

## REGIONAL DEVELOPMENT EXPENDITURE IN KARNATAKA: A DIVISIONAL ANALYSIS

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### Abstract

*Public expenditure constitutes an important element for upgrading the productive environment of the economy and improving the welfare conditions at different regions and localities. A significant and positive relationship existed between expenditure for development and growth (Vittorio, 2009). The allocations in Special Development Plan (SDP) across the divisions were based on the Cumulative Deprivation Index (CDI). Per capita fund allocation across divisions was not properly distributed in 2001-02 but in recent years in 2011-12 and in 2021-22, the divisions such as Belagavi and Kalaburgi were having lower per capita income, but were allocated higher money resources. Similarly, Higher per capita income divisions such as Bengaluru and Mysuru got allocated lesser resources during the same time periods. The districts having lower CCDI values were allocated higher funds but the districts which were having higher CCDI values got distributed lower funds. During 2011-12 and 2021-22 the north Karnataka achieved low income growth but had high ratio of fund allocation as percentage of GDDP and per capita fund allocation. The south Karnataka had a low fund allocation ratio, though it has achieved high growth of Income and CCDI. The correlation matrix has shown a strong and positive association has been found among Human Development Index (HDI), Per capita income (PCI), Literacy (LRTY), Rainfall (RNFL), Social Infrastructure (SI) with CCDI and Poverty and Per capita fund allocation (PCFA) has negative correlation with CCDI because the Per capita fund allocation and CCDI have been negatively associated, it indicates that more amount of fund has been allocated to backward regions to develop their socio-economic conditions. Economic infrastructure (EI), Area under forest (AUFST) and Industry per lakh population (INDY) are positive but have statistically insignificant relationship with CCDI.*

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## 1. INTRODUCTION

Public investment expenditure constitutes an important element for upgrading the productive environment of the economy and improving the welfare conditions at different regions and localities. Investment in rural education and agricultural research and development (R&D) in the western region has the largest and most favorable impact on reducing regional inequality (Zhang and Fan, 2000). Public investment has come again at the forefront in economic policy debates since it constitutes an important element for confronting economic downturn and provides vital support for employment creation. The distribution of tax revenue and the expenditure are extremely significant for the regional growth (Guisain and Cancelo, 2008). The spatial allocation of investments plays an important role not only for local or regional development but also for the effectiveness of public investment in tackling problems of national development and growth. A significant and positive relationship existed between expenditure for development and growth (Vittorio, 2009).

Effective public expenditure *ipso facto* improves balance in growth and also plays an important role in poverty reduction. The rapid rise in government spending, particularly in the areas of infrastructure development, health and education, acted as a major force behind the progress in economy (Mahmoud *et al*, 2008). The affect of public expenditure on regional development is divided into two ways: 1) The short run effect is that an increase in public investment expenditure directly and indirectly stimulates economic growth. 2) The long-run effect is that the public investment creates public capital which provides the economy and society with the necessary infrastructure and upgrades both the social wellbeing.

Regional development programmes focus mainly on macroeconomic, and in some cases also on microeconomic targets, and their main objective could be defined as the decrease of unemployment level and the increase of the per capita GDP in the region. The public resources to finance regional development in India are provided by Central assistance, state budget and state funds. State financial support for regional development is declared as a complement to regional own sources and it is not obligatory. The potential recipients are self-government regions, association of municipalities, municipalities and their legal bodies, business entrepreneurs, non-governmental and non-profit organizations and other legal bodies. There are different forms of

support, like direct subsidies, credits with favoured interest rate, returnable financial support, including non-financial forms.

## **2. OBJECTIVE OF THE STUDY**

The following objectives are as follows:

1. To analyse the utilization of fund under SDP in Karnataka;
2. Impact of Per capita income, CCDI and Fund Allocation on Regional Development in Karnataka;

## **3. RESEARCH METHODOLOGY**

The study is based on secondary data collected from various sources. Data regarding Gross State Domestic Product (GSDP) and Gross Domestic Product (GDP), Per capita income, per-capita fund allocation have been collected from Directorate of Economics and Statistics, Bengaluru; Finance Department, Government of Karnataka; Karnataka at a Glance; Economic Survey of both India and Karnataka; Karnataka State Budget Documents; and Population Census of 2001 and 2011 and 2021 (Projected Poulation).

The study also has constructed the Comprehensive Deprivation Index (CDI) which measures the distance between the place of a given district on the development scale and the average development level of the state. For the period 2001-02, the data was gathered from Siddu and Aziz (2012) work and for the period of 2011-12, the data was collected and compiled indices. The study has given relative Weights for Sectors Indicators for both time periods. The study has employed the methodology adopted by the HPCRRI. The study has used the per capita fund allocation as proxy variable for public expenditure at district level in Karnataka. Impact study has done in this work. The study has covered the 27 districts due to non-availability of data. CCDI is Comprehensive Composite Development Index which has constructed by considering 35 socio-economic and demographic indicators.

## **4. RESULT AND DISCUSSION**

### **4.1. ALLOCATION OF FUNDS UNDER SDP IN KARNATAKA**

The allocations in SDP across the divisions were based on the Cumulative Deprivation Index (CDI). This is estimated on the basis of the distance of the CCDI Value from the State average ( $CDI=1-CCDI$ ). The share of Kalaburagi division is maximum that is of Rs. 6,400 crore

(40 per cent) out of proposed additional investment of Rs. 16,000 crore and the share of north Karnataka is 60 per cent of the total allocation.

This is because the extent of development deprivation is more in Kalaburagi Division. In south Karnataka deprivation is comparatively less, in this respect allocation of fund is of 40 per cent for both Bengaluru and Mysuru divisions. The Government started implementation of Special Development Plan from 2007-08. Budget provision was made from 2007-08 every year for implementation of these recommendations in the backward regions by various departments (Table 6.1).

**Table 6.1**  
**Composite Deprivation Index and Resource allocation across Divisions**

Divisions	CDI Value	Estimated Resource Allocation Pattern
Kalaburagi Division	8.06	$8.06/20.26=40\%$
Belagavi Division	4.12	$4.12/20.26=20\%$
Bangaluru Division	5.35	$5.35/20.26=25\%$
Mysuru Division	2.76	$2.76/20.26=15\%$
Total	20.26	$2.76/20.26=100\%$

Sources: HPCRRI, 2002

#### **4.2 Trends in Allocation, Release and Expenditure under SDP**

The programmes under SDP are planned on the basis of the requirements sent by the taluks to the concerned departments. The progress of the works under SDP is reviewed at the State and district levels in KDP meetings every month, and a MIS system has been developed for providing online information about the programmes undertaken under SDP and the physical and financial progress achieved. A special cell has been established in the Planning Department to co-ordinate and monitors the implementation process.

The data on amount allocated, releases made and expenditure incurred so far is given in Table 6.2 which reveals that the expenditure as percentage to allocation under SDP increased significantly starting from 51.19 per cent in 2007-08 to 55.42 per cent in 2014-15 in Karnataka. Allocated fund was utilised more during 2010-11 to 2020-21. Similarly, expenditure as a percentage to release under SDP got fluctuated over a period of time. It was higher during 2013-14. Expenditure as a per cent of release was higher than that of expenditure as percentage of

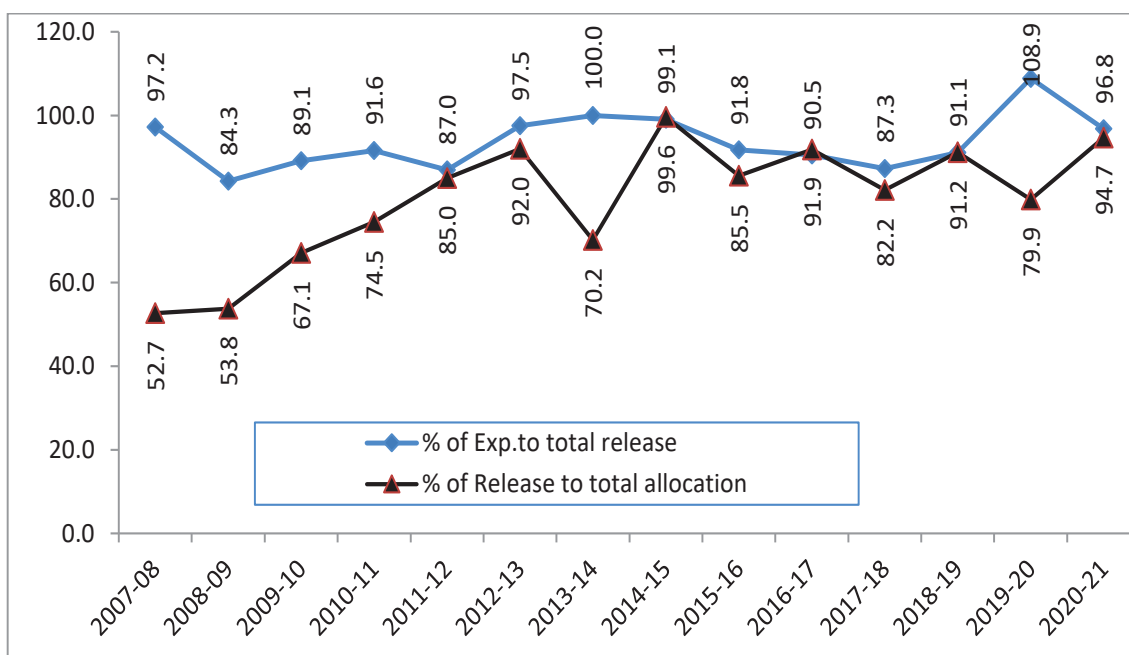
allocation which implies that the released fund was properly utilized under SDP for the various schemes.

**Table 6.2 Allocations, Releases and Expenditure under Special Development Plan**

Year	Allocation	Release	Exp	% of Release to total allocation	% of Exp. to total release
2007-08	1572	828	804	52.7	97.2
2008-09	2547	1369	1154	53.8	84.3
2009-10	2579	1731	1543	67.1	89.1
2010-11	2584	1924	1763	74.5	91.6
2011-12	2976	2530	2200	85.0	87.0
2012-13	2680	2465	2403	92.0	97.5
2013-14	2926	2054	2054	70.2	100.0
2014-15	1228	1224	1213	99.6	99.1
2015-16	2300	1967	1805	85.5	91.8
2016-17	3000	2756	2495	91.9	90.5
2017-18	3224	2650	2313	82.2	87.3
2018-19	3587	3271	2980	91.2	91.1
2019-20	3599	2875	3130	79.9	108.9
2020-21	2426	2297	2223	94.7	96.8
2021-22 (Nov)	3211	1331	907	41.5	68.1
<b>Total</b>	<b>40385</b>	<b>31274</b>	<b>28987</b>	<b>77.4</b>	<b>92.7</b>

Source: Economic Survey-2021-22, Government of Karnataka.

**Figure 6.1 Trends in Utilisation of SDP Fund in Karnataka**



Source: Economic Survey, Government of Karnataka.

### 4.3. PER CAPITA INCOME AND FUND ALLOCATION IN KARNATAKA

#### 4.3.1 Division-wise Per capita Income and Allocation of Fund

Data presented in Table 6.5 presents the division wise per capita income and fund allocation in Karnataka. Per capita income and per capita allocation of fund both have increased significantly during 2001-02 and 2011-12 in the state. North Karnataka divisions i.e. Belagavi and Kalaburagi were allocated resources of 20 per cent and 40 per cent. Similarly for south Karnataka divisions i.e. Bengaluru and Mysuru allocated fund was of 25 per cent and 15 per cent (HPCRRI, 2002). During 2001-02, the per capita fund allocation was not accordance with highly deprived district During 2011-12, the per capita fund allocation was in accordance with highly deprived divisions in the state. It implies that the divisions those having lower per capita income had higher gain of per capita allocation.

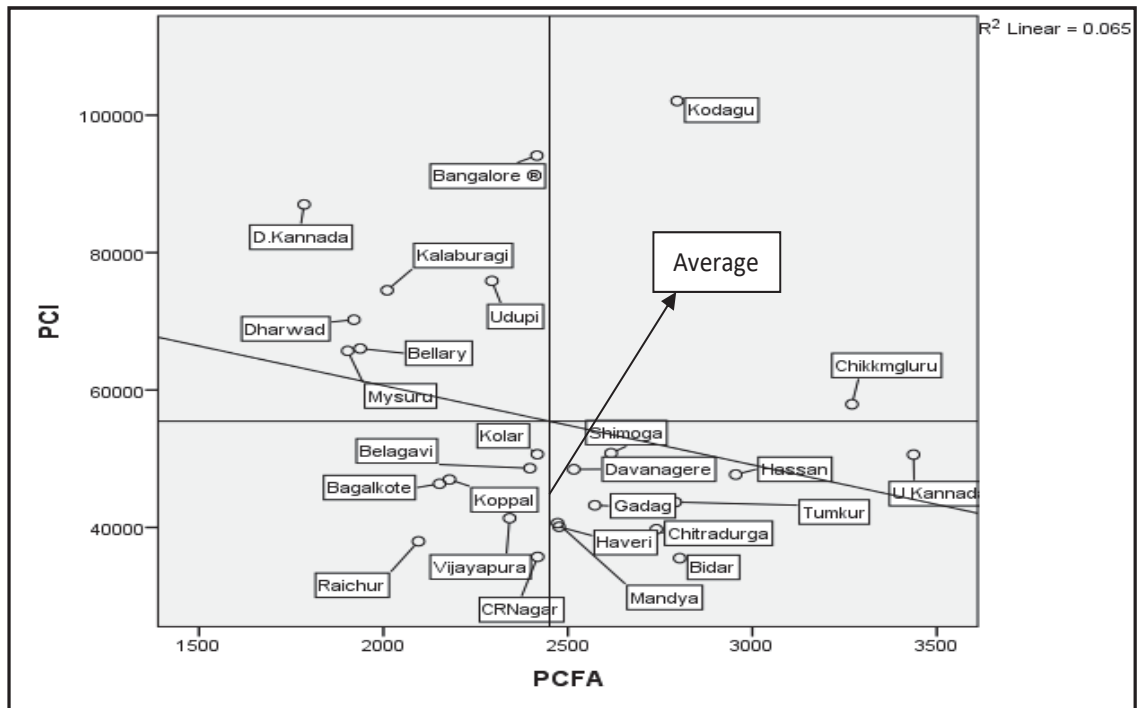
**Table 6.5 Division-wise Per capita Income and Per capita Fund Allocation in Karnataka (in Rs.)**

Divisions	2001-02		2011-12		Decadal Growth Rate over 2001-02	
	Per Capita Income	Per capita Fund Allocation	Per Capita Income	Per capita Fund Allocation	Per Capita Income	Per capita Fund Allocation
Bengaluru	20827	686	108045	1701	418.8	147.9
Mysuru	18607	754	73121	2345	293.0	210.9
Belagavi	14387	675	54139	2456	276.3	264.1
Kalburgi	12091	644	44860	2473	271.0	283.9
Total	90563	691	149891	2176	65.5	214.9
CV	40.05	33.50	44.68	22.07		

Sources: Karnataka at Glance and Budget Documents, Government of Karnataka.

There is negative association between per capita income (PCI) and per capita fund allocation (PCFA) which indicates that the districts those are having higher per capita income and allocated lower level of per capita fund allocation visa versa. The higher per capita income districts are D. Kannada, Bengaluru Rural, Mysuru and Dharwad but fund allocated for these districts shows less (Figure 6.3).

#### Figure 6.2 Association between PCI and PCFA in Karnataka



Sources: Table 6.5

### 4.3.2. Region-wise Per capita Income and Allocation of Fund

Table 6.6 indicates per capita income and fund allocation in north and south Karnataka. It is evident that increasing trend has been found in both per capita incomes from Rs. 90,563 to Rs. 1,49,891 and fund allocation was from Rs. 692 to Rs. 2,176 during 2001-02 and 2011-12. Across regions, the highest per capita income and fund allocation during 2001-02 was in south Karnataka than in north Karnataka region. South Karnataka was having higher per capita income of around Rs. 19,885 and this region received higher amount of fund i e Rs. 715 than north Karnataka at Rs. 13,407 and received fund of Rs. 662 during the same period. In contrast, during 2011-12 the per capita fund allocation received was highest by north Karnataka which is lower in terms of per capita income, proper and equitable distribution is seen in Karnataka during the same period.

The growth of per capita income in Karnataka level was at 65.2 per cent which is lower than growth of fund allocation at 214.9 per cent. It was found higher in south Karnataka at 376 per cent than 274 per cent in north Karnataka. Whereas, in case of per capita fund allocation, the highest growth of fund is seen in north Karnataka at 272.2 per cent than in south Karnataka at 172.6 per cent.

**Table 6.6 Per capita Income and Per capita Fund Allocation across South and North in Karnataka (in Rs.)**

Divide	2001-02		2011-12		Decadal Growth Rate over 2001-02	
	Per Capita Income	Per capita Fund Allocation	Per Capita Income	Per capita Fund Allocation	Per Capita Income	Per capita Fund Allocation
South Karnataka	19885	715	94647	1948	376.0	172.6
North Karnataka	13407	662	50138	2463	274.0	272.2
Total	90563	691	149891	2176	65.5	214.9

Sources: Karnataka at Glance and Budget Documents, Government of Karnataka

#### 4.3.3. District-wise Per capita Income and Allocation of Fund

District wise per capita income and fund allocation is depicted in Table 6.7 which reveals that the per capita income and fund allocation has increased significantly during 2001-02 and 2011-12 in Karnataka. Growth of per capita income during the periods was found negative but in fund allocation it was around 214.9 per cent. During 2001-02, the per capita income and fund allocation was found much higher in south Karnataka than in north Karnataka but during 2011-12, per capita fund allocation was received more by less income region of north Karnataka than south Karnataka.

The south Karnataka districts have received higher amount of fund even though they performed better in per capita income. Whereas, less amount of fund was received by the north Karnataka districts during 2001-02. Across the districts, the D. Kannada district of south Karnataka has highest per capita income of Rs. 33,676, while lowest per capita income was found in Bidar district of north Karnataka at Rs.9,723. Fund allocation during same period was found highest in Bengaluru Rural with Rs. 1628 and lowest was seen in Bengaluru Urban at Rs. 312.

During 2011-12, both per capita income and fund allocation have increased significantly. The per capita income is seen highest in Bengaluru Urban districts at Rs. 1,61,354 but lowest was found in Bidar district at Rs. 39,374. Similarly, the per capita fund allocation was received more by Kalaburagi district at Rs. 3,025 and lowest to Bengaluru Urban district of Rs. 727.

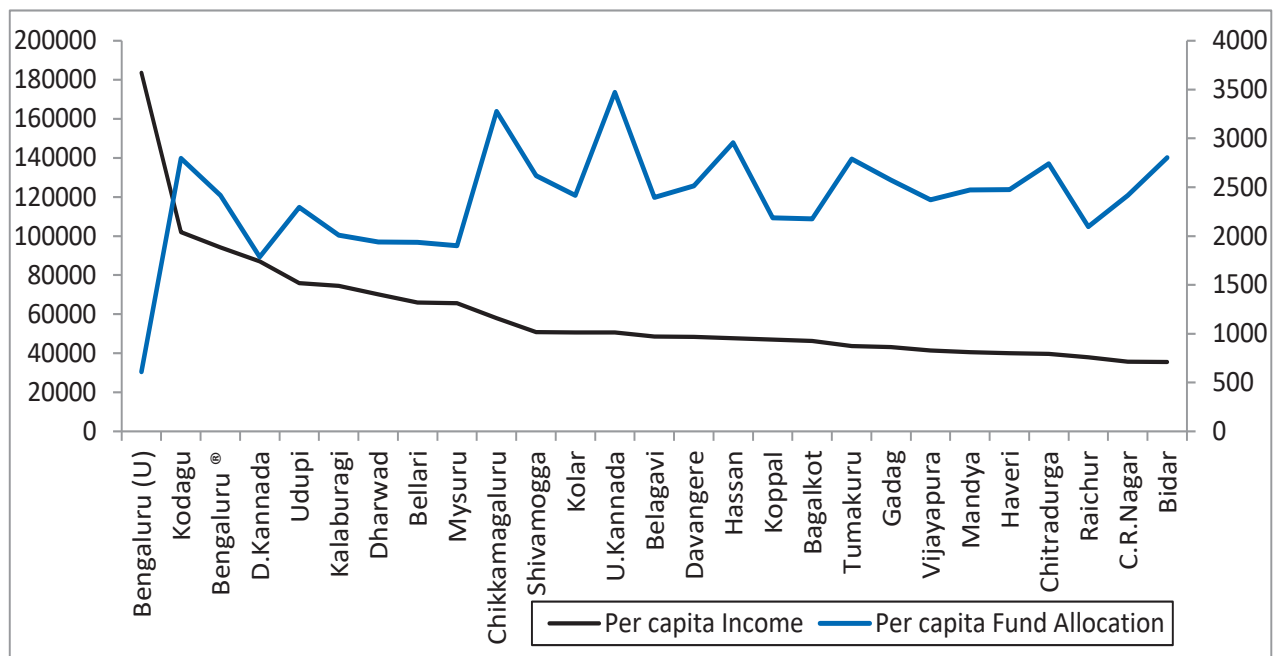
Proper distribution of fund was not found during 2001-02, because the districts which are having highest per capita income, received higher amount of resources. The lower income districts received lowest amount of funds. It is evident from the implementation of HPCRRI report. More



fund was allocated to more deprived districts in respect of lower level of income and development. It can be observed here that the regional disparities in per capita income increased across the districts but the disparity was reduced significantly in fund allocation in Karnataka.

Growth of per capita income got increased much faster in south Karnataka than the north Karnataka. Across districts, growth of per capita income increased at a faster rate i.e. at 488.1 per cent in Bengaluru Urban district and growth was less in D. Kannada district at 193.2 per cent. Similarly, growth of fund allocation increased at a faster rate in Kalaburagi district i.e. at 341.3 per cent. Whereas, it was lower at Bengaluru Rural at 46.7 per cent

**Figure 6.3 District-wise Per capita Income and Per capita Allocation**



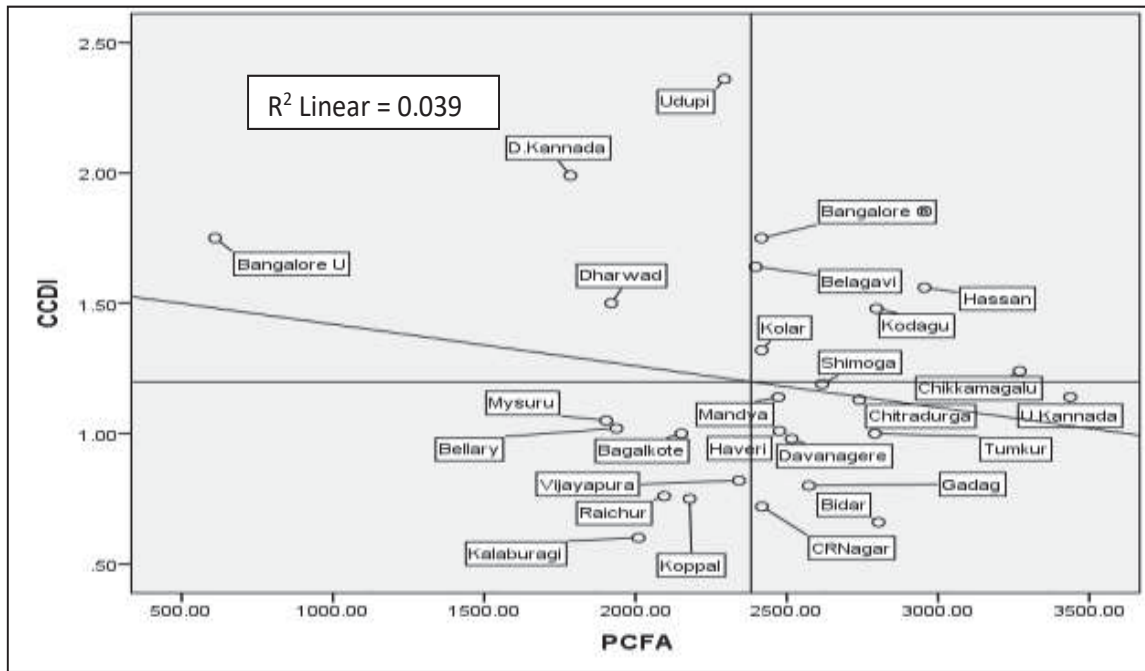
Source: Table 6.

#### 4. 4. CCDI AND FUND ALLOCATION IN KARNATAKA

##### 4.1.1. District-wise CCDI and Per capita Fund Allocation

The relationship between CCDI and PCFA is negative. The districts those are better in socio-economic development received limited funds visa a versa. Some of the districts such as Udupi, D. Kannda, Dharwad and Bengaluru Urban performed better in socio-economic development but limited fund was allocated to these districts. Socio-economic well-off districts did not receive higher resources, the resource in terms of investment, allocation, expenditure are important for the deprived districts.

**Figure 6.4 Relationship between CCDI and PCFA**



Source: Table 6.8

#### 4.4.2. Region-wise CCDI and Per capita Fund Allocation

Region wise CCDI and per capita allocation is depicted in Table 6.9 which indicates that the average index value for north and south Karnataka has increased. The CCDI value for Karnataka level got improved from 1.051 to 1.205, the increase was 0.154 per cent point change during 2001-02 and 2011-12. Similarly, per capita allocation of fund also got increased significantly from Rs. 691 to Rs. 2,176 during the same periods. Index value and per capita allocation have increased for both in north and south regions in the state. The increase of CCDI index value was higher at 0.2 per cent point change in south Karnataka than north Karnataka around 0.09 per cent point change.

The lower index value is achieved by north Karnataka, in respect of this government has allocated more funds to this region. It has achieved 0.925 index value but per capita allocation to this region was Rs. 2463. Similarly, the index value of south Karnataka was higher at Rs. 1.377. In return it has received lower allocation of resources during 2011-12 but this was not the case during 2001-02 in both regions.

**Table 6.9 CCDI and Per capita Allocation across South and North Karnataka**

Districts	2001-02		2011-12	
	CCDI	Per capita Allocation	CCDI	Per capita Allocation
North Karnataka	0.883	662	0.975	2463
South Karnataka	1.177	715	1.377	1948
Karnataka	1.051	691	1.205	2176

Sources: Karnataka at a Glance and Budget Documents, Government of Karnataka

## 5. CONCLUSIONS

The expenditure as percentage to allocation under SDP increased significantly starting from 51.19 per cent in 2007-08 to 97.6 per cent in 2020-21 in Karnataka. Per capita fund allocation across divisions was not properly distributed in 2001-02 but in 2011-12, the divisions such as Belagavi and Kalaburgi were having lower per capita income, were allocated higher resources. Similarly, Higher per income divisions such as Bengaluru and Mysuru got allocated lesser resources.

The districts with higher per capita income are D. Kannada, Bengaluru (U), Bengaluru ®, Kalaburgi, Dharwad, Udupi, Ballari and Mysuru got lower funds. Whereas, the lower per capita income districts such as Shivamogga, Davangere, U Kannada, Hassan, Bidar, Mandya, Gadag, Haveri, Chitradurga, Tumakuru got allocated higher funds during 2011-12. The districts having lower CCDI values were allocated higher funds but the districts which were having higher CCDI values got distributed lower funds. During 2011-12, the north Karnataka achieved low income growth but had high ratio of fund allocation as percentage of GDDP and per capita fund allocation.

The south Karnataka had a low fund allocation ratio, though it has achieved high growth of Income and CCDI. Fund allocation as a percentage to GDDP was found highest in Tumkuru district of south Karnataka and lower in Bengaluru Urban district during 2001-02. During 2011-12, it was found higher in Bidar district at 7.12 per cent of north Karnataka. While lowest percentage share was seen in Bengaluru Urban district of south Karnataka.

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