Contemporary Socio-Economic Status of Uttar Pradesh

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EXECUTIVE SUMMARY

This report presents a contemporary review of socio-economic indicators in Uttar Pradesh using unit-level data from the Periodic Labour Force Surveys (PLFS), which also coincide with the period of the new political regime in Uttar Pradesh, as well as the period over the COVID-19 pandemic. Additionally, the report uses data from the Centre for Monitoring and Evaluation (CMIE) to further examine regional aspects in Uttar Pradesh.

While Uttar Pradesh is the largest state in India in terms of population, its performance across several socio-economic indicators is at the other end of the spectrum. There is evidence of relative economic disparity in terms of consumption and employment outcomes across regions (with stark South/East/West divide in Uttar Pradesh).

Several significant aspects are revealed from the PLFS data. The move back to agriculture in of workforce increased rapidly especially after 2018-19. Moreover, the 'increase' in labour force participation claimed, especially for females, turns out to be merely due to an increase in non-remunerative employment, which actually counts as under-employment. The status of educated unemployed has been in discourse for some time; there has been a massive increase in unemployment among the educated in Uttar Pradesh post 2017-18. As a result, poverty in Uttar Pradesh, both in rural as well as urban areas, has risen significantly, and there is clear evidence of increasing inequality.

CMIE data further corroborate the findings from the PLFS analysis, pointing towards a high level of earning disparity in Uttar Pradesh with respect to social groups. Paradoxically, inequality in earnings is highest amongst the richest. More importantly, the regional divide within Uttar Pradesh is corroborated by CMIE data as well.

Uttar Pradesh has been performing particularly abysmally on the human development front especially over the last few years. The role of investment in human development becomes more important especially when the lack thereof in Uttar Pradesh has resulted in a decline in health infrastructure such as Primary Health Centres and Community Health Centres. This is even more alarming when the entire country including Uttar Pradesh are struggling to cope with the COVID-19 pandemic. As per NITI Aayog's Health Index Rank with base year 2015, Uttar Pradesh ranks last across states.

Post 2017-18, Uttar Pradesh has seen worsening of its previous trends in employment, consumption and incomes, with a massive resultant increase in poverty and inequality. Moreover, there is a stark regional divide as well as social group (caste) divide. Furthermore, abysmal human development indicators are evident. The regional divide in the large state of Uttar Pradesh has only been widening further in terms of South/West/East differentials in terms of consumption, employment, poverty and inequality between different groups as well as in performance across human development indicators. While much of these trends may have been exacerbated by the COVID-19 pandemic, the convergence and catch-up shown by several other lagging states is missing in case of Uttar Pradesh. All these trends indicate a systemic failure in socio-economic policy in the state.

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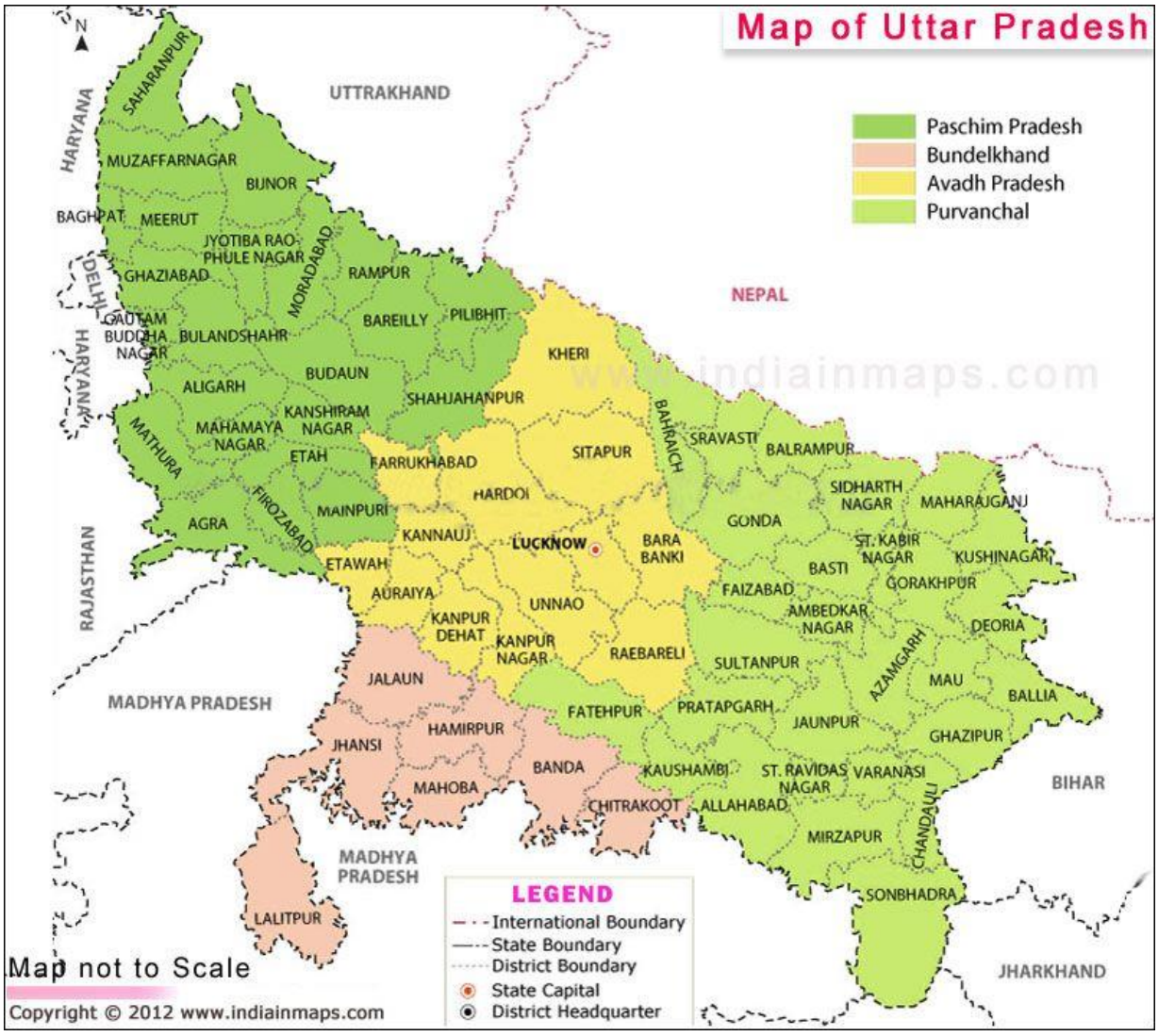
1 Introduction

Uttar Pradesh is the largest state in India in terms of population. The population in Uttar Pradesh in the 2011 Census had almost reached the 200 million mark. While Uttar Pradesh may be one of the major states in India, its performance across several socio-economic indicators is at the other end of the spectrum. There is evidence of relative economic disparity in terms of consumption and employment outcomes across regions, the evidence of which seems to be growing.



Source: www.indiainmaps.com

It has been well-documented in the literature that Uttar Pradesh has continued to remain a laggard state in terms of most socio-economic indicators. For instance, Goli, Maurya and Sharma (2015) found stark inequalities in wealth distribution, multidimensional poverty and landholding especially between different castes in rural UP. This also corroborated Mehrotra's (2006) argument on UP lagging behind in health and education indicators even after movements to mobilise backward castes; State policies being more politically driven than welfare driven.

With the new political regime, Uttar Pradesh's per capita income does not even reach 50 per cent of the national average, especially since 2017-18. Part of this has been attributable to dependence on agriculture, shrinking of the manufacturing sector, slowdown in employment and almost 14 per cent lower wages as compared to the all-India levels (for instance, Mitra, Gupta and Nikore, 2019). In addition, the lack of employment opportunities as well as absence of any social security programmes are only contributing to the widening of the poverty gap and inter-group as well as intra-group inequalities (see for instance Mamgain and Verick, 2017).

Regional differentials have also been widening in UP, with the Western and Southern parts faring much better than the Eastern and Central regions. While the Eastern region remains the most populous in UP (almost 40 per cent of the population in UP in 2011 based on Census data), it is the least urbanised region in UP with not even 13 per cent urban population. It is also the least socio-economically developed region in UP (Arora and Singh, 2015). Coupled with caste-based politics and neglect of human development indicators, these issues are only expected to worsen (Kumari, 2016).

While changing regimes and exogenous shocks such as the COVID-19 pandemic have led to changing situations in the state, a deep-rooted systemic failure is clearly visible. The new regime led by the Yogi Adityanath government has proclaimed lofty ambitions of leading UP's economy past the $1 trillion mark by 2024 by fast-tracking development in education, health and infrastructure especially in the poorer regions including Eastern and Central region (Jha, 2020). However, with little improvement in employment generation, out-migration from UP in search of jobs remained as high as 25 per cent of India's interstate migrants. The COVID crisis only aggravated the already difficult scenario in UP.

However, between 2017-18 and the onset of the pandemic, the political roadmap was centred majorly around religious tourism and related infrastructure. Human development, the basic ingredient in a growing economy, continued to take a backseat, along with gainful livelihood generation. For instance, school enrolment continued to remain low and the number of Primary Health Centres and Community Health Centres actually came down in UP. Uttar Pradesh has been performing particularly abysmally on the human development front especially over the last few years. The role of investment in human development becomes more important given that it ranks last across states in NITI Aayog's Health Index Rank with base year 2015. This at a time when health should have been the priority shows

that socio-economic development and reduction of regional inequality and poverty, and overall focus on welfare is lagging behind in the political agenda.

On the other hand, it is often mentioned that UP is performing well on the 'Ease of Doing Business' front, and is poised to become an investment hub. With the 'One District, One Product' idea floated in 2018, focus on small industries was expected to go up and dependence on agriculture would be reduced (Singh, 2021). While the effort towards structural change in UP's economy is laudable, the latest PLFS data show a different story. UP in fact seems to be showing signs of workers leaving the manufacturing sector and moving back to agriculture, a trend which began before the COVID-19 pandemic struck.

Moreover, the 'increase' in labour force participation claimed, especially for females, turns out to be merely due to an increase in non-remunerative employment, which actually counts as under-employment. The status of educated unemployed has been in discourse for some time; there has been a massive increase in unemployment among the educated in Uttar Pradesh post 2017-18. As a result, poverty in Uttar Pradesh, both in rural as well as urban areas, has risen significantly, and there is clear evidence of increasing inequality.

CMIE data further corroborate the findings from the PLFS analysis, pointing towards a high level of earning disparity in Uttar Pradesh with respect to social groups. Paradoxically, inequality in earnings is highest amongst the richest. More importantly, the regional divide within Uttar Pradesh is corroborated by CMIE data as well.

Post 2017-18, Uttar Pradesh has seen worsening of its previous trends in employment, consumption and incomes, with a massive resultant increase in poverty and inequality. Moreover, there is a stark regional divide as well as social group (caste) divide. Furthermore, abysmal human development indicators are evident. The regional divide in the large state of Uttar Pradesh has only been widening further in terms of South/West/East differentials in terms of consumption, employment, poverty and inequality between different groups as well as in performance across human development indicators. While much of these trends may have been exacerbated by the COVID-19 pandemic, the convergence and catch-up shown by several other lagging states is missing in case of Uttar Pradesh. All these trends indicate a systemic failure in socio-economic policy in the state.

This report presents a contemporary review of socio-economic indicators in Uttar Pradesh (UP) using unit-level data from the Periodic Labour Force Surveys (PLFS), which also coincide with the period of the new political regime in Uttar Pradesh, as well as the period over the COVID-19 pandemic. Additionally, the report uses data from the Centre for Monitoring and Evaluation (CMIE) to further examine regional aspects in UP. These analyses will be helpful in determining the issues and areas needing focus in the goal towards developing UP.

2 Review of Economic Growth in Uttar Pradesh

2.1 Preview and Highlights of the Chapter

This chapter gives an overview of the Gross Domestic Product (GDP) as well as its growth trends in Uttar Pradesh (UP) over a long-term trend beginning from 2011-12. While Uttar Pradesh is the largest state in India in terms of population, its economic growth has been drastically lagging behind. This trend has become visibly more distinct since 2017-18, when the political regime changed. Moreover, the already wide differentials in growth between the Northern and Southern regions of UP, as well as Western and Eastern regions of UP have been widening significantly. Overall, this chapter finds little evidence of any improvement in UP's economic scenario, a trend further exacerbated by the COVID-19 pandemic.

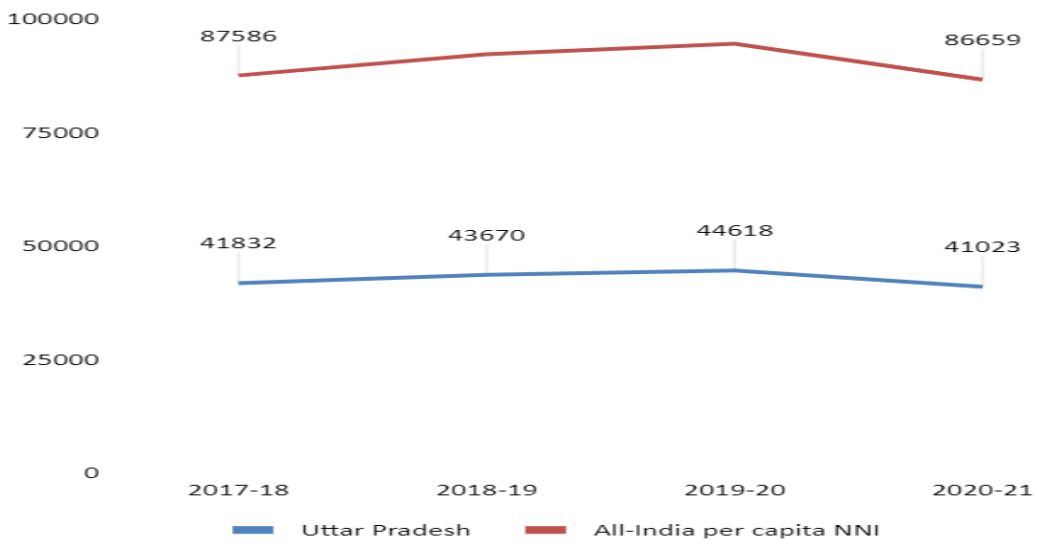
Highlights of the Chapter

- Analysis of Per Capita Net State Domestic Product in UP
- Analysis of Economic Growth in UP since 2011-12
- Analysis of Net Value Added by different Economic Sectors in UP
- Analysis of Gross District Domestic Product in UP

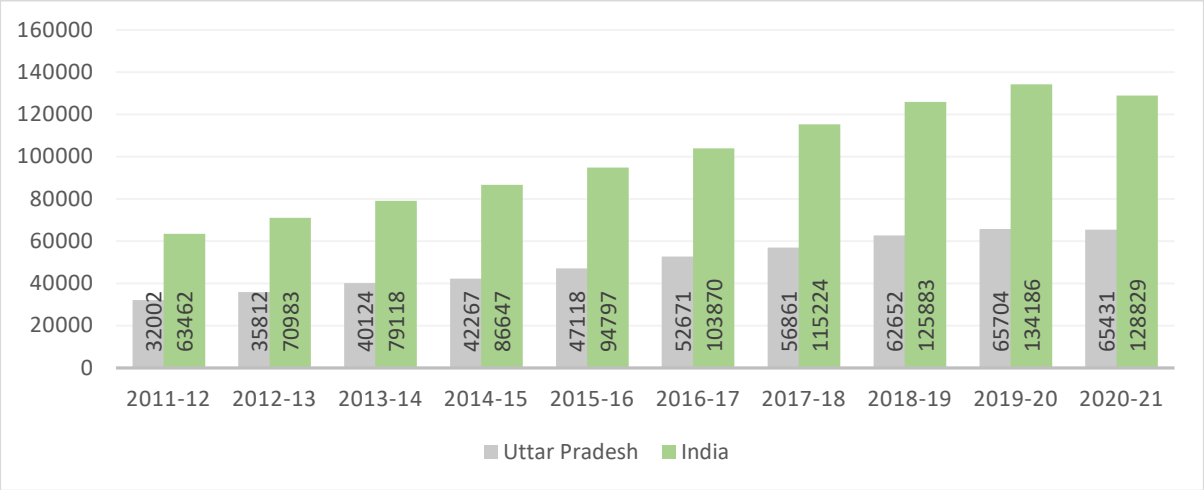
2.2 Per Capita Net State Domestic Product in UP

This section begins with an overview of the Per Capita Net State Domestic Product of UP between the decade of 2011-12 to 2020-21. This analysis, using data from the Reserve Bank of India's (RBI) Handbook on Indian States (2020-21), looks at the trends in both current prices as well as constant (2011-12 prices).

2.2.1 UP Per Capita Net State Domestic Product at Constant Prices (in Rs.)



2.2.2 UP Per Capita Net State Domestic Product at Current Prices (in Rs.)



Source: Author's calculations based on data from RBI's Handbook on Indian States, 2020-21

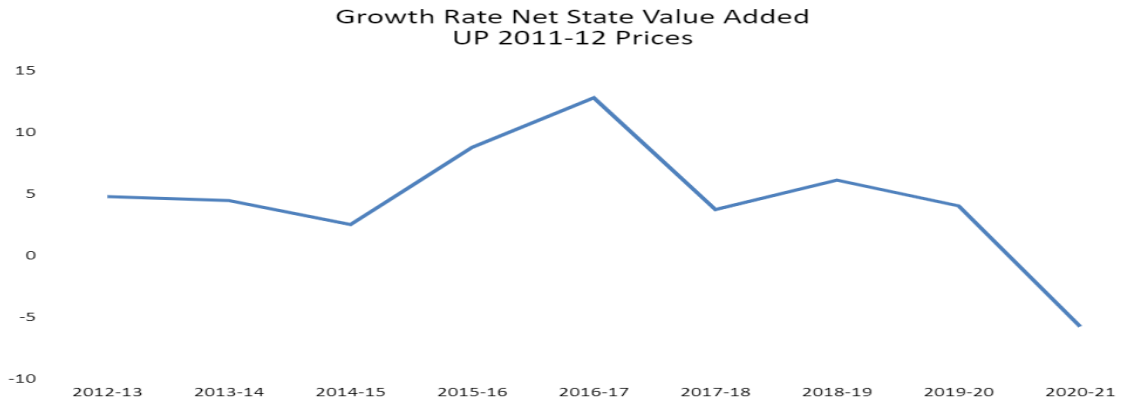
The status of UP in terms of its per capita Net State Domestic Product (NSDP) has not seen any convergence with the national level over the decade beginning 2011-12 to 2020-21. While Figure 1.1B shows that UP's per capita NSDP at current prices doubled from Rs. 32000 in 2011-12 to around Rs 65000 in 2020-21, its share as a percentage of national income has remained constant, at just 50 per cent of the all-India per capita NSDP (current prices), with no relative change over the decade.

Despite being the largest state in India in terms of population, ***UP's per capita NSDP continues to be just half of India's average*** owing to sluggish growth and subsequently marginal decline over the recent years. In fact, per capita NSDP of UP in 2018-19 (at 2011-12 Constant Prices) ranked 30th out of 31 states and Union Territories (UTs). The COVID-19 pandemic has only contributed to further sluggishness in growth, with a decrease in per capita NSDP in UP between 2019-20 and 2020-21. While this decline was not significantly large, it remains to be seen how UP will pace its economic recovery and move towards a path of convergence.

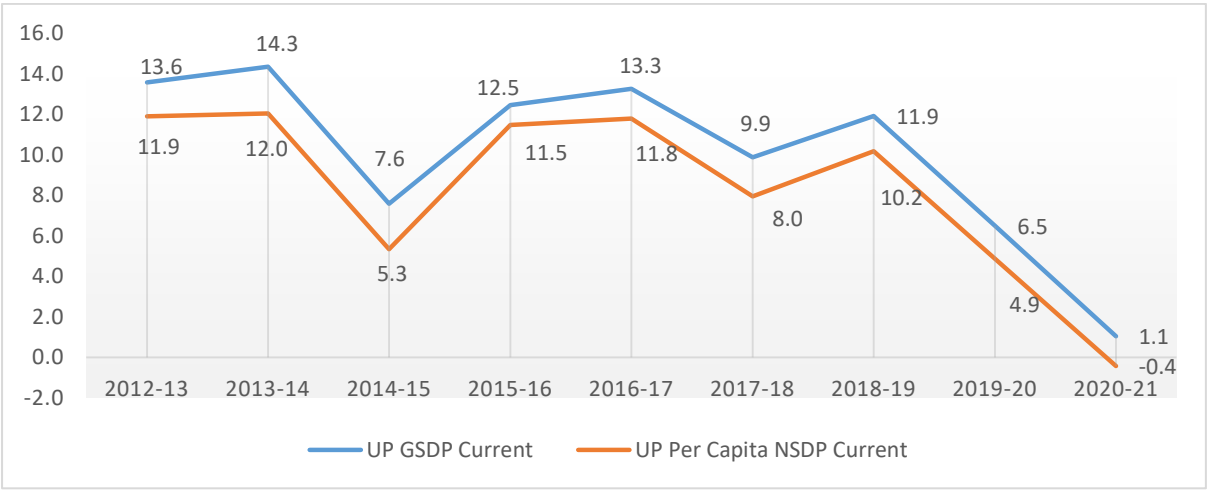
2.3 Economic Growth in UP from 2011-12 to 2020-21

This section looks at the economic growth in Uttar Pradesh over the decade from 2011-12 to 2020-21 in terms of growth rate of the Gross State Domestic Product (GSDP). This analysis, using data from the Ministry of Statistics and Programme Implementation (MOSPI) States GDP Time Series data, looks at the trends in both current prices as well as constant (2011-12 prices).

2.3.1 Annual Growth Rate in UP: Net State Value Added, Constant 2011-12 Prices



2.3.2 Figure 1.2B: Annual Growth Rate in UP: GSDP and Per Capita NSDP at Current Prices



Source: Author's calculations using data from MOSPI's States GDP Time Series Data

There has been a visible slow down in UP's economic growth (Figure 1.2B); in 2014-15, there was a significant decline in growth rate of UP's GSDP as well as per capita NSDP which fell to 5.3 per cent in 2014-15 from 12 per cent in 2013-14. This period saw a change in the political regime of the entire country, and growth rate gradually picked up and stabilised at around 11.5 per cent between 2015-16 and 2016-17. However, 2017-18 saw a further decline in per capita NSDP in UP to 8 per cent with UP's political regime change. Though there was some increase in 2018-19, UP has witnessed a steady fall in per capita NSDP since then, and actually became negative in 2020-21.

In terms of growth of its GSDP, UP has yet to reach back its own growth rate of 14.3 per cent per annum witnessed in 2013-14. As mentioned earlier, since 2018-19, there has been a steady and significant decline in UP's economic growth. This slowing down of economic growth is a pre-pandemic phenomenon, belying the lofty ambitions of achieving the trillion economy status.

At the same time, UP is the third largest state among 31 States and UTs in terms of Gross State Domestic Product (GSDP). However, GSDP growth in UP between 2011-12 and 2018-19 (at 2011-12 Constant Prices) ranked 17 out of 31 States and UTs, thereby showing little evidence of economic convergence. As stated earlier, there has been little convergence in the per-capita income of UP with that of the national average. Unless the state economy grows at a faster rate than the national average and out performs other states, there would not be any catching up. There is a pertinent need for faster economic growth, which should be inclusive, so that gains from growth reach everyone.

1.3. **Sectoral Distribution of Growth: Net State Value Added in UP**

The sluggishness in UP's growth is mainly due to sluggishness in the structural transformation of the economy. UP's economy still depends largely on agriculture, and the share of agriculture in Total NSVA in UP has increased in 2020-21, indicating a reversal of structural change. This is also witnessed in the falling share of the manufacturing sector in total NSVA as well as in some services/

2.3.3 Net state Value Added (NSVA) in UP (constant 2011-12 prices)

Sectoral Share	AGRI	MIN	MFG	UTL	CNS	THR	TSC	FS	RS PS	PA	Other Services	TOTAL NSVA
2017-18	22	3	16	1	12	11	8	4	13	6	5	100
2018-19	22	3	15	1	12	11	8	4	13	6	6	100
2019-20	22	2	14	1	12	11	8	4	13	7	6	100
2020-21	24	2	14	1	11	9	6	4	13	8	5	100
Sectoral Growth	AGRI	MIN	MFG	UTL	CNS	THR	TSC	FS	RS PS	PA	Other Services	TOTAL NSVA
2017-18 to 2018-19	4.4	-3.4	5.2	4.9	9.2	5.1	8.0	2.5	6.4	10.4	11.2	6.1
2018-19 to 2019-20	2.1	0.8	-3.5	3.5	3.2	6.5	11.9	2.5	6.1	12.0	7.2	4.0
2019-20 to 2020-21	5.3	-9.7	-5.6	1.6	-12.6	-20.2	-26.8	0.4	-1.3	10.4	-9.7	-5.8

Source: Author's calculations using data from Directorate of Economics and Statistics, Government of Uttar Pradesh.

Note: AGRI= Agriculture and Allied, MIN= Mining and Quarrying, MFG= Manufacturing, UTL= Utilities (including Electricity, Gas and Water Supply), CNS= Construction, THR= Trade, Hotels and Restaurants, TSC= Transport, Storage and Communication, FS= Financial Services, RS PS= Personal Services, PA= Public Administration

In terms of growth rate of NSVA, while agriculture saw an increase of 5.3 per cent between 2019-20 and 2020-21, there was a corresponding decline in growth of manufacturing by 5.6 per cent. Interestingly, the only sectors showing significant growth in NSVA in the period 2019-20 to 2020-21 were agriculture, and public administration (10.4 per cent), and

marginal increase in utilities and financial services. However, all the other sectors showed significant decline in growth of NSVA during this period, the highest decline being in the transport, storage and communication sector (26.8 per cent), trade, hotels and restaurants (20.2 per cent), construction (12.6 per cent) and manufacturing. While most of these sectors were hit by the pandemic, the decline in manufacturing had started earlier on itself before 2019-20.

The dependence on agriculture for economic growth as well as livelihoods continues in UP with a slow pace of structural transformation. This is more starkly visible in the Eastern parts of UP which show overall poor economic indicators (for instance, Mamgain and Verick, 2017). This has been exacerbated by the pandemic but not necessarily caused by it as seen above.

2.4 Gross District Domestic Product in UP: 2019-20

This section looks at the district level growth in UP for the year 2019-20, just before the onset of the pandemic and subsequent lockdowns in 2020. In the previous section, there was clear evidence of 'deindustrialisation' in UP in terms of declining share of manufacturing in NSVA and absolute decline in growth rate of manufacturing in 2019-2020. There is also an indication of a move back towards agriculture.

2.4.1 Gross District Domestic Product in UP: 2019-20 at Current and Constant 2011-12 prices (Rs. Crore)

Rank	Top 10 Districts	Constant	Current	Rank	Bottom 10 Districts	Constant	Current
1	Gautam Buddh Nagar	93820	128470	66	Kaushambi	6215	9418
2	Agra	36838	54114	67	Lalitpur	5925	9310
3	Lucknow	36383	52074	68	Amethi	6108	9198
4	PrayagRaj	34512	49922	69	Bhadohi	5803	8591
5	Meerut	33043	47928	70	Mahoba	6339	8526
6	Kanpur Nagar	28482	41808	71	Balrampur	5488	8420
7	Bareilly	25788	39606	72	Auriya	4341	6990
8	Ghaziabad	28117	38451	73	Sant Kabir Nagar	3930	6259
9	Bulandshahr	21037	32166	74	Chitrakoot	3728	5127
10	Gorakhpur	18897	29061	75	Shravasti	2447	3878

Source: Author's calculations using data from Directorate of Economics and Statistics, Government of Uttar Pradesh

The regional divide in UP's economic growth has been significantly widening. With respect to the Gross District Domestic Product (GDDP) in UP for 2019-20 (at 2011-12 Constant Prices), the lowest levels were noted for Sant Kabir Nagar, Chitrakoot and Shravasti which were as low as just half of UP's average, which itself is half of India's average. The highest GDDP within UP was noted in Gautam Buddha Nagar (almost 38 times that of Shravasti), followed by Agra, all not very far from the National Capital Region (NCR).

In 2019-20, in terms of GSDP at current prices, the share of Western UP is 50 per cent, while that of Eastern UP is 28 per cent; 17 per cent for Central UP and 5 per cent for the Southern Region. This indicates massive inter-regional differentials in growth, with most of the growth concentrated in Western parts of UP. Overall, the top districts have a proportionally higher share in state GSDP, and include some of the districts in UP with an industrial sector. The approximate share of Gautam Budh Nagar in UP's GSDP is 8.6% while the share of Shravasti is just around 0.26%. Most of the Districts with high GSDP are relatively well developed and have been centres for industry, trade and commerce historically. Economic growth therefore has been led by Western UP.

Per-Capita Income in UP 2019-20 at current prices) has also therefore been highly uneven. The per-capita income of Gautam Budh Nagar (NOIDA, which is part of the Delhi National Capital Region) is over 6.12 lakh while it is just around 32000 for Sant Kabir Nagar. The ratio of the top district's per capita income to the bottom district is 19.2. Overall, in UP, average per-capita income was 65700 in 2019-20. Even if Gautam Budh Nagar is treated as an outlier being a part of NCR, the poorest district's per capita income is less than half of the state average, highlighting massive inter-regional and inter-district inequality. .

2.4.2 Per Capita Income in UP: 2019-20 at current prices (In Rs.)

Rank	Top Districts	Income Per Capita in Rs Current	Rank	Bottom Districts	Income Per Capita in Rs Current
1	Gautam Budh Nagar	612617	66	Ambedkar Nagar	39896
2	Meerat	127306	67	Raebareli	39104
3	Agra	106354	68	Shravasti	37376
4	Eta	101878	69	Siddhart Nagar	37334
5	Hamirpur	100673	70	Pratapgarh	36507
6	Amroha	97175	71	Balia	36032
7	Lucknow	95990	72	Jaunpur	34762
8	Hapur	91764	73	Baraich	33344
9	Kanpur	86709	74	Balrampur	32733
10	Mahoba	83593	75	Sant Kabir Nagar	31981

Source: Author's calculations using data from Directorate of Economics and Statistics, Government of Uttar Pradesh

In terms of constant 2011-12 prices, India's per capita income in 2019-20 was Rs. 94566, almost double that of UP which was recorded at Rs. 44618. While Gautam Budh Nagar remained the top district in terms of per capita income followed by Meerut and Agra, Sant Kabir Nagar and Bahraich were at the bottom across districts.

It is thus evident that the bottom tier districts have per-capita incomes less than half of the state average. Also, in 2019-20, just 29 districts were above the per-capita state average income, while the rest of the districts had their per-capita income below that of UP's per-

capita state average income. In sum, UP's growth has been fluctuating since 2011-12, and started to decline post 2017-18. There are wide sectoral and regional differentials in UP's economic growth, with continuing dependence on agriculture.

2.5 Summarising the Chapter

To sum up, even though UP might be the largest state in India in terms of population, the Per Capita Net State Domestic Product (NSDP) of UP is just half of India's average owing to sluggish growth and subsequently marginal decline over the recent years. In fact, Per Capita NSDP of UP in 2018-19 (at 2011-12 Constant Prices) ranked 30th out of 31 states and Union Territories (UTs). At the same time, UP is the third largest state among these 31 States and UTs in terms of Gross State Domestic Product (GSDP). However, GSDP growth in UP between 2011-12 and 2018-19 (at 2011-12 Constant Prices) ranked 17 out of 31 States and UTs, thereby showing little evidence of economic convergence.

Further, the regional divide in UP's economic growth has been significantly widening. With respect to the Gross District Domestic Product (GDDP) in UP for 2019-20 (at 2011-12 Constant Prices), the lowest levels were noted for Sant Kabir Nagar, Chitrakoot and Shravasti which were as low as just half of UP's average, which itself is half of India's average. The highest GDDP within UP was noted in Gautam Buddha Nagar (almost 38 times that of Shravasti), followed by Agra, all not very far from the National Capital Region (NCR).

In terms of sectoral Net State Value Added (NSVA) in UP, a massive decline was noted in the manufacturing sector between 2016-17 and 2020-21 from 19 per cent to 14 per cent; the annual growth rate of the manufacturing sector became negative. Even the growth rate of the Construction sector has been declining and now shows a negative growth rate. In the recent period (2019-20 to 2020-21), the decline in growth rate has been the highest (almost 20 per cent) for Transport, Storage and Communication (TSC) and Trade, Hotels and Restaurants (THR) sectors, which are among the major employment generating sectors in the economy. The economic situation of UP has therefore become even more worrisome over the last few years, further exacerbated by the COVID-19 pandemic.

3 Income, Deprivation, Poverty and Inequality in Uttar Pradesh

3.1 Preview and Highlights of the Chapter

This chapter uses data from the Periodic Labour Force Surveys (PLFS) to understand the average income levels in UP, measured by consumption expenditure per month by individuals. A major benefit of using PLFS data for 2017-18, 2018-19 and 2019-20 is that it provides a detailed unit-level analysis over the reign of the new political regime, and it also covers the period of the COVID-19 pandemic. Between 2011-12 and 2019-20, rural poverty in UP increased from 38 per cent to 55 per cent and urban poverty increased from 46 per cent to 58 per cent.The regional divide between UP and Western and Eastern UP is again clearly visible. Moreover, there is significant evidence of income disparity between different religious and social groups in UP.

Highlights of the Chapter

- Trends in per capita consumption expenditure
- Poverty Ratio in UP
- Deprivation and Inequality in UP

3.2 State-wise Consumption Expenditure in India: 2017-18 to 2019-20

This section begins with an analysis of the PLFS data to arrive at figures for the Monthly Per Capita Expenditure (MPCE) across states in India as an indicator of standard of living. To start with, the average monthly individual per capita consumption expenditure has been computed. The rankings across states and UTs are based on their performance with respect to Per Capita MPCE in 2019-20.

It is evident that UP performs much worse than the All-India average in terms of per capita MPCE. While UP ranks largest in terms of population, on the economic front, it turns out to be amongst the states with the lowest per capita consumption, pointing towards a lower standard of living compared to several other states / UTs in India.

For economic development, it is imperative that there be (inclusive) economic growth. However in recent years, there has been an economic slowdown in India which has been further exacerbated by the COVID-19 pandemic, and the state of Uttar Pradesh has also not been immune to it. As seen in the previous chapter, the growth rate of GSDP in UP has been continuously falling. While it is expected that there would be an economic recovery in the country post the aftermath of the pandemic, GSDP of UP is not expected to grow beyond 6% in 2020-21. This will further impact the standard of living in UP.

As the table shows, the best performer in 2019-20 in terms of per capita MPCE was Pondicherry (Rs. 4559), and the worst performer was Bihar (Rs. 1478). Out of 36 states and UTs, UP ranks amongst the bottom-most performers in terms of per capita MPCE which is

just around one-third of the best performer. The only states performing worse than UP in this regard are Jharkhand, Odisha, Chhattisgarh, and Bihar, all part of the BIMAROU[1] states. However, UP now shows trends of lagging behind even the BIMAROU states, which can be argued as follows.

3.2.1 Individual Monthly Per Capita Consumption Expenditure (Rs.)

Rank	State & U.T.	17-18	18-19	19-20	Rank	State & U.T.	17-18	18-19	19-20
1	Pondicherry	3391	3688	4559	19	Sikkim	2073	2114	2482
2	A & N Island	4095	4928	4413	20	Manipur	2149	2617	2478
3	Delhi	3764	3893	4183	21	J.K. & Ladakh	2313	2351	2475
4	Chandigarh	4589	4755	3668	22	H. Pradesh	2091	2236	2419
5	Lakshadweep	3271	2528	3417	23	Karnataka	2099	2192	2317
6	Goa	3650	3543	3353	24	W. Bengal	1880	2074	2297
7	Kerala	2858	3081	3238	25	Meghalaya	2038	2103	2245
8	Punjab	2970	3151	3186	26	Uttaranchal	2217	2169	2221
9	Daman & Diu	3451	3044	3024	27	Tripura	2246	2368	2196
10	D & N Haveli	2477	2367	2905	28	Assam	1825	1867	2096
11	Mizoram	2625	2556	2889	29	Rajasthan	1863	1984	2063
12	Tamil Nadu	2784	2910	2875	30	Nagaland	1867	1523	1951
13	Haryana	2298	2737	2745	31	M. Pradesh	1491	1616	1736
14	A. Pradesh	2358	2630	2682	32	U. Pradesh	1473	1580	1678
15	Gujarat	2149	2307	2588	33	Jharkhand	1453	1528	1676
16	Telangana	2184	2291	2532	34	Orissa	1361	1510	1647
17	Ar. Pradesh	2442	2666	2506	35	Chhattisgarh	1225	1358	1584
18	Maharashtra	2219	2333	2497	36	Bihar	1268	1346	1478

Source: Author's calculations using unit-level data from various PLFS rounds

As mentioned earlier, it is not just a slowdown in economic growth for UP but also slowdown in relative economic growth with respect to other states. While Bihar ranks both in terms of GSDP growth as well as per capita MPCE, it has been showing consistent economic growth recently.

This is not so in the case of UP, where economic growth as well as consumption patterns are at slowdown. Other states with lower per capita income and MPCE such as Chhattisgarh and Madhya Pradesh also have been outperforming Uttar Pradesh. While one should appreciate

[1] The BIMAROU states in India: Bihar, Madhya Pradesh, Rajasthan, Odisha and Uttar Pradesh, have continuously performed worse than other states in most socio-economic indicators. For instance, see https://www.livemint.com/Politics/2mYGqXDSb37bediFJmGUvL/Indias-BIMARU-states-developing-but-not-catching-up.html

the improvement in GSDP in states ranking lower than UP against all odds, it is necessary to deliberate upon the contemporary economic failure of Uttar Pradesh.

3.3 Poverty Ratio in UP: 2011-12 vs 2019-20

Immediately following from the discussion on per capita MPCE across states, and the abysmal performance of UP, this section delves into estimating the poverty ratios in UP. These poverty ratios are compared between 2011-12 and 2019-20, over a decade. The estimation has been done as follows.

After having computed the per capita MPCE across individuals in Uttar Pradesh, these were sorted and ranked by percentiles. Simultaneously, using corresponding percentiles from the poverty line estimates provided by the Rangarajan Committee on Estimation of Poverty[2], the MPCE was inflated using the Consumer Price Index, in conjunction with the basket of consumption considered by the Rangarajan Committee. Once these are comparable, the corresponding percentiles of the per capita MPCE levels were matched with the percentiles of the Poverty Line levels given by the Rangarajan Committee. This is how poverty lines have been arrived at for Uttar Pradesh, rural and urban. By this method, the Rural Poverty Line was estimated at Rs. 1335 and Urban Poverty Line in Uttar Pradesh was estimated at Rs. 2008. The following section talks about these findings in detail.

Rationale for using Rangarajan Committee Methodology to estimate Poverty:

This study uses the Methodology given by the Rangarajan Committee to estimate poverty or the following reasons:

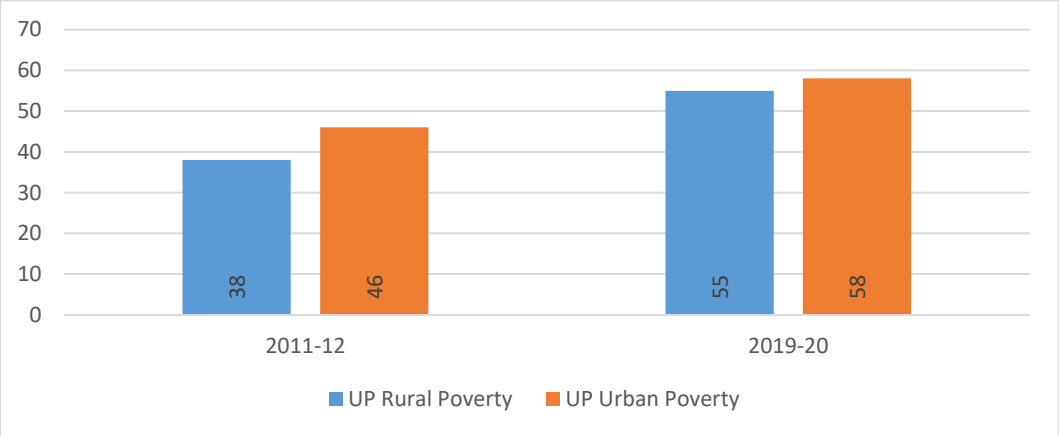
- This methodology reverts to using separate rural and urban poverty line baskets which is imperative to this study
- It uses the Modified Mixed Recall Period instead of the Mixed Recall Period, leading to more precise estimates .
- The Rangarajan methodology, unlike the Tendulkar methodology, anchored the poverty-line back to calorie norm (but as a bandwidth) taking into account the food basket in consumption expenditure and schemes on nutrition.
- It used consumption expenditure data from National Sample Surveys instead of National Accounts Statistics, which is somewhat comparable with the PLFS

[2] The Expert Group to Review the Methodology for Measurement of Poverty, headed by Dr. C. Rangarajan was constituted by the Planning Commission in June 2012 and submitted its report on 30th June 2014:

https://niti.gov.in/planningcommission.gov.in/docs/reports/genrep/pov_rep0707.pdf

- The Rangarajan methodology reconfirmed its findings using a different approach with CMIE data as well.

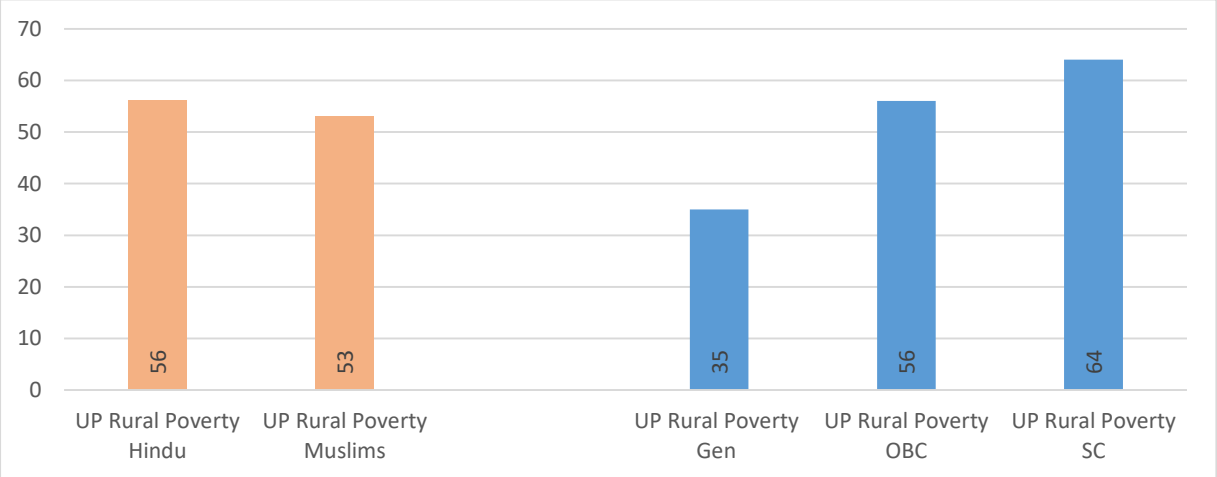
3.3.1 Rural and Urban Poverty in Uttar Pradesh over the past decade



Source: Author's calculations using unit-level data from NSS 2011-12 and PLFS 2019-20

As seen in Figure 2.1, rural poverty ratio (percentage of people below the poverty line estimated by this study at Rs 1335), shot up from 38 per cent in 2011-12 to 55 per cent in 2019-20. At the same time, urban poverty ratio increased from 46 per cent to 58 per cent. Interestingly, urban poverty ratio has remained higher in Uttar Pradesh as compared to rural poverty ratio, but the gap has been decreasing over the last decade.

3.3.2 Rural Poverty Ratio across groups: Uttar Pradesh, 2019-20



Source: Author's computations using unit-level data from PLFS 2019-20

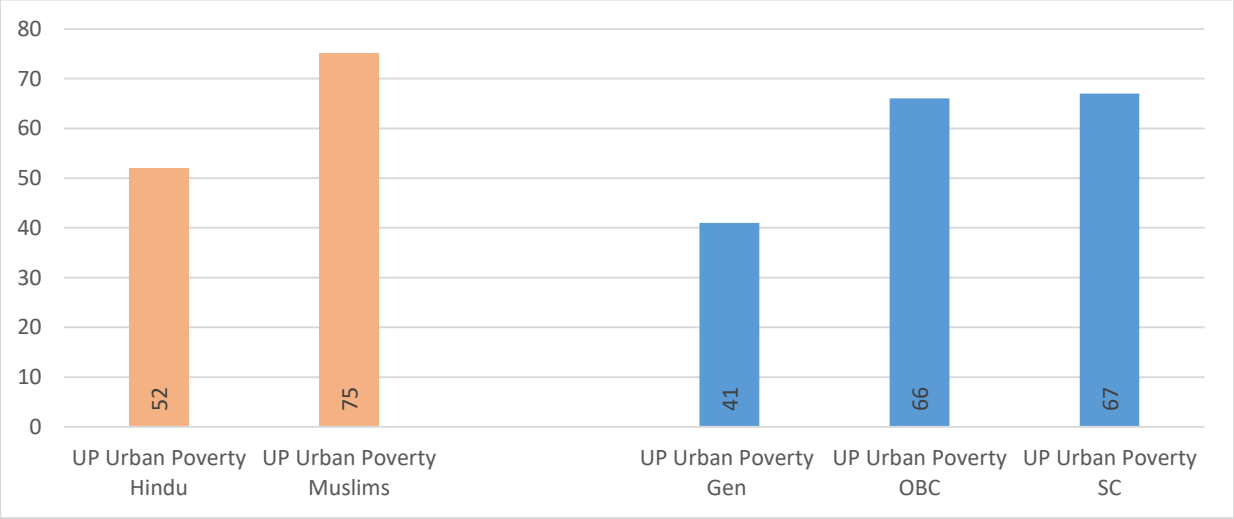
In rural Uttar Pradesh (Figure 2.2), more than half the Hindu and Muslim populations fell below the poverty line, which means their per capita monthly expenditure was below Rs 1335. In addition, within the social groups (castes) in rural UP, poverty was highest (more

than 50 per cent) for Other Backward Classes (OBCs) and Scheduled Castes (SCs), almost double that of the general rural population. The backward caste groups are also the much poorer groups.

A very similar trend for between-group poverty is seen in urban UP as well (Figure 2.3). However, the differentials between Hindus and Muslims are much wider in the urban case. While half the Hindu urban population in UP falls Below Poverty Line (BPL), almost three-fourth of the urban Muslims are poverty-stricken. There is massive poverty in UP, which is to be expected given the abysmal growth of GSDP especially over the last few years, only some of it attributable to the pandemic. Within social (caste) groups in urban UP, there are stark differentials again, with OBCs and SCs showing more than 20 percentage points higher poverty as compared to the general population.

All these trends point to a systemic policy failure in UP, with continuously low growth rates of GDP coupled with high rural and urban poverty, and among the lowest per capita monthly consumption expenditures. This is coupled with wide inter-group (both religion and caste) differentials. This cannot just be a result of an exogenous shock like the pandemic. The pandemic did, however, worsen the already abysmal socio-economic situation in UP.

3.3.3 Urban Poverty Ratio across groups: Uttar Pradesh, 2019-20



Source: Author's computations using unit-level data from PLFS 2019-20

Next, the regional poverty in Uttar Pradesh is examined. The discourse on regional divide in Uttar Pradesh is not new. It has been well-documented that wide economic differentials especially in terms of per capita income exist within UP, and even within regions as well; the western region in UP fares much better in terms of per capita income, while the ***eastern region lags far behind***, and the central region has not been showing signs of convergence. (for instance, see Diwakar (2009), Arora and Singh (2015), and Kumari (2016)).

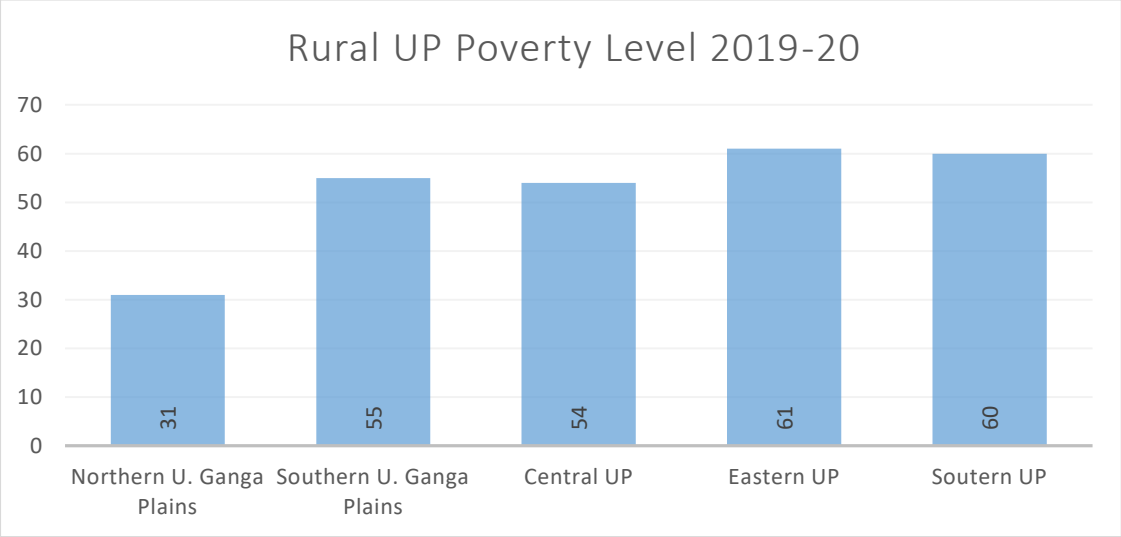
In the following section, regional poverty is analysed separately for rural (Figure 2.4) and urban (Figure 2.5) UP. The regions inUP have been divided as per NSSO-region classification

by the National Sample Survey Organisation (NSSO), which is continued in the PLFS as well. As per this classification, UP is divided into 5 main regions:

(i) Northern Upper Gangetic Plains, (ii) Southern Upper Gangetic Plains, (iii) Central UP, (iv) Eastern UP and (v) Southern UP.

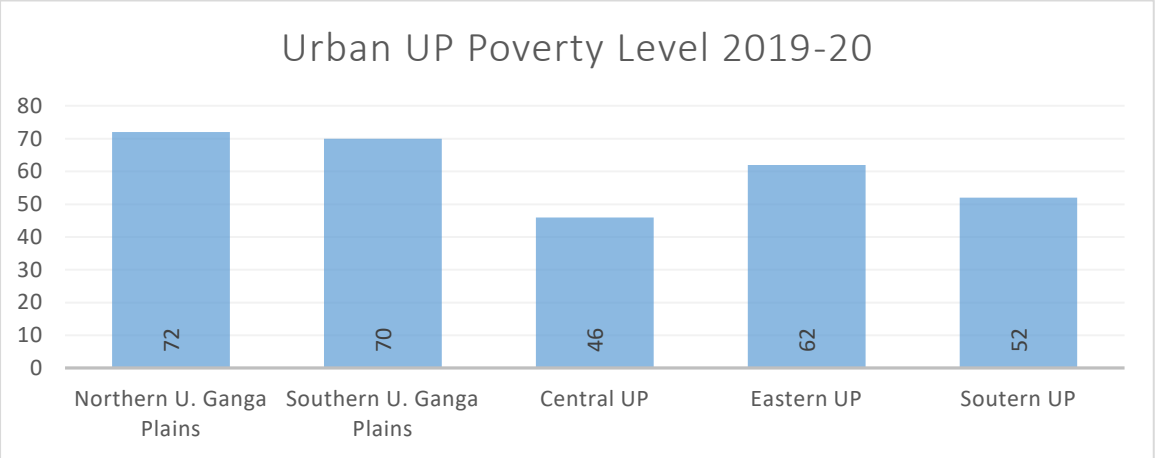
The poverty ratio across these regions has been compared for rural and urban areas separately. In the case of rural UP, just under two-thirds of Eastern and Southern regions fall below the poverty line. The least poverty in rural UP is noted in the Northern Upper Gangetic Plains (though still at a whopping 31 per cent), the most fertile and agrarian based economy which benefited from the era of Green Revolution. However, poverty is still very high (over half the population) in Southern Upper Gangetic Plains and Central UP. This scenario is somewhat reversed in case of urban UP. Almost three-fourth of urban population in the Northern and Southern Upper Gangetic Plain were below poverty line in UP in 2019-20, followed by another 60 per cent in Eastern UP and 50 per cent in Southern UP. Central UP fared relatively better in terms of urban poverty. However, almost half the urban population in Central UP in 201920 was found to be poor. The state of poverty in UP is indeed very worrisome.

3.3.4 Regional Poverty Level of Rural UP: 2019-20



Source: Author's computations using unit-level data from PLFS 2019-20

3.3.5 Regional Poverty Level of Urban UP: 2019-20



Source: Author's computations using unit-level data from PLFS 2019-20

Immediately following from the discussion on poverty is the issue of 'deprivation'. While there may be several different aspects in which individuals and/or groups may be deprived, this report looks at deprivation in the following manner. Using data from the Socio-Economic Caste Census (SECC), 2011 and its indicators of deprivation, households (rural) can be considered to be deprived if they fulfil one or more of the following 7 criteria:

(i) Households with one or less room, kuccha walls and kuccha roof, (ii) No adult member in household between age 18 and 59, (iii) Female headed household with no adult male member between age 16 and 59, (iv) Households with differently-abled member with no other able-bodied adult member, (v) SC/ST households, (vi) Households with no literate adult above age 25 years, (vii) Landless households deriving a major part of their income from manual labour. Based on fulfilling one or more of these parameters, (rural) households can be *counted* for deprivation. The deprivation across rural households is ranked by districts in UP in the table below.

3.3.6 Deprivation among UP Households (Rural): Top 20 Districts with High & Low Deprivation

Districts High Deprivation		Districts Low Deprivation	
40 – Chitrakoot	71.0	61 - Mau	46.2
49 – Bahraich	69.0	66 - Varanasi	45.4
23 – Sitapur	68.8	35 - Jhansi	44.8
20 – Pilibhit	67.9	63 - Jaunpur	43.2
39 – Banda	66.5	11 - Bulandshahr	42.6
69 – Sonbhadra	65.7	64 - Ghazipur	42.1
22 – Kheri	64.7	19 - Bareilly	41.0
58 – Kushinagar	64.0	36 - Lalitpur	40.9
25 – Unnao	63.9	07 - Meerut	40.3
21 – Shahjahanpur	63.8	14 - Mathura	35.2
41 – Fatehpur	63.7	15 - Agra	35.2
27 - Rae Bareli	63.0	60 - Azamgarh	34.7

32 - Kanpur Dehat	61.6	13 - Mahamaya Nagar	32.7
28 – Farrukhabad	61.3	08 - Baghpat	29.8
29 – Kannauj	61.3	05 - Rampur	28.8
33 - Kanpur Nagar	61.2	09 - Ghaziabad	28.6
43 – Kaushambi	61.0	06 - Jyotiba Phule Nagar	24.3
31 – Auraiya	61.0	01 - Saharanpur	23.4
50 – Shrawasti	60.6	02 - Muzaffarnagar	17.7
71 - Kanshiram Nagar	60.4	10 – G. Buddha Nagar	13.1

Source: Author's calculations using data from SECC 2011

The districts with the highest ranking in deprivation, i.e. the districts with more number of households eligible to be counted as deprived as per SECC criteria, are Chitrakoot from the Southern region in UP (Bundelkhand) followed by Bahraich and Sitapur in Central UP. Some of the least deprived districts in UP include Gautam Buddha Nagar, Muzaffarnagar and Ghaziabad, all in close proximity to the National Capital Region.

3.4 Inequality: Percentile Distribution of MPCE in UP post 2017-18

Another important aspect to be covered in conjunction with poverty and deprivation, is inequality. Inequality is also seen here with respect to the individuals' per capita monthly consumption expenditure levels. The analysis is further broken down into the following sub-sections:

A. Individual Per-Capita Monthly Consumption Expenditure of Uttar Pradesh,

B. Per capita MPCE in UP post 2017-18 by Religion,

C. Per capita MPCE in UP since 2017-18 by Social Groups,

D. Per capita MPCE in UP: Change between 2017-18 & 19-20, by Social Groups,

E. Per capita MPCE: Change between 2017-18 & 19-20: Rural vs Urban by Social Groups.

This is to gain perspectives into the different kinds of inter-group inequalities in terms of consumption in Uttar Pradesh.

3.5 Individual Per-Capita Monthly Consumption Expenditure of Uttar Pradesh

It is seen that the society in UP is highly unequal in terms of economic standing. There has been a steady increase in the consumption expenditure, but with wide disparity both within rural areas as well as within urban areas. In the case of rural UP, consumer expenditure of the 75th percentile is more than double that of the 10th percentile, implying that the more well-to-do populations fare much better than those with lower standards of living in terms of consumption expenditure. In short, the divide between the 'rich' and the 'poor' is massive. There has been a marginal decline in the average per capita consumption expenditure on account of the pandemic.

3.5.1 Individual Per-Capita Monthly Consumption Expenditure- Rural UP

Percentile	Average MPCE in Rs.				Percentage Deviation from Average			
Rural	17-18	18-19	19-20	April-June'20	17-18	18-19	19-20	April-June'20
10%	667	750	833	830	53	55	57	59
25%	833	986	1000	1000	66	73	69	71
50%	1125	1200	1286	1250	89	88	89	89
75%	1500	1500	1667	1600	118	110	115	114
90%	2000	2000	2167	2000	157	147	149	143
AVG	1270	1360	1450	1400	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

3.5.2 Individual Per-Capita Monthly Consumption Expenditure- Urban UP

Percentile	Average MPCE in Rs.				Percentage Deviation			
Urban	17-18	18-19	19-20	Apr-Jun 20	17-18	18-19	19-20	Apr-Jun 20
10%	833	967	1000	900	37	42	40	39
25%	1125	1250	1357	1250	49	54	55	54
50%	1600	1667	1900	1714	70	72	77	75
75%	2500	2667	2857	2625	110	114	115	114
90%	4500	4500	5000	4000	197	193	202	174
AVG	2280	2330	2480	2300	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

In the case of urban UP, the extent of inequality is marginally higher as compared to rural UP. Second, there is also a large rural and urban disparity in the per capita consumption. Within urban UP, in 2019-20, urban per capita monthly consumption expenditure for the 10th percentile was just Rs. 1000 while 90th percentile was Rs. 5000. Within urban UP, income disparity is much wider than seen in rural areas. During the pandemic times there was again a decrease in the per capita consumption expenditure.

In the urban areas, there was significant decline in the average per capita consumption. Even though the annual per capita consumption in 2019-20 was Rs. 2480, in April-June 2020, it came down to Rs. 2300. It is seen that in urban areas, consumption expenditure in 2017-18 for the 90th percentile was Rs. 4500, which marginally increased to Rs. 5000 in 2019-20, but came back down to Rs. 4000 in April-June 2020 due to the pandemic. However, the decline in per capita MPCE in lower strata is not as high as in upper strata.

In urban areas, per capita monthly consumption expenditure of the 10th percentile is nearly 40% of the average urban per capita consumption, while in the rural areas, 10th percentile consumption expenditure was 60% of the average rural per capita consumption. At the same time, in the urban 90th percentile, per capita consumption expenditure is nearly 200% of average urban per capita consumption, while in the rural areas, 10th percentile consumption was 150% of the average rural per capita consumption. Overall, at the bottom of the consumer pyramid, the extent of consumption inequality is greater in the urban areas than in the rural areas.

3.6 Per capita MPCE in UP since 2017-18 by Religion

This sub-section examines the per capita MPCE in UP across religious groups

3.6.1 Per Capita Monthly Consumption Expenditure across Religions

MPCE	17-18	18-19	19-20	Jan-Mar 20
Hindus	1488	1589	1684	1648
Muslim	1364	1521	1615	1606
Christians	3613	1923	1649	1449
Sikhs	2637	3075	3427	3846

Source: Author's computations using unit-level data from various PLFS rounds

The minority communities in 2017-18 and 2018-19 had a higher consumption level than Hindus and Muslims. However, given the lower proportion of Christians and Sikhs in UP's population, there may be fluctuations due to sample issues. PLFS being a representative sample, changes in consumption levels for minorities as a representative of population, have to be seen with some degree of caution.

In 2017-18, per capita MPCE of Christians was more than double that of the consumption level among Hindu community. However, the consumption level among Christians has been seeing constant decline between 2017-18 and 2019-20. However, in the April-June 2020 quarter, their consumption level declined to just Rs. 1000. In case of Sikhs, MPCE was increasing between 2017-18 and 2019-20. However, again there was a severe decline in MPCE on account of the pandemic. In the quarter of April-June 2020, MPCE of Sikhs was around Rs. 2000, double that compared to Christians. The decline was extremely severe in consumption levels for the two minority communities in UP.

Coming to a comparison of the larger communities of the Hindus and Muslims in UP, in 2017-18, the per capita level of consumption expenditure of Hindus was Rs. 1488, while for Muslims it was Rs. 1346, which increased for both groups in 2018-19. Again, in the quarter of April-June 2020, there was some decline in the consumption level for both Hindus and

Muslims. There is slight convergence between Muslims' and Hindus' consumption level in the period 2017-18 to 2019-20.

However, the average decline is just one part of the story. There is also inequality within each of the communities. The average may remain the same even if the distribution of income within a community changes significantly. From the point of view of inclusion, it is important to understand the distribution and change in consumption level for those that are at the lower consumption strata.

3.7 Per capita MPCE in UP post 2017-18 by Social Groups

This sub-section examines the per capita MPCE in UP across social groups. The general trend within groups shows marginal increase over time, but a decline post the pandemic as expected. However, when looking at between group differences, it is clear that the differentials of the backwards castes (both Scheduled Castes (SCs) and Other Backward Classes (OBCs)), with the general class are massive. While the per capita MPCE levels for OBCs is slightly better compared to SCs, both classes lag far behind the general class.

In the case of the General Community, between 2017-18 and 2019-20 there was an increase in MPCE of Rs. 340 The corresponding figures for the OBC and SC communities were Rs. 212 and just Rs. 190 respectively. While General community's individual MPCE is significantly higher than the OBC and SC communities, additionally, the increase in the General community's MPCE is much greater than that of the OBC and SC communities. This implies that the income inequalities are widening and show no signs of convergence at all.

3.7.1 Per-Capita Monthly Consumption Expenditure by Social Group

MPCE	**17-18**	**18-19**	**19-20**	**Jan-Mar 20**	**Apr-Jun 20**
SC	1228	1355	1418	1390	1361
OBC	1379	1454	1591	1588	1541
GEN	1957	2166	2297	2192	2133

Source: Author's computations using unit-level data from various PLFS rounds

3.7.2 SC & OBC Per Capita MPCE Deviation from General Class Per Capita MPCE

	17-18	18-19	19-20	Apr-Jun 20
Scheduled Castes (SCs)	63	63	62	64
Other Backward Classes (OBCs)	70	67	69	72
General (GEN)	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

It is seen that there has been a significant difference in the monthly per-capita consumption between SC, OBC as compared to General Community. Per capita MPCE of SCs is around 63% that of the General community, while in case of OBCs it is around 70% that of the General Community. There has not been convergence in the expenditure of SCs, OBCs and General Community. Given the lower average consumption level of SCs and OBCs, it is evident that the poverty level among SCs and OBCs will be higher than the General community. Given that the consumption expenditure of the General Community has been much higher than the other communities, this does not indicate inclusive economic growth. To reduce within group inequalities and differentials in poverty levels, and for overall growth, affirmative action is imperative.

3.8 Per capita MPCE in UP: Change between 2017-18 & 2019-20, by Social Groups

This sub-section deals with the disparity in the consumption levels across the caste pyramid for both rural and urban areas in Uttar Pradesh. In both cases, there are higher differentials within the upper strata than in the lower strata. However, while the caste inequalities widened significantly in rural areas, there seems to be some minimal catch-up between groups in urban areas.

In rural UP, the general trend across all percentiles is that the per capita MPCE for General community was much higher than that of the OBCs and the SCs. Overall, the average per capita rural MPCE in 2019-20 for General community was found to be Rs. 1747 while it was just Rs. 1444 for OBCs and just Rs. 1315 for SCs.

Also in terms of increment, average increase (between 2017-18 and 2019-20) in rural per capita MPCE for General Community was Rs. 278, while for OBC was Rs. 184 and SC was just 168. Notably, the highest increase was not in the bottom strata but rather in the upper strata. Thus rural OBC and SC communities' increase in per capita MPCE was far less than that of the General community, with SCs lagging furthest behind among all groups.

3.8.1 Rural MPCE by Caste across various Percentile

	Rural MPCE GEN			Rural MPCE OBC			Rural MPCE SC		
Percentile	17-18	19-20	Change	17-18	19-20	Change	17-18	19-20	Change
10%	727	917	190	667	833	166	643	760	117
25%	1000	1200	200	833	1000	167	800	938	138
50%	1250	1500	250	1143	1286	143	1000	1200	200
75%	1714	2000	286	1500	1667	167	1333	1500	167
90%	2400	2750	350	2000	2188	188	1750	2000	250
AVG	1468	1747	278	1260	1444	184	1147	1315	168

Source: Author's computations using unit-level data from various PLFS rounds

3.8.2 Urban MPCE by Caste across various Percentile

	Urban MPCE GEN	Urban MPCE OBC	Urban MPCE SC

Percentile	17-18	19-20	Change	17-18	19-20	Change	17-18	19-20	Change
10%	1000	1250	250	800	1000	200	800	1050	250
25%	1364	1667	303	1000	1286	286	1000	1300	300
50%	2250	2400	150	1433	1700	267	1400	1667	267
75%	3750	4000	250	2000	2500	500	2000	2500	500
90%	6250	6250	0	3571	3750	179	3214	3378	164
AVG	3104	3199	94	1875	2132	257	1759	2129	370

Source: Author's computations using unit-level data from various PLFS rounds

The story in urban UP is just a little different. In the 10th and 25th percentile urban SCs' MPCE was marginally higher than OBCs, while in the 75th percentile in 2019-20, urban MPCE for SCs and OBCs was Rs. 2500, which was much below that of the general at Rs. 4000. Wide disparity is also observed in the urban 90th percentile, where General community MPCE in 2019-20 was Rs. 6250 and for OBCs and SCs it was just Rs, 3750 and Rs. 1378 respectively.

There is a greater level of inequality in the higher strata than in the bottom strata, and the MPCE of SCs and OBCs do not differ much in the lower strata. Increase in per capita MPCE for rural OBCs and SCs was far less than General community. In the urban scenario, while SCs and OBCs do see an increase in per capita MPCE as compared to the General community, this marginal increase (especially for the SC community) at the upper strata (90th percentile) will make minimal change in catching up with the General community, whole MPCE is almost double that of SCs. If this trend continues, convergence will take a very long time.

3.9 Per capita MPCE in UP: Change between 2017-18 & 19-20: Rural vs Urban by Social Groups

This final sub-section looks a little deeper into these inequalities by comparing rural and urban scenarios. Rural figures are taken as a ratio of urban figures to understand exactly where rural UP stands vis-a-vis urban UP in terms of per capita MPCE. At the first glance, it is clear that the rural-urban differentials on average within the general community is much higher, as rural per capita MPCE is just half of urban per capita MPCE. It is slightly better in case of OBCs and SCs.

However, the average masks the picture between different consumption percentiles. The increase in per capita MPCE over time across groups shows a better catching-up process for the general community as compared to the OBCs and SCs. More interestingly however, the rural-urban differentials are not as significant in the bottom most percentiles, the differentials across all groups are largest in the 90th percentile. This is simply because per capita MPCE levels for the lower percentiles are much lower across rural and urban areas and the differentials therefore are minimum. The 'rich' in rural UP however, fare much worse than the 'rich' in urban UP.

3.9.1 Rural-Urban Divide in MPCE across Social Groups: Rural MPCE as %age of Urban MPCE

	Rural/Urban MPCE GEN		Rural/Urban MPCE OBC		Rural/Urban MPCE SC	
Percentile	17-18	19-20	17-18	19-20	17-18	19-20
10%	73	73	83	83	80	72
25%	73	72	83	78	80	72
50%	56	63	80	76	71	72
75%	46	50	75	67	67	60
90%	38	44	56	58	54	59
AVG	47	55	67	68	65	62

Source: Author's computations using unit-level data from various PLFS rounds

3.9.2 Caste & Regional Inequality: MPCE of Social Groups across Regions

Region	**GEN**			**OBC**			**SC**		
	17-18	18-19	19-20	17-18	18-19	19-20	17-18	18-19	19-20
N. Upper Ganga Plains	2176	2510	2128	1772	1752	1837	1555	1809	1714
Central	2300	2382	3043	1387	1546	1876	1226	1344	1532
East	1774	2047	1941	1285	1340	1388	1135	1215	1284
Southern	1739	1869	2498	1042	1362	1554	1051	1152	1321
S. Upper Ganga Plains	1718	1838	1994	1363	1407	1569	1258	1334	1473

Source: Author's computations using unit-level data from various PLFS rounds

Further, the study analyses caste and regional inequality in tandem across the 5 NSSO regions in UP. While there was significant increase in per capita MPCE for the general category across regions, the Northern Upper Gangetic Plains show a slack. However, this is not so for OBCs and SCs. The largest increase for OBC and SC communities was noted in the Central region. For the general community in Southern UP, the per capita MPCE between 2017-18 and 2019-20 almost doubled.

3.10 Summarising the Chapter

In sum, this chapter focussed on poverty, inequality and differentials between different groups across UP. Overall, per capita MPCE of UP was found to be Rs. 1768 in 2019-20 as per PLFS data. UP ranks 32 among 36 States and UTs in this regard.

Between 2011-12 and 2019-20, rural poverty in UP increased from 38 per cent to 55 per cent and urban poverty increased from 46% to 58%. In 2019-20, poverty in UP among castes showed the following trends; General Community (Rural 35 per cent, Urban 41 per cent), OBC (Rural 56 per cent, Urban 66 per cent), SC (Rural 64 per cent, Urban 67 per cent). Wide inter-group (caste) differentials are clearly visible. In 2019-20 poverty in UP across major religious groups was as follows: Hindu (Rural 56 per cent, Urban 52 per cent), Muslims (Rural 53 per cent, Urban 75 per cent). The differentials are wider in urban UP.

At the regional level in UP, it was found that there is comparatively lower poverty in the Northern Upper Gangetic Plains at 31 per cent, while it was almost double for most of the other regions, the worst situation being in Eastern UP.

The percentile distribution of per capita MPCE (based on PLFS) by social groups and religion shows little evidence of convergence or catching-up between different groups. Between 2017-18 and 2019-20, there was no convergence in the expenditure of the General Community, OBCs and SCs. A higher increment in per capita MPCE was noted for the General community, than OBCs, the least being for the SCs in rural UP.

Also, between 2017-18 and 2019-20, there is no evidence of convergence within each social group. There was a higher increment in per capita MPCE at the higher consumption strata than at the lower consumption strata, especially in rural UP.

Overall, there has been marginal convergence between rural and urban MPCE on account of constrained increase in urban per-Capita MPCE. There are significant differences between rural MPCE and urban MPCE for all social groups. The highest rural-urban divide was noted in the upper consumption strata. There was a higher rural-urban divide in the General community compared to OBCs and SCs. In the lower strata, MPCE of SCs and OBCs do not differ significantly, but there was significant inequality in higher strata.

4 Labour and Employment in Uttar Pradesh: PLFS 2017-18 to 2019-20

4.1 Preview and Highlights of the Chapter

Having looked at the trends in poverty and inequality in UP across groups and regions in terms of per capita MPCE, this chapter forges ahead to look at the trends in employment across UP. Using PLFS unit-level data again, employment in terms of usual principal and subsidiary status, along with social groups, religion and regional differentials are examined for UP. This is essential to understand the root cause of the income and consumption differentials within UP, as well as the overall performance (or lack thereof) in terms of economic growth as discussed in the previous chapter. In sum, there is evidence of under-employment as well as wide inter-group differentials in employment within UP.

Highlights of the Chapter

- Workforce and Labour force participation in UP
- Distribution of workforce by status
- Employment status in UP by social groups
- Employment status in UP by religious groups
- Employment status in UP by regions

4.2 WFPR & LFPR - Usual Status 2017-18 to 2019-20

This section begins with an overview of employment trends in UP. The table below presents employment in UP as per the Usual Principal Status (UPS) as well as the Usual Principal and Subsidiary Status (UPSS). The UPS is a measure of longer-term employment (of more than 6 months during a year). The UPSS also includes work done for a smaller part of the year (for a month) and hence marginally increases the employment figures provided by the UPS measure. Using both these approaches, the Labour Force Participation Rate (LFPR) and the Work Force Participation Rate (WFPR) have been calculated using unit-level data from the PLFS for 2017-18 to 2019-20. The workforce comprises all the employed people in an economy, while the labour force additionally includes the unemployed who are willing to work/seeking employment.

4.2.1 Employment Trends in UP

	All		Male		Female		Rural		Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
UPS										
WFPR	27.2	29.9	47.0	49.1	6.4	9.4	26.8	29.8	28.5	30.3
LFPR	29.2	31.4	50.6	51.9	6.6	9.8	28.5	30.9	31.6	33.3

UPSS										
WFPR	28.7	31.7	47.4	49.8	9.1	12.4	28.7	31.9	28.8	30.7
LFPR	30.7	33.2	51.0	52.6	9.4	12.7	30.3	33.1	32.0	33.7

Source: Author's computations using unit-level data from various PLFS rounds

On a positive note it is remarkable that WFPR of Uttar Pradesh has increased marginally from 28.2 in 2017-18 to 31.7 in 2019-20. However, Uttar Pradesh stands at the second bottom rank across states in terms of WFPR. Only Bihar with a WPFR of 26 per cent has a lower WFPR than Uttar Pradesh. Among the larger states, Andhra Pradesh, Telangana and Tamil Nadu have a WFPR of over 44 per cent. Even Chhattisgarh has a WFPR of 48.7 per cent. There is a significant scope of improving WFPR in UP.

At the same time it is important to note that workers who are employed in principal status (long-term), seen from WFPR by the UPS approach, reveals that the workforce is still under 30 per cent overall.

The second issue is that of the gender dimension in employment. WFPR in UP for women was below 10 per cent in 2017-18, which rose to 12.4 per cent in 2019-20. However, in the case of Males, WFPR was as high as 50 per cent. Thus there is a clear gender divide in terms of Workforce participation rate in UP. There are also a handful of states that have similar or marginally lower female WFPR as Uttar Pradesh such as Assam (10.7 per cent), Haryana (11.2 per cent); the lowest being Bihar (6.3 per cent). However, there are states with high female WFPR such as Himachal Pradesh (50.3 per cent), Sikkim (48.2 per cent) and even Chhattisgarh (39.5 per cent) that have been outperforming Uttar Pradesh.

While rural and urban WFPR are at a similar level with 32 per cent and 30.7 per cent respectively, the slightly higher rural WFPR is due to higher Female WFPR in rural areas (13.3 per cent) than as compared to urban areas (9.0 per cent). There is evidence that less than 10 per cent of urban females are in the workforce in UP, which is again the second lowest in the country. A large state such as Uttar Pradesh is endowed with vast labour resources, and it is necessary to bring down the gender divide in terms of employment to aspire to reach up to the leading states. Again, the urban WFPR also needs to be increased. One way could be by extending MGNREGA to the urban areas as well.

4.2.2 Uttar Pradesh Workforce and Labour force (Millions): UPS & UPSS

	All		Male		Female		Rural		Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
UPS										
Workforce	60.3	68.1	54.5	58.4	6.7	10.3	45.7	51.8	14.7	16.3
Labour force	64.7	71.6	58.6	61.6	7.1	10.6	48.6	53.9	16.4	17.9
UPSS										
Workforce	63.7	72.2	54.9	59.2	9.7	13.5	48.8	55.6	14.9	16.5
Labour force	68.1	75.8	59.0	62.5	10.0	13.9	51.7	57.6	16.5	18.1

Source: Author's computations using unit-level data from various PLFS rounds

In terms of numbers, the workforce of UP increased from 63.7 million in 2017-18 to 72.2 million in 2019-20 thereby increasing by 8.5 million. Also, in terms of male workforce it increased from 54.9 million to 56.2 million, but at the same time there has been a significant increase in female workforce from just 9.7 million to 13.5 million. Thus the high number of female workforce has led to an increase in the overall Workforce. However, the nature of employment created is just as important to be studied.

Employment in Rural UP increased from 48.8 million in 2017-18 to 55.6 million in 2019-20 while in urban UP it increased from 14.9 million in 2017-18 to 16.5 million in 2019-20. Rural Uttar Pradesh seems to have been the centre of jobs with 6.8 million jobs added while in urban areas just 1.6 million jobs were added. Again, the sector and nature of employment generated is equally important to note.

4.3 Distribution of Work Force: Percentage Shares by Status

This section looks at the nature or status of employment in UP. While there seems to be evidence of an 'increase' in employment in UP, it remains to be seen what kinds of jobs are actually being generated. The first step is to look at employment activity status, in terms of whether the jobs are regular salaried, or casual wage employment or self-employment. The table below provides an overview of this aspect for UP's employment trends.

4.3.1 Activity status of Employment in UP: 2017-18 & 2019-20

	All	Male	Female	Rural	Urban

	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
UPS										
SELF	48.0	46.6	50.3	50.2	30.4	26.4	50.3	49.0	39.8	38.0
HELP	13.9	17.3	11.3	12.1	34.2	45.6	15.2	19.7	9.2	9.0
REG	15.8	16.1	15.3	16.0	19.5	16.6	9.6	8.7	38.6	41.7
CAS	22.2	20.1	23.0	21.7	15.9	11.5	24.9	22.6	12.4	11.3
Workforce	100	100	100	100	100	100	100	100	100	100
UPSS										
SELF	46.8	44.8	50.1	49.7	28.8	24.2	48.7	46.7	39.6	38.0
HELP	16.8	20.9	11.7	13.1	44.5	53.6	18.7	24.0	9.8	9.5
REG	15.0	15.2	15.3	15.8	13.8	12.7	9.0	8.1	38.3	41.2
CAS	21.3	19.1	22.9	21.4	12.9	9.5	23.6	21.3	12.3	11.2
Workforce	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: SELF= Self-Employed, HELP= Helper in household enterprise, REG= Regular wage/ salaried worker, CAS= Casual labour

In terms of workforce distribution in UP, self-employment has been the leading source of employment. UP has not in fact been generating regular salaried wage employment. Just 15.2 per cent of UP's workforce was found to be engaged in regular salaried jobs in 2019-20. At the same time, the percentage of the workforce in casual wage employment has declined below 20 per cent. However, it still makes 1 in every 5 persons still working as casual labour.

4.4 Increase in Employment or 'Under-Employment' disguised as new Employment?

It is more worrisome that the percentage of the workforce engaged in non-remunerative employment (as unpaid helpers in household enterprises) has increased to 20.9 per cent. Thus, 1 in 5 workers work without getting any monetary rewards, wages or salaries. Even though they are considered employed, they remain at best under-employed and could have been better used as productive resources in other sectors of employment, had a sufficient number of jobs been created. Clubbing non remunerative employment along with remunerative employment may lead to the misleading picture of positive employment generation, which seems to have been the case for Uttar Pradesh.

The improvement in LFPR and WFPR seen in the 2019-20 round of PLFS for UP is therefore mostly on account of significant additions to the non-remunerative employment. One can reason that helpers in household enterprises do contribute to the economic output of the households, but this has also to be looked at from the perspective of the opportunity cost of the labour. It might be the case that a person's capability remains underutilized for lack of regular wage employment opportunities, leaving them with the only option of providing a helping hand to the households.

This may especially hold true in the case of the female workforce. It is seen that the recent increase in workforce has been due to increase in female workforce especially in unpaid employment. In 2017-18, 44.5 per cent of the female workforce was engaged in non-remunerative employment which further increased to 53.6 per cent in 2019-20. While on one hand the female workforce participation is low, on the other hand it is also seen that more than 50 per cent of the female workforce are working in non-remunerative employment.

4.4.1 Distribution of Work Force in UP (in Millions)

	All		Male		Female		Rural		Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
UPS										
SELF	29.0	31.7	27.4	29.3	2.0	2.7	23.0	25.4	5.9	6.2
HELP	8.4	11.8	6.2	7.1	2.3	4.7	6.9	10.2	1.4	1.5
REG	9.5	10.9	8.4	9.3	1.3	1.7	4.4	4.5	5.7	6.8
CAS	13.4	13.7	12.5	12.6	1.1	1.2	11.4	11.7	1.8	1.8
Workforce	60.3	68.1	54.5	58.4	6.7	10.3	45.7	51.8	14.7	16.3
UPSS										
SELF	29.8	32.3	27.5	29.4	2.8	3.3	23.8	26.0	5.9	6.3
HELP	10.7	15.1	6.4	7.8	4.3	7.2	9.1	13.3	1.5	1.6
REG	9.6	11.0	8.4	9.4	1.3	1.7	4.4	4.5	5.7	6.8
CAS	13.6	13.8	12.5	12.7	1.2	1.3	11.5	11.8	1.8	1.9
Workforce	63.7	72.2	54.9	59.2	9.7	13.5	48.8	55.6	14.9	16.5

Source: Author's computations using unit-level data from various PLFS rounds

At the same time it is seen that most of the (new) employment generation was in rural UP. However, the percentage of rural persons in non-remunerative employment has increased to 24 per cent, thereby one out of four rural persons are in non-remunerative employment. In urban UP, the percentage of workforce engaged in non-remunerative employment remains below 10 per cent, because of availability of relatively more remunerative non-agricultural jobs as compared to rural areas.

In terms of distribution of the workforce in million, the workforce in UP was 63.7 million in 2017-18 which increased to 72.2 million in 2019-20, almost increasing by 8.5 million. However, the number of persons in regular wage employment increased by just 1.4 million, from 9.6 million in 2017-18 to 11 million in 2019-20. Again, there was some increase in self-employment by 2.5 million, from 29.8 million in 2017-18 to 32.3 million in 2019-20. The highest increase however, is seen in case of non-remunerative employment from 10.7 million to 15.1 million between 2017-18 and 2019-20. However, it is important to note that the number of females engaged in non-remunerative employment almost doubled from 4.3 million in 2017-18 to 7.2 million in 2019-20. On a positive side the number of casual workers increased only marginally. Part of this could be attributed to the slowdown in construction work due to the lockdowns imposed for the pandemic.

4.4.2 Change in Workforce in UP: 2017-18 to 2019-20

	UPS PLFS 1- PLFS III					UPSS PLFS I- PLFS III				
	All	Male	Female	Rural	Urban	All	Male	Female	Rural	Urban
	Distribution of Workforce Change									
SELF	35	49	19	40	21	30	44	13	33	23
HELP	44	23	67	53	8	51	31	77	62	7
REG	18	25	11	2	71	17	23	10	1	68
CAS	3	3	3	6	1	3	3	1	4	2
	100	100	100	100	100	100	100	100	100	100
Workforce Change in Millions										
SELF	2.7	1.9	0.7	2.4	0.3	2.5	1.9	0.5	2.2	0.4
HELP	3.4	0.9	2.4	3.3	0.1	4.3	1.3	2.9	4.2	0.1
REG	1.4	1.0	0.4	0.1	1.1	1.4	1.0	0.4	0.1	1.1
CAS	0.3	0.1	0.1	0.3	0.0	0.2	0.1	0.0	0.3	0.0
WF	7.7	3.9	3.5	6.1	1.5	8.5	4.4	3.8	6.8	1.6

Source: Author's computations using unit-level data from various PLFS rounds

Note: SELF= Self-Employed, HELP= Helper in household enterprise, REG= Regular wage/ salaried worker, CAS= Casual labour

Also, just 17 per cent of the employment increment was in regular wage/ salaried employment. However, just 1 per cent of the increment in rural employment was towards regular employment, which is an abysmal situation.

In sum, as high as 62 per cent of the employment increment in UP post 2017-18 has been in case of non-remunerative employment, followed by 33 per cent in self-employment. This shows the prevalence of under-employment and dependence on precarious employment. However, this was not the case in the urban areas, where nearly 70 per cent of the employment increment was in regular wage/ salaried jobs.

It is seen that 77 per cent of the increase in the female Workforce between 2017-18 and 2019-20 was in the non-remunerative category. Overall more than half of employment increment was towards non-remunerative employment. The claim of employment generation in UP post 2017-18 thus falls flat. The tragedy is that the household helpers would be counted as employed when in actual fact they are unpaid helpers. The multi-faceted challenge UP faces is increasing consumption and income of households, which has taken a further hit on account of the pandemic.

4.5 Employment Status by Social Group

In terms of usual status and social groups, the percentage of the workforce in the self-employed category is around 50 per cent while it is around one-third for SCs in UP. Less than 15 per cent of the workforce from OBC and SC communities were found to be employed in regular salaried employment. But, with respect to the General Community, around one-fourth of the workforce is employed in regular salaried employment. While the percentage of SCs in casual wage work declined from nearly 40 per cent in 2017-18, to 36 per cent in 2019-20, there has been a corresponding increase in the unpaid employment from 13 per cent in 2017-18 to 18 per cent in 2019-20. There is wide disparity between employment patterns for SCs and General Community, given that just 7 per cent of the general community in UP is engaged in casual wage employment, but it engages more than one-third of the SC workforce.

4.5.1 Employment Status in UP by Social Groups

	SC		OBC		GEN	
UPSS	17-18	19-20	17-18	19-20	17-18	19-20
HH Ent. & Employer	37	35	50	48	52	51
HH Worker Helper	13	18	20	24	15	17
Regular Wage Worker	12	11	13	14	23	26
Casual Wage Worker	39	36	17	15	10	7
WFPR	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

One point that stands out is that the percentage of workforce in casual employment is higher in SCs followed by OBCs and least in General communities. Also, the percentage of

workforce in regular salaried employment is in the reverse order, with highest in General caste followed by OBCs and least in SCs. Again, the issue of non-remunerative employment that has been discussed earlier is highest in case of OBCs. Nearly one-fourth of OBCs are in unpaid employment. If these workers are provided with paid employment it would immensely raise the consumption and well-being of the OBCs and SC communities, which were found to be significantly below the General community consumption and income levels in the previous chapter.

4.5.2 Activity Status of Social Group as per Usual Principal Status: Male & Female

	SC Male		OBC Male		GEN Male		SC Female		OBC Female		GEN Female	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
Self	39	39	54	53	54	54	24	19	28	25	39	31
Helper	8	10	13	15	14	14	37	50	55	59	26	37
Regular	11	11	14	15	22	25	13	10	9	10	27	31
Casual	41	40	19	17	10	7	26	20	8	6	8	1
WFPR	100	100	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

While there are differences between SCs, OBCs and General community in terms of the nature of employment, there is also a divide between male and female workers across communities. In case of SC Males, 40 per cent of the workforce in 2019-20 was found to be employed in casual employment, while in case of General males it was just 7 per cent. This is a very large difference, and such a high dependence of a community on casual employment manifests into economic deprivation of the community. Similarly, 20 per cent of female SC workforce were engaged in casual employment, while it was just 1 per cent in case of general females. Even in the case of OBC females, just 6 per cent of the workforce were working in casual employment.

It is seen that while just around 10 per cent of the SC male and females were employed in regular employment, while the share is as high as 25 per cent and 31 per cent respectively for General Males and General Females. At the same time, nearly 60 per cent of the OBC Females, and 50 per cent of SC female workforce, were engaged in unpaid employment.

4.5.3 Activity Status for Social Groups by Usual Principal Status: Rural & Urban

	SC Rural		OBC Rural		GEN Rural		SC Urban		OBC Urban		GEN Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
Self	38	35	52	50	57	58	33	28	42	41	41	38
Helper	13	20	21	27	19	23	10	6	12	12	7	7
Regular	8	7	8	8	13	11	37	41	34	36	46	50
Casual	42	38	19	16	11	8	20	25	13	11	7	5
WFPR	100	100	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

The rural-urban divide is also as accentuated as the gender divide in employment. In rural areas of UP, the status of SCs, and OBCs remains repressed, with high dependence on self-employment. In rural UP, nearly 60 per cent of the general workforce, and 50 per cent of the OBC workforce are still dependent upon self-employment. Even though in the urban areas there is significant dependence on self-employment, it is much lower than that in rural areas. Around 40 per cent of the urban workforce in General and OBC workforce were self-employed in 2019-20. The main point of distinction is in the context of regular wage employment. In rural areas, just 7 per cent of SC workforce, 8 per cent of OBC workforce, and 11 per cent of General workforce were engaged in regular wage employment.

Thus, there is not much distinction between castes in terms of rural regular wage employment. Given the low level of regular wage employment, it is also one of the reasons that might be acting as a push factor in terms of rural to urban migration. In urban areas, there is very high employment in regular wage employment. It is seen that in urban areas, 41 per cent of SC workforce, 36 per cent of OBC workforce and 50 per cent of General category workforce were employed in regular wage employment. Thus, in anticipation of regular wage employment, there is a high rural to urban migration as seen in the contemporary times.

4.6 Employment Status by Religion

In terms of religion, there is apparently very little difference in terms of status of employment. However, in both the major religious categories in UP (Hindus and Muslims, as shown in the table below just around 15 per cent of the workforce are in regular wage

employment. In terms of self-employment, 45 per cent of the workforce is self-employed. Also, both in case of Hindu and Muslim workforce, around one-fifth of the workforce was in casual employment. There has been a marginal increase in the percentage of workforce in unpaid household enterprise work. Overall, there has not been much change in employment and there is not much of a wide disparity in employment pattern between Hindus and Muslims.

4.6.1 Status of Work in UP by Religion

	Hinduism		Islam	
UPSS	17-18	19-20	17-18	19-20
Self	47	45	47	45
Helper	18	21	12	18
Regular	15	15	15	16
Casual	21	19	25	21
WFPR	100	100	100	100

4.6.2 Usual Status of Work by Religion: Male & Female

	Hindu Male		Muslim Male		Hindu Female		Muslim Female	
UPSS	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
Self	50	50	49	47	27	23	40	35
Helper	12	13	9	13	47	55	32	44
Regular	15	15	16	17	15	13	7	8
Casual	22	21	26	22	12	9	21	12
WFPR	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

However, again there are clear gender differentials between Hindu and Muslim communities. While there is not much difference between male workforce in Hindu and Muslim communities, there is visible difference between Hindu and Muslim Female Workforce. In 2017-18, while 21 per cent of female Muslim workforce was in casual employment it declined significantly to just 12 per cent almost at par as compared to 9 per cent among female Hindu workforce. However, the decline in casual work among female Muslim workforce corresponds with a significant increase in the unpaid household

enterprise work. There has also been an increase in the unpaid household enterprise work among female Hindus, which increased to 55 per cent in 2019-20. Overall even though there is not much disparity between the religious groups, The gender differentials between groups is significant.

4.6.3 Usual Status of Work by Religion: Rural & Urban

	Hinduism Rural		Islam Rural		Hinduism Urban		Islam Urban	
UPSS	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
Self	49	47	49	47	38	36	44	43
Helper	19	24	13	21	9	9	11	12
Regular	9	8	9	8	43	46	27	29
Casual	23	21	29	24	10	10	18	16
WFPR	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Again as discussed earlier, the larger difference in employment pattern is seen in the context of rural and urban divide, while the disparity between Hindu and Muslims has not been as stark as expected. In rural UP, for both Hindu and Muslims, just 8 per cent of the workforce was engaged in regular wage employment. However, in urban areas, just over 45 per cent of Hindu workforce and around 30 per cent of female workforce was employed in regular wage employment. Thus there is a significant disparity between Urban Hindu and Muslim workforce. At the same time just 10 per cent of urban Hindu workforce was in casual employment which was marginally lower compared to Urban Muslim workforce.

At the same time, there is a marginally higher share of Urban Muslims in self-employment as compared to Urban Hindu workforce. However, in rural areas, nearly half of the Muslim as well as Hindu workers were engaged in self-employment. Even though there is not much wide religious disparity in UP, the situation of urban Muslims has much scope for improvement relatively. These differentials in employment are not just restricted to that of usual status, but there are wide disparities in terms of industry of work, and occupation of work, which would be discussed in the later chapters.

4.7 Region-Level Analysis of Employment in UP

There is predominance of self-employment among workers in Eastern UP and Southern Upper Ganga Plains with half of the workforce engaged in the self-employment category. However, the percentage of self-employed workers is around 40 per cent in Northern Upper Ganga Plains and Central UP regions. In southern UP, 27 per cent of the workforce are in unpaid household enterprise work, which is highest in UP. There has been an almost steep

decline in the percentage of workforce in regular wage employment in the Northern Upper Ganga Plain region, and steep increase in regular wage employment in Central UP. Also, there is predominance of casual workers (around 30 per cent) in Northern Upper Ganga Plain region, which is highest in UP, while in Central UP, just 16 per cent of the workforce were engaged in casual work in 2019-20.

4.7.1 Region and Usual Status: NSSO Regions

All UPS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
SE	40	41	49	41	52	50	39	43	50	49
HLP	7	11	14	17	13	17	26	27	17	18
RG	27	18	17	26	12	11	8	11	15	15
CL	26	29	20	16	24	22	27	20	18	18
WFPR	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

4.7.2 Usual Status of Work in Rural UP by Regions

Rural UPS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
SE	41	43	53	47	53	51	38	42	53	52
HLP	7	12	16	22	13	18	29	30	18	21
RG	18	14	7	10	9	8	4	6	9	8
CL	33	32	24	22	25	23	28	23	19	19
WFPR	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

In rural UP, the region with highest share of workforce in regular wage employment is Northern Upper Ganga Plains; this share declined from 18 per cent in 2017-18 to just 14 per

cent in 2019-20. In most of the regions, the workforce in regular wage employment is less than 10 per cent. In rural UP, across all 5 NSS regions, more than 40 per cent of the workforce are self-employed. In Eastern UP and Southern Upper Ganga Plains, the rural workforce's dependence on agriculture is more than 50 per cent. It is also worrying that 30 per cent of the workforce in southern UP work as Unpaid Household Enterprise Workers.

Also, in most of the regions, the percentage of workforce engaged as casual workers is more than 20 per cent, and in Northern Ganga Plains it is more than 30 per cent. Given that in most of the rural regions of UP, less than 10 per cent of the workforce is in regular wage employment, it can be challenging to bring remunerative and productive employment without government support and initiatives.

4.7.3 Usual Status of Work in Urban UP by Regions

Urban UPS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
SE	38	38	35	31	44	45	39	47	42	42
HLP	6	9	7	8	12	12	13	14	12	8
RG	44	30	49	54	32	32	28	31	32	36
CL	13	23	8	7	13	10	20	8	14	14
WFPR	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

The employment situation in urban UP is far better than rural UP. While in all the regions of UP, the percentage of Workforce in regular wage employment is more than 30 per cent, in Central UP, the percentage of urban workforce in regular wage employment is more than 50 per cent. On a positive note less than 10 per cent of urban workforce in Central UP and Southern UP are in casual employment, but it is almost one-fourth in case of the Northern Upper Ganga Plains.

Rural UP lags far behind in the regular wage employment, partly due to being agrarian in nature, and dependence on self-employment. However, non-agricultural regular wage employment opportunities should also be created in rural UP to increase the quality of employment, income and consumption levels. Given low agricultural wages, low earnings from self-employment and meagre casual work wages will not alleviate poverty in rural UP.

4.7.4 Usual Status of Work for UP Males by Region

Male UPS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
SE	41	44	52	46	53	53	50	55	52	52
HLP	7	9	11	10	11	13	14	12	15	14
RG	26	18	17	26	11	11	9	14	14	14
CL	26	29	20	18	25	24	27	19	19	20
WFPR	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

As far as male workforce is concerned, it is seen that in all regions there is high dependence on self-employment. In Northern Ganga Plains and Central UP, more than 40 per cent of male workers were engaged in Self-Employment, while in Eastern UP, Southern UP and Southern Ganga Plains more than half of workers were engaged in Self-Employment. In Central UP, more than one-fourth of male workers were in regular wage employment which is the highest in the state. However, in Northern Upper Ganga Plains, the percentage of male workforce in regular wage employment declined from 26 per cent in 2017-18 to 18 per cent in 2019-20. There are regions where there has been employment loss amongst regular wage workers. Moreover, nearly 30 per cent of male workforce in Northern Upper Ganga Plains were in casual employment. In most of the regions, the percentage of male casual workers is nearly one in five, which is by itself very high. There is a need to provide for formalization of these casual workers and provide them with social protection to reduce their socio-economic vulnerability.

4.7.5 Usual Status of Work for UP Females by Region

Female UPS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
SE	22	20	29	17	42	39	9	17	33	25
HLP	9	30	31	46	30	41	61	58	36	50

RG	42	20	23	26	16	11	6	5	21	22
CL	27	30	16	11	12	10	25	20	11	3
WFPR	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

In the case of female workforce of Uttar Pradesh, there is lower dependence on self-employment as a means of livelihood as compared with male counterparts. While in Eastern UP, nearly 40 per cent of the female workforce were in Self-employment in 201920, the lowest share is seen in Central UP, where just 17 per cent of female workforce were in self-employment. Overall there is a very high incidence of employment in unpaid household enterprise work for the female workforce in UP. In the Northern Upper Ganga Plains region, the percentage of females in unpaid family enterprise work increased from 9 per cent in 2017-18 to as much as 30 per cent in 2019-20. Nearly 60 per cent of the female workforce in Southern UP were in unpaid household work, and 50% per cent in the Southern Upper Ganga Plains.

In addition, there has been a significant decline in the percentage of women in regular wage from 42 per cent in 2017-28 to 20 per cent in 2019-20 in the Northern Upper Ganga region. While there has been a decrease in the casual employment for women workforce across various regions of UP, the shift is mostly towards household enterprise unpaid works. The ideal case would have been shift towards regular wage, but due to economic stagnation and pandemic, it might have been difficult to find even casual work, under which circumstance, the only economic option is to assist in unpaid household work, until economic opportunity for paid work becomes available.

4.8 Summarising the Chapter

In sum, the analysis presented in this chapter reveals the following points. The Labour Force Participation Rate (LFPR) in UP in 2019-20 as per the Usual Principal Status (main activity, longer-term of employment within a year) was merely 31.2, while subsidiary employment added to it marginally. There was only a marginal increase in employment from the 2017-18 level, pushed back by the pandemic.

More notably, there is a clear gender divide in LFPR in Uttar Pradesh. According to the Usual Principal and Subsidiary Status (UPSS) criterion, LFPR for women was just 12.7, while it was 52.6 for males. Overall, 6.8 million jobs were added in rural UP between 2017-18 and 2019-20 and just 1.6 million in urban UP. Self-employment has been the leading source of employment in Uttar Pradesh as a result.

The recent "improvement" in LFPR claimed by UP has essentially been on account of additions to non-remunerative employment (especially rural females). Workforce in non-remunerative employment in UP (as unpaid helpers in household enterprises) was found to

have increased to 21 per cent post 2017-18. Moreover, the percentage of rural persons in non-remunerative employment in UP formed as much as one-fourth of the workforce.

There are also wide inter-group differentials in employment across Uttar Pradesh. Just 7 per cent of General communities were found to be working in casual employment, but the corresponding figure for SCs was over one-third of the workforce in casual jobs. Additionally, 60% per cent of OBC females, and 50 per cent of SC female workforce, were found to be engaged in unpaid employment.

5 Employment Situation in UP as per PLFS 2017-18 to 2019-20

5.1 Preview and Highlights of the Chapter

This chapter expands on the analysis from the previous chapter and extends into further detail. Employment in UP is further examined by sectors and industry as well as in terms of occupations. Furthermore, the differentials as usual between different groups are also examined under each section. The final section also focuses on the aspect of educated unemployed, which has been on the rise since 2017-18 especially in UP. This chapter therefore sums up the labour and economic issues in UP which form the crux of the lag in UP's economic growth and social development.

Highlights of the Chapter

- Employment in UP by Industrial Sectors
- Employment by Sector and social groups in UP
- Employment by Sector and religious groups in UP
- Employment by Sector and Regions in UP
- Employment in UP across Occupational tiers

5.2 Employment by Industry

In terms of employment, the largest share of UP's workforce is in Agriculture employing more than half of the workforce of UP. It is important to answer the grievances of the farmers and address their issues for an inclusive growth agenda. From the employment perspective for one, the workforce is moving back to agriculture. Although in terms of structural change, workers move from the agriculture sector to the non-agricultural for higher productivity, UP shows a continuously regressive trend since 2017-18.

5.2.1 Employment in UP by Industrial Sectors

	All		Male		Female		Rural		Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
Agriculture	49	51	46	47	65	72	60	64	6	6
Mining	0	0	0	0	0	0	0	0	0	0
Manufacturing	11	11	11	11	13	8	8	7	23	24
Utility	0	0	1	0	0	0	0	0	1	1
Construction	14	14	16	16	2	3	15	15	9	9
Trade Hotels	13	12	14	13	7	7	8	7	29	31
Transport Comm.	4	3	5	4	0	0	3	2	8	7
Financial Business	1	1	1	1	1	1	1	1	4	4
Community Social	8	8	7	7	13	10	5	5	19	18
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

The percentage of females in agriculture increased from 65 per cent in 2017-18 to 72 per cent in 2019-20, reaching very high shares. Thus nearly three out of four female workers in UP are found in the agriculture sector. While there have been murmurs of premature deindustrialization in India, UP actually shows stagnation in the manufacturing sector. While the percentage of workers in the manufacturing sector remained the same, the percentage of females in the manufacturing sector has declined from 13 per cent in 2017-18 to 8 per cent in 2019-20. Thus it is imperative that employment opportunities for females are provided in the non-agriculture sector, not restricting females to the traditional sector (agriculture). The percentage of rural workforce in agriculture increased from 60 per cent in 2017-18 to 64 per cent in 2019-20 and at the same time percentage of rural workforce in industry declined from an already low 8 per cent in 2017-18 to 7 per cent in 2019-20.

5.3 Employment by Social Groups

In the previous section it was seen that there has been an increase in agricultural workforce in UP. However, it is important to note that the massive increase in workforce in agriculture is from the OBC community, while there has been a decline in agricultural workforce for the General communities. It can thus be inferred that there is a lack of employment opportunities for OBCs and they face exclusion, which forces them to join agriculture.

5.3.1 Employment in UP by Industrial Sectors: Caste Differentials

UPSS	SC		OBC		FRW	
	2017-18	2019-20	2017-18	2019-20	2017-18	2019-20
Agriculture	48	50	50	55	46	44
Mining	0	0	0	0	0	0
Manufacturing	9	9	12	11	13	11
Utility	0	0	0	0	0	0
Construction	26	25	11	11	6	5
Trade Hotels	7	7	14	12	15	19
Transport Comm.	3	2	4	3	7	5
Financial Business	1	0	1	1	3	4
Community Social	6	6	7	7	11	13
Total	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Another important aspect is the reliance on the construction sector for employment. However, the idea that construction sector is the frontrunner in employment generation is only limited to the underprivileged caste groups such as SCs and OBCs. 1 in 4 SC workers (25 per cent) are engaged in construction sector in UP, while it is just 1 in 10 (11 per cent) for OBCs and 1 in 20 (5 per cent) for General communities.

While the construction sector may have served as an engine for economic growth and employment generation to some extent in South Asian countries including China, it was accompanied by decent work and social security, thereby increasing the wellbeing of the

workers engaged in the construction sector. However, in India, the construction sector provides for the lowest wages and the least amount of social security, and is usually taken up in distress situations. However, today even the construction sector is losing its sheen in providing employment, and was severely hit on account of pandemic, thereby impacting survival of already vulnerable workers (SC workers) that largely depend on the construction sector for their livelihoods.

5.3.2 Employment in UP by Industrial Sectors: Caste & Gender Differentials

	SC M		OBC M		GEN M		SC F		OBC F		GEN F	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	45	43	46	49	47	43	66	75	72	76	41	48
MIN	0	0	0	0	0	0	0	0	0	0	0	0
MGF	9	9	12	12	11	11	10	7	11	8	22	9
UTL	0	0	1	0	0	1	0	1	0	0	0	0
CNS	29	30	13	13	6	6	4	6	1	2	2	1
THR	8	8	16	14	16	20	7	3	7	7	6	13
TSC	3	3	4	4	7	5	1	0	0	0	0	1
FRB	1	1	1	1	2	4	0	0	0	1	4	2
CSP	5	6	6	7	9	10	12	8	9	7	25	26
	100	100	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

Overall there has been a marginal increase in male workforce in agriculture. However, the percentage of General males in agriculture declined from 47 per cent in 2017-18 to 43 per cent in 2019-20. At the same time, the percentage of OBC workforce in agriculture increased from 46 per cent to 49 per cent. There has also been an increase in female workforce in agriculture across caste categories including General communities in UP.

Percentage of workforce in agriculture therefore increased to 72 per cent in 2019-20. It is seen that nearly three-fourth of the SC and OBC workforce was engaged in Agriculture. However, in the case of general females just half of the workforce were engaged in agriculture. It is generally seen that when there is higher income and consumption in the households, females exit the labour force and take on household duties. But when there is distress, women most of the time have to take up employment to supplement household income to maintain their consumption level.

Given the lack of non-agricultural employment in the rural areas, rural workforce would be left with no option but to join agriculture. At the same time, the percentage of workforce in the manufacturing sector has been stagnant across caste categories for males, but whatever little manufacturing sector employment was seen in the context of female workers has declined significantly in recent times. Female workforce from the General communities in the manufacturing sector have more than halved from 22 per cent 2017-18 to just 9 per cent in 2019-20. Percentage of females in the manufacturing sector has declined across caste categories to below 10 per cent in 2019-20.

Rural UP is highly dependent upon agriculture, and this has been increasing over time across caste categories. Rural General and OBC workforce in agriculture increased to over 65 per cent, and for SCs to over 55 per cent in 2019-20. Lower dependence on agriculture amongst SCs can be mostly attributed to lack of land ownership and smaller landholding size among SC households. More than 25 per cent of rural SC workforce are dependent upon construction sector, while for rural General communities it was just 5 per cent in 2019-20.

5.3.3 Employment and Caste in UP: Rural & Urban

	SC R		OBC R		GEN R		SC U		OBC U		GEN U	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	55	56	61	67	64	68	6	7	7	7	3	6
MIN	0	0	0	0	0	0	0	0	0	0	0	0
MGF	6	7	9	7	10	6	25	24	25	27	20	19
UTL	0	0	0	0	0	0	2	0	1	1	1	1
CNS	27	26	11	11	6	5	15	17	9	10	4	5
THR	5	4	10	7	8	10	21	24	32	33	30	32
TSC	2	2	3	3	5	2	7	6	6	6	11	8
FRB	0	0	1	0	1	2	2	3	3	3	7	6
CSP	4	4	5	5	6	6	20	18	16	14	24	23
	100	100	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

Urban construction sector employment is not as significant as rural construction sector in terms of employment. Given the wages in the rural construction sector are very low, the dependence of rural workforce on construction is indicative of rural distress in UP in terms of employment. ***In urban areas the highest share of workers are in Trade, Hotels and Restaurants (THR).*** Around one-third of urban workforce from General and OBC communities and one in four urban SC workforce are dependent on THR. In urban UP, after THR, Community, Social and Personal Services Sector (CSP) followed by Manufacturing

Sector are important sectors for employment. There is little employment diversification in UP amidst stagnant manufacturing sector and increasing share of employment in agriculture.

5.4 Sectoral Employment in UP across Religious Groups

This section further investigates the differentials between religious groups in UP in terms of sector of employment.

5.4.1 Sectoral Employment in UP by Religion

UPSS	Hindu		Muslims	
	17-18	19-20	17-18	19-20
AGR	53	55	29	30
MIN	0	0	0	0
MGF	8	8	27	23
UTL	0	0	0	0
CNS	14	13	12	15
THR	12	11	17	17
TSC	4	3	7	4
FRB	1	1	1	1
CSP	8	7	7	9
	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

In terms of religion, more than half of the Hindu workforce were dependent on agriculture, while just 30 per cent of the Muslims were dependent on agriculture. At the same time nearly one-fourth of the Muslims workforce were dependent on the manufacturing sector. Given the lower Muslims workforce in the agriculture sector, it is followed by a relatively higher share in the Trade Hotels and Restaurants (THR) and Construction Sector. Community Social and Personal Services (CSP) employ less than 10 per cent of the workforce.

5.4.2 Sectoral Employment and Religion in UP: Male and Female

UPSS	HINDU Male		MUSLIMS Male		HINDU Female		MUSLIMS Female	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	49	51	27	26	69	74	41	55
MIN	0	0	0	0	0	0	0	0
MGF	8	9	25	23	8	6	41	22
UTL	1	0	0	0	0	0	0	0
CNS	16	16	14	17	2	3	2	3
THR	13	12	18	18	6	6	7	11

TSC	4	4	8	5	0	0	0	0
FRB	1	2	1	1	1	1	0	0
CSP	7	7	7	9	13	10	9	8
	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

It is seen that although the percentage of workforce in agriculture has been increasing, it is more in the case of females rather than males across both major religious groups. Female Muslim Workforce in agriculture increased from 41 per cent in 2017-18 to 55 per cent in 2019-20. Hindu female workforce in agriculture increased from 69 per cent in 2017-18 to 74 per cent in 2019-20. Three out four Hindu females are now engaged in agriculture. Another worrying trend is that the percentage of Muslim females in Manufacturing sector has halved from 41 per cent in 2017-18 to just 22 per cent in 2019-20. UP is home to one of key traditional manufacturing segments which is dominated by Muslims, such as handicrafts, which employ Muslims women in large numbers. Declining employment is also indicative of the declining industry.

5.4.3 Sectoral Employment and Religion in UP: Rural vs Urban

UPSS	HINDU Rural		MUSLIMS Rural		HINDU Urban		MUSLIMS Rural	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	62	66	41	46	7	7	4	4
MIN	0	0	0	0	0	0	0	0
MGF	6	5	23	16	20	20	34	34
UTL	0	0	0	0	1	1	1	0
CNS	15	15	14	17	9	8	9	12
THR	8	6	12	10	30	32	27	29
TSC	3	2	6	3	7	7	10	7
FRB	1	1	0	0	5	5	2	1
CSP	5	4	4	7	21	20	13	13
	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

While the percentage of rural Muslims in the manufacturing sector declined from 23 per cent in 2017-18 to 16 per cent in 2019-20, at the same time, the percentage of rural Muslims in agriculture and construction sector has increased.

5.5 Employment by Regions

This section analyses sectoral employment in UP by NSS regions. In 2017-18 just 29 per cent of UP's workforce in the Northern Upper Ganga Plains was engaged in agriculture which increased to 40 per cent in 2019-20. The Upper Ganga Plains have the highest dependence on agriculture of 58 per cent of the workforce, while Eastern and Southern UP are similarly placed with 55 per cent of its workforce dependent upon agriculture for their livelihoods. It was also seen that in 2017-18, around 20 per cent of the workforce of Northern Upper Ganga Plains was dependent upon manufacturing which decreased to 16 per cent in 2019-20. Also, the percentage of workforce in the region of Northern Upper Ganga Plains engaged in Transport, Storage and Communications (TSC) declined from 8 per cent in 2017-18 to just 3 per cent in 2019-20, which could be attributed to the lockdown, since the transport sector was severely hit on account of lockdown.

On a positive note, the percentage of workforce in Central UP, which comprises districts such as Lucknow, Kanpur and RaeBareli, the percentage of workforce in agriculture has come down from 52 per cent to 42 per cent. Above all, UP is witnessing an increasing participation in agriculture due to lack of non-agricultural employment generation. It would be an undoing of years of structural change and this would negatively impact economic growth and may accentuate poverty further.

5.5.1 Sectoral Employment in Regions of UP

UPSS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
All	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	29	40	52	42	50	55	53	55	55	58
MIN	0	0	0	0	0	0	0	0	0	0
MGF	20	16	11	15	8	7	4	6	12	11
UTL	1	0	0	0	0	0	0	0	0	0
CNS	14	17	9	11	17	16	21	21	9	9
THR	14	14	11	16	13	11	11	11	13	10
TSC	8	3	5	4	3	3	2	2	3	3
FRB	3	1	2	2	1	1	1	1	1	1
CSP	10	10	8	10	7	6	7	6	7	7
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels &

Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

5.5.2 Sectoral Employment in Regions of UP: Rural

Rural PSSS	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	41	52	68	64	56	61	63	63	68	72
MIN	0	0	0	0	0	0	0	0	0	0
MGF	18	11	8	9	6	6	3	5	8	6
UTL	0	0	0	0	0	0	0	0	0	0
CNS	18	18	9	12	18	17	24	21	9	9
THR	8	8	8	7	10	7	5	6	8	6
TSC	7	3	3	2	3	3	1	1	2	2
FRB	2	0	1	0	1	1	0	0	0	0
CSP	7	8	3	6	6	4	4	3	4	4
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

Across all regions in rural UP, more than half of the workforce are dependent on agriculture. While in 2017-18, just 41 per cent of rural workforce of Northern Upper Ganga Plains were engaged in agriculture it increased to 52 per cent in 2019-20. The highest dependency on agriculture in rural UP is seen in the region of Southern Upper Ganga Plains, and instead of decreasing, rural workforce in agriculture increased from 68 per cent in 2017-18 to 72 per cent in 2019-20.

Even though Southern Upper Ganga Plains include districts such as Aligarh, Mathura and Agra which are industrial centres, unless these industrial centres expand in rural areas and provide for non-agricultural employment, the dependence of rural workforce is bound to increase overtime. Northern Upper Ganga Plains which includes districts such as Saharanpur, Moradabad, Meerut, Ghaziabad and Gautam Buddha Nagar are one of the highest industrialized districts in India. UP is still witnessing deindustrialization and industrial stagnation in terms of employment.

In Northern Upper Ganga Plains, rural workforce in agriculture declined from 18 per cent in 2019-20 to 11 per cent in 2017-18. At the same time, even in the Transport Storage and Communication sector, the percentage of rural workforce in Northern Upper Ganga Plains declined from 7 per cent in 2019-20 to just 3 per cent in 2019-20. Southern UP which

includes the districts of Jhansi, Chitrakoot and Mahoba has more than 20 per cent of its rural Workforce in the construction sector. Since there has been a slowdown in the construction sector and there is a risk of employment loss in the construction sector, there is an urgent need for developing employment opportunities in other sectors in UP.

5.5.3 Sectoral Employment and Regions of UP: Urban

Urban'	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
PSSS	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	4	9	5	3	6	7	12	6	7	8
MIN	0	0	0	0	0	1	1	0	0	0
MGF	25	29	20	26	21	13	11	21	28	30
UTL	3	1	1	0	1	2	0	1	1	0
CNS	8	14	9	8	9	9	16	9	8	9
THR	27	29	23	31	36	39	33	36	31	26
TSC	10	3	11	7	5	6	6	5	7	7
FRB	5	1	6	5	3	4	3	3	2	3
CSP	18	14	25	19	19	19	18	19	16	16
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

It is seen that the Northern Upper Ganga Plains and Southern Upper Ganga Plains are regions with a high level of urban workforce in the manufacturing sector. However, as seen earlier, rural Southern Upper Ganga Plains has the highest workforce in agriculture, thereby indicating a rural and urban divide. In Eastern UP, Allahabad, Gorakhpur, Mirzapur and Varanasi are the important districts, but have the least workforce in the manufacturing sector in urban areas. Eastern UP, which contains important political seats and constituencies, still remains economically underdeveloped. However, nearly 40 per cent of the urban workforce in Eastern Region has been engaged in Trade, Hotels and Restaurants (THR), which may be due to the development of Tourism in the region.

There has been an overall decline in the Transport, Storage and Communication (TSC) sector in UP especially in Central UP and Northern Upper Ganga Plains. Also given the fact that the construction sector has not been generating employment, it has stagnated for most of the regions of UP. In southern UP, the urban workforce engaged in construction sector has come down from 16 per cent in 2017-18 to just 9 per cent in 2019-20. Financial, Real estate and Business services (FRB) employment has also come down in Northern Upper Ganga Plains from a minimal 5 per cent in 2017-18 to a negligible 1 per cent in 2019-20. However,

on account of the pandemic and subsequent lockdown these sectors have also taken hit and unless the economy revives, these sectors are likely to grow and provide employment in UP.

5.5.4 Sectoral Employment and Regions of UP: Male

Male	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
PSSS	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	29	37	52	39	45	49	44	48	54	55
MIN	0	0	0	0	0	0	0	0	0	0
MGF	20	16	11	16	8	8	4	6	11	12
UTL	1	0	0	0	1	0	0	0	0	0
CNS	15	19	10	13	20	20	25	25	11	11
THR	15	15	11	17	14	12	14	12	14	11
TSC	9	3	6	4	3	4	3	3	4	4
FRB	3	1	2	2	1	1	1	1	1	1
CSP	8	9	7	9	7	6	8	6	6	6
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

Even in the case of male workforce, in most of the regions of UP- Eastern UP, Southern UP and Southern Upper Ganga Plains, around half of the workforce are engaged in the agriculture sector. Out of the Male workforce in Northern Upper Ganga Plains and Central UP, nearly 40 per cent were in the agriculture sector. In Eastern UP and Southern UP, 1 in 5 and 1 in 4 workers are engaged in the construction sector respectively. Given the large number of male workers in the Construction sector, it should be able to provide for social security, paid leave and medical and health benefits, so as to bring about decent jobs in the construction sector.

Also, except for Central UP, in most of the regions in UP, most of male workforce in Trade, Hotels and Restaurants (THR) are either facing stagnant employment prospects or marginally declining. Their major concern would be regarding GST and unclear rules and overburden of regulation, are to be prioritized to enable ease of doing business and providing enabling conditions for the business environment.

5.5.5 Sectoral Employment and Regions of UP: Female

Female	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
PSSS	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
AGR	28	59	51	57	78	80	71	73	63	75
MIN	0	0	0	0	0	0	0	0	0	0
MGF	21	17	13	11	6	4	5	6	21	10
UTL	0	0	0	0	0	0	0	0	0	1
CNS	2	2	2	2	1	2	13	9	1	1
THR	10	7	12	9	5	7	6	6	4	3
TSC	0	0	2	1	0	0	0	0	0	0
FRB	3	0	2	1	0	0	1	0	0	0
CSP	35	14	17	18	10	7	5	6	11	9
Total	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

It is seen that the percentage of females in agriculture in Northern Ganga Plains has more than doubled from nearly 28 per cent in 2017-18 to nearly 60 per cent in 2019-20. It is often discussed in the literature that women's workforce participation increases at the time of economic distress in the households. Thus, one can infer that there is economic distress especially in the rural areas in the Northern Upper Ganga Plains. The additional entrants in agriculture would have possibly come from shifts from the Community, Social and Personal sector (CSP), where the percentage of females halved from 35 per cent to just 14 per cent in 2019-20. At the same time, Eastern UP and Southern Upper Ganga Plains have an extremely high dependence of females on agriculture (80 per cent and 75 per cent respectively). This high dependence gives the idea of lack of structural change in the rural areas of UP and at the same time questions the state's initiatives towards economic growth and employment generation especially in the wake of the pandemic and loss.

5.6 Employment by Occupational Tiers - Overall & by Social, Religious Groups

It is seen that the overall percentage of workers in high tier occupations is very limited to just 12 per cent. At the same time there is a very distinct rural and urban work profile divide: over 30 per cent of the urban workforce are engaged in high tier occupations, while for rural workforce just 7 per cent of the workers were working in the high tier occupations. Also, nearly one-fourth of the workforce was employed in the middle tier: while it is almost half of the urban workforce, it was less than 20 per cent for the rural workforce.

5.6.1 Employment in UP by Occupational Tiers

	All		Male		Female		Rural		Urban	
	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20	17-18	19-20
High Tier	13	12	12	12	18	13	8	7	31	30
Medium Tier	24	23	25	24	20	15	18	16	48	46
Agriculture	40	44	39	41	46	59	50	55	5	6
Elementary Tier	23	21	24	23	16	14	25	22	16	19
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

In rural areas, more than 50 per cent of the workforce was engaged in agriculture, while more than 20 per cent were also employed in elementary occupations. Thus nearly three-fourth of the rural workforce was engaged in the bottom tier occupations, while just 25 per cent of the urban workforce was engaged in lower tier occupations. Thus, there is a rural urban divide in the occupation pattern. Given the fact that most of the rural workforce are already in the lower tier occupations, if these workers migrate to urban areas, even if they maintain status quo and still be in the urban lower tier occupations, they can still gain, given the higher urban wages.

5.6.2 Employment by Occupation & Social Groups

	SC		OBC		GEN	
	17-18	18-19	17-18	18-19	17-18	18-19
High Tier	6	6	13	11	21	25
Medium Tier	19	19	25	23	28	25
Agriculture	35	38	42	48	41	40
Elementary Tier	40	37	20	18	11	10
	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

In the earlier sections, the analysis revealed massive rural-urban divide in terms of occupation, and also in terms of gender. There is a great occupational divide in terms of

occupation, based on the social group of the workers. It is seen that nearly 40 per cent of the SC workers are in elementary occupations, while it is 20 per cent for the OBCs and just 10 per cent in the case of General communities in UP. The percentage of workers in agriculture is 40 per cent for SC and General communities, and around 50 per cent for OBCs. At the same time, whereas just 6 per cent of SCs were employed in the high tier occupations, the corresponding share for the General social group is as high as 25 per cent. Thus, the distribution of workforce instead of being more or less homogenous, shows stark contrasts and wide differentials.

5.6.3 Employment by Occupation & Religion

	HINDU		MUSLIMS	
	17-18	19-20	17-18	19-20
High Tier	13	12	12	14
Medium Tier	21	19	41	39
Agriculture	44	48	23	23
Elementary Tier	23	21	24	24
	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

While there has been a difference between Muslims and Hindus in terms of land ownerships, it is seen that there is a wide disparity in the percentage of workforce in agriculture in terms of religion. However, the percentage of workers across Hindu and Muslims in elementary occupations is similar. However, there has been a marginal decline in elementary occupations among Hindus from 23 per cent in 2017-18 to 21 per cent in 2019-20. At the same time the percentage of Hindus in medium tier occupations is just around 20 per cent, while in case of Muslims it is as high as 40 per cent.

5.7 Employment by Occupational Tiers for Different Regions of UP

In the case of Northern Upper Ganga Plains, high tier occupations declined from 21 per cent in 2017-18 to just 12 per cent in 2019-20. Also, in the case of Northern Upper-Ganga Plains, the percentage of workers increased from 20 per cent in 2017-18 to 29 per cent in 2019-20. Most of the regions of UP- Eastern UP, Southern UP and Southern Upper Ganga-Plains have around half of the workforce in agriculture. Workforce of central UP has a relatively higher share in High-tier occupations but less than 20 per cent. UP has a need to reduce dependence on Agriculture and Elementary Occupations.

5.7.1 Employment by Occupational Tiers for UP Regions

	Northern U. Ganga Plains		Central UP		Eastern UP		Southern UP		Southern U. Ganga Plains	
	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19	17-18	18-19
High Tier	21	12	15	17	12	9	11	14	8	10
Medium Tier	31	27	23	27	23	21	13	16	25	21
Agriculture	20	29	40	37	44	50	52	49	45	48
Elementary Tier	28	32	22	20	21	21	24	21	22	20
	100	100	100	100	100	100	100	100	100	100

Source: Author's computations using unit-level data from various PLFS rounds

5.8 Employment as per Current Weekly Status

Labour Force Participation Rate (LFPR) in UP remains below national level both in rural as well as urban areas. Also, the difference between LFPR by Usual Principal and Subsidiary Status (UPSS) remains marginally higher than the Current Weekly Status (CWS). It is seen that those considered in the labour force on a longer term UPSS basis may remain out of the labour force in the short term. The shorter term (weekly status) aggregation of labour force participation would lead to a more accurate scenario of labour force status for the economy. These workers move in and out of the labour force depending upon economic incentives and aspirations. Those willing to undertake employment at the prevailing wages are considered in the labour force. Those that do not find the prevailing wage rate and job profile suitable may remain in the labour force and continue their search for better wage or better employment or simply move out of the labour force.

5.8.1 Employment status: CWS and UPSS-A Comparative Perspective

LFPR		Rural	Urban	Rural & Urban
LFPR UPSS 15YRS	UP	47.9	44.8	47.1
LFPR CWS 15YRS	UP	45.6	44.1	45.2
LFPR UPSS 15YRS	IND	55.5	49.3	53.5
LFPR CWS 15YRS	IND	52.5	48.2	51.2

WFPR		Rural	Urban	Rural & Urban
WFPR UPSS 15YRS	UP	46.4	40.9	45.1
WFPR CWS 15YRS	UP	42.2	39.1	41.5
WFPR UPSS 15YRS	IND	53.3	45.8	50.9
WFPR CWS 15YRS	IND	48.4	43	46.7
Unemployment Rate		Rural	Urban	Rural & Urban
Unemployment Rate UPSS 15YRS	UP	3.1	8.8	4.4
Unemployment Rate CWS 15YRS	UP	7.4	11.4	8.3
Unemployment Rate UPSS 15YRS	IND	3.9	6.9	4.8
Unemployment Rate CWS 15YRS	IND	7.8	11	8.8

Source: Author's computations using unit-level data from various PLFS rounds

Also, those considered employed on a longer term UPSS basis may remain unemployed in the short term (CWS). The shorter term (weekly status) aggregation of employment would lead to more accurate results of employment status for the economy. Even though the difference remains marginal in terms of percentage, for a country as large as India, it translates into a significant number of the population remaining unemployed.

Also, the unemployment rate for UP in 2019-20 was 4.4 per cent based on UPSS while it was 8.3 per cent based on CWS status. This we do find wide divergence between unemployment rates as compared to the two various methods.

5.8.2 Industry of Employment by CWS

Rural	Agriculture	Secondary	Tertiary	
CWS UP	64.2	19.7	16.2	100
CWS IND	59.5	19.8	20.7	100
Urban	Agriculture	Secondary	Tertiary	
CWS UP	6.3	33.4	60.3	100
CWS IND	5.4	32.5	62.1	100
Rural & Urban	Agriculture	Secondary	Tertiary	
CWS UP	51.2	22.7	26	100
CWS IND	43.7	23.5	32.8	100

Source: Author's computations using unit-level data from various PLFS rounds

On the basis of employment based on CWS, again agriculture remains at a higher end in the rural areas with over 64% of the workforce, while on the national level it remains below 60 per cent. This is again at the higher end as compared to the usual principal status and has

been on an increasing trend recently. Overall, more than half (51.2%) of the workforce in UP are in agriculture, while on the national level it is 43.7 per cent. The workforce engaging in the secondary sector in UP is at par with the national level. It is important that the process of deindustrialization be checked at the same time industrialization is promoted that provides opportunity for non-farm employment. Also, given the large scale dependence on agriculture, agricultural growth has to be promoted ensuring well being of farmers and rural development.

5.9 Wages of Workers in UP

In the tables below monthly wages for self-persons in regular wage employment and monthly earnings for self-employed persons has been presented.

5.9.1 Monthly Wages by CWS: Regular Wage and Salaried Employment

		Rural			Urban			All: Rural & Urban		
Quarter	RGS	M	F	P	M	F	P	M	F	P
July-Sep 2019	UP	12942	10566	12630	16586	15229	16422	15404	13620	15182
	INDIA	13912	12090	13487	19194	15301	18251	17146	14095	16418
Oct-Dec 2019	UP	12020	6521	10644	16840	14743	16553	15108	10298	14235
	INDIA	13894	8491	12562	19388	15559	18450	17231	12769	16136
Jan-Mar 2020	UP	13973	12599	13813	17292	15509	17013	15881	14504	15689
	INDIA	14089	9452	13099	20187	15691	19051	17764	13533	16759
Apr-Jun 2020	UP	10499	5457	10167	18750	18765	18752	15057	15969	15176
	INDIA	14257	10536	13423	21624	17325	20551	18515	14688	17600

Source: Author's computations using unit-level data from various PLFS rounds

5.9.2 Monthly Earnings by CWS: Self-Employment

		Rural			Urban			All: Rural & Urban		
Quarter	Self-Emp	M	F	P	M	F	P	M	F	P
July-Sep 2019	UP	8121	4536	7774	13033	5552	12453	9145	4710	8733
	INDIA	9661	4558	8879	17166	7141	15605	11509	5202	10538
Oct-Dec 2019	UP	8364	4487	8020	13503	6766	12913	9322	4907	8931
	INDIA	9847	5010	9081	17546	7193	15908	11701	5536	10726
Jan-Mar 2020	UP	7871	3468	7351	13479	7951	12992	8951	4126	8408
	INDIA	10098	4675	9293	17780	7658	16115	12005	5486	11011
Apr-Jun 2020	UP	7400	4004	7046	11633	6322	11215	7982	4247	7605
	INDIA	9244	4664	8611	14545	6857	13405	10262	5114	9541

Source: Author's computations using unit-level data from various PLFS rounds

There is rural and urban divide in the wage and earning in UP as well as India. First in both cases, wage and earning is comparatively lesser in UP as compared to national level. Second, the divide in wages and earning is steeper in UP as compared to India. Third, there is a divide between those with a salary from wage employment and those earning from self-employment; average wage is significantly higher than average earnings. Fourth, there was

a decline in wages as well as earnings in the run up to the pandemic. Thus it's not that the wages and earning took a steep decline only due to pandemic, even though there was decline in wages and earning in the pandemic period, it must also be pointed out that wages and earning was albeit n the declining trend on account of poor economic performance and pandemic just aggravated it.

5.10 Migration, COVID and MGNREGA

As UP is the largest state in India in terms of population, it is also the largest state in terms of interstate outmigration. On the basis of census 2011, enumeration of migrants on the basis of state of last residence, it is seen that UP is the leading state with over 123 laks interstate out-migrants. In terms of percentage, 22.8 per cent of all interstate out-migrants are from UP. With respect to male interstate out-migrants more than a quarter (26.2 per cent) of all interstate out-migrants were from UP and similarly UP female interstate out-migrants constitute 20 per cent of India's female interstate out-migrants.

5.10.1 Migrants Classified By Place of Last Residence: Top 20 States in India beyond the State Of Enumeration

	Persons	Male	Female		Persons	Male	Female
Uttar Pradesh	123.2	62.5	60.7	Punjab	17.4	6.7	10.7
Bihar	74.5	38.5	36.0	Jharkhand	17.0	5.7	11.3
Rajasthan	37.6	15.1	22.5	Gujarat	15.7	6.9	8.9
Maharashtra	30.7	12.1	18.5	Delhi	15.6	6.3	9.3
Madhya P.	29.8	10.0	19.8	Kerala	12.9	6.0	7.0
Karnataka	25.0	9.9	15.2	Odisha	12.7	6.0	6.7
West Bengal	24.1	9.5	14.5	Uttarakhand	9.9	4.0	5.9
Haryana	23.2	7.2	15.9	Chhattisgarh	6.9	2.5	4.4
Andhra P.	20.3	8.3	12.0	Assam	6.6	3.2	3.4
T. Nadu	19.9	9.2	10.6	Himachal P.	5.4	2.3	3.0

Source: Census of India, 2011

Given the vast amount of interstate migrants, UP is also a leading state in terms of emigration outside the country. In 2020, UP sent nearly 4 times more labourers outside the

country than Kerala (e-migrate Portal GOI). UP tops the list of top 100 districts (2020) sending low skilled labour migrants (Emigration Check Required), with 34 districts. The major districts are Lucknow, Kushinagar, Deoria, Bijnor, Maharajganj, Azamgarh, Barabanki, Muzaffarpur.

Also as per the CMIE, the estimated migrants based on the state of origin (not same as place of last residence) also shows UP as the leading state. The majority of the respondents with origin from UP were in Delhi and Maharashtra followed by Gujarat.

Discussing migration in the context of UP also becomes important given the high level of migration and subsequent lockdown imposed on account of COVID. Given the industrial developed states attracted labourers from UP and other developing states, these states were also leading states in terms of employment loss. (PLFS, own analysis).

Thus on account of lockdown and job loss, migrants were left with no place to go but to go back home. Also, for migrant households remittances are a source of income and it can be stated that on account of lockdown, the remittances would also have taken a hit. The essence remains that at the household level as well as on the economy level (UP), migration and remittance are crucial for livelihood.

In the lockdown phase it may be stated that most of the migrants would have left for home, as seen in the CMIE table, which shows that in 2020, the estimated UP migrants declined by half. However, as the economy reopened, migrants in 2021 have reached almost to the pre pandemic level.

5.10.2 UP Migration across States: Based on Respondents Origin State (UP) (CMIE)

	Estimated Number (Laks)				Percentage Distribution			
STATE	2017	2019	2020	2021	2017	2019	2020	2021
Delhi	18.2	25.9	17.5	25.7	30.9	38.2	56.5	40.6
Maharashtra	28.4	25.4	7.2	24.3	48.3	37.5	23.0	38.3
Gujarat	8.1	9.9	2.0	9.0	13.7	14.6	6.4	14.2
Haryana	1.3	2.3	1.4	1.2	2.3	3.3	4.4	1.9
Chandigarh	1.1	1.0	0.9	1.1	1.8	1.5	2.8	1.7
West Bengal	0.5	1.6	1.0	0.7	0.9	2.4	3.3	1.1
Punjab	0.5	0.6	0.2	0.7	0.9	0.9	0.6	1.1
Madhya Pradesh	0.2	0.4	0.4	0.4	0.3	0.6	1.4	0.7

Himachal Pradesh	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.1
Total	58.8	67.7	31.1	63.3	100	100	100	100

Source: CMIE Consumer Household Pyramid Survey

As the migrant came back to UP, the demand for MGNREGA work increased multiple times. This could have been due to both the loss of employment in the state or also due to work demand by the migrants coming back to UP. For the month of June 2019, only 22.6 lakh households demanded work, but it increased to 74.9 lakh households in June 2020, however, in June 2021. In the present year even though the demand for work is less than the pandemic level, it is still far greater than the pre pandemic level of 2019.

5.10.3 Work Demand Pattern during the Financial Year (in Lakhs): UP

	Households			Persons		
	2019-20	2020-21	2021-22	2019-20	2020-21	2021-22
April	11.3	11.2	10.9	13.3	12.8	12.9
May	13.7	54.8	11.7	15.9	65.7	13.6
June	22.6	74.9	35.2	26.4	92.6	41.0
July	19.0	43.6	36.2	22.2	51.5	42.1
August	17.2	32.7	27.9	19.8	37.5	32.3
September	16.8	30.5	24.8	19.3	34.6	28.7
October	14.9	32.8	23.5	16.8	37.4	26.9
November	20.4	27.3		23.1	30.4	
December	21.3	27.7		24.0	30.8	
January	19.4	26.5		21.8	29.5	
February	17.0	24.7		18.9	28.1	
March	15.4	20.1		17.4	22.9	

Source: MGNREGA Scheme MIS

Similarly, as the demand of work increased, so was the employment being provided, which could have been better, as there are still gaps between household demanded work and household provided work.

5.10.4 Employment Provided Pattern during the Financial Year (in Lakhs): UP

	Households			Person Days		
	2019-20	2020-21	2021-22	2019-20	2020-21	2021-22
April	8.8	8.8	7.0	156.6	90.8	132.0
May	11.3	47.3	8.9	174.9	721.7	131.6
June	19.0	53.8	28.6	301.5	828.7	419.4
July	16.2	31.0	30.0	228.8	412.1	433.0
August	14.0	21.0	22.4	188.4	267.0	316.3
September	13.2	19.7	19.6	182.7	258.8	278.4
October	11.9	19.9	14.6	165.2	256.1	190.7
November	16.3	17.8		241.1	235.7	
December	18.1	18.7		274.2	252.4	
January	16.3	18.2		238.8	230.1	
February	13.8	17.8		196.3	261.7	
March	9.2	11.9		95.9	131.0	

Source: MGNREGA Scheme MIS

As the budget for MGNREGA was increased on the account of COVID it was instrumental in providing employment that would have been the sole source of livelihood and survival. However, the very next year budget has been slashed again. Given the demand for work is still very high, the gap between work demanded and work provided still persist, there is a need of extending the budgetary support, not curtailing it. Second, the Persondays generated in July Aug and September 2021 is higher than the pandemic level which could have been due to the second COVID wave. Also, if the quota of MGNREGA jobs is completed ten there would again be joblessness or going back to the vulnerable jobs that pay even less than MGNREGA. Thus to sustain the consumption level, so that workers from falling into poverty and vulnerability, it is essential to extend the days of MGNREGA employment as well as ensuring that there are no gaps between work demanded and work provided.

5.11 Summarising the Chapter

In sum, the largest share of workforce in Uttar Pradesh is in agriculture (over 50 per cent of the total workforce of UP). The major issue is that the workforce is moving back to agriculture; and a massive increase is from the OBC communities. There is a decline in workforce in agriculture for the General communities.

In addition, the dismal situation of UP's economy is also in part due to the stagnation in the manufacturing sector employment; the share of females in manufacturing declined to as

low as 8 per cent in 2019-20. Employment in the construction sector is mostly undertaken by the underprivileged caste groups. One out of 4 SCs are engaged in the construction sector.

One-third of urban workforce from General and OBC communities, and one in four urban SC workforce are dependent on Trade, Hotels and Restaurants (THR) in urban UP for employment.

It was also noted that Muslim women, and particularly rural Muslims were moving from manufacturing towards agriculture or construction. The process of structural change in UP since 2017-18 seems to be distinctly regressing backwards at a faster pace rather than progressing towards more productive sectors. The brunt is borne by the backward communities.

In terms of employment by Occupational Tiers, it was seen that the percentage of workers in high tier occupations was limited to just 12 per cent, out of which the larger share is for urban UP. Rural UP remains to be largely agrarian, with few high tier occupations.

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6 Income Distribution across UP as per CMIE Data

6.1 Preview and Highlights of the Chapter

While the trends in UP's incomes, poverty and employment have been covered in the previous chapters using PLFS data, this chapter looks at specific indicators for social groups in UP at the regional level using the Consumer Pyramid Survey of the CMIE. This analysis attempts to bring out the exact nature and areas of deprivation and inequality within UP. This is especially important in order to identify the groups which have seen improvement vis-a-vis groups which have continued to remain backward and deprived, in different regions of such a large and diverse state.

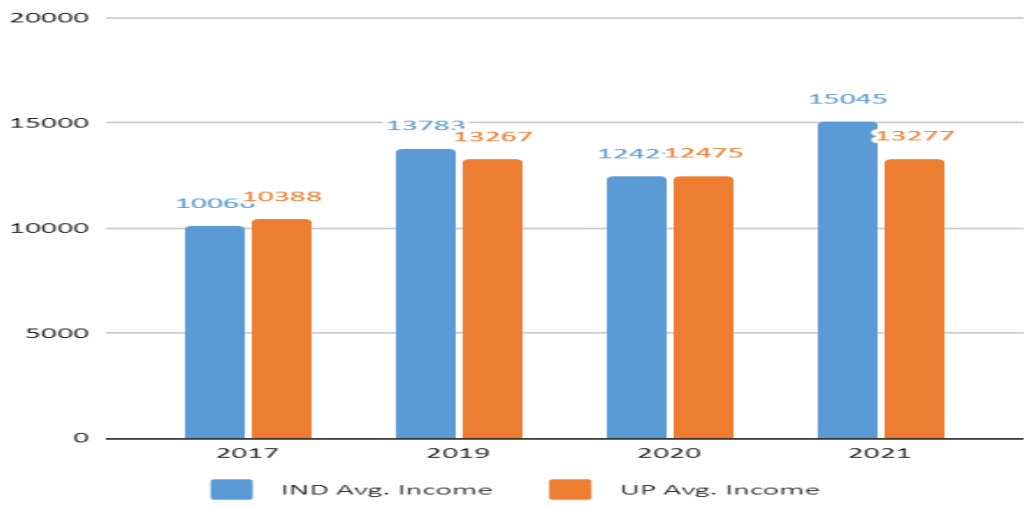
Highlights of the Chapter

- Income in UP versus all-India income
- Inequality in UP using CMIE Consumer Pyramid Survey data
- Per capita monthly income by social groups and regions

6.2 Per Capita Monthly Incomes in UP

This section begins with an overview of the per capita monthly income in Uttar Pradesh vis-a-vis all-India levels. This is done using data from the Centre for Monitoring India Economy (CMIE) Consumer Household Pyramid Survey (CHPS). The per capita monthly income is calculated on the basis of all sources of income combined[3]. The figures for UP so obtained are compared with the national average in Figure 5.1.

6.2.1 Figure 5.1: UP versus India: Monthly income



Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

[3] This is calculated for all persons with a non-zero positive income

While in 2017, UP's per capita monthly income was more or less at par with the national level at approximately Rs 10000, the gap between the two gradually widened. However, there was a steady increase in incomes, but the average incomes in UP fell short of the national average in 2021. While an overall picture of incomes in UP is useful, it masks the true picture at the disaggregated levels. It has been very clearly documented in the literature (Mehrotra (2006), Goli, Maurya and Sharma (2015), Arora and Singh (2015), Kumari (2016), Mamgain and Verick (2017) and so on), as well as revealed in the previous chapters using the recent PLFS data, that UP has continued to show wide regional differentials as well as inter-group differentials in socio-economic indicators, and there are no visible signs of convergence for UP with the national average, or within UP itself.

Therefore the following section delves deeper into the caste and regional differentials within UP. It should be noted here that the regional level analysis from the CMIE Consumer Household Pyramid Survey has been done in conformity with the NSSO regions studied in the previous chapters using PLFS unit-level data for a comparative analysis. The table below shows the monthly income per capita across the 5 major regions in UP, namely the Upper North Gangetic Plains (UNGP in Western UP), the Upper South Gangetic Plains (USGP in Western UP), Central region, Eastern region (Poorvanchal), and Southern region (Bundelkhand).

6.2.2 Per capita monthly income across regions in UP

UP Regions	2017	2019	2020	2021
Upper Northern Gangetic Plain (W)	12707	14776	14190	15864
Upper Southern Gangetic Plain (W)	11222	15200	12594	11455
Central	9920	11756	13227	12611
Poorvanchal	9217	13282	11313	14182
Bundelkhand	8584	11611	10476	9937

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Note: UNGP (W)= Upper North Gangetic Plains (in Western UP), USGP (W)= Upper South Gangetic Plains (in Western UP), Eastern region= Poorvanchal, Southern region=Bundelkhand

The highest per capita monthly incomes within UP are in the Western region including the Upper North Gangetic Plains and the Upper South Gangetic Plains, both fertile areas that benefited from the Green Revolution. In fact, Southern UP or Bundelkhand has fared the worst amongst all regions since 2017 and deteriorated even more in 2021. Interestingly, Eastern UP or Poorvanchal showed a significant increase in per capita monthly income

between 2020-2021 when most other regions showed a decline in incomes (as an aftermath of the pandemic).

While there no doubt exist regional differentials in UP in terms of income, there are also significant differences between different social groups (castes) in UP. Being a largely populated and diverse state, there are several caste groups within UP. The following table gives an overview of income differentials between the major caste categories in UP in comparison with the national average. While the situation of social-group differentials is not very different across the country (at least in terms of income), UP has some catching-up to do.

6.2.3 Per capita monthly income across social groups in UP

	India				UP			
	2017	2019	2020	2021	2017	2019	2020	2021
GEN	12790	17636	16431	19145	13703	18894	16908	17552
OBC	9774	13287	11835	14233	9771	12300	11880	12454
SC	8285	11340	10127	12267	8368	9810	9794	10534
AVG	10066	13783	12429	15045	10388	13267	12475	13277

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

The levels of per capita monthly income in 2017 for both India and UP do not differ much across castes. In both cases, the general category fares much better as compared to the Other Backward Classes (OBCs) and the Scheduled Castes (SCs) who are at the lowest end of the spectrum. While gradual income increase (with a dip during the pandemic) is visible across all groups, the differentials seem to have grown wider; for instance, the difference in income between the general community and the SCs in UP in 2017 amounted to roughly Rs 3000, which increased to more than Rs 7000 in 2021.

6.2.4 Per capita monthly income across regions and social groups in UP

2017	All	UC	OBC	SC
UNGP (W)	12707	17388	11739	9479
USGP (W)	11222	12147	11747	9519
Central	9920	13244	8794	8392
Poorvancal	9452	13396	9109	7336
Bundelkhand	8584	10899	7988	7665
2019	All	UC	OBC	SC
UNGP (W)	14776	22622	12329	10606

USGP (W)	15200	17548	15265	12245
Central	11756	17046	10811	8432
Poorvancal	13282	19251	13205	9489
Bundelkhand	11611	15441	11085	9714
2021	All	UC	OBC	SC
UNGP (W)	15864	20592	14440	12027
USGP (W)	11455	13968	10830	9149
Central	12611	16411	12206	10036
Poorvancal	14182	19813	13296	11232
Bundelkhand	9937	13017	8927	9257

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Analysing these inter-group income differentials across different regions within UP shows more insightful results. The table shows significant differentials in incomes over the period from 2017 to 2021 in UP both across groups as well as within groups. The average differential in income between Western UP and Eastern/Central/Southern regions in 2017 amounted to roughly Rs. 3000. However, these differentials were not as stark within the general category across regions, except for the Southern region where the general category earned roughly Rs 7000 less than their counterparts in Upper North Gangetic Plains in the Western region. The OBC category followed the same trends as the aggregate. However, within the Scheduled Castes, income differentials across regions did not amount to more than Rs. 2000. After the pandemic, the situation in 2021 within the groups between the different regions showed a wider divergence, except for Eastern UP (Poorvanchal) which seems to show some improvement and catching-up in terms of incomes.

On the other hand, the across-group differentials within regions show a more interesting story. In 2017, the 'richest' region in terms of per person average monthly income was the Upper North Gangetic Plains wherein the general category on an average earned roughly Rs. 6000 more than the OBCs and Rs. 8000 more then the SCs. This differential between groups was not so stark in the other regions where the average differentials remained within the range of Rs. 2000 to Rs. 3000. However, in 2021, these differentials between groups widened significantly in all the regions, with the maximum differential continuing to be in the upper North Gangetic Plains. However, the differentials in incomes between the general and OBCs and the general and SCs as well as between OBCs and SCs widened to the range of Rs. 3000 to Rs. 4000.

The 'catching-up' in incomes seen in the previous panel seem to be belied by the huge widening in between-group inequality in incomes in Eastern UP (Poorvanchal), where the general category earned over Rs. 8000 more than the SCs per month and around Rs 7000 more than the OBCs in 2021. Interestingly, the 'richer' regions show wider differentials in incomes as compared to the 'poorer' regions where there is less scope for such differentials! This directly leads to the discussion of inequality in income distribution. While some regions

may appear to be richer than others, they may also be masking wide inequalities within. Therefore, looking at the aggregate picture would prove counter-intuitive. The following section delves deeper into the issue of inequality in UP between 2017 and 2021 based on the CMIE Consumer Household Pyramid Survey.

6.3 Inequality in Incomes in UP

The inter and intra group differentials highlighted above subsequently result in income inequalities. Income inequality in this section has been analysed as follows. The per capita monthly incomes were sorted and arranged by percentiles. the monthly income of the 10th, the 25th, the 50th (median), 75th and 90th percentiles have been compared for the years 2017 and 2021. This is again using CMIE's Consumer Household Pyramid Survey.

6.3.1 Inequality in income: India versus UP

	India		UP	
Income	2017	2021	2017	2021
India10%	3500	6000	4500	6000
India25%	5200	8000	6000	7500
India50%	8000	12000	8000	9800
India75%	12000	16500	12000	15000
India90%	19000	30000	18000	28000

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

While the differentials between different percentiles and the changes between 2017 and 2021 are not very different for India and Uttar Pradesh, it should be noted that the differentials are large. For instance, in 2017, the 10th percentile in UP earned Rs. 4500 per month and the median monthly income was Rs. 8000. The 90th percentile on the other hand earned double the median. In 2021, these differentials have increased even more. While the 10th percentile saw an increase in income to Rs 6000 per month, the median income was not much higher, at Rs 9800. However, the 75th percentile earned double the 25th percentile and the 90th percentile earned 3 times more than the median income and almost 5 times more than the 10th percentile.

6.3.2 Inequality in income across regions in UP

2017	UNGP	USGP	Central	Poorvanchal	Bundelkhand
10%	6000	6000	4200	4000	4000
25%	8000	8000	6000	6000	5000
50%	9280	10000	7500	7500	6500
75%	15000	12000	10000	9500	8500

90%	25000	15000	18000	15000	13000
2021	UNGP	USGP	Central	Poorvanchal	Bundelkhand
10%	7500	4800	5500	7000	2200
25%	9000	6000	7000	8000	5500
50%	12000	8700	9000	10000	8000
75%	18000	12000	13500	15000	12000
90%	32000	25000	25000	32500	17000

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Note: UNGP (W)= Upper North Gangetic Plains (in Western UP), USGP (W)= Upper South Gangetic Plains (in Western UP), Eastern region= Poorvanchal, Southern region=Bundelkhand

A similar analysis at the regional level in UP unmasks more relevant details. High differentials in income in 2017 between the lower and upper percentiles were witnessed in the Upper North Gangetic Plains where the 90th percentile earned 4 times more than what the 10th percentile earned in a month. A similar case was seen in Central UP. The differentials in others regions were only marginally lower, with the 90th percentile earning thrice as much as the 10th percentile and twice as much as the median level of income In 2021, the post-pandemic period, the differentials between the lower and upper percentiles widened to as high as 5 times. In the Southern region (Bundelkhand), while the relative income in the 90th percentile was lower as compared to the other regions, the differential between 10th and 90th percentile was 8 times the income. While the median income increased for most regions (though not by a large margin) it actually came down in the Upper South Gangetic Plains.

Conversely, analysing the trends of income within a percentile level across regions is also illuminating. In 2017, the median income across regions was highest in the Upper South Gangetic Plains. As discussed above, this story reversed in 2021, where the median income was among the lowest in the USGP region. Overall, in the 90th percentile, the highest income was noted in the Upper North Gangetic Plains. At the lower spectrum, the 10th percentile, UNGP and USGP had the higher incomes in 2017. In 2021 however, the highest incomes in the 10th percentile were noted for UNGP, followed by Eastrn UP (Poorvanchal).

6.3.3 Inequality in income across social groups in UP, compared with India

INDIA	2017			INDIA	2021		
	GEN	OBC	SC		GEN	OBC	SC
10%	4000	3500	3000	10%	6500	6000	5500
25%	6000	5500	5000	25%	9400	8500	8000
50%	9000	8000	7000	50%	14200	12000	10000
75%	15000	12000	9800	75%	25000	16000	14000
90%	26000	18000	13800	90%	40000	25000	20000
UP	2017			UP	2021		
	GEN	OBC	SC		GEN	OBC	SC
10%	5200	4500	4000	10%	6000	6000	5000
25%	7000	6000	5800	25%	8500	7800	7000
50%	10000	8000	7500	50%	12000	9655	9000
75%	15000	11000	9300	75%	25000	14000	11000
90%	28000	15000	12000	90%	37500	25000	15000

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Proceeding with an analysis of income inequality across social groups in UP, the table compares the situation of caste income inequality in UP vis-a-vis India between 2017 and 2021. Again, while the trends overall between UP and India across social groups in terms of income do not seem to vary much, the differentials across percentiles of income are wide. For instance, the 90th percentile for the general group in UP in 2017 earned almost 6 times more than the 10th percentile did and almost thrice the median income. This difference increased further in 2021. While the magnitude of difference was lower in case of OBCs and SCs, the trend remained the same in both the years, worsening in 2021. Within group differentials in UP in terms of income are therefore visibly significant and increasing.

When looking at between-group differentials within a percentile, it is evident that in the 90th percentile, the general category earned more than twice as much as SCs in 2017 and almost double that of OBCs, a trend which continued even in 2021. Interestingly, the difference in incomes between OBCs and SCs widened significantly in 2021 in the 90th

percentile. In terms of median income (50th percentile), the general category continued to earn higher than the OBCs and SCs. In the lower percentile (10th), while the general category earned marginally higher than OBCs and SCs in 2017, the differentials almost vanished in 2021. Those at the higher end of the income spectrum show the highest within and between group inequality.

6.4 Per Capita Monthly Incomes in UP: Caste and Region wise analysis

Since this chapter essentially covers aspects of caste discrimination and inequality between regions, this section combines the analysis to the disaggregation at the level of different caste groups in UP and analyses it at the regional level across the major regions in Uttar Pradesh. The table gives an overview of per capita monthly income for different caste groups in UP over the years and the percentage change in income between 2017 and 2021, with the ranking of castes by incomes in 2021 from highest to lowest

6.4.1 Per capita Monthly Income (in Rs.) in UP

Rank 2021	Category	Caste	2017	2019	2020	2021	% Change 2017-2021
1	GEN	Khatris	13808	19231	16083	24937	81
2	GEN	Jat	16226	23066	23546	23025	42
3	GEN	Gujjar	20226	22445	23854	21419	6
4	GEN	Kayastha	16677	23716	22083	20595	23
5	OBC	Sonar	13747	20092	13365	20212	47
6	GEN	Brahmin	13215	19528	16589	17861	35
7	GEN	Vaishya/Bania	13955	19425	16575	17267	24
8	GEN	Rajputs	14257	19653	16412	16998	19
9	OBC	Yadav	11073	17103	13649	14000	26
10	SC	Balmiki	9287	12147	12018	13437	45
11	OBC	Weaver and Craftsmen OBC	10892	10437	10810	13244	22
12	OBC	Kurmi	9612	13500	12356	12955	35
13	OBC	Service OBC	9896	11118	11662	12773	29
14	SC	Dhobi	10679	12100	12846	12447	17
15	GEN	Ashraf	10447	14209	12655	12288	18
16	OBC	Kushwaha	9776	12392	11516	11724	20
17	OBC	Gaderia	10725	12445	12307	11659	9
18	OBC	Teli	9323	11522	10215	11595	24
19	SC	Khatik	8225	9752	9377	11116	35
20	OBC	Lodh	9193	10794	12843	11089	21
21	OBC	Kahar	8703	9109	10905	10768	24
22	OBC	Lohar	9202	12442	9848	10628	16

23	SC	Chamar	8349	10018	9397	10603	27
24	OBC	Maurya	8094	12924	12131	10538	30
25	GEN	Mughal (Khan)	8778	11338	11541	10394	18
26	OBC	Prajapati	10326	11467	9837	10116	-2
27	SC	Pasi	7989	8550	10314	9919	24
28	SC	Kori	6944	8903	8730	9487	37
29	OBC	Nishad	7217	10517	10989	9362	30

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In 2021, the highest per capita monthly incomes were earned in UP by the general community groups of Khatris, Jats, Gujjars and Kayasthas. The general castes lead the income distribution, followed by OBCs and then the SCs. The lowest earning castes in UP in 2021 were Prajapatis (OBCs), Pasis and Koris (SCs) and the least earning community were the Nishads (OBCs). Interestingly, the Mughals (Khans) and Ashrafs, both general category castes, ranked 25 and 15 in terms of income. It should be noted that these communities are Muslim communities and also face discrimination on this account.

Between 2017 and 2021, the highest income growth was seen for Khatris who became the highest earners in 2021, followed by Sonars (OBCs) and Jats (general). There was an absolute decline in income of the Prajapatis (OBCs), who ranked 26 across 29 caste categories. While the Gujjars saw a marginal increase in their income, they ranked 3rd in terms of earnings in 2021 because of already high existing income levels. Meanwhile, despite a 20 to 30 per cent increase in earnings over the period, OBCs and SCs continued to remain in lower ranks because of considerably lower relative initial incomes.

6.4.2 Per capita Monthly Income (in Rs.) in UP's Upper North Gangetic Plains in Western Region

Rank 2021	Region 1- UNGP	Caste	2017	2019	2020	2021	% Change 2017-2021
1	GEN	Jat	17942	24960	23936	26025	45
2	OBC	Sonar	13808	17816	14680	22699	64
3	GEN	Gujjar	20363	22079	23854	22311	10
4	GEN	Brahmin	18015	25331	20354	22309	24
5	OBC	Kurmi	15990	20448	20983	20903	31
6	GEN	Kayastha	20249	22440	18812	19986	-1
7	GEN	Vaishya/Bania	20657	25965	18934	19436	-6
8	GEN	Rajputs	15631	21008	19736	17379	11
9	OBC	Gaderia	17829	17309	11519	16418	-8
10	GEN	Khatris	14014	26487	18572	16129	15
11	OBC	Yadav	17963	20399	19558	15810	-12
12	OBC	Lodh	22315	14090	13730	15805	-29

13	OBC	Service OBC (Kewat/Dhobi/Nai/ Tel	11371	12542	13931	15070	33
14	OBC	Weaver and Craftsmen OBC (Bunkar	11640	11321	12254	14417	24
15	OBC	Maurya	6571	9681	14184	13698	108
16	OBC	Prajapati	11025	15652	11161	13011	18
17	GEN	Ashraf (Sayyad	9915	12713	12436	12891	30
18	GEN	Mughal (Khan)	11132	14031	13770	12689	14
19	OBC	Kahar	8538	8328	8002	12515	47
20	SC	Pasi	8034	12364	9272	12453	55
21	SC	Balmiki	10669	11469	10300	12198	14
22	SC	Chamar	9515	10395	10059	12197	28
23	SC	Khatik	6798	9714	12697	11933	76
24	SC	Kori	10161	12964	10419	11751	16
25	OBC	Teli	9184	11305	9498	11674	27
26	OBC	Lohar	11781	11964	9357	11278	-4
27	OBC	Kushwaha		10000	5948	10466	
28	SC	Dhobi	9409	9731	9825	8135	-14
29	OBC	Nishad	12000	10500		6400	-47

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In the Upper North Gangetic Plains in Western region of UP the general community groups of Jats, Gujjars and Brahmins were among the top income groups from the general category. The Sonar and Kurmi communities (OBCs) rose up to the ranks of 2 and 5 in terms of income in 2021. Apart from these 2 castes, the general castes continue to lead the income distribution in the UNGP region, followed by OBCs and then the SCs. The lowest earning castes in the UNGP in 2021 were Nishads, Lohars and Kushwahas (OBCs), and Dhobis (SCs). Again, the muslim general communities of Mughals (Khans) and Ashrafs, ranked 17and 18 in terms of income in the UNGP.

Between 2017 and 2021, the highest income growth in the UNGP was seen for Mauryas (OBCs) and Sonars (OBCs), ranking 15 and 2 in 2021. However, this region saw an absolute decline in income of Nishads, Dhobis (both OBC groups at the lowest end of the income pyramid) followed by Lodhs, Yadavs and Gaderias, also OBC groups. Thus, the OBCs seemed to have fared the worst in terms of income over the period 2017-2021 in the UNGP in Western UP.

6.4.3 Per capita Monthly Income (in Rs.) in UP's Upper South Gangetic Plains in Western Region

Rank 2021	Region 2-USGP	Caste	2017	2019	2020	2021	% Change 2017-2021
1	OBC	Kurmi	15750	18293	23900	25988	65
2	GEN	Kayastha	12206	21720	16378	18508	52
3	GEN	Jat	12267	19249	23302	15741	28
4	GEN	Khatris	10247	13086	19434	15252	49
5	OBC	Sonar	15283	24906	15223	15201	-1
6	GEN	Rajputs	11898	20650	15623	15085	27
7	GEN	Vaishya/Bania	13189	19623	14351	14741	12
8	GEN	Ashraf	13127	17539	12677	14485	10
9	OBC	Lohar	7000	9511	2333	14254	104
10	GEN	Brahmin	13465	17632	17723	13905	3
11	OBC	Lodh	13504	20207	13563	13278	-2
12	SC	Balmiki	9205	12606	11717	12027	31
13	SC	Khatik	8366	10976	7833	11856	42
14	OBC	Yadav	12881	24504	9731	11599	-10
15	OBC	Prajapati	10329	12134	7235	10599	3
16	OBC	Kushwaha	10949	10486	9241	10235	-7
17	SC	Kori	10490	10892	8841	9722	-7
18	OBC	Service OBC	9347	10506	11494	9706	4
19	GEN	Mughal (Khan)	8283	10659	10783	9651	17
20	OBC	Maurya	10446	10715	8500	9555	-9
21	OBC	Gaderia	10831	11786	11215	9508	-12
22	OBC	Teli	13838	13722	12052	9412	-32
23	SC	Chamar	9227	12322	10000	9251	0
24	OBC	Kahar	8647	10123	11459	7849	-9
25	SC	Dhobi	10673	15186	12823	6870	-36
26	OBC	Nishad	9556	13375	15000	6573	-31
27	OBC	Weaver and Craftsmen OBC	7433	12278	15182	5901	-21
28	SC	Pasi	6967		16333	5000	-28

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In the Upper South Gangetic Plains in Western region of UP the Kurmis (OBCs) ranked 1st in 2021 in terms of income, followed by the general community groups of Kayasthas, Jats, and Khatris. Again, the general castes continue to lead the income distribution in the USGP region as well, followed by OBCs and then the SCs. The lowest earning castes in the USGP in 2021 were Pasis, Weaver and Craftsmen OBCs, Nishads and Dhobis, all OBC communities,

who also saw absolute decline in incomes between 2017 and 2021 over 25 per cent. The muslim general communities of Mughals (Khans) and Ashrafs, ranked 19 out of 28 in terms of income in the USGP.

Between 2017 and 2021, the highest income growth in the USGP was seen for Lohars (OBCs who moved up to rank 9 in 2021) and Kurmis (OBCs who rose to rank 1 in 2021). However, this region also saw an absolute decline in income of several OBC and SC groups such as the Telis, Pasis, Weaver and Craftsmen OBCs, Nishads and Dhobis, all backward castes with the lowest levels of income in the USGP region in Western UP.

6.4.4 Per capita Monthly Income (in Rs.) in UP's Central Region

Rank 2021	Region 3-Central	Caste	2017	2019	2020	2021	% Change 2017-2021
1	GEN	Kayastha	17652	25416	24871	23420	33
2	GEN	Khatris	17492	28213	31707	23042	32
3	OBC	Sonar	11925	21111	16887	22879	92
4	GEN	Vaishya/Bania	14914	16824	18783	19229	29
5	GEN	Brahmin	13616	19693	19366	18301	34
6	OBC	Yadav	9151	12917	16806	17285	89
7	SC	Balmiki	8631	11153	12274	16048	86
8	GEN	Rajputs	13525	14610	19605	15598	15
9	OBC	Kurmi	10263	12944	11542	14864	45
10	OBC	Gaderia	8780	11708	15489	14034	60
11	OBC	Lohar	12820	14639	10840	13055	2
12	OBC	Kushwaha	7835	12651	14049	12237	56
13	OBC	Weaver and Craftsmen OBC	11994	6759	11308	11844	-1
14	SC	Dhobi	9736	9768	13885	11733	21
15	GEN	Ashraf	11357	14362	13792	11399	0
16	OBC	Maurya	6425	16708	12736	10905	70
17	OBC	Teli	8730	10910	9381	10893	25
18	SC	Chamar	9110	9307	9842	10841	19
19	OBC	Service OBC	7699	11079	9371	10730	39
20	SC	Khatik	10238	11467	12226	10616	4
21	OBC	Kahar	8134	7989	12193	10296	27
22	GEN	Jat	14976	31500	7000	10000	-33
23	OBC	Lodh	6557	7748	16562	9595	46
24	SC	Kori	6431	7414	8518	9489	48
25	GEN	Mughal (Khan)	8749	10129	11278	9417	8
26	OBC	Prajapati	11341	7743	12024	9183	-19

27	OBC	Nishad	7728	10190	11551	8494	10
28	SC	Pasi	7689	7226	10407	8371	9

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In the Central region of UP, the top of the income distribution was led by Kayastha, Khatris and Vaishyas/ Banias (all general categories) as well as Sonars (OBCs). The SC community of Balmikis was able to move to rank 7 in terms of income in 2021 owing to a more than 80 per cent increase in incomes over the period 2017 to 2021. The Pasis (OBCs) ranked last in 2021 in terms of income, followed by the OBC groups of Nishads and Prajapatis. The general Mughal (Khan) group ranked 25 in terms of income in 2021 in Central UP.

Between 2017 and 2021, the highest income growth in the Central region was seen for Sonars, Yadavs (both OBC groups) and Balmikis (SCs). The Central region saw an absolute decline in income for Prajapatis (OBCs) and the general community of Jats (ranking 22 in 2021 owing to a 33 per cent decline in incomes between 2017 and 2021). Jats were among the higher income groups in the Western regions of UP, but their situation in Central UP is reversed.

6.4.5 Per capita Monthly Income (in Rs.) in UP's Eastern Region (Poorvanchal)

Rank 2021	Region 4-Eastern	Caste	2017	2019	2020	2021	% Change 2017-2021
1	GEN	Khatris	21561	17277	15001	36437	69
2	SC	Dhobi	11887	16308	13616	21371	80
3	GEN	Rajputs	17107	22333	15496	19898	16
4	GEN	Brahmin	11628	19082	12538	19451	67
5	OBC	Sonar	13084	18040	9965	18989	45
6	GEN	Kayastha	15519	22317	21360	18982	22
7	GEN	Jat	14719	14525	9133	15986	9
8	SC	Balmiki	8032	18888	16930	15885	98
9	OBC	Kushwaha	9241	17569	14188	14815	60
10	OBC	Yadav	10554	17175	12339	14403	36
11	GEN	Vaishya/Bania	8981	14169	11987	13996	56
12	OBC	Teli	7982	12287	10624	13591	70
13	OBC	Service OBC	9047	9625	9761	13176	46
14	GEN	Mughal (Khan)	8484	13870	11775	12578	48
15	OBC	Gaderia	10571	9194	11175	12494	18
16	SC	Pasi	8961	11052	11225	11479	28
17	OBC	Kurmi	8419	12991	11810	11229	33
18	OBC	Nishad	8012	11042	11305	11213	40
19	OBC	Kahar	9365	11768	13856	11136	19

20	SC	Khatik	7902	8009	7484	11020	39
21	OBC	Weaver and Craftsmen OBC	9483	11266	7847	11019	16
22	SC	Chamar	6955	9037	8602	10734	54
23	SC	Kori	5132	7946	8261	10199	99
24	OBC	Lohar	6933	12620	9804	10145	46
25	GEN	Ashraf (Sayyad	8550	15896	10053	9812	15
26	OBC	Prajapati	9418	10901	10446	9621	2
27	OBC	Maurya	8801	16642	15781	9563	9
28	OBC	Lodh	6687	9166	9492	9428	41

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In the Eastern region of UP (Poorvanchal), the highest income earning groups were the Khatris, Rajputs and Brahmins (all general category forward castes). Interestingly in the Eastern region, the Dhobis (SCs) rose up to the 2nd rank in terms of income in 2021. The lowest incomes were earned by Lodhs, Mauryas and Prajapatis (OBCs) followed by Ashraf (Sayyad) general community mainly muslims.

Between 2017 and 2021, the highest income growth in the Eastern region was seen for Balmikis and Dhobis (both SC groups) who ranked 8 and 2 in 2021 in terms of income respectively. The Prajapatis and Maurya OBC communities saw barely any increase in income during this period, leading to their continuation in the lowest end of the income pyramid.

6.4.6 Per capita Monthly Income (in Rs.) in UP's Southern Region (Bundelkhand)

Rank 2021	Region 5-Southern	Caste	2017	2019	2020	2021	% Change 2017-2021
1	GEN	Jat	16500	14541	13000	45000	173
2	GEN	Kayastha	18458	25980	22726	23255	26
3	GEN	Vaishya/Bania	10844	18533	19101	19237	77
4	OBC	Sonar	18607	27552	15999	18117	-3
5	GEN	Brahmin	11502	14546	12954	14088	22
6	SC	Dhobi	8981	10491	8611	12558	40
7	GEN	Ashraf	9398	18060	13643	12268	31
8	SC	Pasi	7308	8715	8836	11886	63
9	GEN	Khatris	8038	10469	12308	11342	41
10	OBC	Yadav	9946	19155	13087	10326	4
11	OBC	Teli	7013	9774	9654	10149	45
12	OBC	Kahar	7754	7308	6998	10053	30

13	OBC	Kurmi	12497	18779	25244	9982	-20
14	OBC	Weaver and Craftsmen OBC	6255	6621	7452	9962	59
15	OBC	Lodh	5788	8707	11510	9878	71
16	SC	Balmiki	9816	11250	13192	9853	0
17	SC	Khatik	9487	11249	6762	8838	-7
18	GEN	Mughal (Khan)	9183	8454	7537	8730	-5
19	OBC	Lohar	10406	10940	9841	8158	-22
20	OBC	Gaderia	7628	14750	17393	8158	7
21	OBC	Service OBC	10353	8427	9132	8107	-22
22	OBC	Prajapati	9543	12073	8804	8100	-15
23	OBC	Maurya	6224	12880	5415	7789	25
24	SC	Chamar	7835	10261	8035	7649	-2
25	GEN	Rajputs	10417	16750	9201	7542	-28
26	SC	Kori	7657	10169	8591	7367	-4
27	OBC	Nishad	5966	9590	9306	7006	17
28	OBC	Kushwaha	9086	8847	9837	6759	-26

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

In the Southern region of UP (Bundelkhand), the highest income earning groups were again the general category forward caste groups of Jats, Kayasthas and Vaishyas/ Banias. Interestingly in the Southern region, the Pasis (SCs) rose up to the 8th rank in terms of income in 2021 with a 63 per cent rise in income between the period 2017 to 2021. The lowest incomes were earned by Kushwahas, Nishads (both OBC groups), Koris (SCs) Surprisingly, Rajputs (a forward caste general community) ranked 25 out of 28 castes in 202q in terms of income in the Southern region, with a 28 per cent decline in income during this period.

Between 2017 and 2021, the highest income growth in the Southern region was seen for the Jats who continued to rank highest in terms of income. There was a significant decline in incomes of several backward castes during this period in the Southern region.

6.5 Summarising the Chapter

This chapter looked at social groups in UP at the regional level using the Consumer Pyramid Survey of the CMIE to bring out the exact nature and areas of deprivation and inequality within UP using per capita monthly income for social groups be regions, and inequalities therein .

Overall, it was seen that the 90th percentile earned 3 times more than the median income and almost 5 times more than the 10th percentile in 2021, pointing towards wide income inequality. In Central UP for instance, in the post-pandemic period, the differentials

between the lower and upper percentiles widened to as high as 5 times. Those at the higher end of the income spectrum were found to show the highest within and between group inequality.

There is a high level of income disparity in UP with respect to social groups. The highest inequality is noticed among the general categories (forward castes), followed by OBCs. There is comparatively lesser disparity at the bottom owing to low levels of income across. The distribution across Social Groups shows that among the general categories, the Khatris and Kayastha were earned by Mughal (Khan), and Ashraf. Amongst the OBCs, highest incomes were earned by Sonars and Kurmis while the Nishad and Prajapatis earned the least. Within SCs, the highest earning groups were the Balmikis and Dhobis, especially in the Central and Eastern regions. Income inequality between castes and regions continues rampant in UP.

7 Employment Situation in UP as per CMIE Data

7.1 Preview and Highlights of the Chapter

While the previous chapter gave an overview of the income status and inequality between different social groups in UP by regions, this chapter extends the analysis to employment characteristics and sectors. Employment is seen by sectors for different social groups as well as region level in UP for a more comprehensive understanding.

Highlights of the Chapter

- Sectoral employment across major social groups in UP
- Sectoral employment across social groups and regions
- Detailed caste-wise sectoral employment in UP

7.2 Overview of Sectoral Employment in UP across social groups

7.2.1 Sectoral employment in shares for major social groups in UP

All Groups	2017	2019	2020	2021	GEN	2017	2019	2020	2021
AGRI	37	45	51	46	AGRI	44	45	53	48
MFG	10	11	10	8	MFG	10	8	8	7
CNS	25	14	12	20	CNS	8	4	4	7
THR	15	15	14	15	THR	18	21	17	22
TSC	2	3	2	2	TSC	3	4	4	2
FRB	1	1	1	1	FRB	1	2	2	1
CSP	10	12	10	9	CSP	15	17	13	12
Total	100	100	100	100	Total	100	100	100	100
OBC	2017	2019	2020	2021	SC	2017	2019	2020	2021
AGRI	41	51	54	50	AGRI	25	34	45	35
MFG	10	10	9	8	MFG	11	16	13	9
CNS	22	11	10	16	CNS	46	28	24	38
THR	15	15	15	15	THR	9	10	9	9
TSC	3	3	2	2	TSC	1	2	2	1
FRB	1	0	0	0	FRB	0	0	0	0
CSP	8	10	9	8	CSP	8	10	8	7
Total	100	100	100	100	Total	100	100	100	100

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Note: AGR= Agriculture & Allied, MIN= Mining & Quarrying, MGF= Manufacturing, UTL= Utilities including Electricity, Gas & Water Supply, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, FRB= Finance, Real Estate & Business, CSP= Community, Social and Personal Services

In aggregate, agriculture continues to employ over 35 per cent of the workforce in UP, which has in fact been rising since 2017, and stands at 46 per cent in 2021. This is followed by the construction sector which employs around one-fourth of the workforce (although the share decreased in 2021 on account of the pandemic induced lockdowns). Across caste categories, these trends are even more pronounced. For instance, the agriculture sector in 2021 accounted for half the workforce for both the general and OBC categories. However, SCs were predominantly engaged in the construction sector, and it is these categories that lost out on employment during the pandemic. Across all caste categories, the manufacturing sector does not even employ one-tenth of the workforce during the entire period from 2017, indicating towards deindustrialization, and a corresponding shift back to agriculture even for forward caste categories. This is a very disturbing trend, and will only hamper economic growth in UP even further.

7.3 Sectoral Employment in UP across social groups and Regions

The analysis is further extended to region level in UP in this section for major economic sectors as a share of employment in each as a percentage of total workforce. This is compared for 2017 and 2021, to analyse the changes during the new political regime in UP at a glance.

7.3.1 Sectoral employment in shares for major social groups in UP by region

	2017						2021					
UNGP (W)	AGR	IND	CNS	THR	TSC	CSP	AGR	IND	CNS	THR	TSC	CSP
GEN	41	19	7	13	5	13	49	12	2	24	3	8
OBC	36	17	20	14	2	9	40	20	11	18	2	9
SC	8	11	62	7	1	11	41	14	28	10	1	6
All Groups	31	16	26	12	3	11	44	15	12	18	2	8
	2017						2021					
USGP (W)	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
GEN	33	11	8	26	3	19	40	9	8	24	1	15
OBC	45	7	17	21	2	7	62	7	7	12	2	9
SC	25	10	45	12	2	6	34	11	36	6	1	11
All Groups	35	9	22	20	2	11	47	9	16	15	1	11
	2017						2021					
Central	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
GEN	35	9	11	25	3	16	28	8	18	25	4	14
OBC	38	7	25	18	4	8	33	12	21	21	3	10

SC	38	7	39	8	2	6	24	14	42	12	2	7
All Groups	37	8	25	17	3	10	29	12	26	19	3	10
	2017						2021					
Eastern	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
GEN	54	6	8	15	2	15	64	1	3	17	2	13
OBC	44	10	21	14	2	8	62	3	14	12	2	6
SC	22	13	46	11	1	6	39	5	43	8	1	5
All Groups	40	10	25	14	2	9	57	3	19	12	2	7
	2017						2021					
Bundelkhand	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
GEN	60	6	7	12	1	12	52	4	8	19	3	13
OBC	46	5	27	11	2	10	45	3	31	13	1	6
SC	37	11	31	6	1	14	43	3	36	8	3	7
All Groups	47	7	23	9	1	12	46	3	28	13	2	8

Source: Author's calculations using data from CMIE Consumer Household Pyramid Survey

Note: AGR= Agriculture & Allied, MFG= Manufacturing, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, CSP= Community, Social and Personal Services

Note: UNGP (W)= Upper North Gangetic Plains (in Western UP), USGP (W)= Upper South Gangetic Plains (in Western UP), Eastern region= Poorvanchal, Southern region=Bundelkhand

In the Upper North and South Gangetic Plains in Western region in UP, agriculture is the main sector of employment, which is also to be expected as it is a fertile Green Revolution zone. In both these regions, almost half of the general category workforce is engaged in agriculture, with the share increasing in 2021. While the trend is similar for OBCs, their share in agriculture has been ranging between 35 per cent to 40 per cent. In the UNGP region however, a pronounced trend is seen in cas of *SC workforce, 62 per cent of whom were engaged in construction in 2017.* However, their share in construction fell in 2021 due to the pandemic and they have instead moved to agriculture. However, as many of these castes are backward and do not own any land, their employment within agriculture will also remain precarious. Interestingly, the Trade, Hotels and Restaurants services sector (THR) employed one-fifth of the general category workforce in 2021. The corresponding share for OBCs fell to one-tenth in 2021, and has remained low for SCs throughout. The general category consists of the Vaishya and Bana communities, who are primarily engaged in trade and related activities, bringing up their share. The backward classes meanwhile turn to either construction or agriculture and end up in precarious work with no social security.

The story in the Central region has been a little different. Instead of agriculture, there has been a gradual shift of employment towards construction primarily for SCs, and in Trade, Hotels and Restaurants as well as Community, Social and Personal services for the general and OBC categories between 2017 and 2021.The Southern region (Bundelkhand) shows similar trends, but the shift from agriculture has been marginal and still accounts for around half of all workforce categories in 2021. The shift for OBCs and SCs has been to construction, while for the general category, it has been towards THR and CSP, which already employed a significant share of the general workforce.

Eastern UP (Poorvanchal) however paints a very dismal picture in terms of employment. In 2017, 54 per cent of the general category workforce were engaged in agriculture followed by THR and CSP. However their share in agricultural work increased to a whopping 64 per cent in 2021. A similar case is again s#visible for the OBCs and Scs albeit with a relatively lower share (44 per cent for OBSCs and 22 per cent for SCs in 2017). However, the share of OBCs employed in agriculture rose to as high as 62 per cent in 2021, and to almost 40 per cent for the SC workforce as well. Simultaneously, the share of OBC and SC workforce employed in the manufacturing sector (which was around one-tenth of the workforce respectively in 2017), fell to meager 3 per cent and 5 per cent in 2021.

In sum, UP seems to be regressing backwards in terms of structural change in its economy instead of moving forward. The largest shock of the pandemic that further exacerbated the shift back to agriculture has affected the SCs the most. The fall in employment in manufacturing creates further scepticism on the growth trajectories of UP in future.

7.4 Detailed Caste-wise Employment in Industrial Sectors in UP

Having looked at the overall trends in employment for the major social groups, this section delves deeper into the different caste-groups within each major social category (General, OBC and SC) in UP between the period 2017 and 2021.

7.4.1 Sectoral employment in shares for major social groups within General Category

	2017						2021					
General Category	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
Ashraf	9	30	18	24	5	13	24	21	12	27	5	11
Brahmin	49	7	5	15	3	19	54	6	4	17	2	15
Gujjar	75	7	4	3	4	6	85	5	1	5	2	3
Jat	54	10	8	12	2	12	73	6	2	12	1	5

Kayastha	21	8	12	28	4	26	16	11	2	37	2	28
Khatris	77	3	1	6	2	11	61	6	3	18	1	11
Mughal	24	16	28	23	2	6	26	13	22	27	3	10
Rajputs	52	10	6	14	4	14	59	3	10	14	2	12
Bania	8	18	7	47	3	15	9	7	5	62	3	11
ALL GEN	44	10	8	18	3	15	48	7	7	22	2	12

Note: AGR= Agriculture & Allied, MFG= Manufacturing, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, CSP= Community, Social and Personal Services

Agriculture is a dominant industry of employment in Uttar Pradesh as seen in the previous sections. Among the general category, more than half of the caste groups such as Gujjars, Jats, Khatris, Rajputs and Brahmins are in agriculture. Brahmins and Rajputs of UP have agricultural lands and are considered to be among the affluent class not only in terms of social standing but also in terms of economic standing.

It is seen that apart from agriculture most of the upper caste are engaged in Trade Hotels and Restaurant (THR) and Community Social and Personal Services (CSP). It was only among the Ashraf community that more than 20 per cent of their workforce were employed in manufacturing, followed by Mughals. These are mainly Muslim communities. It is also seen that for most of the upper castes, less than 10 per cent are engaged in the construction sector, except for the Muslim castes of Mughals and Ashrafs in the general category which have over 10 per cent of ther workforce in construction.

Across all of the upper caste groups there is significant participation in Trade, Hotels and Restaurants (THR), the highest being in case of the Bania workforce (more than 60 per cent in THR) and Kayastha workforce (nearly 40 per cent in THR). Financial, Real Estate and Business services (FRB) is a sector that has very limited participation among upper castes, the highest participation being within the Kayastha workforce. In the Community, Social and Personal Services (CSP) sector, more than 10 per cent of workforce participation across each caste group is seen, the highest being within the Kayasthas with nearly 30 per cent in CSP. Overall, general category caste groups are engaged in agriculture, followed by THR and CSP.

7.4.2 Sectoral employment in shares for major social groups within OBC Category

	2017						2021					
OBC Category	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
Gaderia	45	6	22	15	4	8	48	8	17	12	3	12
Kahar	26	13	31	21	2	7	40	17	22	15	2	4
Kurmi	55	7	19	8	2	8	62	6	11	12	2	7
Kushwaha	40	5	29	18	2	6	60	4	14	17	1	3
Lodh	46	6	28	16	1	3	50	6	26	9	2	6
Lohar	30	14	16	18	1	20	41	3	16	11	0	29
Maurya	52	6	17	13	5	6	56	7	16	10	1	11
Nishad	28	4	28	15	11	14	29	1	42	12	11	5
Prajapati	33	13	27	17	2	7	42	13	20	18	1	6
Service OBC	31	10	28	16	1	11	37	9	24	16	1	12
Sonar	10	32	5	37	3	12	9	25	9	42	3	11
Teli	30	6	25	31	4	4	41	6	11	37	2	4
Weaver	35	13	23	14	2	12	37	9	21	21	2	10
Yadav	59	7	13	10	3	8	75	4	5	8	2	6
ALL OBC	41	10	22	15	3	8	50	8	16	15	2	8

Note: AGR= Agriculture & Allied, MFG= Manufacturing, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, CSP= Community, Social and Personal Services

Almost half of the OBC caste groups are engaged in agriculture. Within the OBC category, 75 per cent of Yadavs, and over 60 per cent of Kurmi and Kushwaha workforce were in agriculture in 2021. Yadavs are also among landed classes that explains their high participation in the agriculture sector. However, the Nishad community who are relatively underdeveloped and historically were not among the landholding class, have less than 30 per cent workforce in agriculture. While the general category had a very limited participation in the construction sector, it is relatively higher for OBCs.

The highest participation in the construction sector is seen among Nishads (over 40 per cent). The Lodh, Kahar, Weavers and Craftsmen and other Service OBC also have more than 20 per cent of their workforce engaged in the construction sector. Overall, there is little participation of OBC caste groups in the case of Financial, Real Estate and Business Services (FRB). Also, less than 10 per cent of different caste groups of OBC were engaged in Community, Social and Personal Services in 2021 with the exception of Lohars of whom around 30 per cent worked in Community, Social and Personal Services. Overall, OBC caste groups work in agriculture, construction and in THR.

7.4.3 Sectoral employment in shares for major social groups within SC Category

	2017						2021					
SC Category	AGR	MFG	CNS	THR	TSC	CSP	AGR	MFG	CNS	THR	TSC	CSP
Balmiki	6	8	45	10	2	28	8	15	23	7	1	43
Chamar	21	12	50	10	2	6	36	9	41	7	1	4
Dhobi	43	6	27	11	2	11	50	7	11	9	2	21
Khatik	11	11	51	17	2	7	23	10	29	33	2	3
Kori	19	15	42	9	2	12	29	13	35	19	1	3
Pasi	43	7	37	5	0	7	40	6	44	4	1	5
ALL SC	25	11	46	9	1	8	35	9	38	9	1	7

Note: AGR= Agriculture & Allied, MFG= Manufacturing, CNS= Construction, THR= Trade, Hotels & Restaurants, TSC= Transport, Storage & Communication, CSP= Community, Social and Personal Services

Among the SC community, dependence on agriculture is far less as compared to all other caste groups with the exception of the Dhobi caste, 50 per cent of whose workforce are in agriculture. However, the dependence on agriculture increased overall in 2021 and was lower in 2017. Among the Balmiki caste, less than 10% of the workforce were in agriculture in 2021, and were majorly engaged in CSP (over 40 per cent) followed by construction (23 per cent). However, most of the other caste groups in the SC community were working either in the agriculture sector or in the construction sector. Among other non-agricultural sectors, around 33 per cent of Khatik workforce and 19 per cent of Kori workforce were engaged in THR. Their share in manufacturing is also over 10 per cent. CSP was a major sector of employment in 2021 for Balmikis and Dhobi communities. Overall, SCs depend more on construction for employment, but the trend in 2021 points towards a move to agriculture.

7.5 Summarising the Chapter

In sum, across social groups in terms of employment, SCs were predominantly engaged in the construction sector, and it is these categories that lost out on employment during the pandemic. The trends between 2017 and 2021 also indicate towards deindustrialization, and a corresponding shift back to agriculture. 62 per cent of ASC workforce were engaged in construction in 2017. However, their share in construction fell in 2021 due to the pandemic and they have instead moved to agriculture.

Overall, general category caste groups are engaged in agriculture, followed by THR and CSP. The OBC caste groups in general work in agriculture, construction and in THR. The SCs on the other hand depend more on construction for employment, but the trend in 2021 points towards a move to agriculture.

Among the general category, more than half of the caste groups such as Gujjars, Jats, Khatris, Rajputs and Brahmins are in agriculture. Apart from agriculture most of the upper

caste are engaged in Trade Hotels and Restaurant (THR) and Community Social and Personal Services (CSP). It was only among the Ashraf community that more than 20 per cent of their workforce were employed in manufacturing, followed by Mughals. These are mainly Muslim communities.

Within the OBC category, 75 per cent of Yadavs, and over 60 per cent of Kurmi and Kushwaha workforce were in agriculture in 2021. Yadavs are also among landed classes that explains their high participation in the agriculture sector. The Lodh, Kahar, Weavers and Craftsmen and other Service OBC had over 20 per cent of their workforce engaged in the construction sector.

Among the SC community, dependence on agriculture is far less as compared to all other caste groups with the exception of the Dhobi caste, 50 per cent of whose workforce are in agriculture. However, the dependence on agriculture increased overall in 2021. Among other non-agricultural sectors, around 33 per cent of Khatik workforce and 19 per cent of Kori workforce were engaged in THR. Overall, employment trends of SCs seems to be the most precarious.

8 Human Development in Uttar Pradesh

8.1 Preview and Highlights of the Chapter

This report has discussed different aspects of economic growth, poverty, income inequality, and employment characteristics as well as structural change in UP in detail. However, the discussion is incomplete without a discussion on UP's Human Development Indicators. Human development is the key to better socio-economic development, which this chapter focuses on. It highlights the key infrastructural changes as well as health and education outcome indicators in UP since 2017-18. This is especially relevant post the pandemic.

Highlights of the Chapter

- Health infrastructure in UP
- Health indicators in UP
- Education infrastructure in UP
- Educational indicators in UP

8.2 Health Infrastructure and Outcome Indicators in UP

Health is the key human development indicator, which has been proved again by the COVID-19 pandemic. Good health infrastructure and good health outcomes are necessary conditions for socio-economic development. This section looks at the health infrastructure in UP post 2017-18, and key health outcome indicators over this period.

8.2.1 Number of Sub-Centres, Primary Health Centres & Community Health Centres

	Rural UP			Rural INDIA		
Infrastructure	Sub Centre	PHCs	CHCs	Sub Centre	PHCs	CHCs
Mar-17	20521	3621	822	156231	25650	5624
Mar-20	20778	2880	711	155404	24918	5183
% Change	1.3	-20.5	-13.5	-0.5	-2.9	-7.8

Source: Rural Health Statistics

The health infrastructure in terms of number of Sub-Centres (SCs), Primary Health Centres (PHCs) & Community Health Centres (CHCs) in rural India and rural UP are given in the table. While there was an overall decline in health centres in rural India between the period from March 2017 to June 2020, the decline in UP was even more pronounced. For instance, the number of PHCs in rural India declined by almost 3 per cent, while in rural UP the decline was 7 times more. Similarly, the decline in CHCs in rural India in this period was to the tune of around 8 percent, and it was 13.5 per cent in case of rural UP. There was however a marginal increase in the number of SCs in rural UP while rural India showed a decline. Overall, the trends in UP in terms of health infrastructure in rural areas have been deteriorating.

8.2.2 Shortfall in Sub-Centres, Primary Health Centres & Community Health Centres

SCs	Rural UP				Rural INDIA			
	Required	In Position	Shortfall	% Shortfall	Required	In Position	Shortfall	% Shortfall
Mar-17	31200	20521	10679	34	179240	156231	34961	20
Jun-20	35115	20778	14337	41	191461	155404	46140	24
PHCs	Rural UP				Rural INDIA			
	Required	In Position	Shortfall	% Shortfall	Required	In Position	Shortfall	% Shortfall
Mar-17	5194	3621	1573	30	29337	25650	6409	22
Jun-20	5846	2880	2966	51	31337	24918	9231	29
CHCs	Rural UP				Rural INDIA			
	Required	In Position	Shortfall	% Shortfall	Required	In Position	Shortfall	% Shortfall
Mar-17	1298	822	476	37	7322	5624	2168	30
Jun-20	1461	711	750	51	7820	5183	3002	38

Source: Rural Health Statistics

The requirements of the number of SCs, PHCs and CHSc in rural areas corresponding to the population size are given in the table. This is followed by the number of SCs, PHCs and CHCs actually in position in the rural areas and the subsequent shortfall. This is given for both rural UP as well as corresponding figures for rural India. Again, in terms of SCs, rural India showed a shortfall of 20 per cent in mArch 2017 which increased to 24 per cent in June 2020. The corresponding shortfall in rural UP was just under double the shortfall noted in rural India. A similar trend vis-a-vis rural India is also seen in rural UP in terms of percentage of shortfall in required number of PHCs and CHCs. By June 2020, the shortfall in PHCs and CHCs in rural UP has increased to as much as 50 per cent. This is an alarming situation, especially given that this was the peak period of the COVID-19 pandemic.

8.2.3 Health Workers (Females) Rural UP: Sub-Centres

	Sub Centre Rural UP				
UP Sub Centre: Females	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
Mar-17	20521	23695	28250	*	*
Jun-20	20778	23656	20389	3267	389
	SUB CENTRE Rural INDIA				
IndiaSub Centre: Females	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
Mar-17	156231	186479	198356	26172	6104
Jun-20	155404	205886	183999	28016	6038

Source: Rural Health Statistics

Further, the table gives the details of health workers within rural Sub-Centres (females) It is required that under each facility, i.e. SC, PHC and CHC, there should be 1 female and 1 male health worker. While there was no shortfall in health workers in SCs in rural UP in March 2017, the scenario reversed by June 2020. The requirements as mentioned above are the same as the number of SCs, and the sanctioned number of health workers was in fact higher than the requirements in both rural UP as well as rural India. However, the actual number of female health workers in June 2020 in rural India fell short by 6038, while the shortfall in rural UP was just under 400.

The corresponding situation in terms of male health workers in rural Sub-Centres is given in the table. The shortfall in rural UP in terms of male health workers in SCs was to the tune of over 16000 in March 2017 which rose to nearly 19000 by June 2020. The shortfall of male health workers in rural Sub-Centres in rural UP in June 2020 formed 18 per cent of the shortfall in rural India.

8.2.4 Health Workers (Males) Rural UP: Sub-Centres

	SUB CENTRE Rural UP				
UP Sub Centre: Male	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
Mar-17	20521	9080	3835	5245	16686
Jun-20	20778	7301	1901	5400	18877
	SUB CENTRE Rural INDIA				
IndiaSub Centre: Male	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
Mar-17	156231	89296	56263	33448	99572
Jun-20	155404	82756	53553	30594	101828

Source: Rural Health Statistics

Therefore, the overall infrastructure of Sub-Centres in rural UP was not so bad, despite showing a significant shortfall in terms of male health workers. The situation of PHCs and CHCs however is a completely different story. The total number of health workers (male and female combined) required, sanctioned and the subsequent shortfall are given in the table. While the decline was constantly increasing in rural India between 2017, 2019 and 2020, rural UP saw a dip in the shortfall in 2019 to half the level of shortfall in 2017 but this shortfall in health workers shot up to more than double by 2020. The shortfall in rural UP formed 15 per cent of the overall shortfall in PHC workers across rural India in 2020.

8.2.5 Health Workers in Rural UP: Primary Health Centres (Male + Female)

Health Assistants UP-PHCs	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
UP 2017	7242	9538	2870	6668	4372
UP 201 9	5872	9538	2954	6584	2918
UP 2020	5760	1703	475	1228	5285
Health Assistants UP-PHCs	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
India2017	50505	45427	27713	18391	26577
India2019	49710	44391	27232	18281	26771
India2020	49836	19685	12449	7411	35824

Source: Rural Health Statistics

Interestingly, while the sanctioned number of workers in 2017 and 2019 were considerably higher, the actual number of health workers in position was not even half of the required number. In fact, the number of positions that remained vacant was as high as 7000, and hence rural UP saw a shortfall in health workers in PHCs despite large sanctions. In 2020 however, the sanctions declined drastically and did not even cover one-third of the required number of PHC health workers in rural UP.

8.2.6 Nursing Staff: Primary Health Centres & Community Health Centres

Nursing Staff PHC & CHC	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
UP 2017	9375	4497	4412	85	4963
UP 2019	7857	9757	7408	2349	449
India2017	65018	77956	70738	11288	13194
INDIA 2019	49773	55233	43759	11474	6014

Source: Rural Health Statistics

8.2.7 Doctors: Primary Health Centres

Doctors PHC	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfall (R-P)
UP 2017	3621	4509	2209	2300	1412
UP 2019	2880	3578	2759	819	121
India2017	25650	33968	27124	8286	3027
INDIA 2019	24918	35890	28516	8638	1704

Source: Rural Health Statistics

The tables provide details on the number and shortfall of nursing staff in PHCs and CHCs, as well as doctors in PHCs respectively. The shortfall of nursing staff in PHCs and CHCs as well as that of doctors in PHCs considerably declined between 2017 and 2019 for UP as well as all-India. However, the number of sanctioned nursing staff in UP in 2017 were just half the requirements, and the situation improved in 2019. The vacancies (calculated as the difference between the health workers actually in position and those sanctioned) remains high. Optimal utilisation of the sanctioned health workforce is thus a major issue, significant for rural UP in particular.

8.2.8 Health Indicators in UP: NITI Aayog's Index with base year 2015

Indicators	UP's Score	UP's Rank
Year 2015 Overall	33.69	21 (Last)
Year 2019 Overall	28.61	21 (Last)
NMR (Per 1000)	30	2nd from the Bottom
U5MR (Per 1000)	47	Bottom 4
Full immunization	84	Bottom 4
Institutional Delivery	50	Last
Birth Registration	61	Last
Functional FRU	25	
PHC 24/7	20	

Source: NITI Aayog's Health Index, 2019

Note: NMR= Neonatal Mortality Rate, U5MR= Under 5 Mortality Rate, FRU=First Referral Unit

The health indicators in UP as per NITI Aayog's Health Index, 2019 with base year 2015 rank UP as one of the worst performers in health outcomes. UP ranked last across major states in terms of overall health index. In terms of different health indicators and outcomes, UP's score remained significantly low and UP consistently remained in the last rank or in the

bottom 4 states. For instance, in terms of Institutional Delivery and Full Immunisation, UP ranked last. In case of Full Immunization and Under 5 Mortality Rate, UP ranked in the bottom 4. In terms of Neonatal Mortality Rate UP ranked in the bottom 2. Additionally, the Sample Registration System released annually by the Census of India also shows that in 2018, UP ranked 35 out of 36 States and UTs in terms of Infant Mortality Rate. Overall, UP's performance post 2015 in terms of health indicators has been abysmal.

8.3 Education Infrastructure and Outcome Indicators in UP

The performance of UP in terms of health indicators has been poor especially post 2015 as noted in the previous section. This section further looks at another important Human Development Indicator viz Education. Education is a key sector that needs focus for overall development as well as economic growth. This section looks at this issue from 2 aspects: first, in terms of student enrolment in higher education, and second, in terms of employment unemployment by different levels of education as an outcome indicator.

8.3.1 Estimated Student Enrolment: Under-Graduate and in Higher Education

	Estimated Student Enrolment: Undergraduate			Enrolment in Higher Education		
	2019-20	2018-19	2017-18	2017-18	2018-19	2019-20
Male	2636040	2675777	2785330	33,08,314	31,89,520	31,36,650
Female	2765496	2791519	2661439	31,47,061	32,79,847	32,51,564
Total	5401536	5467296	5446769	64,55,375	64,69,367	63,88,214

Source: Computed using India Higher Education Profile (2019-20), All India Survey on Higher Education (AISHE)

The table gives an overview of the scenario in student enrolments in under-graduate studies as well as in higher education based on the India Higher Education Profile (2019-20) of the AISHE. While enrolment of males in under-graduate courses as well as in higher education gradually decreased between 2017-18 and 2019-20, it increased marginally for females. Overall in 2019-20, 54 lakh students were enrolled in under-graduate courses and 63 lakh in higher education.

The following three tables give an overview of rural and urban UP with respect to all -India levels in terms of Labour Force Participation Rate, Workforce Participation Rate and Unemployment by different levels of education for those aged 15 years and above. With increasing levels of education, it is expected that employment should increase.

8.3.2 LFPR by UPSS for age 15 years and above by educational level (2019-20)

Rural	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	42.1	42.8	41.5	54	65.7	46
India	48.7	44.7	76.3	63.8	74	51.9
Urban	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	40.3	33.8	55.7	54	57.1	45.3
India	42.1	38.3	72.5	59.3	65.8	50.1
All	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	41.6	40.2	48.3	54	60.4	45.8
India	46.4	42.2	74.3	61.1	68.3	51.1

Source: Author's computations using unit-level data from PLFS 2019-20

It is seen that the LFPR for UP across various levels of education is lesser than the national level. While LFPR of workers above secondary education was 51.1 per cent at the national level, it was 46 per cent for UP. The highest LFPR is seen in the case of persons with a diploma, with over three fourth of them in the labour force. However, in the case of UP, just around half of the persons with a diploma were in the labour force. Also, LFPR for graduates was just 54 per cent in UP while the national level LFPR for graduates was 61 per cent. Thus, the percentage of people in high educational qualifications are comparatively less in the labour force as compared to the national level. Rural UP has a higher LFPR as compared to urban UP, but in both cases it is well below the national level.

8.3.3 WFPR by UPSS for age 15 years and above by educational level (2019-20)

Rural	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	40.8	40.5	30.1	46.4	61.9	42.9
India	46.8	41.2	63.9	50.9	61.8	46.8
Urban	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	38.3	30.5	46.8	44.3	49	39.6
India	40.3	35.3	63.7	50.4	58.5	45
All	Secondary	High Secondary	Diploma	Graduation	Post Grad	Above Secondary
UP	40.2	37.7	38	45.5	54	41.8
India	44.5	38.8	63.8	50.6	59.5	46

Source: Author's computations using unit-level data from PLFS 2019-20

When it comes to the workforce, the percentage of persons actually working across education level is modest with just over 40 per cent for persons with secondary education and above in UP. The least WFPR is seen in case of those with high secondary education and diploma holders in UP, due to the non availability of non farm employment opportunities. For all educated classes, agriculture still remains the prominent avenue for employment given the agrarian setting of UP.

8.3.4 Unemployment Rate by UPSS for age 15 years and above by educational level (2019-20)

Rural	Secondary	High Secondary	Diploma	Graduation	Post-Grad	Above Secondary
UP	2.9	5.2	27.5	14	5.7	6.8
India	4	7.9	16.3	20.2	16.5	9.9
Urban	Secondary	High Secondary	Diploma	Graduation	Post-Grad	Above Secondary
UP	5.1	9.8	16	18	14.2	12.6
India	4.4	8	12.1	14.9	11.1	10.3
All	Secondary	High Secondary	Diploma	Graduation	Post-Grad	Above Secondary
UP	3.5	6.3	21.2	15.6	10.6	8.7
India	4.1	7.9	14.2	17.2	12.9	10.1

Source: Author's computations using unit-level data from PLFS 2019-20

From the above tables it is clear that unemployment remains a significant problem for the diploma holders in UP. Overall 20 per cent of the diploma holders in UP are unemployed, while in rural UP it is 27.5 per cent. While persons with secondary education and above have a lower unemployment in UP as compared to the national level, it is also important to take note that many of the educated persons in UP are still engaged in agriculture, given the lack of non farm employment opportunities. Also, in case of persons with post graduation and above, the unemployment rate remains over 10 per cent. Thus, employment remains a key challenge for UP as well as India, given the scale of educated unemployed.

8.4 Summarising the Chapter

There is much to be done to improve the health infrastructure as well as ensuring that the health infrastructure is adequately manned. Given the unavailability of adequate manpower, vacancy and shortfall in the health workers, the health and wellbeing of common citizens cannot be ensured in a proper way. Also, the shortages and vacancy have accentuated in recent times.

It is seen that even though the ranking of UP remained at the bottom in the NITI Aayog Health Index, there has also been a decline in the health score for 2019 as compared to base year score (2015). Also among various other indicators, there is much to be done in terms of area of improvement. Some of the aspects has been presented below that need immediate attention:

- Under 5 Mortality Rate 2019-20 NITI: Bottom 4 Large states
- Neonatal Mortality Rate 2019-20 NITI: Bottom 4 Large states

- Full immunization 2019-20 NITI: Bottom 4 Large states
- Institutional Delivery 2019-20 NITI : Last Large states
- First Trimester Registration 2019-20 NITI : Last Large states
- Birth Registration 2019-20 NITI : Last Large states

Also, when it comes to education, there has been a decline in the number of students enrolled in higher education in UP. On account of demographic dividend there wrought to be increase in enrollment not the converse, however, the trend has to be checked immediately. Also, unemployment among the educated remains a key challenge that needs to be addressed.

9 Policy Recommendations

This report presents a contemporary review of socio-economic indicators in Uttar Pradesh using unit-level data from the Periodic Labour Force Surveys (PLFS), which also coincide with the period of the new political regime in Uttar Pradesh, as well as the period over the COVID-19 pandemic. Additionally, the report uses data from the Centre for Monitoring and Evaluation (CMIE) to further examine regional aspects in Uttar Pradesh.

While Uttar Pradesh is the largest state in India in terms of population, its performance across several socio-economic indicators is at the other end of the spectrum. There is evidence of relative economic disparity in terms of consumption and employment outcomes across regions (with stark South/East/West divide in Uttar Pradesh).

Several significant aspects are revealed from the PLFS data. The move back of workforce to agriculture in Uttar Pradesh increased rapidly especially after 2018-19. Moreover, the 'increase' in labour force participation claimed, especially for females, turns out to be merely due to an increase in non-remunerative employment, which actually counts as under-employment. The status of educated unemployed has been in discourse for some time; there has been a massive increase in unemployment among the educated in Uttar Pradesh post 2017-18. As a result, poverty in Uttar Pradesh, both in rural as well as urban areas, has risen significantly, and there is clear evidence of increasing inequality.

CMIE data further corroborate the findings from the PLFS analysis, pointing towards a high level of earning disparity in Uttar Pradesh with respect to social groups. Paradoxically, inequality in earnings is highest amongst the richest. More importantly, the regional divide within Uttar Pradesh is corroborated by CMIE data as well.

Uttar Pradesh has been performing particularly abysmally on the human development front especially over the last few years. The role of investment in human development becomes more important especially when the lack thereof in Uttar Pradesh has resulted in a decline in health infrastructure such as Primary Health Centres and Community Health Centres. This is even more alarming when the entire country including Uttar Pradesh are struggling to cope with the COVID-19 pandemic. As per NITI Aayog's Health Index Rank with base year 2015, Uttar Pradesh ranks last across states.

Post 2017-18, Uttar Pradesh has seen worsening of its previous trends in employment, consumption and incomes, with a massive resultant increase in poverty and inequality. Moreover, there is a stark regional divide as well as social group (caste) divide. Furthermore, abysmal human development indicators are evident. The regional divide in the large state of Uttar Pradesh has only been widening further in terms of South/West/East differentials in terms of consumption, employment, poverty and inequality between different groups as well as in performance across human development indicators. While much of these trends may have been exacerbated by the COVID-19 pandemic, the convergence and catch-up shown by several other lagging states is missing in case of Uttar Pradesh. All these trends indicate a systemic failure in socio-economic policy in the state.

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