

MIDS Working Paper No. 241

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by

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## **Acknowledgements**

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## **Abstract**

The Tamil Nadu Covid Pulse Survey (TNCPS), a rapid response panel survey designed to take place at regular intervals of four months over the course of one year, assessed the impact of the global pandemic and the subsequent lockdown measures on a sample of approximately 13,000 households in Tamil Nadu. The TNCPS showed that a whopping 53% of the sample households faced job loss when a sudden nationwide lockdown was imposed in March 2020. This was coupled with a reduction in income and an increase in food insecurity at the household level. While the pandemic weakened in Tamil Nadu by the end of 2020 and fewer households reported job loss (17%), the subsequent second wave created irreparable damage to the economy. This paper uses data from the TNCPS undertaken in collaboration with the Department of Economics and Statistics, Government of Tamil Nadu, to illustrate the differences in the economic impact faced by the sampled households between the first and second waves of the Covid-19 pandemic. The paper also emphasises the need for governments to adopt data-driven practices in their disaster management strategies.

## **Keywords**

Covid-19, Tamil Nadu Economy, Economic impact, Covid support, Telephonic survey

## **Introduction**

Towards the beginning of the year 2020, the Covid-19 pandemic came as a devastating 'external shock' to the Indian economy. Subsequent lockdowns and the relaxations that followed impacted both the economic conditions of the households and the behaviour with which the households responded to the impacts. To revive the economy, the governments, both the centre and the state, initiated several relief measures and stimulant packages in addition to relaxing the lockdowns. During the pandemic, the markets fail and as a result, the government becomes a dominant institution in reviving the economy and welfare. How did this play out in the Tamil Nadu context? In what way was the state able to bring desirable changes in the economy and the lives of the people? What is the role of state's welfare programmes in cushioning the impact of the pandemic on the households? What was the status of the households just before the Covid-19 and at different periods during the Covid-19? More precisely, how have the households been coping with the impact of the pandemic in terms of employment, income and livelihoods, migration, food security, mental health and the new model of online education of children during the pandemic in the state? These are some of the pertinent questions that require a deeper inquiry to assess the effectiveness of government intervention in dealing with the impact of the pandemic as well as to derive lessons for the future. Since we are going to live with the variants of the virus for quite some time in the future and the economy is going to be a 'new normal' economy, lessons learnt from the past will provide us with a useful guide for the future.

While several studies on the first wave appeared during the early days of the pandemic, the impact of the second wave of Covid-19 and different forms of government intervention after the second wave in the state have not been studied. The 4th round<sup>1</sup> of the Tamil Nadu Covid Pulse Survey (TNCPS), launched specifically to study the impact of Wave 2, provides useful data to compare the household status between Wave 1 and Wave 2.

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<sup>1</sup> The TNCPS comprised four rounds focusing on four periods across 2020 and 2021: March to May 2020, June to September 2020, October 2020 to January 2021 and February to June 2021 respectively.

## **Research Design, Objective and Methodology**

Social surveys have gained prominence over the last few decades owing to the larger social, economic and political change that the population has witnessed. Survey and census data from large-scale samples have been beneficial to not just researchers but also policymakers in adopting a model of evidence-based 'interactive governance' with citizens (Sanderson, 2002). This evidence, however, has been sourced mostly through cross-sectional surveys in the last two decades. The unsatisfactory nature of cross-sectional data on societal change has been well documented in the literature, especially in the area of poverty wherein conflicting interpretations were noticed in repeated cross-sectional surveys. The 'stock' and 'flow' of evolving indicators are never detected in cross-sectional surveys (Piachaud, 1987). The absence of transitions and continuities limits the usage of cross-sectional evidence to an extent. In the case of units such as households with ever-changing familial and individual entities, there is a need to study change. Keeping this in mind, the TNCPS which was undertaken in collaboration with the Department of Economics and Statistics (DES), was designed as a panel survey that would track such households to obtain micro-data across time to deepen our understanding of the transitions undergone by the sample households throughout the pandemic.

The main objective of the TNCPS was to provide Government of Tamil Nadu (GoTN) with useful and valid data to design appropriate policy measures to address the adverse impact of the pandemic. Following the main research objective, the TNCPS was designed to collect data on some key variables such as reverse migration, job and livelihood loss, financial loss, household income, food security and so on. The survey also collected data on the GoTN's social security schemes (ration card usage, old age pension, widow pension, disability pension) and Covid-19 support schemes (cash transfers, food distributions) to understand the coverage and usage of these during the pandemic.

While the three rounds of TNCPS recorded the initial impact of the pandemic (Wave 1) in the state from March 2020 to January 2021 as well

as the subsequent slow economic recovery in February 2021, the fourth round focused mainly on studying the sudden and intense impact of the second wave of Covid-19 in the state.

The TNCPS adopted a quantitative methodology where a meticulously designed interview schedule was prepared and programmed to collect data on the above-mentioned key variables. The interview schedule was administered by the Department of Economics and Statistics (DES) enumerators to the key respondents from sample households using Computer-Assisted Telephonic Interviews (CATI) system. The households sampled for the TNCPS were a sub-sample of the households which were already contacted during the Tamil Nadu Household Panel Pre-Baseline Survey (TNHPS-PBS), one of the largest surveys conducted to collect data on various socio-economic indicators in the state in 2018-19<sup>2</sup>.

## **Overview of the Sampling Design**

TNCPS can be defined as a ‘panel survey with refreshment’ wherein, to an extent, the same households participate in multiple rounds of survey. From a large sample of 1,51,830 households with contact information from the PBS, based on the number of families belonging to different social groups, the rural villages and urban blocks in a district were grouped into three broad strata namely: (i) Schedule Caste (SC) and Scheduled Tribe (ST) (SS1) (ii) Other Backward Class (OBC) (SS2) and (iii) Other communities (SS3)<sup>3</sup>. 13,749 rural and urban households were selected from 32 districts<sup>4</sup> for the first round of the survey and this formed the

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<sup>2</sup> Launched by the Madras Institute of Development Studies in collaboration with Department of Economics and Statistics and the Survey Research Centre, University of Michigan, USA.

<sup>3</sup> For the purpose of sampling, three simple social groups were created. But for analytical purposes, OBC and Others categories have been further unpacked.

<sup>4</sup> When Tamil Nadu Household Panel Survey (TNHPS) was initiated in 2017, there were 32 districts and the samples were drawn from these 32 districts. TNCPS sample was drawn from and is a subsample of the TNHPS sample. Subsequently, between 2018–2020, the state got reorganised and currently there are 38 districts in the state. Tirunelveli, Vellore, Kancheepuram, Villupuram and Nagapattinam districts have been either bifurcated or trifurcated to create 6 new districts. In addition, Chennai boundaries

panel for the four rounds of TNCPS respectively. Towards the end of the third round, the rural sample was seen to be slightly underrepresented. To rectify this issue<sup>5</sup>, a strategy was adopted to increase the rural sample by selecting a proportional sample of rural households using the same stratification design used to select the initial sample. The overall response rate for TNCPS was ~73%.

To achieve high-quality data, certain mechanisms were installed to validate/verify the quality of the data collected. A combination of tools such as Back Checks, High-Frequency checks, Audio checks and so on was used by the DES and MIDS to ensure data quality.

The following sections provide a comparative analysis of the economic status of households during the onset of the two major waves of Covid-19 in Tamil Nadu. The analysis has been carried out across three time periods. Round 4 is juxtaposed against Round 1 to offer a temporal analysis of the impact between two waves. Round 3 as the waning period of the first wave of Covid-19 provides a context against which the impacts of the second wave have been analysed.

## **Demographic profile of the TNCPS sample**

An analysis of the religious composition of the households indicates that a majority of households—almost 90%—belong to Hinduism. It was followed by Christianity (with a little more than 5%) and Islam (with around 4%) in all 4 rounds. All other categories, such as Buddhism, Jainism and No Religion, accounted for less than 1% of the households.

To understand the demographic structure of the sample households, a social-group-wise analysis was carried out. During Round 4, it was found that around 36.39% of households belonged to BC, followed by SC with 28.61% and by MBC with 16.47%. The general category

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have also been extended. Since the sample selection for TNHPS considered the district as the stratum and not blocks, we currently do not know if any of our samples falls within the jurisdiction of these new districts. We need to analyse the distribution of the TNHPS sample and re-organise as per the new districts. Till then, we are considering the erstwhile districts in our analysis.

<sup>5</sup> This was important as the rural areas in Tamil Nadu were affected adversely during the second wave of Covid-19.



accounted for 8.28% while the Denotified Communities (DNC)<sup>6</sup> made up a little over 7% of the sampled households. While the percentage of DNC population in the state is much smaller, this category has been overrepresented in the TNCPS. Finally, ST constituted around 1% of the sampled households. This social group distribution follows the pattern seen in earlier Rounds as well.

**Table I. Distribution of Social Group across Surveys**

Social Group	TNHPS	TNCPS		
	PBS (2018-19)	R1	R3	R4
SC	23.7	28	27.7	28.6
ST	0.6	1.3	1.2	1.2
BC	45.4	36.8	37.1	36.4
MBC	23.6	16.2	16.4	16.5
Denotified Communities	3	7.3	7.5	7.4
General	2.9	8.6	8.3	8.3
DK/RF	0.8	1.8	1.8	1.7
Total	100	100	100	100

Source: Computed from the TNCPS

One-third of the TNCPS population was among the age group of 26–45 years, followed by another 18% belonging to the age group of 46–60 years and around 32% of the population from the age group of 6–25 years. People in the age group of 61–80 years contributed to 9% and a mere 1% of the population was above 81 years of age.

<sup>6</sup> DNC was defined as “Seer marabinar” in the TNCPS. This category used to be included under the Most Backward Caste category.

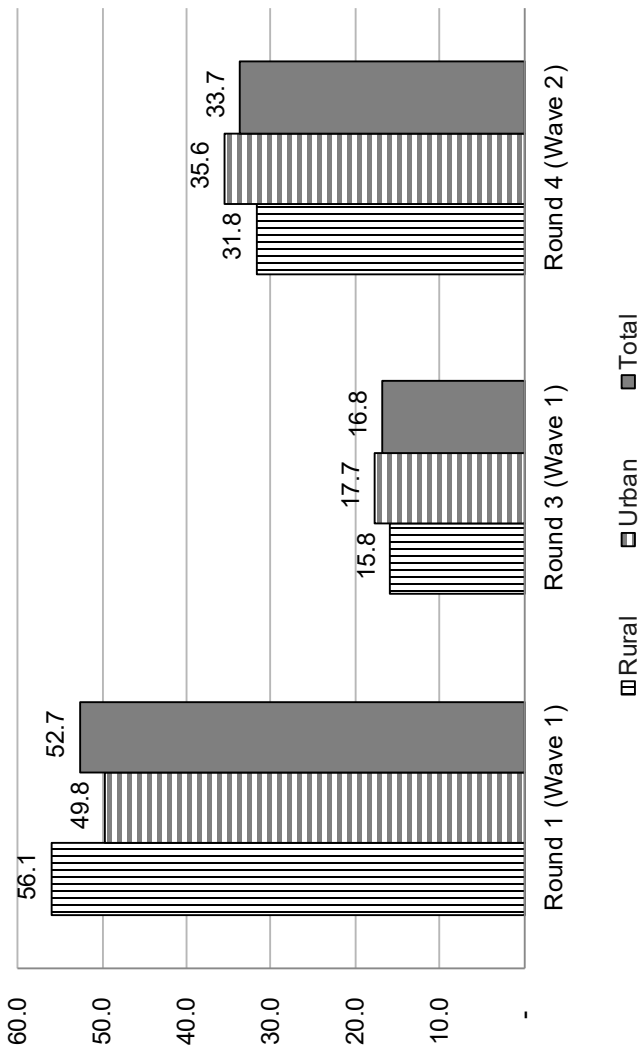
## **Survey Findings**

### **Impact on Jobs and Livelihood Sources**

The first wave of Covid-19 in Tamil Nadu peaked in May 2020 when the state reported an average of 7,000 cases per day throughout a week. By March 2021, which marked the beginning of the second wave, the state had already registered around 6,000 daily cases which quickly surpassed the upper limit of the first wave. By the end of May 2021, during the second wave, the state reported a total of 14 lakh positive cases, as opposed to 4 lakhs during the first wave in May 2020 (TN Media Bulletin, 2021). As was the case elsewhere in the country, Tamil Nadu also witnessed significant large-scale reverse migration. A large number of seasonal and short-term migrants living in different parts of the state returned to their homes. TNCPS results revealed that the share of households having at least one member working outside the village or city declined during the first wave but marginally increased during the second wave. At the same time, the share of migrants who returned home increased from 44% in Round 3 to 51% in Round 4. Household-level analysis across waves on specific domains have not been attempted in this paper as the sample size and composition varied across waves due to attrition. As only around 6000 households participated in all four rounds, the analysis of this specific cohort will be undertaken separately where the temporal dimension of the impact on the same households will be handled. The findings interpreted in this paper are from the sample households alone and have not been weighted to represent the larger population.

According to the TNCPS, in February 2020, just before the onset of the pandemic in Tamil Nadu, 91% of households in the sample had at least one or more members who were employed in an income-earning activity (89% of rural households and 93% of urban households). After the incidence of Covid-19 in March 2020, a large proportion (52.7%) of the sample households reported that at least one or more members had lost their job or livelihood sources between March and May 2020. This comprises 56% rural and 50% urban households. The lives of footloose or casual labourers were severely affected during this period owing

**Chart I. Job Loss during Wave 1 and Wave 2**



Source: Computed from the TNCPS

to the lockdown that triggered a reverse migration (Breman, 2020). Similarly, the TNCPS recorded that around 84% of households with members previously involved in Casual Labour being unable to secure work during this period. Around 13% of households with members in the Salaried jobs in the private sector lost their jobs.

As the first wave of Covid-19 progressed in the state, the infection curve slowly flattened. This led to the steady unlocking of the economy. From June to August 2020, there were three 'Unlocks' enforced by the Tamil Nadu government that further facilitated the movement of people between districts with an e-pass. The report by Azim Premji University (2021) noted that employment, as well as incomes, bounced back in June 2020 but their recoveries remained incomplete. By the end of September 2020, industrial units, government offices, private sector companies, and entertainment and tourism units began functioning. The period from October 2020 onwards saw a significant improvement in the employment and livelihood sector. The TNCPS showed that 16.8% of the households faced job loss during Round 2 and around 58% of these households had members who were Casual Labourers. As the economy progressed towards recovery at the beginning of 2021, a more threatening form of coronavirus termed 'Delta' pervaded the West. As the mutation spread across the Indian subcontinent, infections started multiplying from April 2021 onwards in Tamil Nadu which led to the government implementing stringent lockdown measures to contain the spread of the infection. Even though the second wave was more severe and short-lived compared to the first, the economic impact of the second wave has not been as adverse as the first one. The Reserve Bank of India also noted that the resurgence of Covid-19 may merely 'dent and not debilitate' the economic activity achieved in the first quarter of 2021 (RBI, 2021). The TNCPS shows that job and livelihood loss had considerably reduced by the end of the first wave with only 17% of households reporting it. On comparison, we see that more households (52.7%) faced job and livelihood loss during the first wave than in the second wave (33.7%). Contrary to the first wave, urban households faced marginally more job or livelihood loss (36%) than rural (32%) in the second wave. These comparisons can be found in Chart 1.

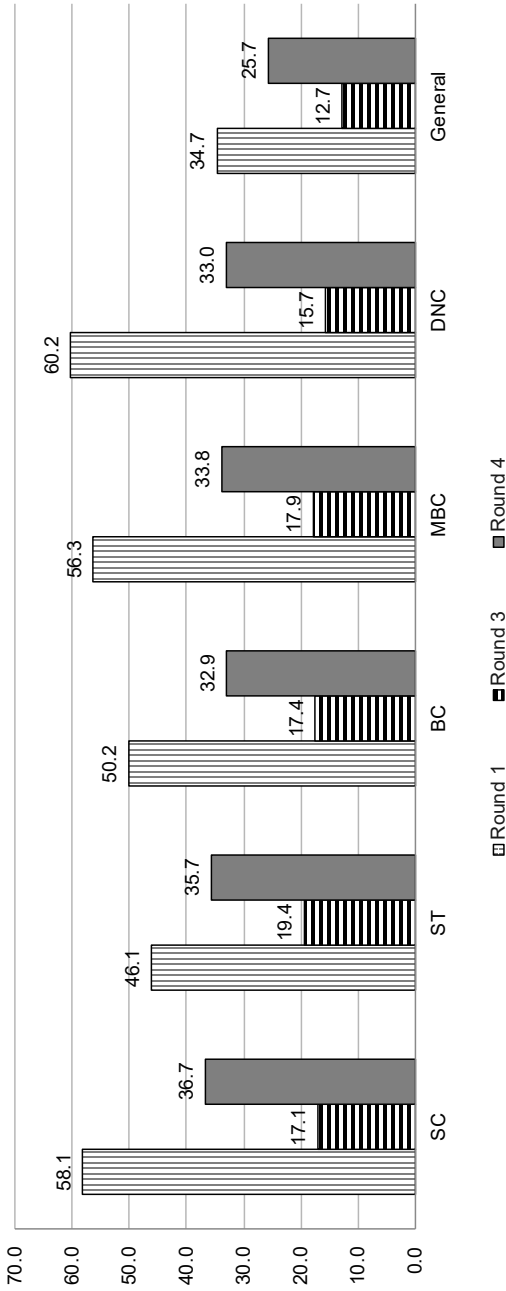
**Table 2. Casual Labour continued to be the most affected sector throughout the pandemic**

Round 1		Round 3		Round 4	
Casual Labourer (others)	37.1	Casual Labourer (others)	24.1	Casual Labourer (others)	23.1
Casual Labourer Agriculture	21.1	Casual Labourer Agriculture	20.3	Self-employment non-agriculture	19
Casual Labourer Industry	13.7	Self-employment allied agriculture	13.8	Casual Labourer Industry	15.7
Salaried Worker Private	13.3	Casual Labourer Industry	13.2	Casual Labourer Agriculture	11.5
Casual Labourer Service	12.4	Salaried Worker Private	12	Casual Labourer Service	11.2

Source: Computed from the TNCPS

When we analyse the status of job loss for gender and social groups, compared to women, men reported higher job loss between March and May 2020, especially in urban areas. This might be due to low female labour force participation rates which existed much before the pandemic (PLFS, 2019). Even though all caste groups lost jobs, the losses faced by lower caste households have been greater (Deshpande & Ramachandran, 2020), possibly due to a large number of workers in this category are engaged in casual work. As per the TNCPS, a higher percentage of SC and MBC households reported job loss during this period (58% and 56% respectively). The situation with the caste groups engaged in vulnerable work in the realm of sanitation and construction only further worsened during the initial lockdown. All social groups reported a reduction in job loss compared to the first wave; however, the

**Chart 2. Marginalised Caste Groups Continued to Face Higher Job Losses**



Source: Computed from the TNCPS

job loss faced by ST, SC and MBC was higher than the other social groups across both waves. Yet again, Casual Labour was the most affected sector in the second wave with 61% of households having members who were engaged in vulnerable work. The Azim Premji University (2021) report showed a similar trend of increasing informality that led to a reduction in the income of casual wage labourers during the pandemic.

## **Financial loss<sup>7</sup> from agriculture, allied and business activities**

Round 4 reported an increase in financial losses among the households engaged in agriculture and allied activities, and also businesses. Up until Round 3, there was a considerable decrease in the financial loss previously experienced by these categories. Out of 28.6% of these households, 40.16% of them incurred financial losses from agriculture and allied activities in Round 3 and it went up to 42.08% in Round 4 (out of 28.05% of households in agriculture, allied and business activities).

By the end of Round 3, the relaxations in the lockdown leading to the opening up of the economy significantly reduced the losses that households incurred in businesses (35%). When this was reversed during the second wave of the pandemic, we notice a significant increase wherein 61.2% of households incurred losses from businesses in Round 4. More urban households (69.74%) were affected than rural households (51.14%) during this period. It is important to note that 'Self-employment – Non-agriculture' has also emerged as the sector that faced the highest job or livelihood loss in the Round 4 of TNCPS.

## **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)**

MGNREGS has provided much-needed relief for rural households during the Covid-19 lockdown. Under MGNREGS, 57.05 lakh households in Tamil Nadu had been able to secure work since April 2020 (Ramakrishnan, 2020). During Wave 1, out of the six crore households

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<sup>7</sup> These are self-reported losses incurred by the households.

that availed of this scheme from all over India from April 2020 till the end of September 2020, Tamil Nadu was in the fourth position with 58 lakh households accessing the scheme (Indian Express, 2020). However, the work generated by MGNREGS was the lowest in November 2020 because of the increase in employment such as construction and service during the agricultural season (Ray, 2020). As per the TNCPS findings, the MGNREGS participation of rural households was the highest (47%) in Round 4.

**Table 3. Participation of Rural Households in MGNREGS increased in Round 4**

% of Rural HHs	Pre-pandemic	Round 3	Round 4
		37	44

Source: Computed from the TNCPS

During Round 4 (February to June 2021), 61% (2,818 out of 4,613 rural households) had MGNREGS job cards which is a marginal decline from 62.15% households in Round 3.

Between February and June 2021, most rural households had 4–8 days of MGNREGS work per month (41.45%) with most households receiving 6 days of work per month. Most rural households (55.01%) were found to receive a sum of 100 to 200 rupees as wages for a day of MGNREGS work. A look at the disaggregated social-group-wise data indicated that all social groups had turned to MGNREGS for succour during Round 4. However, DNC and SC categories showed an increased dependency on MGNREGS.

**Loss of Income**

The loss of employment and livelihood sources during the initial lockdowns led to a subsequent loss of income. In Round 1, we captured the extent of income loss experienced by different households. By the time the second and third rounds were conducted, there have been several changes in the state. Covid-19 infection which had largely been centred around Chennai and its neighbouring districts had begun to



spread to other districts as well. A series of unlocking measures were rolled out both by the central and state governments to revive the economy. These relaxations continued in October 2020 wherein cinema halls were permitted to re-open at 50% capacity and gatherings for all social, religious and political events were allowed. As seen under Job and Livelihood Loss, these changes had a positive impact on the household income as well. However, by the time the fourth round of TNCPS was rolled out, the second wave of Covid-19 had surged and as a result, infections were rapidly increasing not only in Chennai, but also in cities like Coimbatore, Tiruppur and Madurai, as well as in rural areas. The government had to respond by initiating several restrictions once again.

Compared to Round 1 which had the highest percentage of households facing loss or reduction of income from loss of jobs or livelihood sources (67.43%), it was much less in Round 4 at 34%. Similar to Round 3, more urban households (35.59%) reported facing a loss of income in Round 4 than rural households (31.76%).

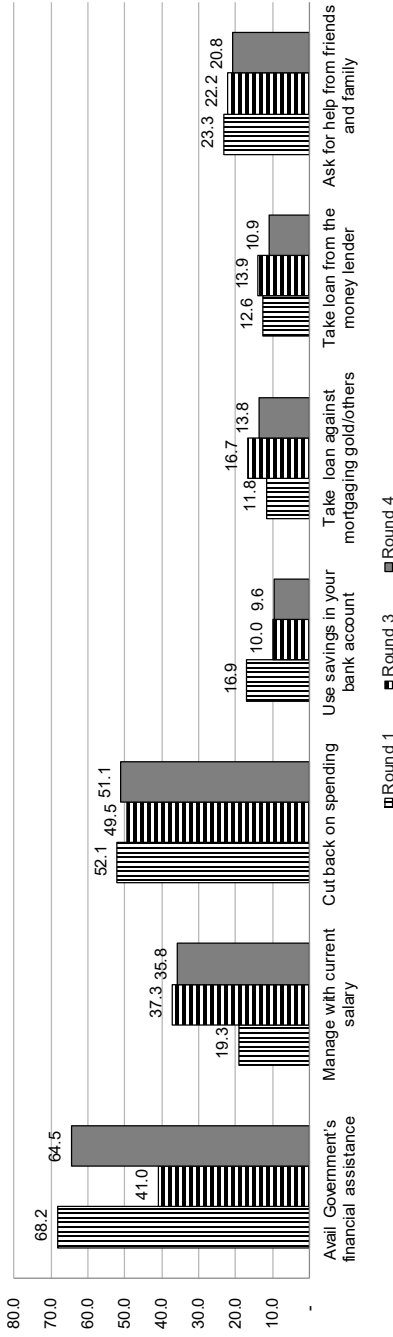
The Azim Premji University (2021) reported that Micro, Small and Medium Enterprises (MSME) were severely affected during the first wave due to the issues of production disruptions, lack of labour and capital (Rakshit & Paul, 2020). These businesses that were recovering in late 2021 fell prey to the second wave as well. The TNCPS showed a similar scenario wherein Self-employment Business emerged as the second most affected sector during the second wave (19%). Out of the households involved in businesses, the households incurring losses also increased significantly during the second wave (62%) compared to the end of the first wave (35%). However, the TNCPS did not capture the specific businesses that closed down during the pandemic at the household level.

The financial assistance<sup>8</sup> provided by government at different points in time during the pandemic has been found to be beneficial for households, especially during the first round where 68.2% of them reporting so. We also observed an increase in the number of households

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<sup>8</sup> This data was based on the recollection made by the respondents on the assistance that they received during the previous wave. The nature of financial assistance was different during different time periods.

**Chart 3. The government's assistance being beneficial for households facing income loss during the pandemic**



Source: Computed from the TNCPs

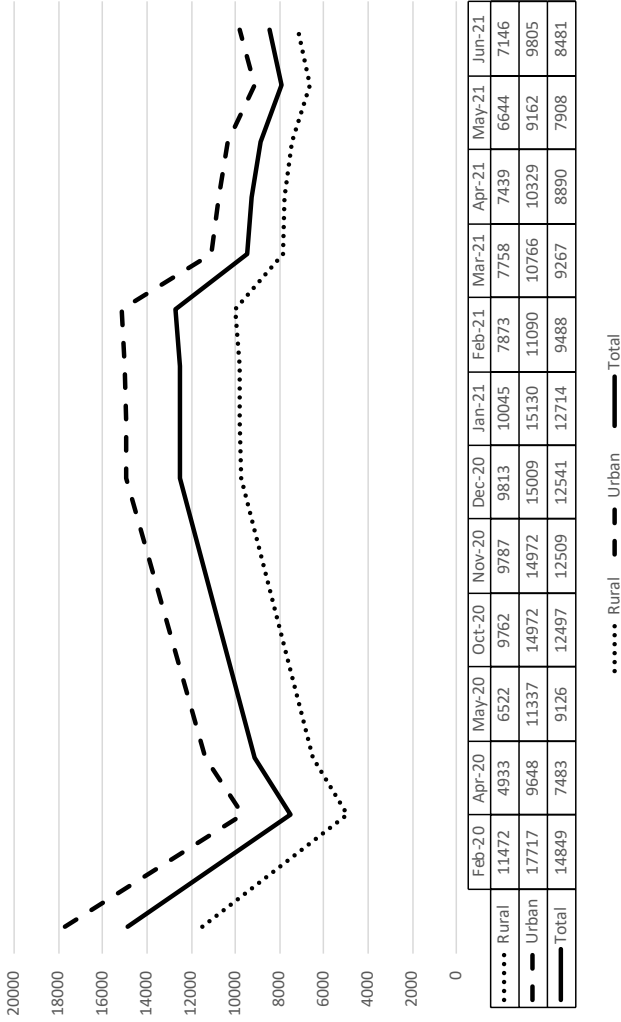
'cutting back on spending' (49.52% in Round 3 to 51.12% in Round 4) which has some negative implications for their welfare. While there was an increase in households that took loans against mortgaging gold and other precious metals between Rounds 1 and 3, it decreased in Round 4 (16.74% in Round 3 to 13.77% in Round 4). This merits further inquiry as we do not know if the decrease is due to further economic distress (where households do not have any more assets to mortgage) or recovery. There was also a decrease in households taking loans from money lenders to cope with the income loss (13.85% in Round 3 to 10.93% in Round 4).

## **Mean Household Income**

The TNCPS has captured the extent of income loss experienced by the sample households for each month, beginning from March 2020 to June 2021. A series of unlocking measures by the central and state governments to revive the economy had a positive impact both on jobs and income. The TNCPS was able to map the trajectory of income earned by the households for the following periods: a) February 2020, the pre-pandemic reference month; b) April and May 2020, the months with stringent lockdown restrictions; c) June 2020, the beginning of the gradual relaxation of lockdown measures which continued till January 2021 when the economy was almost fully open; and d) between February and June 2021 when stringent lockdown was imposed due to the second wave of Covid-19. It is important to note that the income data analysed below may not be a reliable estimate as they were self-reported by the households during the reference periods. In this paper, we compare the adverse impacts on income during the first wave with the pre-pandemic status in February 2020 whereas the subsequent waves are compared against the first wave.

In February 2020 when the state had not yet witnessed Covid-19, the mean income of the sample households was Rs. 15,000 per month. The sharpest decline was recorded in April 2020 when the mean monthly income fell by half (to Rs. 7,500). Subsequently, the relaxation of lockdown restrictions led to a small increase in mean income in May 2020 (Rs. 9,000). From June to August 2020, further relaxations led

**Chart 4. Decrease in the Mean Household Income during the second wave of Covid-19**



Source: Computed from the TNCPS

to a steady increase in income during the subsequent months of June, July and August 2020. In September 2020, the economy in Tamil Nadu was further opened up and the mean household income slightly rose to Rs. 9,400. The period from October 2020 to January 2021 witnessed a small increase in mean income with Rs. 12,500 in October 2020 which went up to Rs. 12,700 in January 2021. By the end of the first wave of Covid-19 in January 2021, the mean household income was slowly catching up with the pre-pandemic level recorded in February 2020. This phenomenon, however, did not last for long as the second wave had a devastating impact on the households leading to financial losses.

In Round 4, where the situation intensified and lockdown restrictions were imposed, mean income started falling to Rs. 8,900 in April 2021 and further to Rs. 7,900 in May 2021. The decline in mean household income during the second wave was smaller compared to the decline in income faced immediately after the first wave in April 2020. Rural areas continued to face a dwindling income throughout these months. A negligible climb in income was noticed in June 2021.

Chennai was one of the most affected districts throughout the pandemic. The capital city recorded the highest number of Covid-19 cases to date and had also seen the sharpest fall in household income. Starting with a mean household income of Rs. 19,000 in February 2020, Chennai reported a slump in mean income of Rs. 12,500 in April 2020. While most districts in Tamil Nadu were on the path to recovery in early 2021, Chennai along with the other urbanised districts such as Kancheepuram, Salem and Tiruchirappalli had not managed to fully recover in April 2021. The mean income of Chennai in April 2021 was Rs. 6,500, which is just half its April 2020 mean income. Being the very first respondent to any new variant of covid, Chennai continued to report lower levels of income till June 2021. Despite its advanced health and economic infrastructure, Chennai's battle with the pandemic has had a pronounced impact on its household income. In addition to Chennai, it is important to note that the tier two cities, such as Madurai and Coimbatore, and the rural parts of the state also faced the brunt of the pandemic and had longer recoveries. As the third wave waned in the state, these parts may have recovered economically but that has not been recorded by the TNCPS.

## **Welfare schemes as safety nets**

Tamil Nadu is known to have a unique welfare model which has been lauded by eminent social scientists such as Amartya Sen and Jean Dreze (2016). The considerable government spending on social schemes has led to reducing inequality in the state. These schemes are instituted to ensure that most residents of the state lead a life of dignity with provision to basic levels of security and comfort. The government provides welfare schemes for myriads of beneficiaries such as farmers, senior citizens, widows and the disabled<sup>9</sup>, to name a few. The 'Old Age Pension Scheme' was first introduced in 1962 in the state which was subsequently extended to other categories of disadvantaged people. 'Noon Meal Programme' is another scheme which was launched in 1982 to provide noon meal for children 2–5 years of age and old age pensioners<sup>10</sup>. Some of the schemes launched in Tamil Nadu have been adopted by the union government—namely the Old Age Pension Scheme and Dr Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) (Saha, 2017). In the light of the pandemic, the TNCPS looked at the proportion of the targeted groups such as senior citizens, widows, persons with disability and pregnant women, and their access to these welfare schemes in the state as they provided assured financial resources to the households especially during the lockdowns. In addition, we looked at the ration card possessed by the household as Covid-19 relief measures were distributed through ration shops.

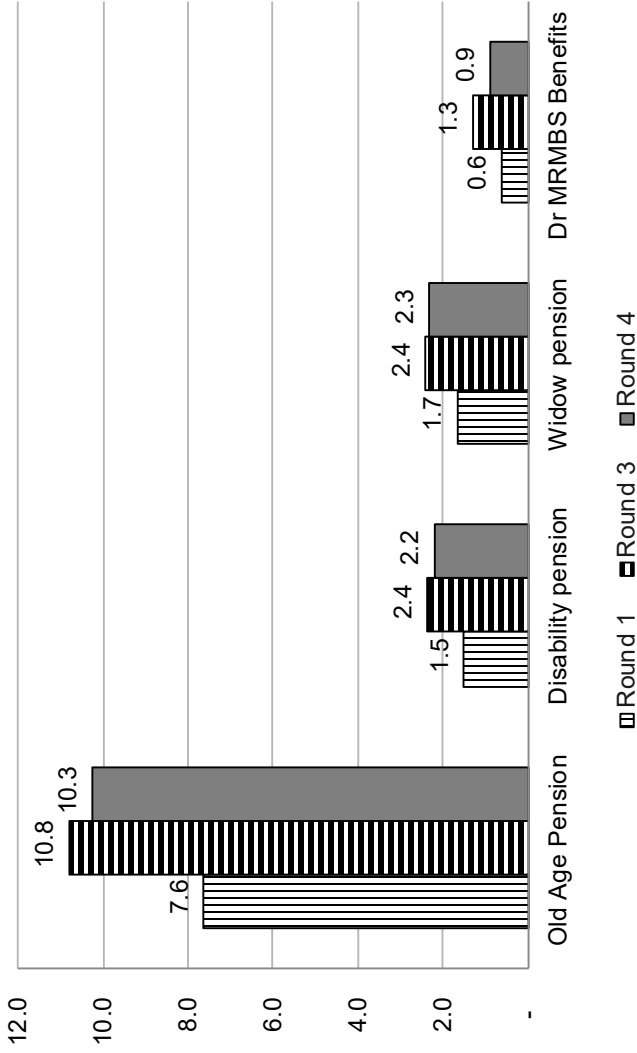
Tamil Nadu has a well-established universal Public Distribution System (PDS). At the onset of the pandemic and lockdowns, ration cards became an important instrument through which government assistance was delivered to the public. Around 96.5% of households in the sample possessed ration cards. It was observed that 73.65% of the sampled households had priority ration cards in Round 1 while Round 3 saw a slight increase with 75% of the households owning priority ration cards. This increase in the number of priority cards may be attributed to the permit issued by the government to change the category of cards during the pandemic.

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<sup>9</sup> List of beneficiaries in TN schemes. [https://www.tn.gov.in/scheme/beneficiary\\_wise](https://www.tn.gov.in/scheme/beneficiary_wise)

<sup>10</sup> ICDS, GoTN website. [https://icds.tn.gov.in/icdstn/noon\\_meal.html](https://icds.tn.gov.in/icdstn/noon_meal.html)

**Chart 5. Utilisation of Welfare Schemes across Waves**



Note: This data is pertinent to only 10% of the total households that availed of welfare schemes.

Source: Computed from the TNCPS

When we asked about different welfare schemes availed by the households, 10.26% of households had availed old age pension, 2.21% had availed disability pension, 2.33% had availed widow pension and 0.9% had availed Dr MRMBBS in Round 4. All welfare schemes from old age pension to Dr MRMBBS showed an increasing number of households benefiting from Round 1 to Round 3 but seemed to experience a slight dip in Round 4. A major proportion (862 out of 949) of those who availed of old age pension belonged to the original sample. Thus, the lower access to entitlements may be attributable to a change that we observed in Round 4. Compared to the third round, there exists a small decline in the utilisation of the welfare schemes which may have occurred due to the presence of a refresher sample in the fourth round. Old age pension was the largest availed benefit among the welfare schemes. The number of households receiving these benefits remained almost similar in both rural and urban areas.

The restructured umbrella ICDS (Integrated Child Development Services) scheme was expanded to include Anganwadi Services as well as numerous sub-schemes for women, children and young mothers. This included the provision of hot cooked meals for children under the age of 6 by Anganwadi helpers as well as the Nutritious Noon Meal Programme (exclusive for Tamil Nadu) for the elderly who were eligible to draw Old age pension from the state government. During the lockdown, meal distributions through Anganwadi to children and the elderly came to a halt and therefore, it was crucial to understand their situation during the pandemic. So, from Round 2 to Round 4, we probed if the households had food assistance from these Anganwadis. It may be noted that the proportion of children under 6 years (6.37%) in the TNCPS sample is small. Hot meals to elderly (10.26% of households availed old age pension in Round 4) accessing Old age pension comes with some caveats, hence the uptake was probably limited. Moreover, the beneficiaries of such programmes are generally restricted by eligibility and are targeted towards specific sections that are in dire need of assistance. Since these numbers were low, we report the actual numbers here.

In the analysis, it was found that 91% of 538 households with children accessing hot cooked meals benefitted from the programme



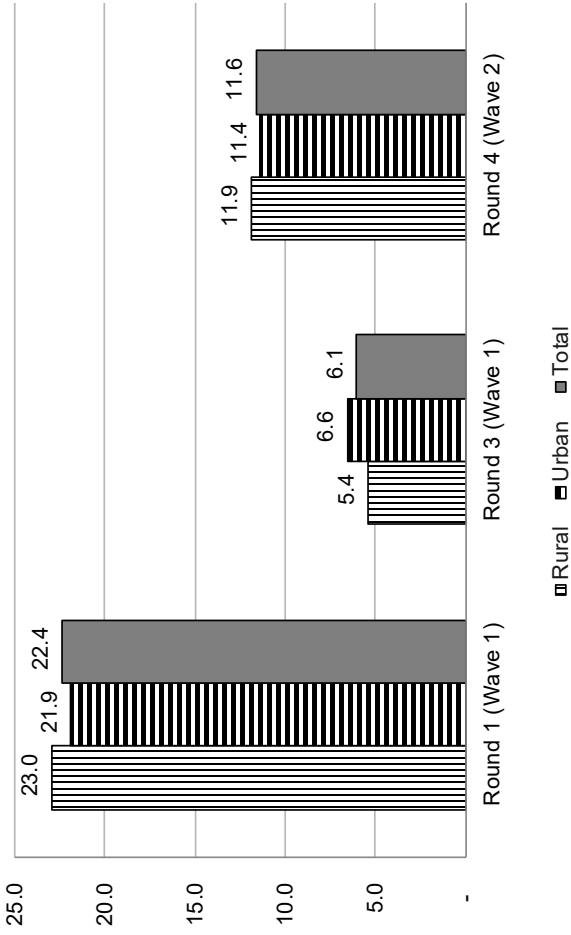
in Round 3 while 97.47% of 475 households benefitted in Round 4. In Round 4, 22 out of 36 households with elderly who tried to access noon meal received the benefit. As the Anganwadi Centres were closed due to the pandemic, the Department of Social Welfare started providing dry rations at the doorsteps of registered children to ensure that they continued to receive nutritious meals. Therefore, Round 4 surveyed the preferences of households for supplementary nutrition from Anganwadi Centres during the second wave of Covid-19. About 68% of 475 households favoured dry ration at doorsteps while the remaining households preferred hot cooked meals at the Anganwadi Centres.

## **Food Security**

When the nation went into lockdown, the biggest challenge facing the governments was to ensure food security. From May to July 2020 during the first wave of Covid-19, 17.04 lakh tonnes of rice, 60,000 tonnes of pulses, six crore pouches of edible oil and 90,000 tonnes of sugar were distributed to ration card holders in Tamil Nadu (Ramakrishnan, 2020). With the advent of the second wave of Covid-19 in April 2021, the government revised these schemes and provided Corona Relief Kits with 14 grocery items in addition to the financial assistance scheme of Rs. 4,000, intended to benefit more than two crore rice card holders in the state (Mariappan, 2021), thus providing additional benefits to tackle the food security issues. Many such measures were taken up to stabilise the food insecurity situation in the state. Along with government initiatives, outreach activities such as the distribution of rice, pulses, edible oil, etc. were carried out by the NGOs, individuals and private companies (The Hindu, 2020). To understand the severity of food insecurity and its effects on vulnerable groups, TNCPS studied social-group-wise impact, reasons for food insecurity and measures taken to overcome the situation.

In the TNCPS, food security was defined in accordance with the UN Committee on World Food Security using a standard definition including four dimensions: availability, access, stability, and utilisation. Given the high incidence of job/livelihood loss as well as income loss during the peak of the pandemic and the subsequent lockdown during Round 1 (March–May 2020), it was interesting to note that only 22%

**Chart 6. Change in Food Security issues across three waves**



Source: Computed from the TNCPS

of the households had reported food security issues during Round 1. The food security issues were lower during the second wave of Covid-19 (11.64%) than in the first wave (22.40%). These issues have risen by about five percentage points from 6.06% in Round 3 to 11.64% in Round 4.

Even though food security issues decreased across waves, the challenges associated with them still persisted. Out of the 22.4% of households facing food security issues in Round 1, 78.2% reported a lack of income to buy food. Even though this went down in Rounds 3 and 4, around 69% and 52% of households respectively continued to report that they could not buy food due to a lack of income. The higher prices of staples were another concern for households wherein 48% and 29% reported facing this in Rounds 1 and 4, respectively. Around 49% of households in Round 4 were able to manage with just the staples from the ration shop (PDS).

As seen in Chart 6, there has been a significant drop in the number of people reporting food security issues after Round 1. By Round 3, the effects of the first wave started to recede as the economy had opened up, job losses had come down and food availability had stabilised once again. This was the context when the second wave struck Tamil Nadu in April 2021. The impact of the second wave as well as the subsequent lockdown was visible in the slight increase in households reporting food security issues in Round 4. Around 6.06% out of 8,664 households had reported food security issues in Round 3 which increased to 11.64% (of 9,260) households that reported them in Round 4. This corresponds with the context of the second wave of Covid-19, when the intensity of cases was much higher, job and income loss increased once again and the lockdowns were much more stringent.

While probing the reasons for food security issues, one of the key highlights was that 'lack of income to buy food' continued to be a persisting issue across all the rounds of survey, which shows stagnation in individual income and also rising food prices. A district-wise comparison of households reporting 'lack of income' found that majority of these reporting households were from Coimbatore (11.49%). Coimbatore, in particular, had faced a higher incidence of Covid-19 cases during the second wave, as well as exceedingly strict lockdowns. Stagnation of income for these households is possibly the

impact of the reduced economic activity in these districts. Also, it was noted that 'Higher food prices of staples', which had seen a dip in Round 3 (40%) showed a further decline in Round 4 (29.13%) indicating that the government had ensured that food prices were kept under control during the second wave. 'Managing with PDS Ration/basic staples' emerged as a new coping mechanism in Round 4 (48.61%). However, this was a question with multiple options and respondents are likely to have picked more than one option.

**Table 4. Decreasing Food Security Issues and Various Coping Mechanisms**

Availed Assistance for Food Security Issues	Round 1	Round 3	Round 4
Food Security assistance of Corona Relief Kits with 14 grocery items	NA	NA	95.6
Food Security assistance of 5 kilograms (kg) of wheat or rice and one kg pulses for (Below Poverty Line and Migrant workers) family per month, under (PMGKAY) through PDS.	NA	NA	29.9
Avail Government's food security assistance	66.1	33.1	NA
Manage with current salary	24.7	46.5	15.9
Ask for help from friends and family	34.2	28.2	12.4

Source: Computed from the TNCPS

In the urban-rural context, there is one key observation. The 'lack of income to buy food' which was reported by around 79% of the households in rural areas during Rounds 1 and 3 fell significantly in Round 4 (49%). This may be attributed to the increase in the income during this period owing to the unlocking of the economy and furthermore, as we saw earlier, the mean income at this point nearly reached pre-pandemic levels. Similarly, in the urban areas, Round 4 saw a significant dip in 'lack of

income to buy food' compared to Round 1. (77% in Round 1 to 54% in Round 4). This points to the improved recovery from the pandemic-induced economic stagnation in rural areas compared to urban.

When we analysed the different coping mechanisms adopted by people facing food security issues, it was observed that the Government's assistance, which was the most popular coping mechanism in Round 1 during peak first wave, dropped to the second position behind 'managing with current salary' in Round 3 since the cases had dropped and the economy had begun to open up. With the onset of the second wave, this coping mechanism made a quick resurgence in Round 4, since 'Corona Relief Kits with 14 grocery items' (95.55% of households) and 'Food assistance under PMGKAY<sup>11</sup>, (29.87% of households) were found to be among the top two choices. The options of taking 'help from friends and family' and 'manage with current salary' remained among the popular coping mechanisms. This was followed by 'buying food with credit card' along with 'using savings'. A major difference in trend between Round 1 and Rounds 3 and 4 was seen in the number of households that reported to have accessed help from local leaders. It was observed that the option 'help from local leader' (8.20% in Round 1) had come down to 1.5% and 0.65% in Round 3 and Round 4 respectively.

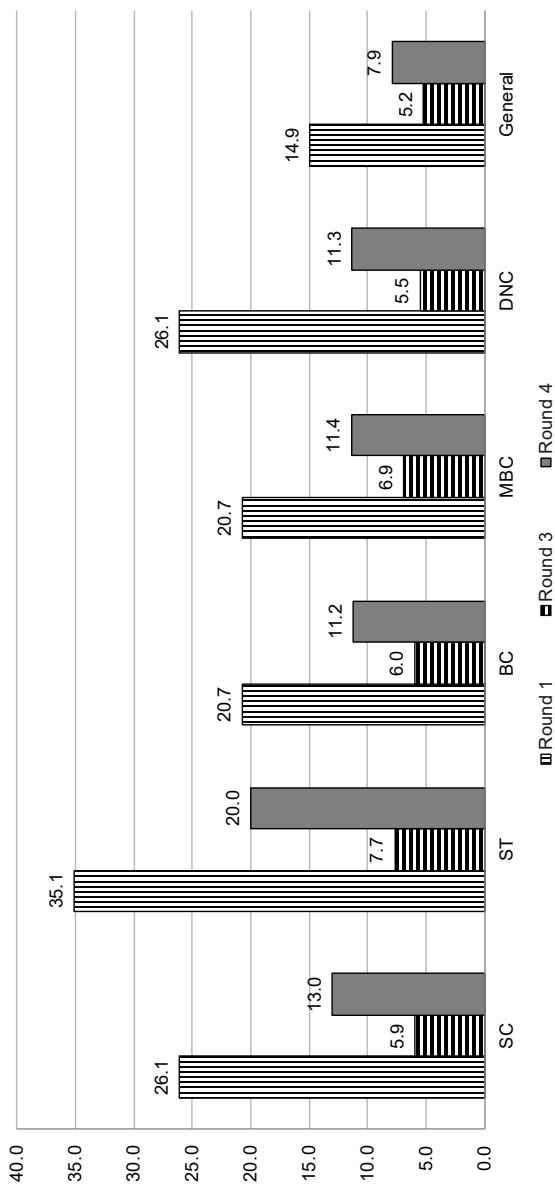
Chart 7 shows the immediate effect of the pandemic on food security across different communities and how much it has stabilised over the Rounds. By Round 3, there was a significant decline in the number of households affected as the impact of the first wave had begun to wane but then displayed a marginal increase across social groups in Round 4 with the explosion of the second wave. Households from the Scheduled Tribe (ST) category had a wavering recovery in food insecurity which fell by 27 percentage points from Round 1 to Round 3 but then increased to 20% in Round 4. The resurgence of the crisis showed that the Scheduled Tribe (ST) category continues to remain the most vulnerable and affected despite their admirable recovery.

Another interesting observation is the consistently large proportion of households that have availed of government food security assistance across the rounds. This could be attributed to the apt targeting of

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<sup>11</sup> Pradhan Mantri Garib Kalyan Anna Yojana. The scheme introduced by the Prime Minister during the Covid19 pandemic to help poor.

**Chart 7. Comparison of Food Security issues across Wave 1 and Wave 2 for different social groups**



Source: Computed from the TNCPS.

assistance programmes introduced by the government in response to the persisting challenges. It goes a long way toward explaining the utility of welfare governance in understanding the common man's needs.

## **COVID-19 Support Schemes**

Throughout 2020-21, the intensity of Covid-19 waxed and then waned. In response to the crisis, the state government initially intervened both by providing direct financial assistance and through food distribution to the people<sup>12</sup> and this was captured across the first 3 rounds of TNCPS. In TNCPS Round 1 and Round 2, it was revealed that a majority of households had availed assistance from the government and it was crucial to understand the kind of assistance availed by them and how much it had benefitted the households. By Round 3, as the economy almost fully unlocked, a lot of schemes that existed earlier were withdrawn by the government. However, April 2021 saw the resurgence of the next wave of Covid-19 and the newly elected state government has been attentive to this change and came forth with a diverse set of schemes to meet the evolved needs of the people. As a result, the impact of the newly introduced schemes was assessed in Round 4.

In Round 4, the most availed scheme was the Rs. 4,000 Pandemic Assistance Plan provided to eligible ration card holders in two instalments of Rs. 2,000 each as a cash payment (Business Standard, 2021). Payment of the first instalment during May 2021 was availed by 96.17% of households while the second instalment during June 2021 was availed by 92.48% of households. While direct cash payment programmes are traditionally marred by corruption, the Pandemic Assistance Plan has had an overwhelmingly high percentage of households reporting access to the scheme. This is indicative of minimal leakage and effective implementation. Given the unique circumstances surrounding this

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<sup>12</sup> In March 2020, as an immediate measure, the government of Tamil Nadu provided financial assistance of Rs. 1,000 to all ration card holders in addition to additional food transfers through PDS. In later months, the government also provided a food basket worth Rs. 500 to all the people including those who did not have ration card. In an effort to bring further financial stability for the poor, the MGNREGS wage was raised to Rs. 254.

wave of Covid-19, this direct financial assistance provided the much-needed widespread relief to all beneficiaries. Comparison with food security assistance<sup>13</sup> schemes showed that the 'Corona Relief Kit with 14 grocery items' scheme was accessed by 95.55% of households while the food distributed under the centrally sponsored PMGKAY scheme had far less take-up by households (29.87%). Thus, the state-sponsored Covid-19 relief measures have had much better outreach than any other scheme in the state. Given the devastating nature of the second wave, it is interesting to note that urban households, in general, have accessed more support schemes than rural households. Once again, this resonates with our earlier observation that urban households seem to require more assistance with recovery from the second Covid-19 shock.

All other schemes like Covid-19 relief assistance to temple workers with no monthly salary, incentives for frontline healthcare workers and cash incentive of Rs. 5,000 to State police personnel had an uptake of about 1% possibly due to the targeted nature of these schemes.

## **Conclusion and Policy Recommendations**

The TNCPS was helpful in highlighting the economic trajectory that the sample households took during the two waves of the pandemic. With job and livelihood loss being as high as 53% during the initial months, the survey recorded related effects on 67% and 22% of households facing income loss and food insecurity. The survey also recorded some short-term improvements in the aforementioned indicators at the end of the first wave. Even though the larger features of the pandemic remain similar, we find differences in the way the virus spreads, prolongs, and impacts the economy and society across the regions and waves. The nature of infection was completely different between the first two waves in terms of the incubation period, spread, symptoms, and the demographic group that got affected. During the first wave, the infection and fatality rate was relatively high among the older age groups but the second wave indicates that the younger age group is also vulnerable to the

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<sup>13</sup> Please refer Food Security section.



virus infection, fatality, and post-Covid traumas. Compared to the larger challenge faced in terms of developing effective and scientific treatment protocol, and diagnostic methods in the absence of a vaccine during the first wave (especially the early months), the challenges during the second wave became specific—availability, affordability, and large-scale introduction of vaccines (with differences in price, combinations, and clinical features) emerged as key challenges for poor countries. Further spurt in the infection and the emergence of new variants exposed the weakness of public healthcare systems across regions.

One may also identify the temporal difference between the two waves; the first wave took almost a year to come under control whereas the second wave waned after six months paving way for subsequent waves. During this period, the nature of crisis and lockdown restrictions also varied across regions. For instance, the first phase of wave 1 introduced national lockdown and intense restrictions on all kinds of activities; India witnessed large-scale reverse migration, and complete closure of educational institutions, business and trade activities (non-essential) across states. Gradually, states introduced locale-specific restrictions on various activities and mobility to allow gradual recovery of the economy and normal lives. In some sense, the evidence collected during different rounds of this survey also reflects its impact on the pattern of reverse migration, loss of income and livelihoods, covid-19 infection, online and digital education, and households' response to this crisis.

While lockdown was crucial to contain the spread of the pandemic and lessen the burden on the healthcare systems and providers, it adversely affected people's livelihoods, particularly those engaged in the informal sector. As seen in the TNCPS, casual labourers were the largest victims of the lockdown. With the possibility of future waves leading to recurring restrictions and lockdowns, governments should ensure a suitable mechanism to provide safety nets such as targeted social protection schemes, cash benefits, etc. for individuals engaged in informal, casual labour.

As per the TNCPS, after casual labour, individuals in the private sector salaried jobs were also among the affected. While senior-level employees were affected in the private sector in India, other reports suggest that a large number of junior-level employees were laid off too. To combat this,

the Tamil Nadu government launched an online portal in early 2020 where unemployed youth looking for private-sector work could register themselves. What has been the impact of these interventions needs further inquiry. Similar policy intervention for the Business sector is essential.

The spatial dimension is another important factor; Tamil Nadu experienced a clear difference in the geographical spread of infection between the two waves of Covid-19. During the first wave, the high infection rate was limited to Chennai and its surrounding districts while the other big cities such as Coimbatore, the industrial belt, witnessed widespread infections during the second wave. Rural areas were also equally affected. Thus, the pandemic management strategy has been closely connected with identifying the epicentres of infection and channels through which the virus spread and mutated. The containment strategy around the Koyambedu market, and the vendors and farmers engaged in trade from and outside the city was effective to a great extent. However, the ongoing economic devastation in Chennai city is a cause for concern as the city remains vulnerable to future waves of the pandemic.

The pandemic is also a critical point to evaluate the state's response to the crisis and its commitment to welfare. During this period, Tamil Nadu witnessed the state-assembly election and a shift in political power. Remarkably, the power shift did not impact the seamless fight against the pandemic. The new government rose to the challenges of the second wave and managed to contain the infection with phased and micro lockdowns thus ensuring a quicker economic recovery. The impact on job/livelihood loss, income loss, and food security issues have not been as severe as witnessed during the initial phase of the first wave.

The road ahead is uncertain as the state managed yet another wave of the pandemic caused by the Omicron strain and new variants from January 2022 onwards. Omicron, which is shown to be more transmissible and contagious compared to the Delta strain followed a similar trajectory of spread from urban to rural areas. Despite the 'super-spreading' nature of this strain, the third wave which was shorter than the second wave was not detrimental to economy in many ways. It is vital to note that lockdowns are not a sustainable way of

curtailing virus spread. The TNCPS has clearly illustrated the short- and long-term effects of lockdowns on the economy, and the disproportionate impact that they have on different segments of the population. Evidence from the TNCPS provides detailed lessons for policymakers to better prepare as the danger of future mutations persists.

Given these challenges, there is an increasing need to generate robust databases, especially panel databases on a representative sample at the state level. However, when Tamil Nadu first went into lockdown, the state had one advantage compared to other states—the institutionalisation of an elaborate system of digital data collection process through its Department of Economics and Statistics. As part of its commitment to data-based governance, Tamil Nadu had initiated a series of short- and long-term studies and surveys even before the advent of the Pandemic. Carried out in collaboration with national and international research institutes, these studies use diverse methods such as Randomized Control Trials and Panel Surveys to provide a comprehensive understanding of the state. Along with the PBS (2018-19), which is one of the largest and latest databases on the pre-Covid-19 status of households in Tamil Nadu, its spin-off survey, the TNCPS has also generated a panel database by tracking the continuous status of households across the two waves of the pandemic. Keeping in mind the visible benefits of panel surveys such as the measurement of gross change, stability, causality and so on, these longitudinal studies have put the state in a better position to tackle future waves with minimal economical and societal disruptions and provided lessons to other states to invest in sound, rigorous and locally generated databases.

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