceride glucose index level in type 2 DM urolithiasis cases as compared to DM cases without urolithiasis. It was also found that total cholesterol, triglycerides, LDL-cholesterol, and VLDL-cholesterol levels were significantly elevated and HDL-cholesterol was significantly decreased in urolithiasis cases

3.Areekal, B., Joseph, N. C., Rajan, M. P., Ravindran, R. K., Vijayan, A. S., & Vanlalhriatpuii, E. (2022). Household secondary attack rate in SARS-COV-2 infection during the second wave of the COVID-19 pandemic in South India. *Journal of Family Medicine and Primary Care,* 11(10), 6268-6273. https://doi.org/10.4103/jfmpc.jfmpc_452_22

Coronavirus disease 2019 (COVID-19) has become a major public health problem since its inception disrupting public life and crippling health systems. The mutated variant of the causative virus, Delta, has been notorious in causing rapid upsurge in cases compared to the Alpha variant. The current study tries to find out the household secondary attack rate (HSAR) of COVID-19 and factors associated with it during the second wave of cases in Kerala. The HSAR among household contacts was 59.1% . The risk of acquiring COVID infection among household contacts was higher among contacts of symptomatic index cases . index cases were having a home isolation P value of 0.001 and an odds ratio of 3.2 , with delay in COVID-19 testing for index cases with a P value of 0.006.

4. Sheeja, M. (2022). A Study on the Influence of Muscle Relaxation Therapy in Decreasing Stress on Elderly Individuals Staying at Trivandrum, Kerala. *Journal of Coastal Life Medicine,* 10, 756-762.

The paper examines the effect of muscle relaxation therapy in decreasing the stress of elderly individuals residing at old age homes in the district of Trivandrum. Demographic data and the stress related data is collected from the participants. Influence of progressive muscle relaxation therapy is evaluated in pre-test and post-test groups. The stress levels of seniors were analysed by frequency and percentage distribution based on the selected demographic variable. The effectiveness of progressive muscle relaxation in reducing stress was evaluated using a paired t-test. A Chi-square test was performed to see if there was a connection between their preferred demographic variables and their stress levels

5. Pillai, S. K., & Fhausiya, V. K. (2022). A cross-sectional study on the frequency and risk factors for neonatal hypoglycemia in babies born in rural Kerala. *Journal of Family Medicine and Primary Care,* 11(11), 6949-6954. https://doi.org/10.4103/jfmpc.jfmpc_439_22

The paper aims to find out the frequency and risk factors of hypoglycemia and its relation to feeding in babies of GDM (Gestational diabetes mellitus) mothers. A single?centre, observational study was carried out among 160 consecutively born babies born to mothers with gestational diabetes. Incidence of hypoglycaemia in exclusively breastfed babies was only 10.5% compared to those on formula feeds when breastfeeding was contraindicated due to medical reasons and where the incidence was found to be 33.3%. Successful breastfeeding is hence shown to reduce the risk of hypoglycaemia and therefore preparation for breastfeeding should begin right from the antenatal period.

What is new(s) from GIFT

A. Webinars

Webinar on "Environmental behaviour of Indian manufacturing firms: Does internationalization matter? organised on 28-10-2022

Ms Parijata Pradhan, PhD scholar, Centre for Development Studies, presented the paper. Dr Kiran Kumar Kakarlapudi, Assistant Professor GIFT welcomed the participants. The session was chaired by Prof K J Joseph, Director, GIFT

Abstract: There are two different views regarding the effect of internationalisation on environmental sustainability. The pollution haven hypothesis states that internationalisation may worsen the environmental standards of developing countries by relocating the polluting industries from north to south. On the other hand, it may induce environmental actions among the firms by creating institutional pressure or by facilitating the diffusion of sustainability-oriented technologies and strategies. This study intends to examine the effect of two main channels of internationalisation, viz. export intensity and presence of foreign ownership on the sustainability behaviour of Indian manufacturing firms. Our results show that internationalized firms are more likely to engage in environmentally-oriented activities than their local counterparts. These results imply that internationalisation may help to evolve an ecologically-oriented development trajectory in developing countries like India.

Webinar on "Centre-state relations in India - Constitutional provisions and role of constitutional functionaries, organised on 11-11-2022

Shri R Mohan,IRS, Honorary Fellow, GIFT, presented the paper. Prof KJ Joseph, Director GIFT welcomed the participants. Adv Shri K Gopalakrishna Kurup, Advocate General, Kerala, chaired the session..

Abstract: The political and financial framework envisaged in the Constitution provides for a setup, which is described by experts as quasi-federal. Our federal polity is overlaid with unitary features, which become pre-dominant when emergency provisions are invoked. In other times, the federal features are dependent on the role played by the constitutional functionaries, the prevailing political climate, the economic situation and the evolving judicial perceptions. In the Indian situation, the role of constitutional functionaries in executive and legislative domains has substantially affected the nature of our federal polity in different ways. The discussion proposes to analyse the scenario by examining how constitutional provisions have been handled by constitutional functionaries and

the impact these have had through judicial pronouncements and legislative actions.

GIFT in collaboration with national institute of pension management jointly organised a panel discussion on 'Supreme Court Verdict on EPF Pension: Implications for stakeholders

Shri Vinod Narayanan, Chairman, NIPM Trivandrum Chapter welcomed the gathering. Presidential Address: Dr K J Joseph, Professor and Director, GIFT delivered the presidential address. Dr A V Jose, Former Director, GIFT and Former official, ILO made the keynote address. Topic Presentation was made by Shri P Elango , Vice Chairman, NIPM Trivandrum Chapter. Case Presentation: Shri B Sunilkumar, Senior Manager, KSFE Puthiyakavu, Karunagappally, presented the case. Shri L S Mahesh,Secretary, NIPM Trivandrum Chapter peoposed the vote of thanks.. The panel members for the discussion included Shri Ajith Nair, Advocate, Shri. B Sunilkumar, Senior Manager, Puthiyakavu Branch, KSFE ,Shri. G Ani, Senior Manager, Kayamkulam Branch, KSFE, Shri. P Elango, Vice Chairman, NIPM Trivandrum Chapter, Dr.Thomas Joseph Thoomkuzhy, Associate Professor, GIFT Smt.L Anitha Kumary, Associate Professor, GIFT. Dr. N.Ramalingam, Associate Professor, GIFT moderated the programme.

Webinar on "Does Digital Payments enhance GST revenue? Evidence from India, organised on 18-11-2022

Mr Jerome Joseph, PhD scholar GIFT, presented the paper. Prof K J Joseph, Director, GIFT welcomed the participants. The session was chaired by Prof D Narayana, Honorary Professor GIFT

Abstract: The smooth functioning of modern tax systems depends largely on the economy's robust technological advancements and digital ecosystem. In this context, this paper analyses the causal relationship between digital payments and GST revenue in India. The period of study is from August 2017 to March 2022. In the Autoregressive Distributed Lag (ARDL) methodological framework, our empirical results suggest that a positive and highly significant relationship exists between digital payments and GST revenue in India. Apart from the digital payments, the economy's performance, tax compliance and imports are positive, whereas inflation and exports have a negative relationship with GST revenue in the country. Among the various measures by the tax authorities to improve compliance and increase tax revenue, digital payments stand odd as it involves no extra efforts either by the taxpayers or by the tax officials. The study's findings highlight the importance of digital transactions not only in transforming the nation into a digital economy and reaping its benefits but also in enhancing the country's tax revenue.

GIFT organised a stake holders consultation on regulation and development of the real estate sector in Kerala on 19.11.2022

Dr Thomas Joseph Thoomkuzhy, Associate Professor welcomed the participants. Shri P H Kurien IAS (Rtd), Chairman, K-RERA and Prof K J Joseph, Director, GIFT co-chaired the programme. The inaugural address was given by Dr Sharmila Mary Joseph, IAS, Principal Secretary LSDG. The seminar included two technical sessions. Session one includes discussions on (1) Kerala Real Estate Sector-Current status by Prof K J Joseph, (2) Kerala Real Estate Sector-State Regulatory Issues-Representative of CredAI-Kerala and (3) State level Taxes/Duties related issues-Representative of Builders Association in India. The first session was moderated by Sri Binu Francis, Secretary, Thiruvananthapuram Corporation. Session two, includes (1)Affordable Housing in Real Estate Sector by Smt Shency Mathew, GIFT, (2) Apartment Ownership Act-Need for Amendment by Shri M P Mathews, Member, 22 September 2022. er Plans & spatial planning for Real Estate Development by Sri Prasanth H, Chief Town Planner (Planning). Session two was moderated by Dr Thomas Joseph, GIFT. GIFT PhD Scholars, A M Indu, Meghana Jayasankar, Niveditha, Arun Paul, Munawwara Zubair and Shijo Mathew were the Rapporteurs of the sessions. Smt Shency Mathew proposed the vote of thanks.

Webinar on taxation transformation of businesses enabled by information systems: an empirical study of Goods and Services Tax implementation in India, organised on 16.12.2022.

Dr Pankaj Dikshit presented the paper. Dr N Ramalingam, Associate Professor, GIFT welcomed the participants. The session was chaired by Prof K J Joseph, Director, GIFT

Abstract: This research studies the largest e-governance initiative of India that used a single information system to transform its taxation system. The study assesses the success of the Goods and Service Tax (GST) e-governance information system using the DeLone and McLean model. The model is also expanded to assess this very large and transformative reform from the perspective of policy intervention by the government and to examine the induction of technostress on users. The structural equation modelling (SEM) technique is used to analyse the responses of 937 companies. The findings demonstrate the acceptance and success of this gigantic reform, validating that frequent policy intervention positively contributed to the successful rollout. The research finds that service quality had the least influence in the use of the e-government system and also studies whether the swift transformation triggered technostress factors in users of the system. This is the first empirical study, as best known to us, that has studied this large e-governance tax transformation in India.

B. Teaching and Training programmes

1. Post Graduate Diploma in GST (PGDGST)

132 hours of Training programme for the Fifth batch of PGDGST students were completed till the month of December 2022..Study materials (Hard copy) are sent for the present batch of students. Hard Copies of Training Certifcates, Marklists and Post Graudate Diploma Certificates were despatched to the fourth batch of students. Dr N Ramalingam, Smt Jenny Thekkara and Smt Anitha Kumary L, Associate Professors, GIFT are handling the sessions..

Course Co-ordinators: Dr. N Ramalingam and Smt. L Anitha Kumary

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

2. PhD programme

The activities in PhD programme during October, November, and December 2022 are listed below.

Update from the first batch, 2018

- Lekshmi Prasad, fourth-year PhD Scholar, presented a research paper titled "Role of Caste in Financial Inclusion: Evidence from Indian States" at the International Conference on Public Finance, Public Policy and Economic Development, organized by Pondicherry University on November 11th and 12th, 2022"

- Lekshmi Prasad presented research on "Role of Caste in Financial Inclusion: Evidence from Indian States" at a workshop entitled "Credit Markets and Policies in South Asia: Issues and Challenges," jointly organized by the HSS Department of IIT Tirupati, the Institute for New Economic Thinking (INET), and INET's Young Scholar's Initiative South Asia Working Group."

Update from the second batch, 2020

- Jerome Joseph, third-year PhD Scholar, presented a research paper titled "Digital payments and GST revenue: an empirical analysis" at the "National conference on Impact of GST on Indian economy" held at the National Institute of Public Finance and Policy in New Delhi on November 28th and 29th, 2022.

- Jerome Joseph presented a research paper titled "Do digital payments enhance GST revenue in India?" at the international conference on Public Finance, Public Policy and Economic Development organized by the Department of Economics at Pondicherry University on November 11th and 12th, 2022.

- Jeorme Joseph, presented a research paper titled "Do digital payments enhance GST revenue: Evidence from India" as part of the GIFT webinar series organized by the Gulati Institute of Finance and Taxation on November 18th, 2022.

Update from third batch, 2021

The second-year PhD scholars successfully defended their research proposals and have now begun working on their research projects.

Update from fourth batch, 2022

The scholars continued their coursework that started in August 2022.

Course Coordinators: Prof. K J Joseph and Dr Santosh Kumar Dash

3. RCBP programme

After a few introductory sessions in September 2022, we held two special lectures in early October. Prof. Michael Tharagan delivered a session on 'Relevance of Historical Perspective in Social Science Research', and Prof. K N Ganesh delivered a session on 'Historical Research Methods: Commonalities and Contrasts.'

After the special lectures, Dr Vijayamohan Pillai conducted sessions for October, November and December. In October, 10 sessions were held on key topics, including Research Design, Sampling, Basic Statistics, and Univariate and Bivariate Measures. During November, 12 sessions covered topics such as Inferential Statistics, Estimation, and Hypothesis Testing, Test Statistics, Degrees of Freedom, ANOVA, Regression Analysis, OLS: Assumptions, Properties, and Violations. He also conducted a few practical sessions on various statistical exercises using Gretl software. The topics covered in December were Quantifying Qualitative Variables, Dummy Variable Regression, Limited Dependent Variable Models, and Time Series Analysis.

After completing the first two modules, the RCBP committee decided to take a small break. Accordingly, a special session was organized on December 17 to clarify doubts with respect to the classes conducted. Prof. KJ Joseph, Director GIFT, addressed the doubt-clearing session along with the other resource persons. The three-hour session was very productive, with the participants initiating a discussion of each of the 34 session themes, followed by interaction between resource persons and participants. Participants were also given a mid-term feedback form to register their feedback and assigned an assignment for continuous assessment. Session recordings were shared with all participants to review all classes during the break and complete the assignment.

Coordinator : Dr. Renjith P S

C. Publications

1. Kerala Tax Reporter (KTR)

September, October and November issues of KTR published Online and offline.

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

2. Innovation and Development

A Routledge journal from GIFT, Volume 12, No. 3 (2022) 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 Smt. Shency Mathew to update on important developments on Finance, Taxation and the Indian economy. Latest issue: 24-30 December 2022.

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

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Soft copy of Kerala Economy is iavailable in GIFT website.
For free download, please visit www.gift.res.in

Gulati Institute of Finance and Taxation (GIFT), formerly Centre for Taxation Studies (CTS), was conceived as a premier national Institute to promote theoretically grounded and empirically based research within an interdisciplinary perspective to aid policy making at the national and sub-national level. Recognized by the Indian Council of Social Science Research (ICSSR) and affiliated to Cochin University of Science and Technology, GIFT offers a Ph D programme in Social Sciences backed by a rigorous coursework focusing on Public Economics. It also conducts two programmes: Post Graduate Diploma in Goods and Service Taxation (PGD-GST) and Research Capacity Building Programme (RCBP). It undertakes training programmes for capacity building of different stakeholders, including Government officials. GIFT has two publications: Kerala Economy (Quarterly) and Kerala Tax Reporter (Monthly).

The Governing Body and Executive Committee of GIFT consist of scholars of eminence and senior administrators representing both the Central and the State Governments. Shri K. N. Balagopal, Minister of Finance, Government of Kerala, is the Chairperson of the Institute.

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