Trends in rural fiscal decentralisation in India's Karnataka state: a focus on public health

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Abstract

For decades, decentralisation reforms have been seen as a powerful instrument by health policy advocates to improve health sector performance in developing countries. In India, the 73rd Constitutional Amendment introduced in 1992 called for strengthening the fiscal autonomy and service delivery capacity of rural local governments. This paper explores how decentralised governance influences public health sector resource allocation, equity and efficiency in rural Karnataka. For this, the authors analysed administrative data published by the Karnataka state government to create tailored standardised performance measures that capture the degree of local governments' fiscal discretion in implementing public health programmes from 2011–18 at the district level. The findings highlight sector-specific differences in fiscal autonomy, ranging from high local discretion over funds in the nutrition sector to very limited discretion in the medical and public health sector. They also show that decentralised public health funding is not well-targeted to areas of greatest need in Karnataka.

Keywords: Fiscal decentralisation, local government, allocative efficiency, public health, Karnataka

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Introduction

While motivations for fiscal decentralisation[1] have been diverse, strengthened governance through increased accountability lies at the heart of its promise as an instrument for improving government performance (Mitchell and Bossert 2010). However, in many countries this promise has yet to be realised, with abundant evidence of both poor control of finances at the level of sub-national governments and fragmented implementation of the decentralisation agenda (Jha 2002; Oommen 2006; Babu 2009; Rao et al. 2011). With some ambiguities in fiscal decentralisation theory, and diverse experiences in its practice, there appears to be little consensus on either strategic sequencing[2] of this agenda or guidance on a comprehensive pathway towards implementation (Yilmaz et al. 2010).

This paper aims to explore fiscal decentralisation in rural public healthcare in the Indian state of Karnataka, one that has been at the forefront of that process. While fiscal decentralisation research has generated a considerable body of literature, most of it is very general. It rarely considers sector-specific differences (Arends 2017). In India, given that all levels of government – union (ie federal), state and local – are involved in providing public health services, it is crucial to understand fiscal decentralisation within this sector in greater detail, and to evaluate the extent of involvement and authority of rural local bodies. In addition to this, decentralisation has been endorsed as one of the key means of improving health sector performance and promoting socio-economic development (World Bank 1993; Bossert 1998; Khaleghian and Gupta 2005; Mitchell and Bossert 2010). From a public-choice perspective, decentralisation is expected to play an instrumental role in ensuring that public sector allocations to local governments for health reflect high responsiveness to local priorities and sectoral responsibilities (Schwartz et al. 2002; Mitchell and Bossert 2010).

Decentralisation reforms in India (covered by the 73rd and 74th Constitutional Amendments) were introduced in 1992 to empower local governments to *"prepare plans for economic development and social justice"* as part of their mandate as institutions of self-governance (Articles 243G, 243W and 243ZD, Indian Constitution). Thus, fiscal decentralisation is now meant to play an integral role in governance (Oommen 2006). However, very few states have taken a proactive stance on this and the literature on fiscal decentralisation at the sub-state level is rather sparse, due to either unreliability or unavailability of data (Rao et al. 2004).

In Karnataka, state authorities have tried to ensure greater transparency in devolving funds to local governments than many other states, by maintaining a separate 'District Budget'. This lists the share of expenditure allocations given to rural local governments for the implementation of devolved schemes

[1] In this article, the term fiscal decentralisation also refers to fiscal devolution – ie the transfer of financial resources to democratically elected lower-level authorities, which in Karnataka's case is the local government. Hence, both terms are used synonymously throughout the article.

[2] Sequencing refers to a set of necessary prerequisites to achieve a sustainable decentralisation strategy (Bahl and Martinez-Vazquez 2013).

across all districts. The authors use the administrative data from these budgets to create new empirical measures that capture standard theoretical constructs to measure the extent of rural fiscal decentralisation in the public health sector within the state of Karnataka. Using this, the paper assesses the funding and financing sources for public health in Karnataka at the district level.

The main objectives of this assessment are as follows:

i) to identify the strengths and shortcomings of the prevailing local governance system in meeting its public health commitments, through an in-depth analysis of the composition of and trends in rural fiscal decentralisation over a period of eight years (2011–2018);

ii) to examine the allocative efficiency[3] associated with decentralised funds within the public health sector in the sense of meeting community needs at the district level (combining the allocations to village, sub-district and district local governments – see below); and

iii) to highlight the actual extent of decentralisation by comparing the fiscal and functional authority of local governments for various areas of public health responsibility.

This study does not presume decentralisation to be inherently 'good' or 'bad'; rather it accepts decentralisation as a phenomenon and attempts to identify its strengths and weaknesses (Rao et al. 2004).

Fiscal decentralisation overview: India and Karnataka

A growing number of countries worldwide have undertaken ambitious fiscal decentralisation programmes, aiming to tackle inefficient and ineffective governance, macroeconomic instability and inadequate growth (Bird and Vaillancourt 1998; De Mello 2000). These programmes consist of reassigning expenditure functions and devolving revenue sources to sub-national governments (states/districts/municipalities). The main argument in favour of fiscal decentralisation is that it allows more efficient allocation of public resources, because sub-national governments can tailor policies to local preferences since they have a better insight into the needs and demands of local citizens (Tiebout 1956; Oates 1972).

Until 1992, India had evolved as a two-tiered federal structure with powers and functions demarcated between the union (ie the federal government) and the states. The constitution assigns certain subjects either to the union list (on which parliament is empowered to make laws), the state list (state legislatures can make laws), or the concurrent list (matters under the jurisdiction of both). The union list includes areas such as foreign affairs, defence, railways and stock markets. The states are responsible for public

[3] Allocative efficiency refers to a system of allocating funds in a way that reflects the preferences and priorities of those to whom the funds are assigned.

order, policing, health, agriculture and many other items. The concurrent powers include education and economic planning (Hankla 2009).

Local government units already existed in both urban and rural areas, but basically acted as agencies of the state governments. However, they were accorded statutory recognition with the 73rd and 74th Constitutional Amendment in 1992. These required each state to pass legislation appointing local bodies and provided an illustrative list of functions and sources of finance. Each state government was required to appoint a State Finance Commission to assign taxes and fees to local governments and recommend systems of tax devolution and grants. Thus, the attempt to decentralise below the state level was initiated by the union government rather than the states. It is certainly true that some states – such as Karnataka – have either historically or more recently taken a proactive approach to decentralisation, but such initiatives were the exception rather than the norm (Rao 2001).

Karnataka has been a front-runner in decentralisation reform since 1983. The Karnataka Panchayat (local government) Act 1983 provided a model of decentralisation by establishing a two-tier structure of local government within the state (Rao et al. 2004). However, as this is now overlaid by the 73rd Constitutional Amendment there currently exists a three-tier structure of rural local governments or bodies (Figure 1). *Panchayati raj institutions* (PRIs) consist of *zilla* (district), *taluk* (sub-district), and *gram* (village)-level panchayats that are popularly elected every five years, with reserved seats for women and scheduled caste/scheduled tribe/other backward class representatives. The 73rd Amendment also mandates the formation of a State Finance Commission (SFC) and District Planning Committee (DPC) to ensure active sub-national decentralisation.

An important precondition for the efficient functioning of multi-level provision of public services is to have a proper system of fiscal assignment and intergovernmental transfers (Rao 2001). Under the 1992 Constitutional Amendments, states are required to transfer a list of functions relating to 29 work areas[4] to the PRIs (Article 243G, 11th schedule). Among the major states, Karnataka and Kerala have decentralised their local governance effectively by handing responsibility to PRIs for all 29 work areas not only through legislation, but also through actual implementation.

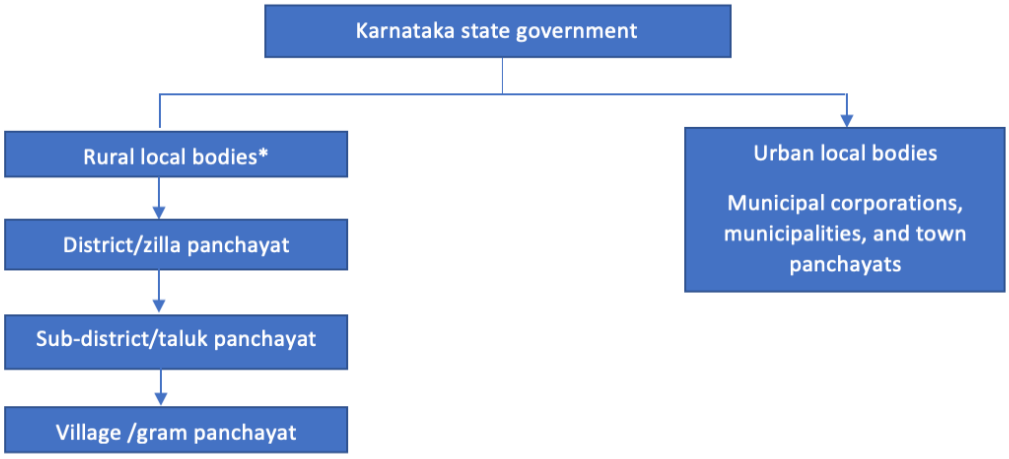
One of the cardinal rules of public finance is that allocation of funds and functionaries should follow functions (Oommen 2021). Although Karnataka and Kerala are admittedly advanced in terms of decentralisation, the quality of their fiscal decentralisation differs. Karnataka's is a 'top-down' process which adopts a scheme-based transfer of funds that completely neglects the gram panchayats. This is in sharp contrast to Kerala's 'big bang' approach that unbundles the 29 work areas and also devolves 35–40% of state plan[5] funds to local governments (Oommen 2021). Evidence indicates that local bodies in

[4] Also known as "subjects" as per the Indian context

[5] Plan grants/funds include development and investment outlays for the various projects, programmes and flagship schemes of the government. Funds are spent on productive asset creation.

Karnataka continue to suffer from inadequate power and limited resources in comparison to Kerala (Rao et al. 2004; Raghunandan et al. 2016). A recent assessment by Babu et al. (2018) concluded that in terms of fiscal autonomy, the situation in Karnataka can at best be described as 'partial decentralisation', with persistent problems relating to limited resources, weak accountability and lack of monitoring hampering the achievement of genuine autonomy in decentralised governance (Seshadri and Kothai 2019).

Figure 1: Structure of multi-level government in Karnataka



*In effect TPs have a supervisory role over GPs, and ZPs supervise both GPs and TPs.

Source: Rao (2001)

The PRIs across Karnataka are currently made up of 6,022 gram panchayats (GPs), 176 taluk panchayats (TPs) and 30 zilla panchayats (ZPs). To carry out their responsibilities they have two main types of revenue: own-source (local taxes and charges) and intergovernmental transfers. In Karnataka, only GPs have (minor) taxation powers. Intergovernmental transfers include distribution of resources from the union government and the states to all three tiers of local governments through plan grants and non-plan[6] grants, based on the state and union finance commissions' recommendations. The Karnataka state government does not share individual taxes with local bodies, except for the surcharge on stamp duty with TPs, which is an insignificant amount (Babu et al. 2018). Thus, transfers form the primary source of revenue for panchayats.

Fiscal decentralisation in Karnataka is characterised by transfers under numerous sectors and subsidiary 'schemes', with the involvement of multiple agencies and departments, which makes it challenging to track and estimate all the funds distributed to PRIs. Added to that are changes in budgetary and

[6] Non-plan grants/funds refer to outlays on routine functioning of the government e.g. loans, interest payments, subsidies, salary and pension payments, police, defence, expenditure on maintenance of assets or infrastructure, economic and social services, grants to states and union territories etc. It is spent on so-called unproductive areas and is obligatory in nature.

accounting practices over time. Intergovernmental transfers comprise both general (unconditional) and specific-purpose (conditional) grants from both the state and union to PRIs. These are termed 'devolved allocations'. The union grants include funds for centrally sponsored schemes and finance commission grants, while the state grants include funds for various state plan and non-plan schemes as well as un-tied grants[7] (Bahl et al. 2010). For each of the schemes, allocations are made to all relevant 'object-heads'[8] and are included in the aggregated, state-wide District Budget prepared by the Karnataka finance department. This essentially serves as the local-level fiscal data for this study.

Public health overview: India and Karnataka

Public healthcare in India focuses on delivering primary healthcare through community-level programmes that concentrate mainly on reducing mortality and morbidity caused by various communicable and non-communicable diseases. It uses a tiered system of infrastructure wherein basic health services are provided through sub-centres and primary health centres, while secondary and tertiary care is delivered at better equipped establishments such as community health centres, district hospitals and medical colleges that are mostly located at district headquarters (Mistry 2021).

In the early 1950s, the public sector was the main provider of health and private care accounted for only 8% of the total; however, it is now estimated that 70% of all hospitals and 40% of hospital beds are in the private sector (Rout et al. 2021). In 2017, government health expenditure only formed 27.1% of India's current health expenditure, with 72.1% financed by the private sector.

In Karnataka, lack of sufficient spending in the public health sector is evident from India's national health accounts (NHAs) over the years. These clearly show that, as a percentage of both state-level GDP and total expenditure, public health spending in Karnataka has stagnated. Public expenditures on health remain low at 0.8% of state GDP (National Health Systems Resource Centre 2018), the third lowest in the country. Per capita public expenditure is just INR1,266 per year; in comparison, Kerala invests almost 25% more on health per capita. Recent analysis has also shown that as of 2017–18 Karnataka allocated only 3.8% of its aggregate expenditure to medical and public health and family welfare, less than most other states (Kurian and Sinha 2018). Furthermore, private expenditures on health are more than twice as high as public expenditures, indicating a disproportionately high and undesirable burden carried by individuals for financing their healthcare needs.

Much of India's public healthcare sector caters to rural areas. However, recent analysis of national survey data shows that a large majority of Karnataka's rural population (73%) nevertheless rely on

[7] Statutory and development grants from the state government.

[8] Object heads include consolidated salaries, wages, contracted/outsourced projects, reimbursement of medical expenses, grants in aid (salaries), honoraria, compensatory costs, cost of materials, general expenses, office expenses, grants in aid (general), grants in aid (asset creation), maintenance expenditure, materials and supplies, minor works, nutrition, Scheduled Caste plan, Scheduled Caste sub-plan, transport expenses, and tribal sub-plan.

private facilities (National Sample Survey Office 2015). Despite the state having an extensive rural health infrastructure network, the vast majority of the rural population has poor access to basic healthcare facilities. This results mainly from lack of human resources and inadequate physical infrastructure due to low governmental expenditure. Karnataka has India's third highest gap between private and public health infrastructure, with private infrastructure forming 70% of the total (Jaffrelot and Jumle 2020). Today, most primary and community health centres in rural Karnataka (especially Northern Karnataka) are short of manpower, required equipment and other essential items.

Responsibility for ensuring effective health service delivery, especially public health facilities, rests with the PRIs (Smith 2014). In addition to their constitutional mandate, the National Population Policy 2000 and the National Health Policy 2002 laid stress on the implementation of public health programmes through local self-government. Subsequently, the National Rural Health Mission, the Government of India's flagship programme, provided a strong base to own, control and manage public health services under the PRIs. Launched in 2005, it aimed at establishing a community-owned, decentralised health system with inter-sectoral convergence (for details of the scheme see Seshadri et al. 2016).

In Karnataka, healthcare infrastructure in rural areas operates as a three-tier system, where services are delivered at sub-centres (SCs), primary health centres (PHCs) and community health centres (CHCs). All these are known as 'primary health institutions'. Under the 73rd Constitutional Amendment (1992), all health institutions with 30 beds or less (SCs, PHCs and CHCs) are managed by the district and sub-district PRIs. Responsibility for 'rural family welfare centres' also falls within the purview of PRIs, and hence they are included in 'primary health institutions' (Srinath et al. 2018). These primary health institutions and their staff come under the dual responsibility and control of the PRI system and the health department in the state.

A recent study in Karnataka by Nanjunda (2020) finds that although the PRIs are intended to enable citizens to exercise choice on the public health services they would like to have, in reality PRIs in rural areas have only a 'weak linkage' with the primary health institutions, and it seems they have not been successful in developing, supervising and delivering quality healthcare services. It appears that one of the reasons for rural panchayats not taking any significant initiatives to improve the healthcare system is that the funding allocated to them is often inadequate and usually governed by tied budget lines, leaving little flexibility to meet the particular needs of local people. Given their limited own-source revenues and dependence on grants, PRIs' involvement in strengthening rural health service delivery is thus likely to remain only supplementary rather than decisive (Gupta 2010).

Fiscal decentralisation: concept, data and measurement

Fiscal space is a complex concept, as evident from the multiple definitions and measures used in the literature. The most fruitful approach to measuring the extent of rural fiscal decentralisation has long been debated both in theory and, more recently, in empirical studies focusing on the association between fiscal decentralisation and various development outcomes. A recent meta-analysis of literature in this field found that about one-third of studies measure fiscal decentralisation as local government's share of total government expenditures. Others use the share of local spending financed from own-source revenues as an alternative. Less common measures include the share of total government revenues raised by local governments, or the gap between revenues and expenditures of local governments (Martinez-Vazquez and Timofeev 2010; Baskaran et al. 2016).

Some studies have attempted to quantify the prevailing state of rural fiscal devolution in India. While most (Jha 2002; Asfaw et al. 2007) focus on the share of rural government expenditures as a proportion of national expenditures, a few others look at innovative alternative measures. For instance, Rajaraman and Sinha (2007) came up with an aggregate estimate of devolved budgetary allocation for the states of Madhya Pradesh, Chhattisgarh, Rajasthan and Orissa which considered all sources of financing for rural local bodies. However, this indicator saw limited subsequent use, perhaps due to the difficulty in creating a consistent series over an extended period, given the vast differences in budgetary practices and classificatory structure across states, and also due to unavailability of data over time.

Rao et al. (2004) conducted a comprehensive analysis of rural fiscal decentralisation in Karnataka. This study devised a detailed approach to create a reliable local government 'fiscal aggregate' by identifying the degree of autonomy and flexibility assigned to panchayats in expenditure allocation and revenue-raising powers. However, the data was limited to one year, 2002–2003, and only a few districts. The study reported here has adopted the same methodology to create a uniform time series on fiscal aggregates (as defined by Rao et al. 2004) for local governments at the district level with respect to public health.

For data on local government finances in Karnataka, this paper relies solely on the District Budget. As previously mentioned, the state has transferred functions, finances, and staff for 29 work areas to the PRIs. Each of these 29 work areas corresponds to a budget head within the District Budget.[9] All intergovernmental transfers and the schemes[10] to which they are tied are provided as budget estimates under these budget heads. Among these 29 work areas, seven are related to health and will be termed

[9] Focuses only on the revenue expenditure; capital expenditure not taken into consideration.

[10] Schemes are programmes or developmental initiatives launched by the central or state governments of India based on the sectors or work areas assigned to them.

'health-related sectors' for the purpose of this study. The budget estimates are available for all three tiers of local government – zilla (ZP), taluk (TP) and gram (GP) panchayats.

The study has several minor limitations, most of which pertain to inherent inconsistencies and reporting errors in the District Budget and have been discounted as they do not affect overall conclusions. There is also one major limitation, namely that the fiscal decentralisation measure is based on transfers allocated at the beginning of the year (budget estimates). It is challenging to get data on actual transfers as this would require researchers to collect information directly from the recipients. Moreover, specific-purpose transfers are listed in the District Budget without stating the detailed conditions associated with them (eg. what they are for, how they are to be spent, any related performance conditions etc.). Also, the calculations do not include own-source revenues at the gram level. Since there is no standard method for maintaining records, this would require a compilation of primary data from the GPs; but given that GPs' revenues are low in Karnataka (around 8% of total receipts), omitting these amounts does not substantially impact our analysis. Thus, the only source of data is intergovernmental transfers to PRIs (Babu et al. 2018).

In Karnataka, along with the funds, staff are also transferred by the state to local governments, making their salaries an important component within the intergovernmental grants. However, despite being reassigned, the local-level personnel remain on the payroll of the state governments. This makes the salary component[11] of grants an allocation over which local bodies have no discretion and it is essentially treated as a 'pass-through' payment. Following Rao et al. (2004), the degree of financial autonomy of local bodies can be captured if we can strip out the salary component from the devolved allocation. Fortunately, since 2010 allocations for all the devolved schemes have been segmented using object heads, signifying the intent of expenditure. The present paper uses these object heads to distinguish between salary- and non-salary-related components, and the non-salary portion of transfers provides the fiscal decentralisation measure, hereafter known as the 'locally controlled allocation' (LCA). The LCA quantifies local governments' fiscal autonomy and the extent of local discretion (Figure 2).

Our dataset has been created for eight years (2011–18) for each of the 30 districts in Karnataka. The seven health-related sectors we are focusing on include 'medical and public health', 'water supply and sanitation', 'family welfare', 'woman and child development' and 'nutrition'. Rural development programmes have also been included in the analysis since they comprise grants and poverty alleviation schemes that could indirectly affect health service delivery. Rural development comprises two sectors

[11] Salary-related object heads are consolidated salaries, wages, contract/outsource costs, reimbursement of medical expenses, grants in aid (salaries).

('special programmes for rural development'[12] and 'other rural development programmes'[13]) which have been analysed separately in this paper.

For each district, three variables of local health finance have been calculated: devolved allocation, salary-related allocation and LCA. These variables have been estimated by aggregating the transfers to the zilla, taluk and gram levels within a district. Thus, in this paper, districts can be considered synonymous with local governments (PRIs). We have also summed these variables across the thirty districts to arrive at the state-wide "total" devolved allocation, salary-related allocation, and LCA. These totals correspond to the combined estimate for all thirty districts.

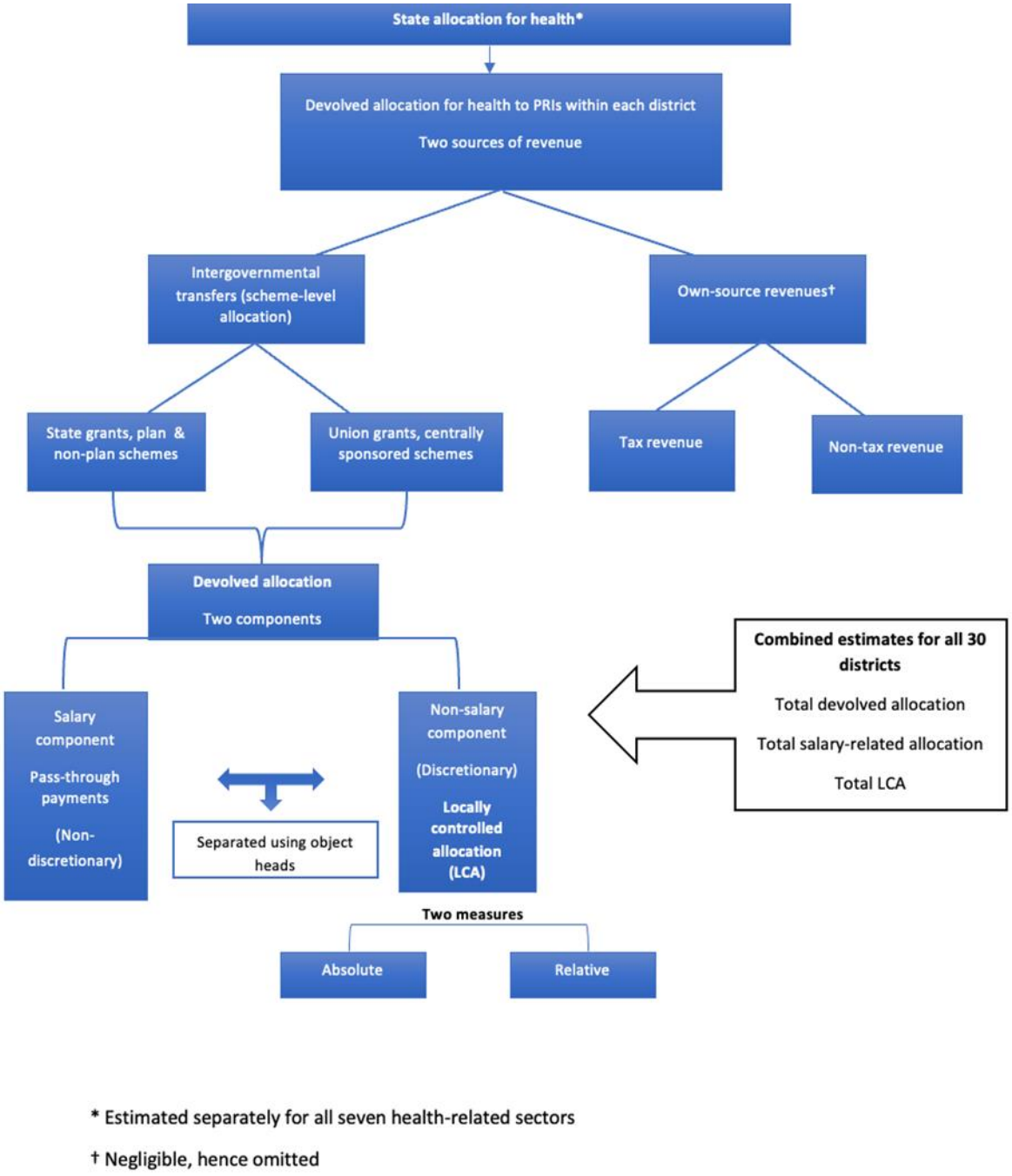
The LCA has been analysed in two different ways. First is an absolute measure that shows the per-capita amount received, calculated by dividing the LCA by the annual rural population,[14] and second is a relative measure that shows the ratio of LCA to the devolved allocation. Given the focus on sector-specific differences in fiscal decentralisation, all variables and measures are computed separately for the seven health-related sectors identified. Although there are limitations to our data, our approach has the potential to provide insights into fiscal decentralisation at the district level.

[12] Includes *swarnjayanthi gram swarozgar yojana*, the integrated wasteland development programme, the drought prone area development programme, and the national rural livelihood mission.

[13] Includes development and statutory grants from the state, Finance Commission grants (basic and performance) and maintenance grants.

[14] The Directorate of Economics and Statistics, Bangalore (2013) made projections for the provisional population in Karnataka by districts from 2011–2021 based on the growth rates between the 2001 and 2011 Censuses. However, for 2011 they used provisional instead of finalised estimates. Thus, the same methodology was applied to recalculate the annual projections using the actual estimates.

Figure 2: Measurement of fiscal decentralisation



Source: Authors

Rural fiscal decentralisation in Karnataka: overall and sub-state scenario

In this section, we compare the state's total budgetary allocation for each of the seven health-related sectors to the aggregate devolved allocations and LCAs of all districts, in order to understand the extent of PRIs' financial autonomy.

From 2011 to 2018,[15] around 60% of Karnataka's population resided in rural areas; however, less than 30% of the state's budget for health-related sectors was devolved to the PRIs and less than 18% could be utilised at their discretion. Comparing the state budget to the total devolved and locally controlled allocations (LCA) of all the districts together (on an average over the years), it is found that only in the case of nutrition was there both a major portion (92.1%) of the state's budgetary allocation devolved to the districts, and also complete local autonomy over the use of those funds (ie no salary-related allocation). Additionally, the LCA for nutrition experienced a sharply rising trend over the years along with the state's total budgetary allocation.

In contrast, only about 22.7% of the state's budgetary allocation for the medical and public health sector has been devolved to the districts, and of the total devolved allocation only 10.1% can be classified as LCA (2.3% of the state's allocation). Furthermore, this proportion has not grown substantially over the years despite rising state budgetary allocations. The low level of autonomy in this sector is because, on average, around 89% of the devolved funds are salary-related expenses, and that proportion did not diminish over the years.

In the case of family welfare, even though the allocation for districts forms a significant portion (79.8%) of the state's budgetary allocation, LCA amounts to a meagre 19.8% (15.6% of total state's allocation). This shows that a major portion (80% on average) of the notional devolved allocation is for salary-related expenses. Over the years, we find the LCA in this work area experiencing only a slight rise compared to total state budgetary allocation.

For water supply and special programmes for rural development, although the LCA is 100%, the state devolves only 10% and 26.7% respectively. The trends over the eight years studied also show that, in the case of special programmes for rural development, the state gradually stopped devolving funds. In the case of water supply, the LCA remained low, despite state water supply funds increasing exponentially. Clearly the state prefers to maintain its fiscal authority for schemes in these sectors.

For the woman and child development and other rural development programmes sectors, a considerable portion (22.8% and 43%) of the state's budgetary allocation is devolved to the districts. Also, the LCAs are sizeable (74.8% and 67.6%, respectively) and have risen slightly in the case of the woman and child development sector. Thus within this sector PRIs enjoy a considerable degree of discretion. However, for other rural development programmes, the authors observed a widening gap between the total devolved allocation and the LCA over the period 2011-18, indicating an increase in the non-discretionary salary-related portion.

[15] The study period is limited to eight years, since before 2011 the District Budget did not have object head classifications to separate the locally controlled portion of the allocation.

Rural fiscal decentralisation and allocative efficiency: district-by-district analysis

In this study, fiscal decentralisation is assessed in terms of the LCA. Analysing the data on a district-by-district basis, there do seem to be some intra-state variations (based on coefficient of variation (CV)) in the distribution of LCA. These variations are assessed to examine both the degree of allocative efficiency and any trends associated with fiscal decentralisation over the years, across the health-related sectors identified. Both absolute and relative measures of LCA have been assessed.

Allocative efficiency

For the purposes of this analysis, fiscal decentralisation is said to exhibit allocative efficiency if LCAs vary according to local needs in different areas of Karnataka. 'Local need' has been defined in terms of 'backwardness' according to the level of socio-economic disadvantage in a district, as shown in the Comprehensive Composite Development Index created by the High-Power Committee for Redressal of Regional Imbalances in Karnataka (Government of Karnataka 2001). This index was developed at the taluk level (geographically, a taluk lies within a district) using 35 indicators of development for five different sectors – agricultural and allied; industry, trade and finance; economic infrastructure; social infrastructure; and demographic characteristics. The authors classified the districts into four categories, namely 'most backward', 'more backward', 'backward', and 'relatively developed', based on the proportion of the district's taluks[16] in the 'more' and 'most' backward categories. To evaluate allocative efficiency, the authors then assessed the variations in LCA across these four categories of districts.

Relative measures

The results (see Table 1) reveal that, on average, only the family welfare sector exhibits variations in the ratio of LCA to devolved funds across the categories sufficient to draw conclusions about allocative efficiency. And even for the family welfare sector, the allocative efficiency is evident only in the case of 'most backward' and 'relatively developed' categories and does not extend to the rest. Furthermore, the authors also conducted a trend assessment (estimates not shown), which revealed that allocative efficiency did not improve over the years (NB trend assessment did not apply to the sectors of water supply, nutrition, and special programmes for rural development, due to complete discretion over devolved allocation).

[16]All the taluks were classified into developed and backward taluks, and the latter were further sub-divided into backward, more backward, and most backward taluks. This method reflected the gap between the place of a given taluk on the development scale and the average development level of the state.

Table 1: LCA and its variability across different district categories (relative measures – ratios)

Category (average values)	Water supply & sanitation	Medical & public health	Nutrition	Other rural development programmes	Woman & child development	Special programmes for rural development	Family welfare
Backward	1.00	0.10	1.00	0.67	0.76	1.00	0.22
More backward	1.00	0.09	1.00	0.67	0.77	1.00	0.19
Most backward	1.00	0.11	1.00	0.67	0.72	1.00	0.25
Relatively developed	1.00	0.10	1.00	0.68	0.74	1.00	0.15
CV	0.00	0.08	0.00	0.01	0.03	0.00	0.19

Source: Compiled by authors from Karnataka budget documents (Karnataka Finance Department 2011–18) Note: Coefficient of Variation (CV)

Absolute measures

In this paper, the absolute measure refers to the per-capita estimates of LCA. The authors observed variations across the four district categories for all health-related sectors (see Table 2), but none of the sectors exhibited allocative efficiency, except (to a limited extent) special programmes for rural development and nutrition. This, in general, indicates poor planning as far as allocations of LCA to districts are concerned. Over the years, for most sectors, 'relatively developed' districts consistently had high LCA associated with them. Across the other three types of district, there was little variation or change over the eight years. Only nutrition showed promising results, with the LCA for the 'most backward' and 'relatively developed' districts respectively rising and declining over the years. However, this demonstration of allocative efficiency did not extend to the other two categories of districts. Thus, our analysis suggests that the distribution of LCA over the years has failed to promote equity.

Table 2: LCA and its variability across different district categories (absolute measures - INR per capita)

Category (average values)	Water supply & sanitation	Medical & public health	Nutrition	Other rural development programmes	Woman & child development	Special programmes for rural development	Family welfare
Backward	9.42	19.35	271.13	191.66	158.18	12.72	25.72
More backward	10.33	22.21	255.61	191.30	171.35	14.95	19.25
Most backward	10.59	23.09	274.37	179.88	157.58	18.35	22.07
Relatively developed	17.28	30.53	242.40	256.40	197.26	11.48	24.23
CV	0.30	0.20	0.06	0.17	0.11	0.21	0.12

Source: Compiled by authors from Karnataka budget documents (Karnataka Finance Department 2011–18) Note: Coefficient of Variation (CV)

Comparative analysis

In this section, we discuss sector-specific progress made by the Karnataka government over the years to financially empower its local governments. We compare the trends in the median values of the relative and absolute measures of LCA: both measures need to show high or rising trends to ensure improvement in rural fiscal decentralisation (Table 3).

Table 3: Trends in rural fiscal decentralisation – absolute & relative measures (median values)

Year	Water supply & sanitation	Medical & public health	Nutrition	Other rural development programmes	Woman & child development	Special programme for rural development	Family welfare
Absolute measures (INR per capita)							
2011	12.23	15.04	151.76	177.46	42.36	57.88	7.18
2012	11.59	22.94	152.02	128.97	106.18	41.07	10.18
2013	8.77	18.84	205.18	202.45	138.64	0.24	10.47
2014	11.41	20.08	188.78	207.56	159.24	0.11	12.53
2015	27.92	22.41	314.02	225.01	184.39	0.18	18.01
2016	4.96	25.34	327.16	222.87	235.53	0.19	29.09
2017	5.01	32.28	334.12	228.00	240.70	0.23	35.71
2018	4.78	31.50	340.15	239.42	232.32	0.24	25.49
Relative measures (Ratios)							
2011	1.00	0.10	1.00	0.81	0.18	1.00	0.09
2012	1.00	0.12	1.00	0.67	0.60	1.00	0.21
2013	1.00	0.07	1.00	0.72	0.56	1.00	0.11
2014	1.00	0.08	1.00	0.72	0.57	1.00	0.12
2015	1.00	0.08	1.00	0.68	0.83	1.00	0.16
2016	1.00	0.10	1.00	0.64	0.87	1.00	0.21
2017	1.00	0.13	1.00	0.57	0.87	1.00	0.29
2018	1.00	0.13	1.00	0.57	0.86	1.00	0.23

Source: Compiled by authors from Karnataka budget documents (Karnataka Finance Department 2011–18)

We observe that in the case of nutrition and woman and child development, rural fiscal decentralisation shows signs of progress. Not only is there a rise in the amount of LCA but it also forms a high proportion of the total devolved funds across the districts. With respect to these sectors, there are considerable intra-state variations (coefficient of variation) in the case of per-capita estimates; however, they are negligible from a relative perspective. This is because nutrition is completely under local discretion, and even the woman and child development sector trends toward a higher and constant LCA of around 85% across districts over the years.

Though there is complete fiscal autonomy in the case of water supply and special programmes for rural development, the absolute estimates of LCA show a declining trend over the years, thus indicating a deterioration in the degree of rural fiscal decentralisation. This is a result of the state government either discontinuing schemes or restoring its control of previously devolved schemes in these sectors. Here, the CV across the districts reduced over time. Even for other rural development programmes, there is a clear decline in fiscal devolution. Despite a rise in the absolute amount of LCA, its share of the devolved

allocation reduces over the years. This implies that while the state is devolving a greater amount of funds overall under this sector, it is also dedicating an increasing portion of the devolved funds to meet salary-related expenses, thus limiting local governments' fiscal autonomy.

Fiscal decentralisation in the case of the medical and public health and family welfare sectors has experienced only a very slight improvement. Though the per-capita estimates have more than doubled over the years, they are pretty low compared to other health-related sectors. The relative measures of LCA for both sectors reveal that over the years the proportion has stagnated at around 10% and 20% respectively. This indicates that the discretionary resources at the PRIs' disposal are very limited within these major health sectors. It also suggests that state governments prefer local governments to have an 'agency' function rather than an autonomous spending role (Bahl et al. 2010).

District-by-district comparative analysis

Next, the authors examined the extent of fiscal decentralisation granted to each district across the seven health-related sectors. This analysis also sheds light on the relative allocative efficiency of each district. The main variable for estimation and analysis continued to be LCA, and analysis was conducted by comparing the absolute and relative measures. To determine the fiscal decentralisation status, the authors calculated firstly individual median values of LCA for each district, sector-by-sector over the years; and secondly the 25th, 50th, and 75th percentile values of LCA across all districts and years, again sector-by-sector. Next, the study grouped the districts into three categories – high, medium and low – based on whether the individual median[17] values of a district for a given health-related sector fell above the 75th percentile, between the 25th and 75th percentiles, or below the 25th percentile value for the sector (overall). These median values were calculated separately for the absolute and relative estimates.

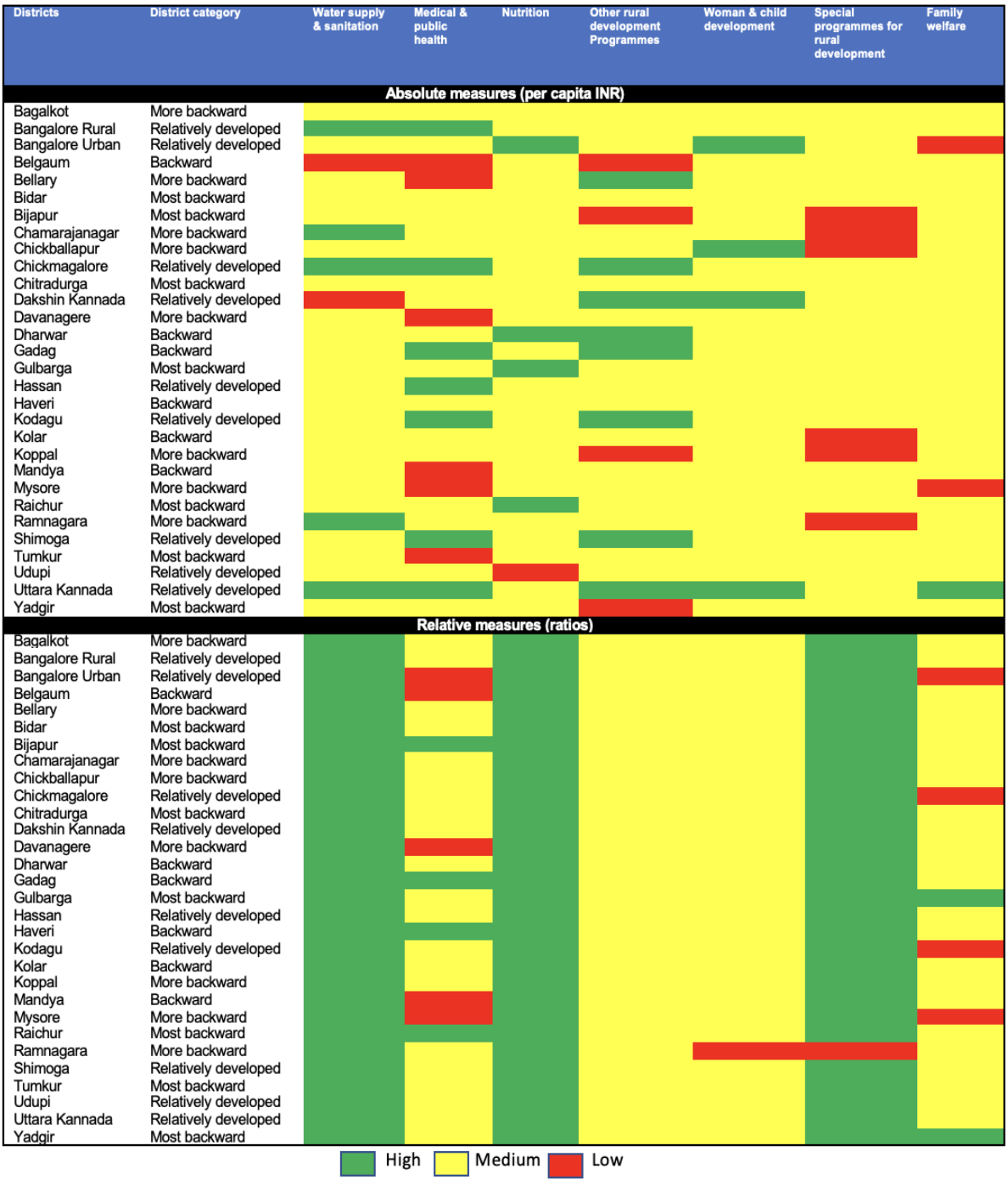
For this analysis, a district is said to have allocative efficiency if it receives LCA in direct proportion to its backwardness in per-capita terms. In addition, LCA as a share of the devolved allocation for the district should be 'high', because this implies that, beyond allocative efficiency, the district also enjoys greater autonomy in expenditure assignment for a given sector.

However, comparing the relative and absolute measures (Figure 3) it was found that is mostly not the case. Except for a few districts in the case of nutrition and water supply, most districts show a mismatch between their degree of backwardness and the amount of LCA they receive. In a few instances where districts do enjoy allocative efficiency, eg. Bangalore Urban under the family welfare sector, LCA as a proportion of the devolved allocation is nevertheless 'low'. This indicates that although these funds seem to reflect allocative efficiency, the panchayat's discretionary space is limited. From Figure 3 we also observe that none of the districts experience high fiscal autonomy across all the health-related

[17] Due to the presence of outliers in a few sectors, the average would have given misleading results. Thus, the median values were considered.

sectors identified. This inconsistency in degree of decentralisation across the health-related sectors may reflect variations in the extent to which sectors are regarded and treated as a local priority.

Figure 3: District-by-district comparative analysis of fiscal decentralisation status



Source: Compiled by authors from Karnataka budget documents (Karnataka Finance Department 2011–18)

Further analysis

As the data above makes clear, a high level of local government discretion over the devolved allocation for a sector does not necessarily translate into greater fiscal decentralisation. All transfers are earmarked for schemes within sectors. In Karnataka, many of the state government's own schemes have descriptions similar to those devolved to the districts, with similar objectives. This bears out the previously identified tendency of state departments to dilute devolution through recentralisation (Raghunandan et al. 2016). Moreover, an examination of Karnataka's state and district budgets reveals that several schemes are allocated funds under both. This allows the state to implement these 'overlapping' schemes concurrently with the local governments by involving line departments and parastatals,[18] which raises serious questions about accountability and incentives. India's Thirteenth Finance Commission report notes that the past two decades have witnessed a significant growth of parallel agencies that trespass on the functional domain entrusted to local bodies and distort their roles (Oommen 2010). Thus, it is essential that in those sectors where we observe apparently high local discretion, a thorough evaluation of the role of local bodies is conducted.

In the case of nutrition, PRIs enjoy the highest level of fiscal decentralisation and do have real responsibility for executing schemes within the sector. By contrast, although the woman and child development sector has witnessed a steep increase in its proportion of LCA over the years, it contains schemes that overlap with those of the state. A closer look at these overlapping schemes shows that the state government holds on to the majority of funds assigned for a given scheme while devolving administrative expenses to local governments. This reduces the local governments to 'pass-through' agencies responsible for salaries and office expenses. Additionally, the districts also have to contend with the constant involvement of state departments, resulting in a complex intersection of departmental administrative mechanisms and panchayat jurisdictions (Raghunandan et al. 2016).

The authors also explored the scope of local governments' role within schemes for sectors that showed a decline in rural fiscal decentralisation (Table 3). For example, the LCA for special programmes for rural development shows a decline to zero across all districts over the years. This is mainly due to the progressive discontinuation of most of the schemes devolved under this sector, except for the National Rural Livelihood Mission – which is managed by the Karnataka State Rural Livelihood Mission Society, and for which the PRIs act merely as implementation bodies with limited autonomy. In the case of water supply, only a meagre proportion (10%) of the state and district allocation is locally controlled, and has declined over the years. Furthermore, the schemes devolved under water supply are implemented by the parastatal organisation Karnataka Rural Water Supply and Sanitation Agency.

[18] Parastatals are fully or partially state-owned corporations or government agencies, whereas line departments are government departments at the state level, with mandates related to specific thematic sectors.

The sector most neglected of all when it comes to fiscal decentralisation is medical and public health. Its LCA is a meagre 10.13% of the total devolved funds to the districts, with little improvement over the years. To make matters worse, the state devolves schemes under this sector for developing health infrastructure, a major component of which is salaries for the health personnel at public health facilities. Additionally, major schemes under this sector overlap with state projects, which further aggravates the poor state of fiscal decentralisation. Similarly, for family welfare the proportion of LCA is low and the state department of health and family welfare plays an integral role in executing schemes, further curbing the fiscal autonomy of local governments. Here too, the districts are devolved funds predominantly to cover salary requirements.

A sector that performs moderately well is other rural development programmes, with an average LCA of 67% across all districts. Here, the LCA comprises development and finance commission grants from the state and union governments, which are un-tied in nature and therefore allow PRIs to carry out needs-based utilisation. However, an ongoing problem is that, although absolute estimates of LCA show a rise, LCA as a proportion of total devolved funds has declined steadily in the past decade, indicating a deteriorating fiscal space.

Discussion and conclusion

In conclusion, the study's findings indicate that Karnataka does not practise rural fiscal decentralisation in a way that delivers greater autonomy for panchayats in public health. There are several reasons for this. First, devolved allocations for health-related sectors entrusted to PRIs remain inadequate. Additionally, in most health-related sectors, a large portion of the allocation that is devolved goes towards funding salaries and wages of seconded state personnel. This is especially apparent in critical sectors like family welfare and medical and public health. All seconded staff remain answerable to the state government, rather than PRIs, which limits the jurisdiction of local government. Thus, fiscal decentralisation in Karnataka is essentially 'de-concentration' rather than true decentralisation (Rao et al. 2011).

Second, the authors' sector-by-sector assessment shows that only the nutrition and woman and child development sectors have experienced an improvement in fiscal decentralisation over the years, and only in the case of nutrition do PRIs genuinely have adequate fiscal space to carry out their responsibilities. Moreover, the practice of tying transfers to specific schemes or making them conditional has denied PRIs the advantages of fiscal decentralisation altogether, as they do not have the opportunity to influence priorities based on local preference. Moreover, the fact that many state and district schemes have similar objectives calls into question PRIs' role in rural development, due to overlapping, duality of control and lack of local autonomy in implementation. This seriously undermines accountability and incentives.

Third, the study's analysis reveals that, in most cases, the distribution of LCA is inequitable. It does not in practice favour 'backward' districts over 'relatively developed' ones. This shows that local needs are not attracting funds. It also suggests the presence of other determinants of funding, such as the alignment of the political leadership, the bargaining power of the bureaucratic administration in a given district, and differences in attitudes and efficiency levels (Rao et al. 2004; Bahl et al. 2010). Equally problematic is the fact that, even when LCA is relatively high, PRIs still have limited autonomy in the sense that they cannot change the overall allocation to a given scheme, nor replace one scheme with another. Only statutory and finance commission grants are purely un-tied in nature. To determine the level of 'absolute' autonomy, one would need to analyse in detail all the 'decision space' available to PRIs over a variety of health-sector functions (Seshadri et al. 2016), which is outside the scope of this study.

All the above reasons lead us to conclude that the Karnataka government withholds crucial discretionary powers and resources from its PRIs. Added to this is the poor effort to mobilise own-source revenues by the PRIs, especially the GPs (Babu et al. 2018; Rao et al. 2011). Thus, as far as Karnataka is concerned, the PRIs function as shadows of the state government.

This study's evidence suggests that the state should provide higher support to the more backward districts; however, this must be accompanied by sufficient fiscal space and greater scope for expenditure assignment. Fiscal autonomy at the sub-state level is also diluted by a lack of control over functions and personnel. Research literature in this field suggests that it would be foolhardy to entirely dismiss the role of central government, especially in the case of public goods such as health with high spill-over effects (Akin et al. 2005). Complete discretion would cause local governments to consider only the beneficial effect of the good in their own territories and would lead to under-provision. This in turn would cause inequitable availability and quality of health services at the sub-state level. On the other side of the balance, however, if the union and the state governments constantly interfere with and constrain the functioning of local governments in the delivery of essential goods and services, this is likely to weaken overall fiscal discipline and responsibility (Arends 2020).

While the present analysis shows that fiscal decentralisation is as yet far from a reality, the union government continues to make attempts to revive and strengthen local governments. Recently, for example, India's 15th Finance Commission's interim report identified water and sanitation as national priority areas for PRIs, and allocated INR 303.75 bn for work in these areas. However, given this paper's findings, there must be serious doubt about the capacity of local bodies to implement expanded programmes efficiently. To achieve real improvements in fiscal decentralisation, PRIs must be incentivised, encouraged and supported to fulfil their statutory responsibilities for service delivery through reforms and enhanced capacity at local and district levels.

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