Macro-Economic Impact of Covid-19 on the Economy of Chhattisgarh: Report II

2021

Economic Growth and Fiscal Health: Projections for FY 2021-22 and 2022-23

Centre for Budget and Policy Studies

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Research and Writing by the following members of Centre for
Budget and Policy Studies (CBPS), Bangalore:
Jyotsna Jha, Madhusudhan B. V. Rao, Archana Purohit, Achala S Yareseeme,
Susmitha M. V, Shiboni Sundar and Atul Kumar
.

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CBPS TEAM

Jyotsna Jha

Madhusudhan B. V. Rao

Archana Purohit

Achala S Yareseeme

Susmitha M V

Shiboni Sundar

Atul Kumar

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List of Abbreviations

C-D Ratio	Credit-Deposit Ratio
CSS	Centrally Sponsored Schemes
DEA	Department of Economic Affairs
FC	Finance Commission
FCI	Food Corporation of India
GDP	Gross Domestic Product
GIA	Grants-in-Aid
GoC	Government of Chhattisgarh
GoI	Government of India
GSDP	Gross State Domestic Product
GST	Goods and Services Tax
GSVA	Gross State Value Added
GVA	Gross Value Added
IT	Information Technology
ITeS	Information Technology enabled Services
LWE	Left Wing Extremism
MFP	Minor Forest Produce
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MSME	Micro, Small and Medium Enterprises
NSO	National Statistical Office
NSSO	National Sample Survey Office
PTI	Press Trust of India
RR	Revenue Receipts
SC/ST	Scheduled Castes/Scheduled Tribes
SCBs	Scheduled Commercial Banks
SGST	State Goods and Services Tax

SMEs	Small and Medium Enterprises
ST	Scheduled Tribes
TE	Total Expenditure
VAT	Value Added Tax
YOY	Year on Year

Chapter 1: Introduction

The Covid-19 crisis has impacted the growth of world economy severely and India is no exception. India's Gross Domestic Product (GDP) for 2020-21, published by National Statistical Office (NSO), registered a contraction of 7.3% from the corresponding figure for the previous year, 2019-20. While the overall impact on the economy is negative, the Covid-19 pandemic and induced lockdown also exhibited a differential impact on different sectors, with the more severe impact being seen in the services and manufacturing sectors, at 16% and 7.2% respectively[1]. The agriculture sector was the only exception recording a 3.4% positive growth. Thus, the structure (relative presence of agriculture, manufacturing, and service sectors) of the economy of a state can be one of the determining factors in the extent of economic losses suffered by the state and, this needs to be considered while assessing the economic impact of Covid-19. These contractions in the economic activities are sure to have additional burden on fiscal health of the union government as well as that of the state governments.

Centre for Budget and Policy Studies (CBPS) undertook a study to analyse the macro-economic impact of the pandemic on the economy of Chhattisgarh with the objective of estimating the extent of revenue loss likely to be incurred by the Government of Chhattisgarh (GoC) and to estimate the likely losses in Gross State Domestic Product (GSDP) in the year 2020-21 using sectoral discussions. We also studied the expenditure trends and identified areas where the expenditure needs to be maintained or increased, especially from the perspective of social protection and enabling economic recovery. In addition, we also had the objective of forecasting the revenue and GSDP growth for the state for the next two financial years, i.e., FY 2021-22 and FY 2022-23. The findings for revenue and growth forecasts for FY 2020-21 along with recommendations for the state to manage the shortfall were submitted in Report 1 for the project. The current report outlines the revenue and GSDP projections for the next two financial years and summarises the recommendations along with estimates of impact of those recommendations, if adopted. Since the detailed analysis including explanation for methods adopted and assumptions the analysis is based on are already incorporated in Report 1, we are not going into details of the same in this report. We have, however, tried to capture all the relevant details in a concise form here so as to make this report self-explanatory and complete.

[1] https://www.financialexpress.com/economy/impact-on-indian-economy-after-the-covid-19-second-wave/2275353/

The structure of the report is as follows. We briefly outline the methodology adopted for the study in section 2. We then provide the estimations for revenue growth for the next two financial years in section 3. Section 4 extends the analysis by providing the projections for GSDP growth and sectoral impact for the next two financial years. In section 5, we briefly summarise the steps for action (recommendations) arising from this analysis.

Chapter 2: Method

The methodology adopted for the study has multiple components as mentioned below:

2.1. Literature review

This was focused on recent writings on the impact of Covid-19 on economy on different sectors, in different geographical contexts. This helped us understand which sectors are likely to be the most impacted by the pandemic and the lockdown and to what extent. We also studied the economic impact of the pandemic on different geographies and different sectors in the year 2020-21 for this report and based our analysis on what is already known about the impact.

2.2. Secondary data analysis

Analysis of time series data on sectoral growth and revenues have been undertaken to explore the patterns/trends. While this helped in identifying the priority sectors/subsectors for the state economy for our projections for FY 2020-21, it also helped us forecast the impact for the next two years. Data available for FY 2020-21 for this report facilitated the estimates as we now have reliable information for atleast one year when the pandemic has been in effect.

2.3. Stakeholder Consultations

We carried out consultations with stakeholders from various departments of the state government as well as economists and members of the State Planning Commission to identify the underpinnings and their possible impact on economic growth and revenue receipts of the state. This is now supported by the feedback and suggestions we got on our presentation of initial estimations for the State Planning Commission, Chhattisgarh and UNICEF office for Chhattisgarh.

2.4. Scenario Projections

This includes a scenario analysis that includes projected revenues of the state government and expenditures based on various scenarios and an assessment of the fiscal gap along with possible ways of filling the same. Similarly, this approach was extended for sectoral analysis for GSDP estimations and identifying the avenues for revival of the economy.

For the purpose of projections, we undertook revenue analysis first and based our sectoral GSDP estimates on the revenue growth projected. There are certain reasons why we decided to undertake the revenue analysis first, followed by the GSDP analysis. Sector-wise GSDP estimates were not available for the year 2020-21 and later years. Consultations with the departments also indicated that many policy changes in the interim are likely to influence the pattern of performance of different sectors and the sectoral GSDP cannot be solely based on past performance trends. Some evidence exists to establish that there is a need to understand the GST pattern in greater detail to connect it with the economic activities and consumption pattern[2]. Moreover, the policy tweaks relating to land revenue administration, stamps and registration fees, and also electricity and excise had implications for the GSDP. The revenue dent at the Government of India (GOI) level was about 20% and similar impact was estimated for the state with respect to tax share[3], while the revised debt limit was available and it was used to estimate the total receipts[4], which was later mapped to sectors to estimate the GSDP. The revenue analysis and forecasts for the next two years are presented below.

[2] Analysing the Impact of GST on Tax Revenue in India: The Tax Buoyancy Approach. https://www.researchgate.net/publication/338259747_Analysing_the_Impact_of_GST_on_Tax_Revenue_in_India_The_Tax_Buoyancy_Approach.

[3] http://www.cga.nic.in/MonthlyReport/Published/11/2020-2021.aspx

[4] https://www.prsindia.org/sites/default/files/parliament_or_policy_pdfs/State%20Finances_2020-21.pdf, p. 23

Chapter 3: Revenue Receipts: Learnings and Forecast

This section delves into the analysis of revenue receipts for the state of Chhattisgarh during the last 3 years, its growth, the flow of funds across quarters, the implications of 15th finance commission recommendations followed by estimation of revenues for the years 2021-22 and 2022-23.

3.1. Revenue receipts: growth and pattern

3.1.1. Growth of total revenues, own revenue (tax and non-tax), GOI funds (tax share and GIA) and debt

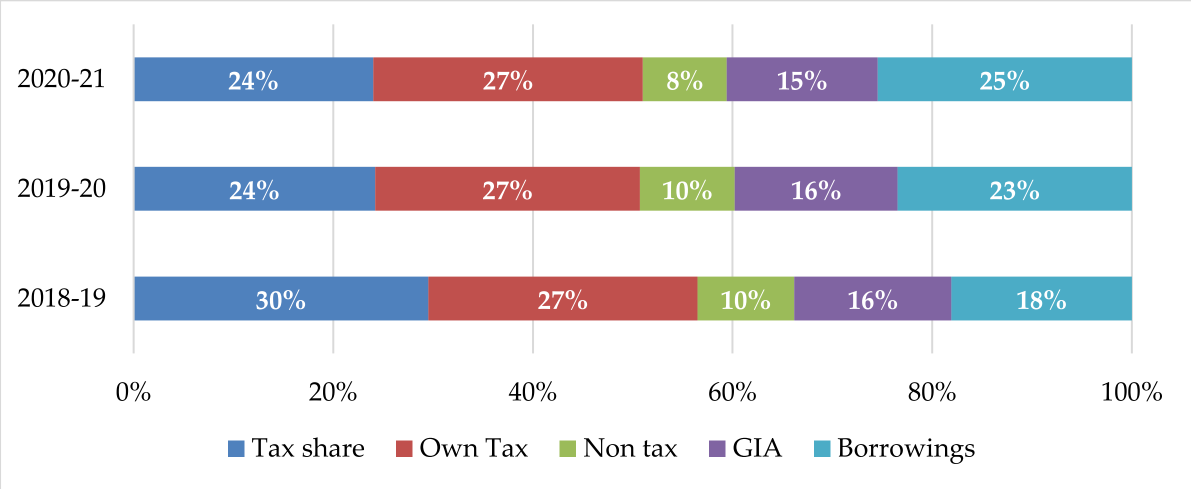
The revenues for the years 2018-19, 2019-20 and 2020-21 were analysed to understand the receipts pattern considering the fact that 2018-19 was the first full year post implementation of GST and hence likely to have marked difference from the earlier years. The tax has grown only by 3 percent year on year basis at nominal rates while the non- tax revenue has shrunk by 10% during 2020-21. This is largely due to the lockdowns imposed which restricted the working of mining and other economic sectors. Considering the fact that Covid-19 has impacted the tax revenues across the country in a significant manner, the 3 percent growth seems to be good. The Tax share recorded a 14% dip during 2019-20 and increased only by one percent in 2020-21 which is not significant. Similarly, the Grant in Aid from GOI which grew by 9 percent in 2019-20 again decreased by 6 percent in 2020-21. The debt component has grown significantly at 36% and 10% during 2019-20 and 2020-21 respectively to make up for the shortfall in total revenues.

Table 1: Receipts in the past 3 years (Rs. in crore)

Sources of Revenue	2018-19 AC	2019-20 AC	2020-21 AC	2019-20 AC	2020-21 AC
Tax Revenue	21427	22118	22889	3%	3%
Non-Tax Revenue	7703	7934	7122	3%	-10%
Tax Share	23459	20206	20338	-14%	1%
GIA and Contributions	12506	13611	12807	9%	-6%
Non-Debt Capital Receipts	167	261	105	56%	-60%
Debt	14370	19588	21579	36%	10%
Total	**79632**	**83718**	**84839**	**5%**	**1%**

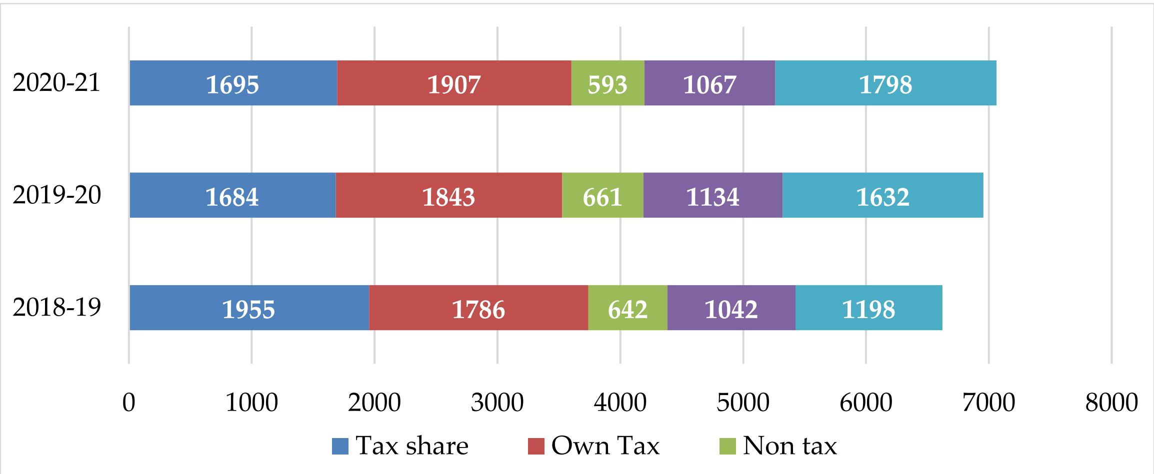
The share of the different sources of revenue has also undergone change during these three years although the share of own tax has remained the same at 27% in the last three years 2018-19 to 2020-21 (Figure 1). The share of non-tax revenues has come down from 10% to 8% during the same period. The share of taxes from GOI has reduced from 30% to 24% (also reduced in absolute terms) while the share of Grants-in-Aid reduced from 16% to 15% during the same period. The share of debt/borrowings went up from 18% to 25% during the 2018-19 to 2020-21 period.

Figure 1: Share of different sources of revenue receipts (in %)



The average monthly revenues for the years 2018-19, 2019-20 and 2020-21 were Rs. 6622 crores, Rs. 6955 crore and Rs. 7061 crores respectively (Figure 2). The average monthly own tax collection grew from Rs. 1786 crore in 2018-19 to Rs 1907 crore in 2020-21 recording a 7% increase while the monthly non-tax collections dipped by 8% from Rs. 642 crores to Rs. 593 crores during the same period. The tax share recorded a significant 13% decrease while the borrowings recorded a 50% increase during the same period.

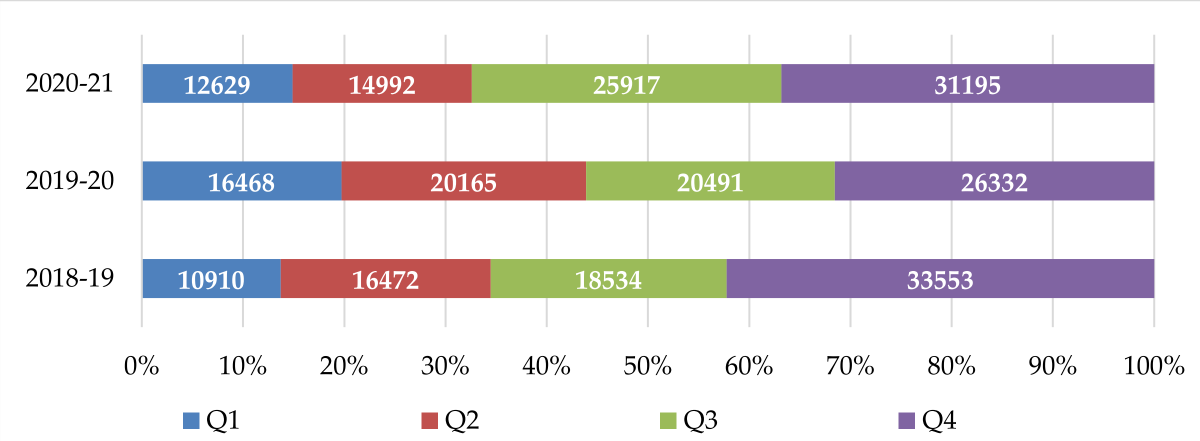
Figure 2: Average monthly receipts for the years 2018-19 to 2020-21 (Rs. in Crore)



3.1.2. Flow of Total Revenues, own revenue (tax and non-tax), GOI funds (tax share and GIA) and Debt

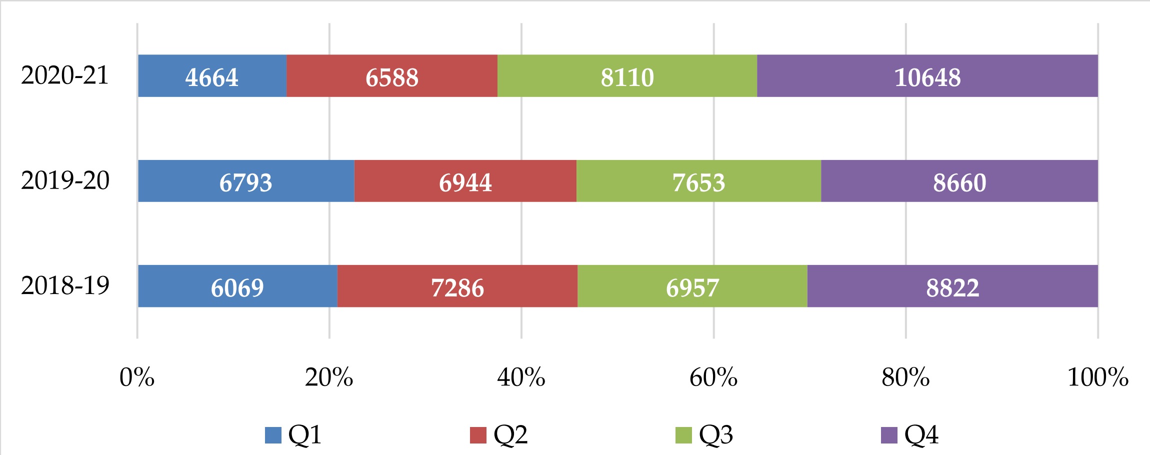
While the quantum of funds available for incurring expenditures are important, the flow of funds become very critical especially for the development expenditure. A quick look into the quarter-wise flow of funds to the state exchequer during the years 2018-19, 2019-20 and 2020-21 indicated that the flow of funds was fairly well-distributed across the quarters in the year 2019-20 at 20%, 24%, 25% and 32% respectively (Figure 3). However, during the year 2018-19 the last quarter receipts were 42%. During the year 2020-21, the receipts during the last two quarters accounted for 31% and 37% of the revenues respectively.

Figure 3: Flow of funds across quarters for the years 2018-19 to 2020-21 (Rs. in crore)



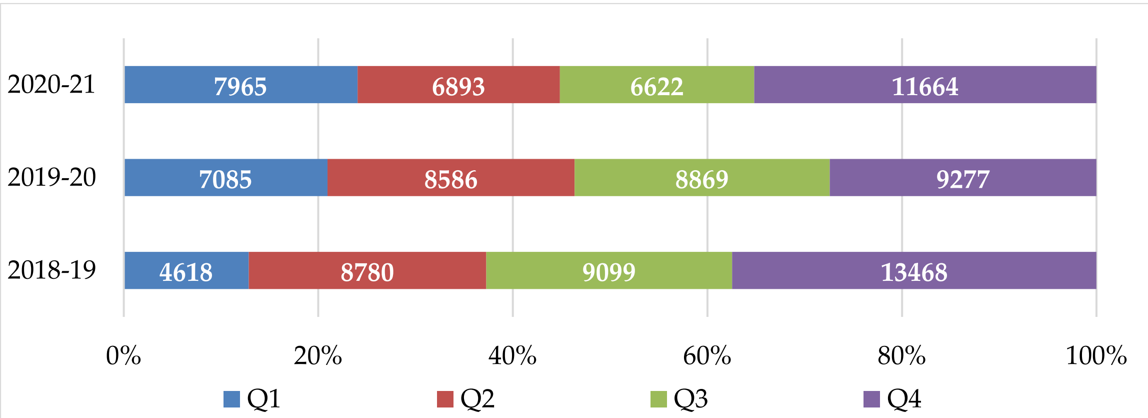
The flow of funds especially of disaggregated tax and non-tax revenues help in understanding the pace of economic activities that contribute to the coffers of the state (Figure 4). The tax and non-tax revenues were lowest in first quarter of 2020-21 compared to the previous two years and this coincided with the Covid-19 pandemic. The second quarter of 2020-21 also behaved similarly while the third and fourth quarter of 2020-21 significantly improved over the previous years in terms of tax and non-tax revenues for the state.

Figure 4: Tax and non-tax revenues across quarters for the years 2018-19 to 2020-21 (Rs. in crore)



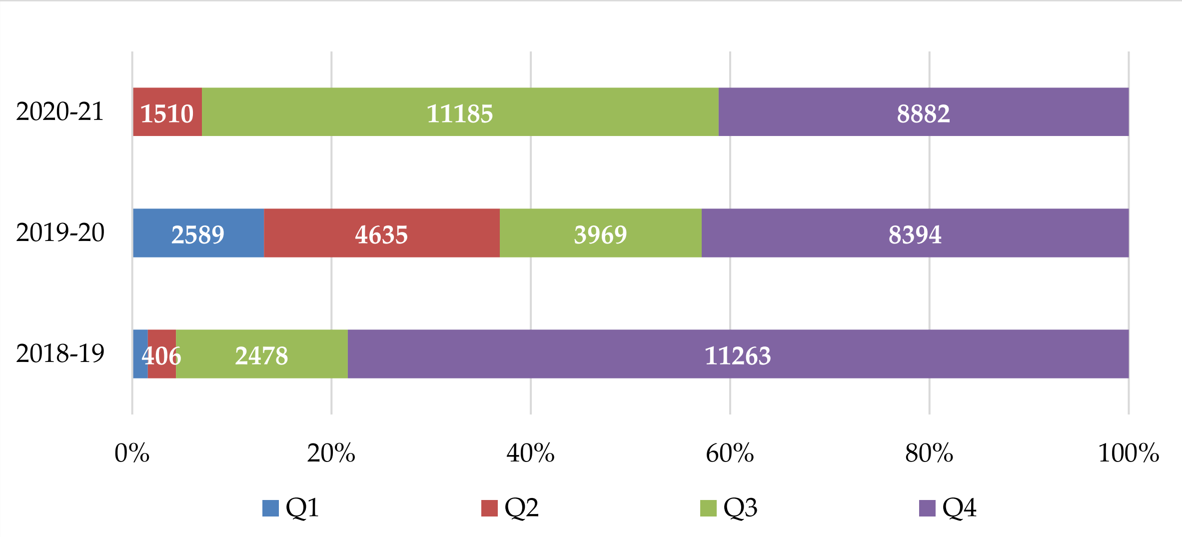
The flow of funds from Government of India in the form of Tax share and Grant in Aid also serves as an indicator of the economic activity in the country (Figure 5). The first quarter of 2020-21 received significantly higher revenues from GOI accounting for 24% of the total transfers during the year as compared to that of the year 2018-19 which received only 13% of the total transfers. The last quarter of 2018-19 received 37% of total transfers while the last quarter of 2020-21 received 35% of the total transfers. The transfers during the year 2019-20 was fairly well-spread across the quarters.

Figure 5: Tax share and GIA revenues across quarters for the years 2018-19 to 2020-21 (Rs. in crore)



The other important source of funds is the borrowings of the state, and it indicates the political decisions to ease the flow and requirement of funds for expenditure. Compared to 2018-19 where in 78% of the borrowings was done in last quarter, the borrowings were spread across four quarters in a slightly better manner during the year 2019-20 (Figure 6).. The borrowings during last two quarters of the year 2020-21 together accounted for 93% total borrowings of the year.

Figure 6: Borrowings across quarters for the years 2018-19 to 2020-21 (Rs. in crore)



3.1.3. Estimation of Total Revenues, own revenue (tax and non-tax), GOI funds (tax share and GIA) and Debt for the years 2018-19, 2019-20 and 2020-21

The Budget Estimates and actual receipts of different components/sources of revenue indicated that the state has been fairly accurate in the estimations of the tax and non- tax revenues while the state has failed to realise the tax share and grants in aid as estimated (Table 2).

Table 2: Budget Estimates and Actual receipts for the years 2018-19 to 2020-21 (Rs. in Crore)

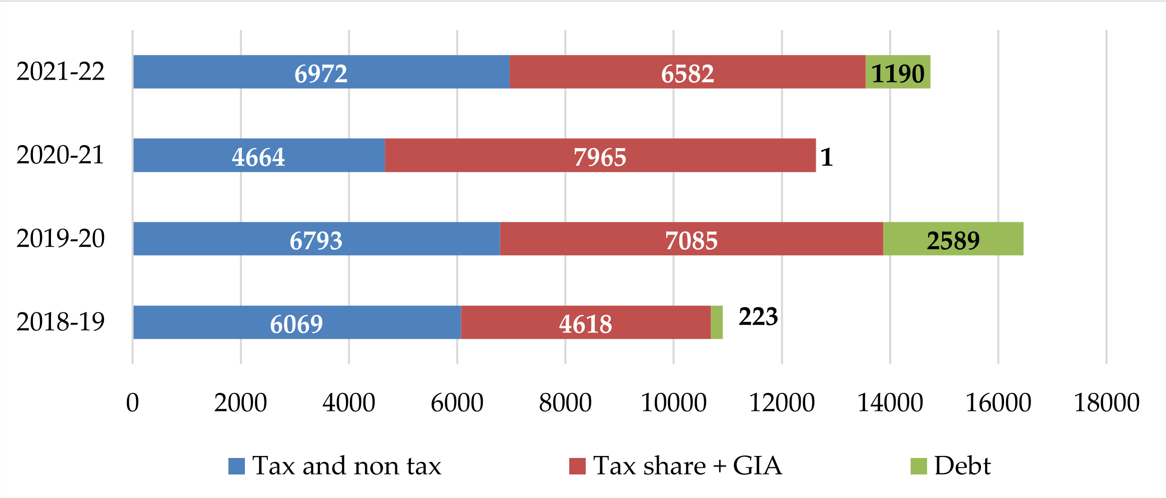
Sources of Revenue	2018-19BE	2018-19 AC	% of BE	2019-20BE	2019-20 AC	% of BE	2020-21BE	2020-21 AC	% of BE
Tax Revenue	26030	21427	82%	22930	22118	96%	26155	22889	88%
Non-Tax Revenue	8170	7703	94%	8825	7934	90%	9215	7122	77%
Tax Share	22955	23459	102%	27917	20206	72%	26803	20338	76%
GIA and Contributions	15713	12506	80%	20074	13611	68%	21658	12807	59%
Non-Debt Capital Receipts	314	167	53%	283	261	92%	300	105	35%
Debt	9914	14370	145%	11513	19588	170 %	15701	21579	137%
Total	**83096**	**79632**	**96%**	**91542**	**83718**	**91%**	**99832**	**84839**	**85%**

The tax revenues for the year 2019-20 accounted for 96% of BE while it was 88% and 82% of BE for the years 2020-21 and 2018-19. The non- tax revenues for the year 2018-19 and 2019-20 were 94% and 90% of BE respectively while it was 77% of BE for the year 2020-21. The receipts from GOI in the form of tax share exceeded the BE in 2018-19 while it was 72% of BE and 76% of BE during 2019-20 and 2020-21 respectively. The Grants in Aid (GIA) receipts from GOI was 80% of BE, 68% of BE and 59% of BE for the years 2018-19, 2019-20 and 2020-21 respectively indicating a significant deviation from the BE. Similarly, the debt component also had huge deviation from BE wherein it was higher than BE in all the three years 2018-19, 2019-20 and 2020-21 but this deviation was lowest during the year 2020-21.

3.1.4. First Quarter Revenues over last four years (2018-19 to 2021-22) Rs. in crore

The revenue receipts for the first quarter over the last four years was compared. The tax and non-tax receipts together was higher during the year 2021-22 (Figure 7) by about Rs 180 crore over the previous highest collection during the year 2019-20. The first quarter also coincided with the increase in the covid-19 cases (second wave) by 6.5 lakh. However, the receipts by way of GIA and Tax share from GOI was lesser by about Rs. 1500 crore. The debt component during the year 2021-22 was Rs. 1190 crore while it was Rs.2589 crore during 2019-20.

Figure 7: First quarter revenues by different sources for last four years 2018-19 to 2021-22 (Rs. in crore)



3.2. Implications of 15th Finance Commission recommendations (for years 2021-22 to 2025-26)

The horizontal devolution from divisible pool of taxes from GOI for the state has reduced from 3.418 percent to 3.407 percent which is a reduction of 0.32%. This would amount to a reduction in the tax share by about Rs. 90- 100 crore per year. The fiscal deficit limit for the year 2021-22 and 2022-23 is set at 4.5% and 4.0 % of GSDP (including 0.5% for power sector reforms) while for the years 2023-24, 2024-25 and 2025-26 it is set at 3.5%. 3.5% and 3.0% respectively. The estimates of tax to GSDP for the years 2021-22 and 2022-23 is pegged at 6.7% and 6.8% respectively and is expected to reach 7.2% by 2025-26 (Table 3). The non-tax to GSDP ratio is expected to be around 2.5% for the entire period 2021-22 to 2025-26.

Table 3: Estimates of Own Revenue for the state (XV FC-assessment) Rs. in Crore

	2021-22	2022-23	2023-24	2024-25	2025-26
GSDP	**362467**	**390623**	**424095**	**462155**	**505322**
Own tax	24105	26410	29195	32420	36148
Non-Tax revenue	8871	9629	10536	11576	12766
Total own revenue	32976	36039	39731	43996	48914
GST compensation	2036	2268	2599	2971	4377
Tax to GSDP ratio (%)	**6.7**	**6.8**	**6.9**	**7**	**7.2**
Non-Tax to GSDP ratio (%)	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**

Apart from the devolution of taxes from the divisible pool, the finance commission has recommended for fixed amount of Grants in Aid (GIA) considering the requirements of states in various sector. The Finance Commission also has recommended for state specific grants meant exclusively for the state specific purposes. The states can plan for effective utilisation of GIA by ensuring investments that complement the GIA and complying with the conditionalities thereof.

Table 4: Grants in Aid allocated for Chhattisgarh state for the period 2021-22 to 2025-26 (Rs. in Crore)

Grants in Aid	2021-22	2022-23	2023-24	2024-25	2025-26
Health Grants	339	339	356	373	392
RLBs	1075	1114	1125	1192	1163
ULBs	530	549	580	614	627
Million plus City Fund (sanitation)	109	113	118	126	129
Million plus City Fund (Air quality)	54	56	60	63	64
DMRF	432	454	476	500	525
Grants for critical care hospitals	22	44	44	44	65
Public Health Laboratories	2	6	9	7	0
Training of health care workers	99	35	35	35	35
Grants for DNB courses	16	16	20	27	27
Grants for Higher Education	27	28	30	31	30
PMGSY road maintenance	174	166	150	197	224
Grants for judiciary	40	40	40	40	40

Grants in Aid	2021-22	2022-23	2023-24	2024-25	2025-26
Grants for Statistics	0	27	9	9	9
State specific grants		332	332	498	498
Total	**2919**	**3319**	**3384**	**3756**	**3828**

Apart from these, grants for Agriculture-Rs. 917 crores (for implementing reforms relating to sustainable water use, land laws, production of pulses and oilseeds and agricultural exports) and Education-Rs. 300 crores (performance grant meant for aspirational districts to improve the educational outcomes) are also available during the 5-year period.

3.3. Learnings from revenue analysis and implications for the years 2021-22 and 2022-23

The taxes and duties on electricity has increased consistently over the past three years and the tweaking of rates has worked very well for the state. Similarly, the tweaking of the policy for registration of smaller land plots has augured well for the state in the form of improved revenues through stamps and registration. The covid duties on excise also has yielded good revenue. The state GST collections for the year 2020-21 and 2019-20 were Rs. 7925 crore and Rs. 7895 crores respectively indicating slightly better collections during the covid year. Overall, the tax and non-tax revenues together grew by three percent year on year basis for both the years 2019-20 and 2020-21.

With the first quarter of 2021-22 performing much better than the previous three years in terms of own tax and non-tax collections together, a period which also had Covid 19 second wave peak and consequently lockdown, the resilience of the economy seems to be very good. The Covid-19 cases reduced by the end of first quarter and collection of tax and non-tax have picked up.

The schemes like the Godhan NYAY Yojana and the Rajiv Gandhi Grameen Bhumihin Krishi Majdur Nyay Yojana focusing on the landless together with the policy tweaks to give lac cultivation agriculture status along with the enhanced support price for paddy has ensured the rural distress to the minimum. The agriculture sector has performed well owing to good monsoons and has complemented the state's efforts in preventing the rural vulnerable households from pushing into poverty and also has influenced in enhancing the demand.

Going forward, given the vaccination progress, performance in first quarter and the picking up of the economy, we assume that the tax and non-tax collections for the year would grow in real terms. The growth would be enhanced and become more pronounced if the urban development schemes – such as capital development, health infrastructure development together with development of state highways are taken up in a big manner. This would fuel the growth by increasing the demand. These projects are largely funded by the 15th Finance Commission grants. The possibility of the growth can further be enhanced by complementing policies such as incentives for house construction to employees of government and government undertakings (soft loans) and Urban MGNERGA which can prove to be very useful in enhancing the urban demand as well as filling the state coffers.

Steps towards enhancing the urban and health infrastructure would contribute to a growth similar to that of the years of pre-covid, i.e., 2017-18 to 2019-20 - a higher growth rate for the year 2022-23.

The reforms in the power sector (electricity supply companies) will also add to enhancing of the fiscal deficit limit by 0.5% and this can prove to be very useful in providing assured power supply to augur industrialisation in urban pockets. The increased debt component over the last three years will have a bearing on the interest payments and availability of funding for capital infrastructure. A higher investment in capital development program and urban health infrastructure (from 15th FC grants) can fuel growth and augment tax collection which can offset the requirement of increased interest payments.

Table 5: Key takeaways from revenue analysis for the years 2018-19 to 2021-22 (first quarter)

Component	Key Learnings
Own Tax and Non-tax revenue	• Have recorded a mild growth (3% year on year in nominal terms) and has not shown decline in absolute terms during 2020-21 which is a very positive sign. • The first quarter of 2021-22 recorded a higher tax and non-tax revenues exceeding the previous highest receipts of 2019-20 despite a huge spike in the covid-19 pandemic • The tax and non-tax revenues were consistently higher during the second, third and fourth quarter compared to first quarter during all the 3 years 2018-19 to 2020-21. • The comparison of Budget Estimates and Actuals of the revenue components for the years 2018-19, 2019-20 and 2020-21 indicated that the own tax and non-tax revenues are estimated with higher accuracy as compared to the tax share and GIA.

Component	Key Learnings
Tax share	• Decreased significantly by 14% from Rs. 23459 crores during 2018-19 to Rs.20338 crore during 2020-21 recording an absolute decrease by about Rs. 3000 crores during the pandemic year. • With the implementation of 15th Finance Commission recommendations, the tax share has reduced by 0.32% which can result in reduction of tax share by about Rs. 100 crores.
GIA	• Decreased by Rs. 800 crores during 2020-21 compared to previous year recording a 6% decrease • The state can get about Rs 3000 crore and Rs. 3400 crores for the years 2021-22 and 2022-23 in the form of GIA for health, education, city improvement and local bodies.
Debt	• The share of debt component in the total revenues of the state increased from 18% in 2018-19 to 25% in 2020-21 • More than 75% of borrowings were done during last quarter of 2018-19 while the last quarter borrowings constituted for 43% and 41% of borrowings for the year 2019-20 and 2020-21 respectively.
Share of GOI funds	• The share of GOI funds (tax share and GIA) decreased from 46% to 39% during the same period. • Share of GOI funds (Tax share and GIA) were consistently higher during the second, third and fourth quarter compared to first quarter during all the 3 years 2018-19 to 2020-21 except for the second quarter of 2020-21 which was less than that of the first quarter.
Flow of funds	• Was found to be highest during the last quarter during all the 3 years 2018-19 to 2020-21. The last quarter of 2018-19 saw 42% of receipts of that year while for the year of 2020-21 it was 37%.
Fiscal Deficit	• The Fiscal deficit is pegged at 4.5% and 4.0% of GSDP for the years 2021-22 and 2022-23. The tax to GSDP is estimated at 6.7% and 6.8% while the non-tax to GSDP is estimated at 2.4% and 2.5% for the years 2021-22 and 2022-23 respectively.

3.4. Estimation of Revenues for the years 2021-22 and 2022-23

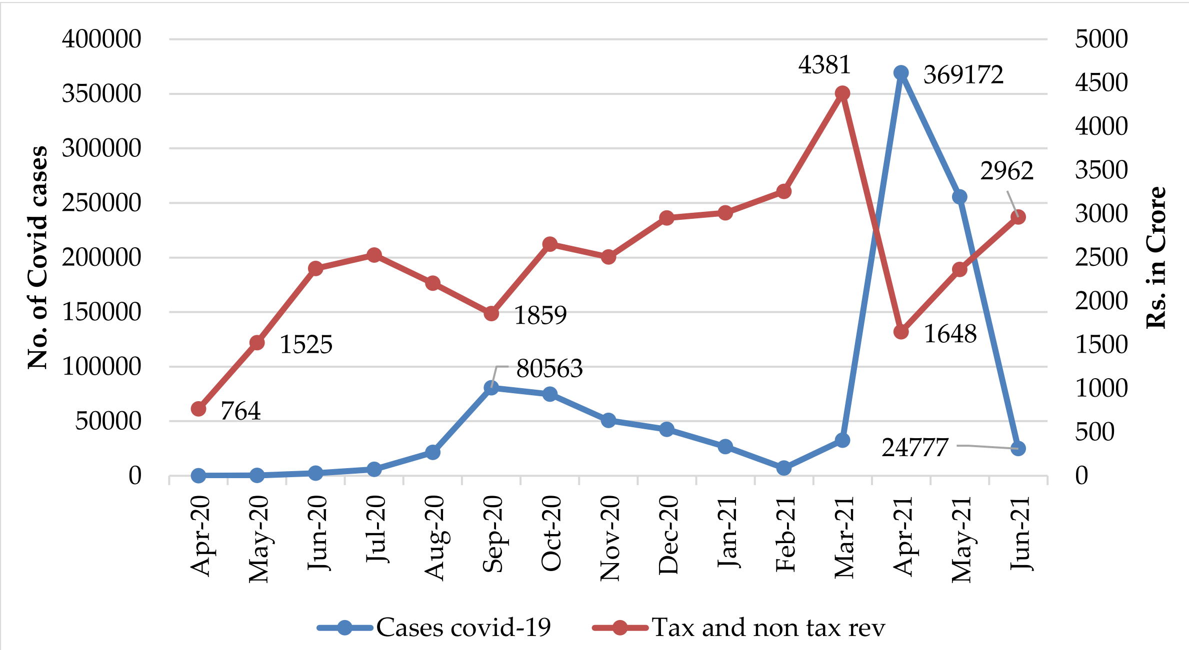
Analysis of revenues for the last three years and the key takeaways from the revenue analysis helped us to forecast the revenue receipts for the next two financial years as well. However, because of the shock to normal economic activities in the form of the pandemic and lockdown, it was also important to factor in the effect of the pandemic. We tried to do that through exploring the relationship between the incidence of Covid-19 and change in revenue receipts for the period between April,2020 to June, 2021 (figure 8).

3.4.1. Covid-19 cases and Revenue receipts (own tax and non-tax revenues):

The lockdowns imposed during the first wave (March – April) had serious impact on the tax and non-tax revenues of the state. The cases for the month peaked during September 2020 registering 80563 cases coinciding with the revenue reduction to Rs. 1859 crore. The second peak was during the month of April 2021 registering 369172 cases for the month and the revenues reduced to Rs. 1648 crore which was about Rs. 200 crores less than revenues of September 2020.

What comes out clear is that despite number of cases being quadrupled (Sept 2020-to April 2021) the process of recovery slowed down only when the numbers shot up and there was a complete lockdown. This clearly indicates a learning from the past experience in handling the Covid-19 situation.

Figure 8: Covid-19 cases and Tax and Non-Tax revenues



Source: prsindia.org

Taking all these factors into account, we projected revenue receipts for two scenarios.

3.4.2. Forecasting of revenue receipts

3.4.2.1. Scenario 1

The first quarter revenues of 2021-22 (April to June 2021) is used for this. The ratio of first quarter receipts to the total receipts for the year for each of the revenue components for the years 2018-19, 2019-20 and 2020-21 were averaged to arrive at factor. This factor is used to estimate the receipts of the components of the revenue for the year 2021-22 (Table 6). For the year 2022-23, the average of year-on-year growth rate of the revenue components for the years 2017-18, 2018-19 and 2019-20 is considered.

Table 6: Estimates of Revenue for the years 2021-22 and 2022-23 (Rs. in crores)

Sources of Revenue	2020-21 AC	2021-22 BE	Q1 2021-22	Factor	2021-22 Est	Growth	2022-23
Tax Revenue	22889	25750	4627	**5.31**	24572	5%	25877
Non-Tax Revenue	7122	9250	2344	**5.01**	11744	12%	13167
Tax Share	20338	22675	3669	**5.22**	19152	3%	19759
GIA and Contributions	12807	21650	2913	**6.61**	19255	10%	21243
Non-Debt Capital Receipts	105	320	80	**4.01**	321	18%	380
Debt	21579	18776	1190		18776	-13%	16337
Total	**84839**	**98421**	14824		**93820**		**96764**

3.4.2.2. Scenario 2

The average growth rate for the period 2018-19, 2019-20 and 2020-21 actual revenues component wise is used arrive at 2021-22BE (Table 7). The average year on year growth for the tax revenue, non-tax revenue, tax share and non-debt capital receipts was 5%. 5%, 7% and 5%. The GIA grew and reduced in alternate years and considering the finance commission recommendations the growth is estimated to be 16%. The debt component, which is political decision and therefore unpredictable, is kept as 2021-22BE at 18766 crores. The growth for the year 2022-23 is estimated by using average year on year growth of component wise revenues for the year 2017-18, 2018-19 and 2019-20.

Table 7: Estimates of Revenue for the years 2021-22 and 2022-23 (Rs. in crores) scenario 2

Sources of Revenue	2020-21 AC	2021-22 BE	Growth	2021-22 Est	Growth	2022-23
Tax Revenue	22889	25750	**5%**	23989	5%	25263
Non-Tax Revenue	7122	9250	**5%**	7460	12%	8364
Tax Share	20338	22675	**7%**	21729	3%	22418
GIA and Contributions	12807	21650	**16%**	14867	10%	16402

Sources of Revenue	2020-21 AC	2021-22 BE	Growth	2021-22 Est	Growth	2022-23
Non-Debt Capital Receipts	105	320	**5%**	110	18%	131
Debt	21579	18776		18776	-13%	16337
Total	**84839**	**98421**		**86931**		**88915**

Chapter 4: Analysis of sectoral GSDP and forecasting for GSDP

4.1. Overall impact of the Covid-19 pandemic on the health of the economy

The second wave of the Covid-19 pandemic has been more disastrous compared to the first wave in terms of losses experienced to life and livelihoods as seen in Figure 8. This led to lockdowns across the state in a phased manner, which happened in various time periods across various districts and with different restrictions from partial closures to full lockdowns making it a very challenging task to assess the impacts on the growth prospects of the state. Although the second wave was predicted, the severity of this kind was unexpected and the healthcare systems did suffer a breakdown[5]. With the opening of the economy again sometime in June 2021, and also the lack of Covid-19 inappropriate behaviour that we continue to witness, more waves have been predicted and anticipated by experts. Hence, going further, many factors will influence the economic output and growth trajectory of the state, especially in the coming few months and years. These include pace of vaccinations, preparedness of health infrastructure for more waves and new variants of the virus, global demand, production and supply chains, state production capacities, indigenous demand for commodities, and recoveries at not only the local and national level, but also at the global level.

In India and in the state of Chhattisgarh, various sectors have been affected variably, largely influenced by apart from reasons discussed above, the resilience of that sector in the state, the infrastructural capabilities to continue economic activities in spite of shortages of labour and inputs and other challenges posed by changing dynamics of the situation across the world.

4.2. Estimation of GSDP for 2021-22 and 2022-23

To estimate the GSDP growth for 2021-22 and 2022-23 respectively, we are using the information of the 2020-21 full year performance and also the emerging trends from early this year (April and May 2021 revenue performances) along with the multiple policy initiatives of the state government to stimulate on-going economic activity and initiate new activities for the sector. This exercise was carried out for each sector separately so as to capture the nuances, including the resilience shown by the sector

[5] https://science.thewire.in/the-sciences/after-centre-ignored-insacog-warning-surge-undoes-supermodel-predictions/

during the year 2020-21, stability of the sector to the shocks caused by the pandemic, and other expected outcomes for the sector based on available information. Some of the other broad considerations used in the estimation of GSDP included the following.

1. **Revenue performance and its linkages with GSDP:** In this method, we looked at the relationship between different types of revenue that we have discussed above coming from each of the subsectors and its linkages with the GSDP for that particular sector. Quite a few studies have established the linkages between tax revenues and economic growth, and revenues and expenditure. Based on the sector and type of revenue wise computation, we looked at the major trends in the following: total revenue to GSDP collection, non-tax revenue collection to GSDP, tax revenue (including tax share and GST) to GSDP from 2011-12 to 2020-21, and thus understood the linkages.

2. **Sectoral performance in the state:** For some of the subsectors, we used the information we had based on consultations in the state to arrive at the possible scenario for those subsectors. This was also supported by some of the recent literature and ground reports from the state based on some data and thus, the estimates were obtained.

3. **Average growth rates:** For some of the scenarios, we have looked the sub-sector wise growth trends in the previous years across different time periods to give us an indication of the extent of growth that can be expected given assumptions about recovery rate in the economy.

4.2.1. Sector wise distribution of revenues

As discussed in the previous section, we have looked at the four major sources of revenue for the state. These four major sources of revenues were further analysed by breaking up each of the components and assigned to the economic sector that the activity is related to. For example, non-tax revenue from the mining activities was attributed to the mining sector, tax duties levied on electricity were assigned to the electricity, gas and water supply sector and so on. There are about 16 economic sectors as per the state GSDP report.

The objective behind this is to be able to understand the linkages between the revenue and the GSDP and see how the growth performance in specific sectors translates to revenues for the state.

Table 8 below shows the main source of revenue and the economic sectors which have the highest share in the state economy.

Table 8: Sector wise allocation and analysis of revenue

Main Source of Revenue	Major Sectors	Reasons
Tax Revenue including Tax Share	Manufacturing Sector - 49%, Trade, hotels and restaurants - 12%, Electricity, gas, Water supply and others - 8%	This includes components of excise duty, and revenue from the industries, especially village and small-scale industries, taxes on duties in electricity, and taxes from activities of trade.
Non-Tax Revenue	Mining - 73%, Electricity, Gas and Water Supply - 13%, Forestry - 7% in 2020-21 RE	This is largely because of the royalties paid on the extraction of minerals, and Chhattisgarh being a mineral rich state, this forms a major source of revenue. Similarly, Chhattisgarh is an electricity surplus state and generates a large amount of revenue from this sector. The revenues in the forestry sector are mainly due to activities relating to the sale of timber, bamboo and other forest products.
Grants-in-Aid and Contributions	Social Services - 42%, Public Administration - 15%, Construction - 23% in 2020-21 RE	This is largely due to the social welfare schemes of the union government and the grants for the Central Sector Schemes and CSS.

4.2.2. Factors which will influence the economic recovery:

Before we discuss the two scenarios for which we have undertaken estimations, we outline below some of the factors which are likely to influence the recovery of the economy.

Pace of vaccinations: It will take some more time for complete vaccine coverage of the entire population[6] not only in India, but globally too for full opening up of the global economy, which is currently estimated to take upto 2023 based on currently available stocks and production capacities[7]. This will also likely influence the rate at which the world economy will be fully functional especially for sectors like tourism.

[6] https://newsonair.com/2021/06/27/chhattisgarh-vaccinated-25-percent-population-of-the-state/
[7] https://www.nature.com/articles/d41586-021-01762-w

Recovery of trade: The global trade will influence the pace of economic growth and it still needs to resume with full capacity as it is still predicted to be below the pre-pandemic trend in 2022[8]

Consumer behaviour: Higher time for consumer demand recovery as the country had already faced a decline in demand even before the pandemic due to low levels of employment in 2017-18[9] and more time expected for demand recovery due to decline after the second wave[10].

Global crude oil prices: The global crude oil prices has been impacted due to the pandemic led lockdowns globally and this is likely to influence the demand for fuel in many sectors which can cause demand fluctuations across different sectors[11].

Industry confidence: Although many of the industrial units are open and functioning after the initial Covid-19 period, they have been affected by a lot of disruptions in shortages of raw materials, labour, capital and other factors affecting their production. They have not been able to resume activity to full capacity as yet. These, and many other factors, as much as are likely to influence the growth path in the economy, the exact estimations of how each factor will play out is difficult to estimate. Hence, we will assume average growth rates of previous years in most scenarios which we expect will likely reflect, if not the exact magnitude, the direction of recovery. We have estimated the GSDP for two scenarios, the assumptions behind the scenarios are briefly discussed below:

Scenario 1: As followed in the revenue estimations, in this scenario too, we have mainly looked at the early trends in revenues for April 2021 and May 2021 and based on that information, we have gone for assumptions regarding growth based on those trends for some sectors – where the different types of revenue, tax, non-tax revenue form a sizeable component for that sector and assume that the revenue trends reflect the possible growth trends that the economy may take. For other sectors – we have taken the pandemic year growth rates (2020-21 growth over 2019-20) as we assume continued effects of Covid-19 even for 2021-22 and the same resilience of the state economy to the pandemic. For estimates of 2022-23, we have assumed an average growth rate of period between 2017-18 to 2019-20 as these three years registered

[8] https://www.wto.org/english/news_e/pres21_e/pr876_e.htm
[9] https://economictimes.indiatimes.com/news/economy/indicators/consumer-spending-declines-for-first-time-in-four-decades/articleshow/72069291.cms?from=mdr
[10] https://www.indiatoday.in/business/story/explained-how-lower-demand-impacts-india-s-covid-hit-economy-1804054-2021-05-18
[11] https://www.newindianexpress.com/business/2021/mar/29/domestic-fuel-prices-expected-to-fall-as-covid-surge-dampens-crude-cost-2283100.html

higher growth rates on an average as compared to the period between 2018-19 to 2020-21, barring for three sectors -– Crops, Forestry and Communication and services related to broadcasting.

Scenario 2: In this scenario, we have considered the average growth rates of last three years, i.e. between 2018-19 to 2020-21 as the expected growth rate for 2021-22 and the average growth rates between 2017-18 to 2019-20 as the growth rates for 2022-23 based on the assumptions that in the first year, the economy will still be reeling under the effects of the pandemic and hence register, lower growth rates and in the second year, the economy will recover at a faster rate than in 2021-22 due to improvements in all the factors as discussed above and overall global recovery.

4.3. Sectoral trends for GSDP during the Covid-19 pandemic and looking forward

The downturn due to the pandemic can be seen as a one off economic event where it is impossible to predict the extent of damage to the economy based on just past year performances. However, in these estimations, we have gone with reasonable assumptions based on real information from the ground on how various sectors have been impacted as we now have knowledge, howsoever limited, of how the sectors behaved during the pandemic and its ability in adapting to the various constraints that were posed to it. In this section, we largely want to discuss the past trends in the sector, the sectoral overview and various policy initiatives undertaken in the last few years and the likely outcomes from these decisions which may influence the growth in these sectors during 2021-22 and 2022-23. This exercise was carried out for each sector separately so as to capture the nuances, including the resilience shown by the sector during the year 2020-21, stability of the sector to the shocks induced by the pandemic.

4.3.1. Agricultural Sector during the Covid-19 pandemic

Chhattisgarh is one of the top ten agriculture states in India and is popularly known as the "rice bowl of India". The agriculture sector as a whole encapsulates crops, livestock, forestry, and fishing. The share of the agriculture sector in GSDP was 22.7% in 2020-21 in current prices, which was relatively high compared to many other states.

4.3.1.1. Crops and Livestock

The crops sector is a significant contributor to the state economy and has shown a consistent growth since 2017-18. Its share in total GSDP at current prices is approximately 12.4% on average between 2011-12 and 2020-21. Due to its substantial share in the GSDP, it becomes relevant for us to understand the trends in this sector. In the year 2020-21, the sector posted an impressive growth of 10% in current prices over the previous year despite the pandemic. There could be many possible reasons for this, some of which are stated here. One, based on discussions with the officials in the agricultural department, we were informed that, during the 2020 nation-wide lockdown there was a return of migrant labourers back to Chhattisgarh and they undertook cultivation of agricultural lands, especially paddy production, which recorded a 10% rise compared to the previous year[12]. Policy initiatives taken to incentivise the sector included schemes to turn cow dung into cash, procuring paddy at Rs.2500 per quintal, waiver of farm loans (Times News Network, 2020). Other measures to promote organic farming through supply of vermicompost manufactured in their rural industries called Gothans also seems to have helped strengthen the rural sector in the state.

The share of livestock and fishing in total GSDP at current prices is 2% each on an average between 2011-12 to 2020-21 in Chhattisgarh. The share in GSDP for both these subsectors have been growing gradually since 2015-16. Both these sectors registered a positive growth rate of 17.2% and 9.2% respectively, which was lower than their growth rates in 2019-20. The flagship programme of the Chhattisgarh government, the Godhan Nyay scheme launched in July 2020 under the background of the 'Narva, Gharwa, Girva Baadi' which aims to promote a sustainable and integrated farming system, works for composting for soil health, animal husbandry and sustainable agriculture on backyard kitchen gardens (Kumar, V., 2020) are key policy steps that the state has taken for the development of this sector. This programme has a focus on rural livelihood generation and organic farming, and overall protection of environment, cattle wealth and water resources.

The crops sector performed well in the year 2020-21 despite the lockdown for two months, as the lockdown did not impact the farming activities of the rural sector. It registered a 10.1% growth in 2020-21 over 2019-20 as compared to 12.4% in 2019-20 over 2018-19. This was mainly due to the following reasons: an improvement in Kharif area sown, above normal rains in 2020-21, a quick recovery in supply chain disruptions because of an active Food Corporation of India (FCI) and supportive railways, price recovery in both consumer and wholesale markets, and the government's interventions for the future are believed to have sustained the growth momentum (DEA, 2020).

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[12] https://www.newindianexpress.com/thesundaystandard/2021/feb/21/chhattisgarh-turning-distress-into-opportunity-2266744.html

In the backdrop of these initiatives, and the performance of the state in terms of growth in the year 2020-21 during the pandemic, we make the following assumptions about the sectoral performance for crops and livestock for the years 2021-22 and 2022-23: For scenario 1 first year estimations - we assume that the same trends for growth will continue for 2021-22 as that of the pandemic year and hence, we took the growth rate of the pandemic year, i.e. 2020-21 over 2019-20. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.1.2. Forestry Sector

One of the main focus areas for Chhattisgarh has been its forests with a rich presence of natural resources. Over the years, the state Government has taken many initiatives to recognise the importance of the forest sector and realise its growing potential. With also a vast population of the state residing in these areas, the states is taking multiple efforts to tap the full capacity of this sector. During the first wave of the pandemic, the government took some important measures and had purchased 98% of the country's total forest produce. Over the next few months, 52 minor forest produce (MFP) was procured at support prices for promoting the tribal population and they also increased the payment for tendu, /beedi leaf collection (Times News Network, 2020). All these initiatives may have likely helped the growth trajectory of this sector to post a healthy 7.7% growth in current prices over the previous year in 2020-21. The state Government continues to take multiple measures to push the sector towards better growth prospects. In January 2021, the state government announced that it is looking to build an organised industry around minor forest produce (MFP) with a purpose of helping around 17 lakh tribal families who are engaged in forest occupations and the state has estimated the MFP industry potential of around Rs.1200 crores. The state has also increased its procurement prices for various MFP commodities (Singh,P. 2021). Apart from this, the state also provided relief to forest dwellers by providing them employment under MNREGA (Business Standard, 2021).

In the backdrop of these initiatives, and the performance of the state in terms of growth in the year 2020-21 during the pandemic, we make the following assumptions about the sectoral performance for crops and livestock for the years 2021-22 and 2022-23: For scenario 1 first year estimations - we took ratios of the non-tax revenue to GSDP as that poses a high revenue estimations for 2021-22 and estimated the GSDP based on that information. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.1.3. Fishing Sector

The fisheries sector has a small contribution to GSDP of the state and the Government is now focussing on improving its status. As per its plan announced sometime in late 2020, the state Government has announced in its budget that it has accorded the status of farming to the fisheries sector and this is expected to provide interest-free loans from cooperative banks for fisheries and rebate in electricity rates (PTI, 2020). In 2020-21, this sector grew by 9.2% which is about 5 percentage points lower than in 2019-20.

For scenario 1 first year estimations - we assume that the same trends for growth will continue for 2021-22 as that of the pandemic year and hence, we took the growth rate of the pandemic year, i.e. 2020-21 over 2019-20. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.2. Industrial Sector

Chhattisgarh is one of the mineral rich states in India with a high resource base. The mineral industry accounts for almost 80% of the total industrial units in the state. The state has a large presence of private industry players and some of the important sectors include steel and allied industries, cement, power, mining, aluminium (due to its rich bauxite presence), food processing industries, etc. After the creation of the state in 2000, the state implemented the industrial policy based on the five-year plan starting from 2001-2006. The state adopted the policy of development of the core sectors due to its abundant mineral resources such as bauxite, coal, limestone, and dolomite. After a successful development of the core sectors, the state adopted the policy of development of non-core sectors or the sunrise sectors in its industrial policy of 2014-2019, which are agriculture and food processing, automotive, new and renewable energy, Information Technology (IT), pharmaceuticals, healthcare, tourism, skill development, minor forest produce, textiles and apparels, etc. The policy envisions to promote the manufacturing sector on a priority basis.

More recently, the new industrial policy 2019-24 has focused its efforts on promoting industrial growth and economic activities in new regions, particularly in extremistaffected areas of the state[13]. The non-core sectors of focus of this new industrial policy include aerospace engineering, aircraft repair food processing and Micro, Small and Medium Enterprises (MSMEs). Interestingly, the policy encourages industrial development in the most backward regions of the state with the highest incentives given to industries established in such areas. The policy has a clear focus on food processing and other agriculture-related industries, with top priority given to organic fuel from paddy, ethanol refinery, and horticulture product processing. A slew of incentives with respect to interest subsidy, electric duty exemption, transport subsidy, reduced rates of land were also announced. Hence, it becomes important to understand the trends in the domestic product in these sectors over the years.

The industries sector is the largest contributor to the GSDP of the state forming about 39.6% of the state GSDP in 2020-21 in current prices. This sector consists of the following subsectors: manufacturing, mining, electricity, gas and water supply, and construction. However, the share of the industries sector in current prices has seen a steady decline over the years, especially from 2017-18. When we further examine the share of the subsectors in the GSDP, we see that construction and manufacturing sectors have the highest contribution to the share of GSDP in 2020-21, with 13.8% and 13.3%, respectively.

4.3.2.1. Mining Sector

Chhattisgarh has a predominance of the mining sector, contributing approximately one-tenth to the state GSDP. The mining sector had been categorised as an essential service during the Covid-19 induced lockdown and the operations were shut for a very brief period of 12 days during the first lockdown thus helping it continue operations. However, certain other constraints like labour shortages, lower demand for mining outputs have impacted the sector severely. The Government of India and some of the key states were likely to incur a revenue loss of upto Rs.12000 crores due to lower uptake of the mineral (PTI, 2021). This has impacted Chhattisgarh too with a fall in value added to 25% from the previous year in current prices in the year 2020-21 although there is a high revenue expectancy for 2021-22 with good non-tax revenues from this sector in April and May 2021.

In this context, for scenario 1 first year estimations - we took ratios of the non-tax revenue to GSDP and that shows moderate recovery for the sector for 2021-22 and estimated the GSDP based on that information. For the year 2022-23 in scenario 1

[13] https://www.businesstoday.in/current/economy-politics/chhattisgarh-new-industrial-policy-focus-on-industries-in-naxal-hit-areas-cm-bhupesh-baghel--non-core-sectors/story/388142.html

and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.2.2. Electricity Sector

The electricity, gas, and water supply had seen a steady increase in its share in the GSDP since 2011-12. This was mainly due to the Power for All policy, resulting in a rapid expansion of the electricity distribution system. Along with multiple other initiatives of the state government and development of the Korba region to improve electricity generation, this has resulted in the overall growth of the sector[14]. However, since 2016-17, there has been a Y-o-Y decline in the growth in this sector with a decline of 0.5% points in 2020-21 over 2019-20. This was mainly due to shortfall in demand from this sector, mostly because of a decline in industrial demand for power, the consumption being lower by 1000 MW this year (Das, 2020).

The State Government has projected a moderate growth of tax revenue for this sector. Although the revenues of the state are growing Y-o-Y, the growth still needs to pick up. Hence, we took the tax to GSDP ratio for 2021-22 GSDP estimates for scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.2.3. Manufacturing Sector

The manufacturing sector had experienced huge contraction in 2019-20 and grew by only 2.5% as compared to 2018-19 and grew by 2% in 2020-21 as compared to 2019-20. This was again due to various bottlenecks for this sector including decline in availability of raw materials supply, supply chain disruptions, labour shortages, scepticism of MSMEs to restart their businesses due to conditions put forth by the Government which included operating only with 40% manpower, arrangement of transport, maintaining social distance etc., (Das, 2020). However, in the later part of 2020, various relaxations were made with rebate in electricity tariffs, giving grants-in-aid, prioritizing the products manufactured by local industries[15] which helped the sector manage the crisis better than other industrial sectors.

We are going by the early tax trends in the manufacturing sector and we see that the tax to GSDP ratio for manufacturing has been volatile post GST. Hence, we took the average of the last two years of the tax to GSDP ratio for the GSDP estimates in 2021-

[14] https://www.sundayguardianlive.com/news/6223-power-surplus-chhattisgarh-shining-example-other-states

[15] https://www.dailypioneer.com/2020/state-editions/pro-industry-decisions-spark-rapid-industrial-growth-in-chhattisgarh.html

22 for scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.2.4. Construction Sector

The Construction sector has the largest share in the state with 14% of the state output coming from this sector. Although there was a slight year on year decline in the output of the construction sector starting in 2016-17, it grew by about 12.5% in 2019-20. In 2020-21, the sector grew by only 1.7%. This could be due to many factors, the sector has backward linkages with multiple sectors for its inputs like cement and steel, construction labourers who were mainly migrant labourers who were affected acutely with several of them returned to their towns and villages. More recently in May 2021, the Chhattisgarh government has cancelled tenders for major construction projects and tenders for its new assembly buildings to undertake austerity measures due to the pandemic hit economy (PTI, 2021). However, road construction activities will speed up in 8 worst affected districts due to LWE.

All these overall implies that it will take some time for full recovery of this sector although it may grow at a positive rate. Hence, we took the growth rate of the pandemic year, i.e. 2021 over 2020 for 2021-22 for scenario 1 and believe that the same trend will continue until the next year before construction activity resumes in full flow. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.3.3. Services Sector

After the Industrial sector, Services sector is the second most important sector in terms of its contribution to GSDP in Chhattisgarh, followed by agriculture, in current prices. This is a unique kind of trend in Chhattisgarh as for a number of states in India, services sector has the highest contribution in GSDP. The contribution of service sector in GSDP has been gradually increasing since 2016-17. When we look at the growth rates, the sector grew by 13.8% in 2018-19 and 10% in 2019-20 respectively. In 2020-21, the sector grew by just 3.3%. This was largely driven by the Real estate, ownership of dwellings and professional services and the Other services sector which are also the major sub-sectors contributing to the growth in the state. The implementation of the seventh pay commission has also helped in the growth of the Public Administration sector.

Chhattisgarh has been taking multiple initiatives in the services space to grow its economy. The Sanchari Kranti Yojana (SKY) to vastly improve communication in the state by bringing mobile connectivity to the masses by distributing 50 lakh smartphones to women and youth, bringing internet connectivity to 90% of the households and 70% of the villages have been envisioned to revolutionise the way citizens interact with the government. The 36inc policy also aims to nurture the spirit of entrepreneurship in the state, and the state government has conducted studies on the start-up success stories like Silicon Valley and Singapore[16].

With these initiatives and early revenue trends, we make the following assumptions for the growth estimations of the various sub sectors in the services sector as given in table below (Table 9).

Table 9: Assumptions for sector wise growth estimations in the Services sub-sectors

Trade, Hotels & restaurants	There was a huge decline of about 17 percentage points for this sector in terms of GSDP growth in 2020-21 although it grew by 10% in 2019-20	Tax to GSDP Ratio and Y-o-Y Growth Rate	The pre GST and post GST trends have shown a large variation, hence, we took the ratios of tax collections to GSDP post GST. This sector was highly impacted due to the lockdowns and fear. It is expected to pick up pace, but slowly. The 2021-22 BE revenue estimates show an expectation of 17% growth over the previous year, but this may not be completely achievable with new waves and infections. Hence, we have taken moderate growth estimations for this sector as the recovery may not be as fast paced other sectors. For scenario 1 first year estimations - we assume that the same trends for growth will continue for 2021-22 as that of the pandemic year and hence, we took the growth rate of the pandemic year, i.e. 2020-21 over 2019-20. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Transportation	There was a negative growth in this sector which declined to 2.2% from year 2019-20. In 2019-20 it had grown by 9.6%	Tax to GSDP Ratio and Y-o-Y Growth Rate	Here, we took the average of the ratios in 2019-20 and 2020-21 as there is a continuous declining trend in the tax to GSDP ratio since 2016-17 for the 2021-22 GSDP estimates for scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Storage	This sector grew by 5% in 2020-21 which is about 6 percentage points lower than in 2019-20	Tax to GSDP Ratio and Y-o-Y Growth Rate	Due to lack of any information about this sector, For scenario 1 first year estimations - we assume that the same trends for growth will continue for 2021-22 as that of the pandemic year and hence, we took the growth rate of the pandemic year, i.e. 2020-21 over 2019-20. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

[16] https://www.bloombergquint.com/labs/chhattisgarh/ridethegrowth/index.html

Communication	This was one of the better performing sectors when compared to its performance in 2019-20 and it grew by 2.5% in 2020-21.	Y-o-Y Growth Rate	The state anticipates moderate revenues from this sector. For scenario 1 first year estimations - we assume that the same trends for growth will continue for 2021-22 as that of the pandemic year and hence, we took the growth rate of the pandemic year, i.e. 2020-21 over 2019-20. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Financial services	This sector grew by 9.6% in 2020-21 over 2019-20, which was just 1 percentage point lower than its growth in 2019-20.	Non-Tax to GSDP Ratio and Y-o-Y growth rate	Stable trends in the past 5 years in the non-tax revenue collections, hence we looked at the average ratio in the last 5 years of non-tax revenue collections to GSDP for estimates of 2021-22 in scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Real estate, ownership of dwellings and professional services	This sector grew by 4.8% in 2020-21 which was around 2% points lower than in 2019-20	Tax to GSDP Ratio and Y-o-Y Growth Rate	Land tax forms one of the biggest sources of revenue for this sector. We took the tax-GSDP ratios for the last 3 years 2021-22 GSDP estimates for scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Public Administration	This sector grew by about 11% compared to the previous year, this was a bit lower than in 2019-20 where it grew by 18.3%. The ratio of the wages to the GSDP was also lower at 121% when compared to 2019-20 where it was 133%.	Y-o-Y Growth Rate	This sector comprises activities of the public sector. The gross value added is mainly the wages and salaries paid to the Government officials. The state has projected a 21% increase in the salaries before the second wave of the Covid-19 pandemic affected the badly. This is quite high compared to 2019-20 when the salaries grew by just 1.1%. Hence, we have assumed growth rate in the pandemic year for 2021-22 GSDP estimates for Scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.
Other Services	This sector performed better than in 2019-20 and it grew by 15% in 2020-21 as compared to 12% in 2019-20.	Total revenue to GSDP and Y-o-Y Growth	This sector encompasses a whole array of services including medical and health, education, social welfare etc. Due to the huge gamut of activities, they have revenue collections from all sectors including from Gants-in-Aid from Centrally Sponsored Schemes for various welfare programmes. Hence, we looked at the last 5 year averages of the total revenue to GSDP for these sectors for 2021-22 GSDP estimation in scenario 1. For the year 2022-23 in scenario 1 and both years of scenario 2, we assume average growth rates as discussed in the previous sections.

4.4. Estimates of GSDP for 2021-22 and 2022-23

Based on the methods and assumptions discussed in the previous section, we have the projected sector wise GSDP for both the scenarios and present them in tables 10 and 11. Table 10 and 11 also show the estimated growth rates for various sectors in the two scenarios. The table clearly shows that in Scenario 1, we expect the state to grow by about 9.2% in 2021-22 and 11% in 2022-23 respectively. This is largely driven by sectors like Crops, Manufacturing, Public Administration, Other Services. The higher growth projections in scenario 1 indicate that the state government's expectations of recovery in the economy indicated by its revenue estimates for 2021-22. The growth projections in Scenario 2 is lower than in Scenario 1 for 2021-22 as this is largely based on the average of the previous year growth rates with the assumption of a slower paced recovery of the economy due to an uncertain future. For the year 2022-23, the growth rates for both scenarios have been assumed the same in the anticipation of good recovery post the pandemic.

Table 10: Projections of GSDP and growth rates for various sectors (Rs. In Crore) – Scenario 1

Sector	2019-20 PE	2020-21 RE	2021-22 Estimates	2022-23 Estimates	Percentage growth from 2020-21	Percentage growth from 2021-22
Crops	38,20,057	42,05,427	46,29,673	48,62,320	10.1	5.0
Livestock	8,17,135	9,57,484	11,21,939	13,86,754	17.2	23.6
Forestry & Logging	12,48,116	13,44,410	17,99,042	18,56,686	33.8	3.2
Fishing	8,17,241	8,92,030	9,73,663	11,62,876	9.2	19.4
Mining & Quarrying	23,34,904	17,38,885	18,56,628	19,54,150	6.8	5.3
Sub - Total (Primary Sector)	**90,37,453**	**91,38,236**	**1,03,80,946**	**1,12,22,785**	**13.6**	**8.1**
Manufacturing	42,43,327	43,29,771	47,20,832	52,50,604	9.0	11.2
Electricity, gas, Water supply and others	23,52,641	23,41,020	25,32,957	27,55,892	8.2	8.8
Construction	44,37,155	45,11,431	45,86,950	52,04,190	1.7	13.5
Sub - Total (Secondary Sector)	**1,10,33,123**	**1,11,82,222**	**1,18,40,739**	**1,32,10,685**	**5.9**	**11.6**
Trade, Hotels & restaurants	23,01,323	19,09,178	20,04,556	22,43,588	5.0	11.9
Transportation	9,14,054	8,94,170	9,31,213	10,29,331	4.1	10.5
Storage	24,747	25,990	27,295	30,281	5.0	10.9
Communication & services related to broadcasting	3,71,129	3,80,277	4,98,673	5,17,870	31.1	3.8

Sector	2019-20 PE	2020-21 RE	2021-22 Estimates	2022-23 Estimates	Percentage growth from 2020-21	Percentage growth from 2021-22
Financial services	10,50,910	11,52,188	12,04,340	13,36,696	4.5	11.0
Real estate, ownership of dwellings and professional services	32,45,167	33,96,728	36,32,489	38,77,904	6.9	6.8
Public Administration	16,33,083	18,17,081	20,21,810	23,66,595	11.3	17.1
Other services	23,51,247	27,13,682	30,72,387	37,12,097	13.2	20.8
Sub - Total (Services Sector / Tertiary Sector)	**1,18,91,660**	**1,22,89,294**	**1,33,92,763**	**1,51,14,363**	**9.0**	**12.9**
GSDP at Basic Prices	**3,19,62,236**	**3,26,09,752**	**3,56,14,448**	**3,95,47,833**	**9.2**	**11.0**

Table 11: Projections of GSDP and growth rates for various sectors (Rs. In Crore) – Scenario 2

Sector	2019-20 PE	2020-21 RE	2021-22 Estimates	2022-23 Estimates	Percentage growth from 2020-21	Percentage growth from 2021-22
Crops	38,20,057	42,05,427	47,34,283	49,72,186	12.6	5.0
Livestock	8,17,135	9,57,484	11,37,727	14,06,269	18.8	23.6
Forestry & Logging	12,48,116	13,44,410	14,06,957	14,52,037	4.7	3.2
Fishing	8,17,241	8,92,030	10,07,062	12,02,765	12.9	19.4
Mining & Quarrying	23,34,904	17,38,885	16,22,949	17,08,196	-6.7	5.3
Sub - Total (Primary Sector)	**90,37,453**	**91,38,236**	**99,08,977**	**1,07,41,453**	**8.4**	**8.4**
Manufacturing	42,43,327	43,29,771	46,78,604	52,03,637	8.1	11.2
Electricity, gas, Water supply and others	23,52,641	23,41,020	24,46,948	26,62,312	4.5	8.8
Construction	44,37,155	45,11,431	49,24,317	55,86,954	9.2	13.5
Sub - Total (Secondary Sector)	**1,10,33,123**	**1,11,82,222**	**1,20,49,869**	**1,34,52,903**	**7.8**	**11.6**
Trade, Hotels & restaurants	23,01,323	19,09,178	19,45,163	21,77,113	1.9	11.9
Transportation	9,14,054	8,94,170	9,56,252	10,57,009	6.9	10.5
Storage	24,747	25,990	28,029	31,094	7.8	10.9
Communication & services related to broadcasting	3,71,129	3,80,277	4,00,796	4,16,226	5.4	3.8
Financial services	10,50,910	11,52,188	12,44,234	13,80,975	8.0	11.0
Real estate, ownership of dwellings and professional services	32,45,167	33,96,728	36,12,507	38,56,572	6.4	6.8
Public Administration	16,33,083	18,17,081	20,89,844	24,46,231	15.0	17.1
Other services	23,51,247	27,13,682	32,25,620	38,97,235	18.9	20.8

Sector	2019-20 PE	2020-21 RE	2021-22 Estimates	2022-23 Estimates	Percentage growth from 2020-21	Percentage growth from 2021-22
Sub - Total (Services Sector / Tertiary Sector)	**1,18,91,660**	**1,22,89,294**	**1,35,02,445**	**1,52,62,455**	**9.9**	**13.0**
GSDP at Basic Prices	**3,19,62,236**	**3,26,09,752**	**3,54,61,291**	**3,94,56,811**	**8.7**	**11.3**

The growth rates also show an important picture, that while states like Karnataka are heavily dependent on services for its growth, in the case of Chhattisgarh, due to the balance between the primary and secondary sectors, the effect of the pandemic is lower as the crops sector continues its good growth inspite of lockdown challenges. Some sectors are also showing higher growth rates due to base effect, like Forestry & Logging, Communication & services related to broadcasting, Trade, Hotels & restaurants, Electricity, gas, Water supply and others.

Chapter 5: Increasing Revenue Receipts and enabling Economic Revival: Possible Actions and Implications for Revenue and Growth

Learning from the analysis of data collected, consultations and to some extent broader national and global trends, we suggest a mix of fiscal, monetary and governance measures for revenue generation so as the state is able to expand / maintain public expenditure. We maintain that expansion of public expenditure is critical in the times of economic downturn to maintain aggregate demand and to ensure equitable welfare outcomes. We provide a brief summary of our recommendations here.

While suggesting the measures that could boost state government revenues post the pandemic, we also considered the initiatives that have already been taken by the state (mentioned earlier in the report) and learnings from other states. Rationalisation of taxes and duties that can be levied by the state is one of the most-suggested measures in public finance[17]. The state government has in the recent past taken initiatives to rationalise excise duty, stamp duty etc.

Recognizing the importance of innovation to revitalize the economy post the pandemic, Niti Aayog has started ranking states of India in terms of innovative efforts taken to boost the economy. For 2021, Karnataka was the top ranking state as per the innovation index ratings and the ranking was attributed to large number of venture capital deals, registered geographical indicators and information and communication technology exports[18]. Chhattisgarh has a rich cultural and bio-diversitical heritage and can explore enhancing revenues through getting geographical indicator tags for many of the unique products that belong to the state. Similarly agricultural reforms and improved trading of agricultural commodities such as spices are credited to be a growth source for states such as Madhya Pradesh, Andhra Pradesh and Kerala. Using the learnings from these states and our earlier analysis, the recommendations for the state are outlined below.

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[17] https://www.thehindubusinessline.com/news/which-levers-can-tn-pull-to-generate-more-revenue/article34077004.ece

[18] https://www.hindustantimes.com/india-news/karnataka-retains-top-position-at-india-innovation-index-ranking-101611190595225.html#:~:text=Maharashtra%20leapfrogged%20Tamil%20Nadu%20to,Gujarat%2C%20Uttar%20Pradesh%20and%20Punjab.

5.1. Electricity (Tariffs and grants)

Chhattisgarh, being a power surplus state, earns a substantial part of revenue through sale of electricity. The rates, however, are fixed by the Central Electricity Regulatory Commission (CERC) and the state does not have autonomy to decide the price at which it sells. The state can increase revenue in this sector only by advocating for better tariffs from CERC and achieve savings by incentivising operational efficiency of DISCOMS and reducing the amount of grants as Operational Funding Support to these entities.

5.2. Royalties from Mining

Mining is a very important source of revenue for the state as it accounts for 71% of non-tax revenues on an average. Major minerals contributing to the revenue in the state are coal, iron ore, moulding sand, limestone, bauxite, dolomite and tin concentrate. The royalty rates for various minerals in the country are decided centrally under the MMDR act and thus the state does not have control over fixing the same. Some pertinent points with regard to mining sector are

- Royalty rates for various minerals were last updated in 2015. While the rates are supposed to be updated every three years and a commission was established in 2018 for this purpose, the revised rates are under discussion and not implemented yet. Regular updation of rates are needed to compensate the states adequately for their mineral base and delays like this lead to revenue loss for them. Noronha et al (2009) report that states are increasingly dissatisfied about infrequent revision of royalty states resulting in revenue losses in real term for many minerals.
- Royalty rates for many minerals were shifted to ad valorem basis (based on certain percentage of sale price of minerals) from a price per unit tonne basis fairly recently. Coal and Iron ore are among these. While ad valorem method is more widely followed internationally, many developed countries are now moving to royalty based on profits and India should look at updating the system accordingly.
- A revision in royalty rates could result in major revenue earnings for the state. If we take the case of coal as an example, we can see how an increase of few percentage points in the royalty rates can result in increase in earnings for the state. Coal at present has 14% ad valorem rate of royalty. The table below shows the increase in earnings possible if these rates are modified a little. The calculations are done with the assumption of production amount (18% of India's national coal production) and sale price of coal (grade A) in the international market (Rs. 2500 per ton; price of coal has varied between Rs 2650 – 2750 in 2019-

20). Similar estimations can also be performed for other important minerals for the state and this will have to be a detailed exercise beyond the scope of this document.

Table 12: Indicative estimation of revenue growth from a change in royalty rates

Royalty (In Rs. Crores)				
14% (Present)*	Proposed (15%)	Increment (@15%)	Proposed (18%)	Increment (@18%)
4798	5141	343	6169	1371

*These calculations are only indicative. Not all the coal produced will be priced at this amount. This is done to show the benefit that the state can get by a minor modification in the royalty rate.

- While proposing a revision in royalty rates, however, a note has to be taken of the fact that many minerals in India have higher royalty rates as compared to other mineral producing countries. For instance, India has the highest rate of ad valorem royalty at 25% for non-metallurgical bauxite in the world. India also has the highest ad valorem rate for Iron ore[19]. Further upward revision in these minerals will make India uncompetitive in the global market.
- Royalty for limestone is still based on a specific amount per tonne basis. Adoption of ad valorem rates are useful in increasing the royalty for producer states as there is potential of reaping benefits from upward movement in the price of the commodity. The state should advocate for a policy change as this is the standard practice internationally.

5.3. Excise Reforms

The Government of Karnataka slashed the excise duty by more than 50% in 2003[20] to counter the seconds sales in the state. This excise duty rationalisation was also coupled with simplification of the procedures and the establishment of Karnataka State Beverages Corporation limited (KSBCL)[21] to facilitate procurement and distribution along with collection of duties. This new excise policy marked a new era and KSBCL serves as the sole channelising agency for IML, beer and spirit in the state. The analysis of the excise duties as a part of the state finances for 15th Finance Commission[22], indicated that the excise became more buoyant after the 2002-03. The excise policy needs to be reviewed periodically to ensure proper realisation of revenues to the state.

[19] https://csep.org/discussion-note/minerals-royalty-rates-in-india-comparison-with-other-countries/
[20] https://economictimes.indiatimes.com/excise-cut-makes-imfl-50-cheaper-in-karnataka/articleshow/95932.cms?from=mdr
[21] https://ksbcl.com/ksbcl_at_glance.html
[22] https://fincomindia.nic.in/ShowContentOne.aspx?id=27&Section=1

Chhattisgarh state through its new excise policy in 2017 established a corporation for retail sale and its track and trace system helped increase its revenues along with greater control over the legal sales. However, there is scope to improve looking into the policies followed in Andhra Pradesh, Karnataka and Tamil Nādu and making it more buoyant source of revenue. The growth has reduced during the last 4-5 years[23].

5.4. Reforms in GST governance

Reforms in GST governance system including enabling of better scrutiny, change of tax base to include production of goods transacted through e-commerce and prompt payment by the central government could lead to more transparent collections and increase in revenue earnings for the state.

5.5. Partial Credit Guarantee scheme

On analysis of the credit disbursement data for the state of Chhattisgarh, we found that there are indications of lower utilization of deposits available with the banks with a consistently low C-D ratio of around 60% for the period 2017-18 to 2020-21. We also found that credit disbursement is lower for certain sectors (e.g., agriculture), communities (weaker sections), and districts (Bijapur, Narayanpur, Sukma and Balrampur) compared to the national averages. It indicates either a lower demand for credit or a risk aversion in the banks to fund these areas. The state can propose a partial credit guarantee scheme that can be made available to industrial sectors, such as value addition in minor forest produce and ecotourism. For instance, the state government could provide a partial credit guarantee to collectives of tribal women who undertake production of handicrafts using forest produce, such as lac, thus enabling entrepreneurship among the weaker sections of the population as well as stimulating a dormant sector of the economy without high costs for the exchequer.

Such an intervention, however, is likely to be long-term in its impact to take effect as the pathway is through development of small and medium enterprises. The indications of impact on economic growth from existing literature in different contexts are positive. An econometric study in Nigeria found that with one unit increase in Agricultural credit through such an intervention, the Real GDP increased by 2.3% over a period of 30 years (Danladi et.al, 2019). Also, while there are multiple studies showing the evidence of credit additionality as a result of Government Credit Guarantees, a study undertaken in Indonesia also showed that such an

[23] https://www.nipfp.org.in/media/medialibrary/2019/08/WP_276_2019.pdf

intervention resulted in increase in value added by MSMEs thus proving economic additionality as well (Adhikary et al, 2021).

5.6. Infrastructure and Employment

Capital expenditure on infrastructure such as roads and transport have the potential for furthering income, employment, and demand. Rural infrastructure is also needed to promote tourism, especially eco-tourism, diversification, and marketing of forest and agriculture products. Investment in infrastructure could also be linked to creation of employment in urban areas (similar to MNREGA in rural areas) to augment consumption power and generate aggregate demand.

The evidence on impact of investment in and creation of infrastructure on economic growth is widely available. Bivens (2017) for instance reported that each $100 spent on infrastructure boosts private-sector output by $17 in the long run and each $100 billion in infrastructure spending would boost job growth by roughly 1 million Full Time Equivalents. Yoshino and Hoa (2020) similarly tried to estimate the impact of investment in an expressway project in Vietnam and found that income tax collection in the concerned provinces went up by 24%. They also found that the impact was especially significant as the provinces were remote mountainous regions and construction of the expressway enabled trade routes to open up.

5.7. Additional debt

The state has contained the fiscal deficit since 2015-16 below the prescribed limit of 3% of GSDP, except for the year 2019-20 (14th FC prescribed Fiscal Responsibility and Budget Management [FRBM] Act limit) apart from keeping its total liabilities under 25% of GSDP and interest payments below 10% of revenue receipts. This indicates that the state is in a position to incur additional debt to fund necessary public expenditure. This is especially to be considered in case of an economic downturn when public expenditure is required to generate aggregate demand. However, incurring of additional debt, if required, has to be done with a proper debt management plan in place.

Chapter 6: Conclusion

The Covid-19 pandemic and associated lockdowns have had an impact on economic growth and livelihhoods across the world. This impact on economic growth is most likely to result in a dent in government revenues in India, both at the central and state government levels. However, because the impact of the pandemic on economy has had a disproportionate impact on specific sectors, the structure of the state economy in form of the relative presence of different sectors is likely to have a decisive role in determining the extent of impact.

In this context, we undertook this study to estimate the impact the macro-economic impact of Covid-19 on the state of Chhattisgarh. While the broader details of methodology adopted and estimations for the year 2020-21 were presented in Report 1, in this report we have tried to extend the estimations for the next two years; i.e. FY 2021-22 and FY 2022-23. We have estimated the revenue and GSDP forecasts for both years in two likely scenarios; one conservative and one optimistic. While analysis of past performance (both revenue and GSDP) helped us in determining the relative presence of different sectors in the state economy, it was important to factor in the effect of the pandemic, especially because of the lasting effects through incidence of multiple waves and the resultant uncertainty. Specifically for this report, having data for a full year in which the pandemic has been in effect has helped us in refining the estimations to some extent.

We see that the state economy has shown resilience to some extent to the effects of the pandemic and the revenue growth has not been impacted to the extent as seen in other economies. This can be surmised by the 3% growth in state government revenues in 2020-21 combined with the estimation of 7.3% decline in GDP of India during the same year. This resilience can be due to the higher relative presence of primary and secondary sectors in the state as well as because of some of the key policies of the state government that has been discussed earlier in the report.

However, it is important to maintain and increase this economic growth in face of a likely continued economic downturn. In such times, it has often been prescribed to increase public expenditure in order to boost consumption power of people and thus help generate aggregate demand. We have suggested some key areas for the state government to intervene in based on the analysis of the state economy and social structure.

References

(Business Standard, 2021). Chhattisgarh's Economy Swiftly Getting Back On Track After Unlock. http://www.businessworld.in/article/Chhattisgarh-s-Economy-Swiftly-Getting-Back-On-Track-After-Unlock/04-07-2020-293963/. (accessed on July 24th, 2021).

(Das, Krishna. R, 2020). Lockdown: Chhattisgarh units reluctant to restart with state's riders. https://www.business-standard.com/article/economy-policy/lockdown-chhattisgarh-units-reluctant-to-restart-with-state-s-riders-120041301159_1.html. accessed on July 10th, 2021

(Das, Krishna. R, 2020). Tepid power consumption in Chhattisgarh despite soaring temperature. https://www.business-standard.com/article/companies/tepid-power-consumption-in-chhattisgarh-despite-soaring-temperature-120042400852_1.html. accessed on July 2nd, 2021

(DEA, 2020). Macroeconomic Report, May 2020. Department of Economic Affairs, Ministry of Finance, Government of India.

(Kumar, V., 2020). Chhattisgarh's Godhan Nyay: How it aims to revive rural economy, organic farming. https://www.downtoearth.org.in/blog/governance/chhattisgarh-s-godhan-nyay-how-it-aims-to-revive-rural-economy-organic-farming-72941. (accessed on July 1st, 2021).

(PTI, 2020). Chhattisgarh is planning to give farming status to fisheries: CM Baghel. https://www.thehindubusinessline.com/economy/policy/chhattisgarh-is-planning-to-give-farming-status-to-fisheries-cm-baghel/article33150551.ece. accessed on June 30th, 2021

(PTI, 2021). Chhattisgarh stops major construction projects, cancels tenders for new assembly building. https://economictimes.indiatimes.com/news/india/covid-19-chhattisgarh-stops-major-construction-projects-cancels-tenders-for-new-assembly-building/articleshow/82602671.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst. accessed on July 15th, 2021.

Adhikary, B. K., Kutsuna, K., & Stephannie, S. (2021). Does the government credit guarantee promote micro, small, and medium enterprises? Evidence from Indonesia. *Journal of Small Business & Entrepreneurship*, *33*(3), 323-348.

Bivens, J. (2017). The potential macroeconomic benefits from increasing infrastructure investment. *Washington, DC, USA: Economy Policy Institute*.

Danladi, G. P., Sale, Z., & Elisha, G. A. Impact of Agricultural Credit Guarantee Scheme Fund on Economic Growth in Nigeria (1986-2017).

https://www.adb.org/publications/effects-infrastructure-projects-government-revenue-vietnam

https://www.epi.org/publication/the-potential-macroeconomic-benefits-from-increasing-infrastructure-investment/

Noronha, L., Srivastava, N., Datt, D., & Sridharan, P. V. (2009). Resource Federalism in India: the case of minerals. *Economic and Political weekly*, 51-59.

PTI (2021). Centre, states to incur Rs 12k cr revenue loss in FY21 on lower coal, mineral consumption: Report. https://economictimes.indiatimes.com/industry/indl-goods/svs/metals-mining/centre-states-to-incur-rs-12k-cr-revenue-loss-in-fy21-on-lower-coal-mineral-consumption-report/articleshow/75894393.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst. (accessed on 11th July, 2021)

Singh,P. (2021). Chhattisgarh looks to tap 'Rs 1,200 cr potential' of minor forest industry, plans big push. https://theprint.in/india/governance/chhattisgarh-looks-to-tap-rs-1200-cr-potential-of-minor-forest-industry-plans-big-push/593158/. (accessed on July 6th, 2021).

TNN (2020). Agri schemes helped Chhattisgarh economy in Covid times: Baghel. http://timesofindia.indiatimes.com/articleshow/79689365.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst. (accessed on July 13th, 2021)

Yoshino, N., & Hoa, T. T. (2020). Effects of Infrastructure Projects on Government Revenue: The Case of Expressway Projects in the Northern Midland and Mountainous Area of Viet Nam.

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unicef for every child

UNICEF Chhattisgarh Office

Katora Talab, Civil Lines,

Raipur, Chhattisgarh- 492001

Website: www.unicef.org

Centre for Budget and Policy Studies

Maitri Bhavan, Number 4, M.N. Krishna Rao Road,

Basavangudi, Bangalore – 560004

Tel: +91 2656 0735

Fax: +91 2656 0735

Email: info@cbps.in

Website: www.cbps.in